



User Guide and Reference Manual

WM-320



We greatly appreciate your purchase of the **WM-320**

To be sure you take maximum advantage of all the **WM-320** has to offer, read these instruction carefully an use the set properly .Be sure to keep this manual for future reference ,should any questions or problems arise .

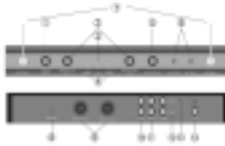
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Main function

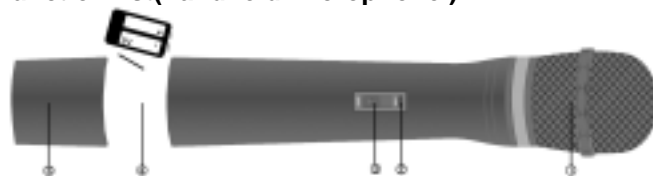
using VHF 181-216 MHz band to avert interfering frequency
using multilevel high frequency and mid frequency narrowband filter ,so as to dispel any possible signals
There is a volt indicating circuit in the microphone it can tell you if it is necessary to change the battery
A specially designed circuit switch is on the phone .It is for clearing up waves of miscellaneous the dynamic range .It can also lower reecho .
The receiver use multilevel high frequency enlarger so it has high sensitivity.
It has channel separate outputting and mix outputting and it can be connected with sound-adjusting stage and the Karaoke enlarger.
Special tone keyer locked identity functions to avoid interference signal from outside open the mute system
There are multiple noise detect circuit function to avoid interference signal from outside open the mute system
There are multiple noise detect circuit ,multi-circuit so it has strong anti-jamming specially
Choose excellent chipset and high quality component so that its timbre will be very good
Longest distance in open :80 ideal distance in open :60M
Frequency response tailored for vocals ,with brightened midrange and bass roll-off
Uniform cardioid pick up pattern isolates the main sound source and minimizes background noise
Effective ,built-in spherical wind and pop filter
It is suitable for small and large stages /ballrooms auditoria classrooms and families
Unprecedented echo circuit ,make the machine more characteristic
Advanced dual wire microphone input ,make the user more comfortable
Additional AF& video switching line ,make the range of uses more wide .

Front panel & real panel



1. power /echo switch :Turn the receiver ON and OFF &adjust the echo
2. A/B wireless microphone volume :adjust the volume of wireless microphone
3. power (LED):indicates whether the machine is ON or OFF .
4. A/B RF(LED):light when RF signals are received from the microphone channels
5. Wire MIC VOL: adjust the volume of wire microphone
6. MIC INPUT :connect to the plug of wire microphone
7. A/B ANTENNAS: provide the RF signal
8. MIC OUT :connect to amplifiers /mixers or effect devices .OUT A correspond to CHANNEL 1 and OUT A/B corresponds to CHANNEL 1+2
9. OUTPUT of Balanced A/B independent output A/B AF of wireless microphone
10. OUTPUT of AF: independent output output of A/B channels
11. INPUT of AF: independent of A/B channel
12. OUTPUT of video :connect with the plug of video receiver
13. INPUT of Video :connect with the plug of video transmitter
14. AC POWER PLUG :main power jack for connection to power plug of AC-12V/350mW

Control and function list(handheld microphone)



1.Screen head

2.Power indicator

3.Power indicator light

4.Battery

5.Battery cover

NOTE :make sure the power switch is in the “OFF” position when changing or installing new battery. Average life is 10 hours .Be sure to use good quality long life 9V only .

1. In using first turn on the receiver and then the transmitter .
2. Remember to turn off the switch ,when the microphone is not in use in order to save power .In “STAND-BY”set the switch to the center .

