

BESTMEDIA

High Performance Wireless Microphone

BM-520U

USER Manual

Infrared Auto-Channel Lock-On Function

**Professional wireless microphone
200 Selectable Frequency Channel**

Thank you for purchasing Best Media BM-520U.
Please read the user manual thoroughly prior to operate,
to ensure the microphone could be performed optimally

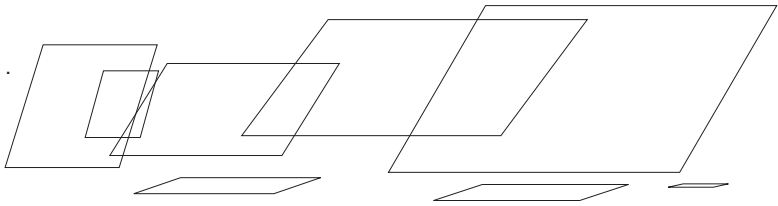
Features:

Best Media BM-520U is a well engineered, high performance & high quality UHF wireless microphone system. With its built-in infrared auto-channel lock function and 200 frequency channel to select from, the on-air radio interference will no longer exist while operating BM-520U.

BM-520U comes with 2 handheld microphones, an optional belt pack lapel with headset or lavalier mic can be purchase separate.

For further information, please visit:

<http://www.bestmediausa.com>



**WARNING! RISK OF ELECTRIC SHOCK DO NOT OPEN
ALWAYS KEEP THE MACHINE AWAY FROM WATER OR LIQUID**

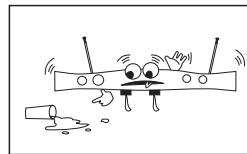
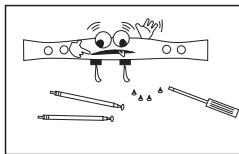
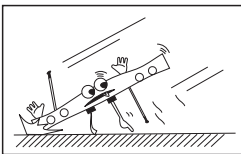
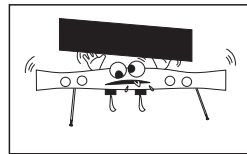
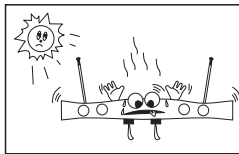
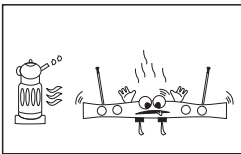
Cautions



Please do not open the system.
There are no user serviceable parts inside.
Refer all servicing to qualified personnel.



1. Keep the manipulation instruction - please keep this manual for further need of safety and manipulation requests.
2. Humidity Cautions - keep the machine away from humid conditions.
3. Heat Source - keep the devices away from heat sources, such as radiators, heaters & stoves.
4. Aeration - keep the machine in well ventilated conditions at all time, there should be at least 5cm clearance around the device.
5. Power Supply- use only the corresponded voltage as power source.
6. No exposed fire should be on the device (e.g. flaming candles).
7. No liquid or weights should be on the device, no water dripping or splashing onto the device.



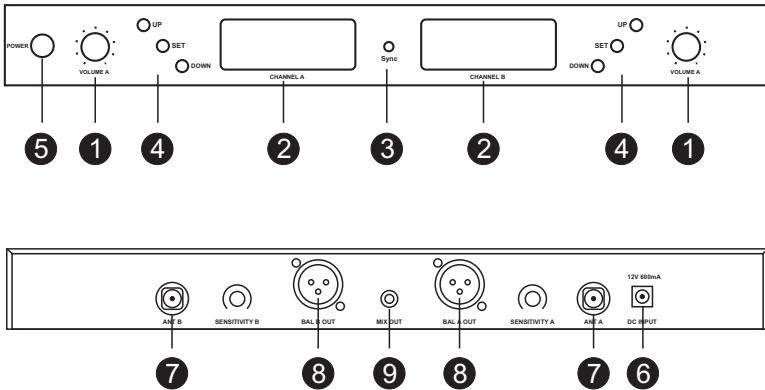
Protect the machine from being damaged as the pictures shown above.

