V-SERIES

VHF Wireless Systems

User Manual

Version 3.3

⚠	Caution: Please read this manual carefully before operating Damage caused by misuse is not covered by the warranty

Introduction

Thank you for choosing the QTX Sound VHF-series wireless system. This professional wireless set provides a high quality microphone with VHF radio system for freedom of movement without loss of audio quality. Please read this manual before using this equipment in order to avoid damage through incorrect operation and to get the best performance from your purchase.

Contents:

Please take care when unpacking this product. Inspect for any damage and ensure you have the following components…

- VHF wireless receiver
- Mains power adapter
- 6.3mm mono jack lead
- 9V battery, PP3 (2 pieces for VH2, VN2 or VHN2)
- Microphone / transmitter(s) – see table below

Model	Stock code	Microphone 1	Microphone 2
VH1	171.804UK	Handheld transmitter	-
VH2	171.816UK / 171.817UK	Handheld transmitter	Handheld transmitter
VN1	171.836UK / 171.837UK	Neckband mic. + beltpack	-
VN2	171.818UK / 171.819UK	Neckband mic. + beltpack	Neckband mic. + beltpack
VHN2	171.810UK / 171.811UK	Handheld transmitter	Neckband mic. + beltpack
VL1	171.834UK / 171.835UK	Lavalier mic. + beltpack	-

Warning

To prevent the risk of fire or electric shock, do not expose any of the components to rain or moisture.
If liquids are spilled on any component, stop using immediately, allow unit to dry out and have checked by qualified personnel before further use.
Avoid impact or heavy vibration to any of the components, dropping the microphone can cause capsule failure.
No user serviceable parts inside transmitter or receiver - refer servicing to qualified service personnel.

Safety

- Ensure that the correct adapter is used with adequate current rating and that the mains voltage is as stated on the adapter.
- Avoid ingress of water or particles into the transmitter(s) or receiver
- Use alkaline or NiMH batteries in the transmitter(s) and remove if unused for long periods.
- Observe the correct polarity when replacing batteries

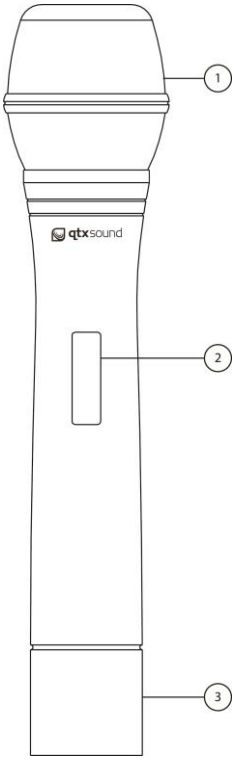
Placement

- Keep all components out of direct sunlight and away from heat sources.
- Do not place heavy objects on top of the receiver or transmitter(s)
- If rack-mounting, secure the receiver to a 1U rack tray and do not place heavy equipment above the receiver.
- Keep the transmitter(s) and receiver away from damp or dusty environments.

Cleaning

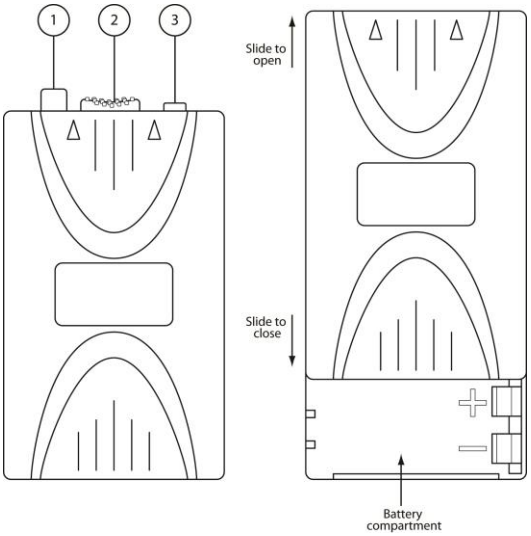
- Use a soft cloth with a neutral detergent to clean the body of the microphone/transmitter and receiver.
- Lightly damp sterile wipes may be used on the microphone grille for hygiene purposes
- To avoid damage, do not use solvents to clean the components