Operation of the receiver

Operation of the receiver

1. pullout antenna a & b ,make them be perpendicular with the machine
2. connection one end to the local ac power socket and the other end to an ac AC12V/350mW power supplying socket ,be sure the voltages should be ac AC 12V /350mW
3. connection of the audio output
4. mix output :one end of the audio cable "out mix "socket ,and other end audio amplifier or mixer's "MIC IN"or "AUX IN "socket .
5. Put on the power switch ,the power indication light is lighted .When the microphone is working the signal light of the receiver is lighted the receiver output voice volume of the receiver can be controlled by adjusting the volume knob

Attention when you install of the receiver

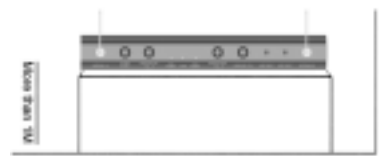
It should be more than 1M high from the floor

It should be more than 1M beyond the wall

Antennas should be put out fully ,otherwise it will influence receiving signals

Antennas put out uprightness

more than 1M



Operation of the microphone

1. screw the battery box open anticlockwise ,then put in a 9V battery attention :the polarity should be right
2. turn on the microphone .if the light does not twinkle or is always lighted ,you should check the battery if the voltage is enough or the battery is well arranged
3. turn the mute switch to mute middle the receiver will cut out audio output

Repair with simple fault

1. Turn on the receiver ,but the indicator is not lighted .make sure if the power cable is well fixed is the socket in good condition ?is the fuse blown ?
2. When you speak ,the audio light twinkles ,but no sound output . make sure if the volume keep in lowest place ,or the audio cable is not fixed well
3. The effective signal receiving distance becomes close and signal receiving is not well .perhaps you have not put out the antennas .perhaps you should change a new battery .perhaps there is a strong magnetic field in your surroundings .
4. Timbre becomes bad. perhaps the voltage of the battery is not enough .you need change. perhaps there are the same frequency signals in your surroundings .Don't use two machines with the same frequency at the same time in a place (separate them at least 200M)

Specification

1. comprehensive performance

Carrier frequency	VHF181-216MHz
Frequency stabilization :	less than ± 30ppm
Dynamic range:	more than 90dB
Total harmonic distortion:	less than 0.5%
Frequency response:	40hz-18khz ± 3dB
Audio output level separate type:	0- ± 400mV mix type 0- ± 200mV

2. handing microphone

Transmitter power	20mW
Modulation type	VHF
Max deviation	± 20KHz
Spurious emission	more than 40dB (with carrier)
Battery voltage	9V battery
Continuum using	6 hours (compare with GP 1604s 9V battery)

System composition

1. receiver*1

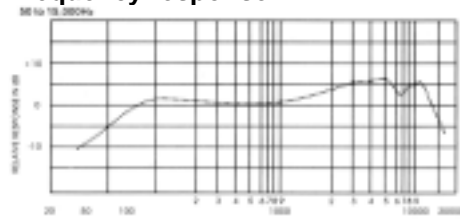
2. wireless mic ...*2

3. audio cable*1

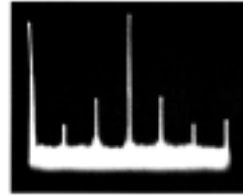
4. battery 9V.*2

5. user guide*1

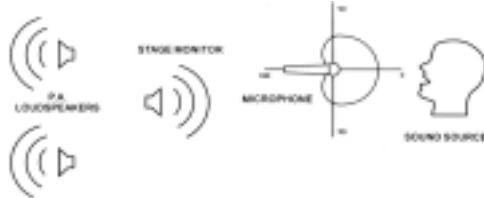
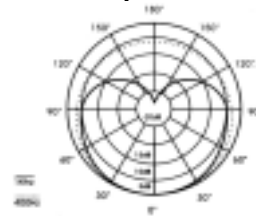
Frequency response



Transmitter spectrum



Polar pattern



Matters needing attention

1. avoid putting the main machine in blind angle when it is used this is for keeping signal-receiving in good condition
2. don't throw fall ,toss cast the handling microphone when it is used in case damage it seriously
3. please keep the machine from direct sunshine or rains ,and put it in a place as possible from the magnetic field
4. don't open it yourself ,because there is high voltage in it .

Tips for achieving optimum performance

Maintain a line of sight between the transmitter and receiver antennas if possible avoid placing transmitter and receiver where meal or other dense materials maybe present .

Avoid placing the receiver near CD/VCD/LD/DVD or other RF equipment

Avoid placing the receiver in the bottom of an equipment rack unless the antennas are remotely located .

Mount 1/4 wave antennas with the antenna tips pointed away from each other at a 45 angle ,and away from large metal objects .

If multiple wireless system are used ,maintain a distance of at least 3 meters (10ft)between the transmitter and the closet receiving antenna .



As the product is constantly improving, these won't be any further notice for the modification