Package Includes:

- Dual-Channel Wireless RF Receiver x 1
- Handheld Microphone x 2
- User Manual, Microphone Cable, Rack Mounted Kits x 1
- Antennas, Battery Set, Anti-Rolling Plastic Rings x 2

System configuration:

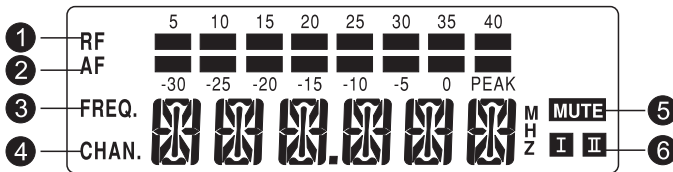
- Two Handheld Microphones
- One Handheld Mic + One Belt-Pack Lapel (the lapel can be a headset or a lavalier)
Lapels, headset mics & lavaliers are optional item, purchase separate.
- Two Belt-Pack Lapels (each lapel can be a headset or a lavalier)
Lapels, headset mics & Lavaliers are optional item, purchase separate



- 1) Volume knob
- 2) LED display: channel ,mute, receive-channel frequency, radio frequency, etc.
- 3) Infrared channel-select window: send the channel parameter to the transmitter.
working in "SET" button
- 4) Three function keys: Press "SET", go to circular selection menu, press ▲ ▼ to change menu state, press "SET" again to activate the setting.
- 5) Power button: To turn on, hold and press the on-off button until the LCD screen shows on.
To Turn off, Hold and press the on-off button for 3 second until the LCD screen shows off.

- 6) Power socket :DC 15V 500m. A power inputs socket, central electrode of the socket connects to positive pole.
- 7) Antenna jack
- 8) Noise elimination control: counter clockwise ,to turn down receive-sensitvly, zoom in receive-distance, but strengthen anti-jamming function, rice versa.
- 9) Audio balance out: suitable for long-distance connection, capable to knock down the noise caused by line-connection.
- 10) Audio mix out: send out one mixed signal by two.

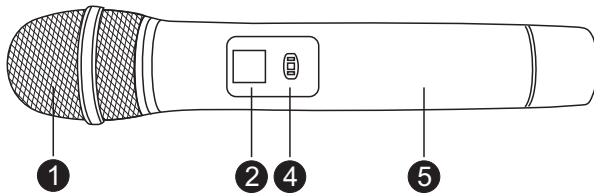
Introduction for the LCD of the receiver



- 1) 8-level RF display: signal strength of the receiving frequency
- 2) 8-level AF display: signal strength of the audio frequency
- 3) Frequency menu display: when the indicator is on, current service frequency is show by the last 6 digits
- 4) Channel menu display: when the indicator is on, current service channel is shown
- 5) Mute display: when the indicator is on, frequency signal is not received.
- 6) Channel display:dynamic display for the current auto-selected antenna channel, I shows channelA, II means channel B.

Specifications

Handheld Microphone



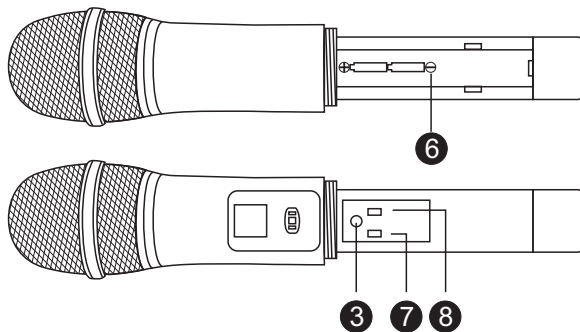
1) Sound receiver: steel netting and sound head module

2) LCD: service channel and battery

3) Infrared channel selecting window: send the channel parameter to transmitter, working in the "SET" key of the receiver

4) 3-step on-off: turned-off goes downwards, mute stays middle, turned-on goes upward.