Handheld Transmitter



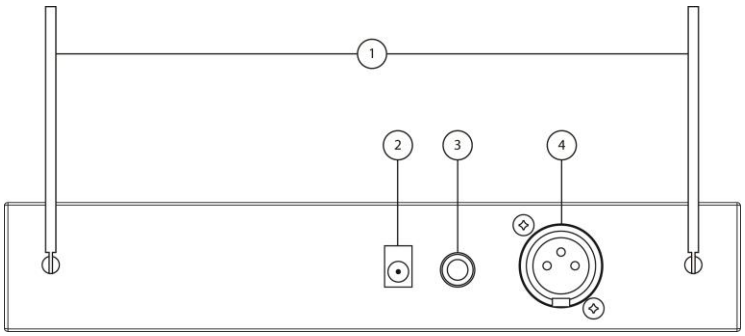
1. Windshield
2. Slide switch and LED
3. Battery compartment cover

Beltpack Transmitter



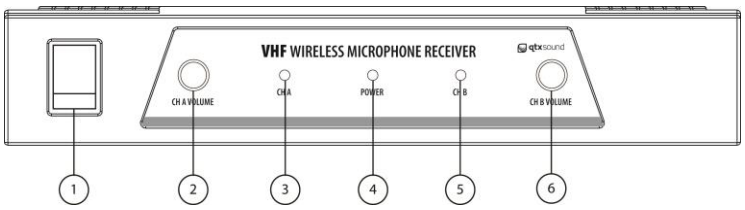
1. Volume control
2. Slide switch and LED
3. 3.5mm microphone input jack

Receiver Rear Panel



1. Antennas
2. DC power input
3. 6.3mm jack output
4. XLR output

Receiver Front Panel



1. Power ON/OFF switch
2. Channel A volume control
3. Channel A indicator LED
4. Power indicator LED
5. Channel B indicator LED
6. Channel B volume control

Operation

For handheld transmitters, insert the supplied 9V batteries by carefully unscrewing the base to reveal the + and - terminals inside the microphone body, connect the battery (ensure + and - are the correct way around) and carefully screw the base back on.

For beltpacks, slide the front half of the beltpack upwards just enough to reveal the battery compartment and position the supplied 9V battery inside (ensure + and - are the correct way around) and then slide the beltpack case together as before.

Position the receiver within the best available line of sight to the transmitter(s) and connect the DC jack of the supplied power adapter to the receiver and the plug-top to the mains outlet. Extend both antennas fully upwards and outwards slightly and switch the power on. Turn microphone level(s) down on the receiver.

Note: for dual sets (with 2 transmitters), both microphones' outputs will be mixed and fed to both XLR and jack outputs.

Connect the jack or XLR (optional) lead to the receiver's audio output connector, turn down the volume of any equipment (mixer, amplifier etc.) that the signal will be fed into and then connect the jack or XLR to the equipment.

Warning! - take care not to point microphones towards speakers – this can cause damaging feedback (loud whistle or howling noise) – try to point microphones away from the speaker cabinets.

Move the switch on the handheld or beltpack transmitter to the first notch (MUTE) – the LED should light momentarily (continuous dim LED indicates low battery). Move on another notch (ON) and gradually increase the microphone level(s) on the receiver, then increase the volume on the mixer or amplifier until the sound from the microphone can be heard through the equipment.

During use, it may be useful for the reception of the microphone to be muted for a short period of time (e.g. to avoid feedback when walking across the front of a speaker or avoid handling noise when placing the microphone down momentarily or adjusting a neckband microphone). In these circumstances, it may be better to move the transmitter switch to the "MUTE" position, which maintains the radio frequency carrier signal but mutes the microphone input. When this switch is moved back to the "ON" position, the sound will be immediately restored without waiting for the radio signal to be reinstated.

If the wireless system is not to be used for more than a few seconds, it is preferable to slide the transmitter switch to the "OFF" position, which mutes and deactivates the radio signal and powers down the transmitter. Be sure to turn down the volume of the mixer or amplifier and then switch off the receiver. Unplug signal leads from the receiver and mixer or amplifier when moving or packing away.

If the system is not to be used for long periods of time, remove the batteries from the transmitter and unplug the power adapter from the receiver and the mains outlet. Retracting the antennas can also help avoid damage when the system is not in use.

Specifications

General	
Carrier type	VHF 173.8 – 175.0MHz
Frequency stability	±0.005%
Maximum deviation	±30kHz
Audio frequency response	40Hz – 20kHz
Signal to noise ratio	>85dB
Audio dynamic range	>80dB
T.H.D.	≤0.2%
Maximum range	50m
Operating temperature	-10ºC to +50ºC
Receiver	
Power supply	10Vac 250mA (mains adapter supplied)
Audio outputs	XLR, Jack
Controls	Power On/Off, Mic. Volume(s)
Indicators	Power, Signal
Dimensions	43 x 213 x 180mm
Weight	340g
Handheld Transmitter (VH1, VH2, VHN2)	
Capsule type	Dynamic - cardioid response
Battery	9Vdc, PP3
Switch	Power / Mute / On
RF emission	10mW
Dimensions	235 x 44mmØ
Weight (without battery)	176g
Beltpack Transmitter (VN1, VN2, VHN2, VL1)	
Battery	9Vdc, PP3
Switch	Power / Mute / On
Connector	3.5mm mono jack
Compatible microphones	171.855, 171.856, 171.857
RF emission	10mW
Dimensions	105 x 60 x 30mm
Weight (without battery)	77g
NECKBAND MICROPHONE (VN1, VN2, VHN2)	
Capsule type	Condenser - cardioid response
Power supply	3V phantom from Beltpack
Connector	3.5mm mono jack
Dimensions	140 x 180 x 60mm
Weight	25g
LAVALIER MICROPHONE (VL1)	
Capsule type	Condenser - cardioid response
Power supply	3V phantom from Beltpack
Connector	3.5mm mono jack
Dimensions	40 x 27 x 20mm
Weight	20g

Frequency Chart

Model	Stock code	Mic 1	Mic 2
VH1	171.804UK	173.8MHz	-
VH2	171.816UK	173.8MHz	174.8MHz
	171.817UK	174.1MHz	175.0MHz
VN1	171.836UK	173.8MHz	-
	171.837UK	174.5MHz	-
VN2	171.818UK	173.8MHz	174.8MHz
	171.819UK	174.1MHz	175.0MHz
VHN2	171.810UK	173.8MHz	174.8MHz
	171.811UK	174.1MHz	175.0MHz
VL1	171.834UK	173.8MHz	-
	171.835UK	174.5MHz	-

Troubleshooting

"POWER" LED does not light on receiver	Ensure power adapter is connected to mains and working properly
	Ensure receiver is switched on
"POWER" LED is lit but no "SIGNAL" LED	Ensure transmitter is switched on
	Check that transmitter is not out of reception range
	Check that transmitter battery is good / charged
LEDs are lit but no sound from microphone	Check if transmitter switch is in "MUTE" position
	Check if neckband or lavalier microphone is connected to beltpack
	Make sure receiver is connected to mixer / amplifier
	Make sure that amplifier / mixer channel volume is turned up
	Ensure transmitter has a good / charged battery
	Check if there is another nearby transmitter with the same frequency
Microphone output is very loud or distorted	Turn down GAIN ADJUST on beltpack transmitter
	Turn down VOLUME on receiver
	Reduce Gain on mixer / amplifier
	Ensure that XLR output is not fed to a Line input
Microphone output is very low	Turn up GAIN ADJUST on beltpack transmitter
	Turn up VOLUME on receiver
	Increase Gain on mixer / amplifier
	Ensure that Jack output is not fed to a Mic input
	Check transmitter battery

Disposal: The "Crossed Wheelie Bin" symbol on the product means that the product is classed as Electrical or Electronic equipment and should not be disposed with other household or commercial waste at the end of its useful life. The goods must be disposed of according to your local council guidelines.

Hereby, AVSL Group Ltd. declares that the radio equipment type 171.804UK, 171.810UK, 171.811UK, 171.816UK, 171.817UK, 171.818UK, 171.819UK, 171.834UK, 171.835UK, 171.836UK and 171.837UK are in compliance with Directive 2014/53/EU

The full text of the EU declaration of conformity for 171.804UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171804UK.pdf

The full text of the EU declaration of conformity for 171.810UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171810UK.pdf

The full text of the EU declaration of conformity for 171.811UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171811UK.pdf

The full text of the EU declaration of conformity for 171.816UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171816UK.pdf

The full text of the EU declaration of conformity for 171.817UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171817UK.pdf

The full text of the EU declaration of conformity for 171.818UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171818UK.pdf

The full text of the EU declaration of conformity for 171.819UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171819UK.pdf

The full text of the EU declaration of conformity for 171.834UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171834UK.pdf

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The full text of the EU declaration of conformity for 171.836UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171836UK.pdf

The full text of the EU declaration of conformity for 171.837UK is available at the following internet address: http://www.avsl.com/assets/doc/1/7/171837UK.pdf