Caution: if you want the microphone works mute during in use, you can set the switch at middle rather than turning on. Switch downwards to turn off after use.



5) Pipe body: built-in transmitting antenna inside

6) Battery cage: 2x1.5V alkaline batteries(please remove the batteries if not in use for a long time)

7) High-Low RF switch(located inside the battery cage)

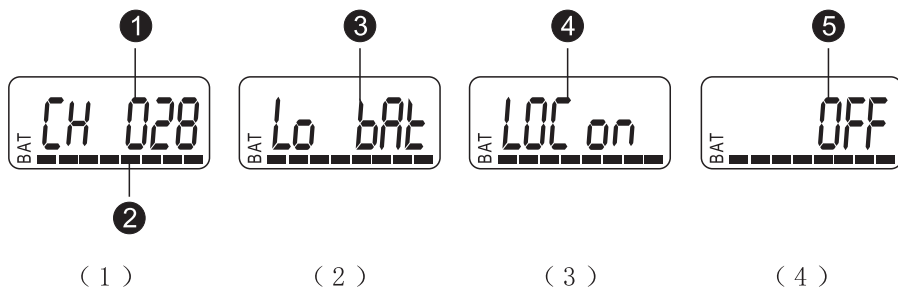
Tips: While running several BM-520U in KTV rooms, low frequency strength is recommended. Longer battery life & less frequency conflict will be benefitted.

Specifications of the handmike

8) Lock key (located in battery cage): used to lock the power on-off switch upwards
go to "ON" at the time outside power switch off, the microphone is still
working at mute, but the transmitting mike remains transmitting state.

Caution: This switch is available to keeping non-professional from
shutting down the mike by mistake channing in use (because
unexpected turned-off causes 2-3 sec delay)

Introduction of hand mike LCD



1) Channel display: current service channel

2) 8-level battery volume display: when the last 2-level starts displaying, full battery is required.

3) Please put on full-changed battery when display, as pic 2.

4) When lock key is on with power switch off, display as pic 3, which means transmitter is locked, mute function is on while power off

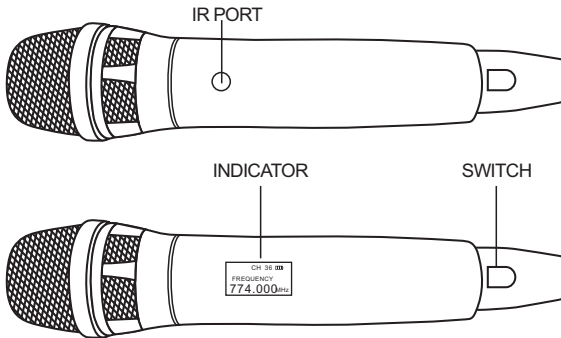
Specifications of the handmike

manual for handheld transmitter

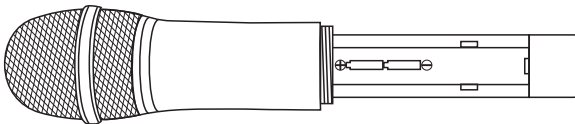
channel battery volume. If service channel needs to change, receiver's channel should be changed first. Then aim up the infrared windows of transmitter and receiver, and then operate channel-selecting by hitting "SET" in receiver. klew channel para meters will be sent to the transmitter.

manual for handheld transmitter

1) hold the column on upside, press the battery cover on upside, which is found right below the sphere protect-net slide down the battery cover, the battery cage will open.



2) Put two new 1.5V alkaline battery on. Make sure polarities are well set.



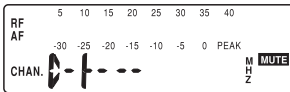
Caution: do not misset polarities, it may alamage internal electronic components of transmitter

3) Put on the battery cover again

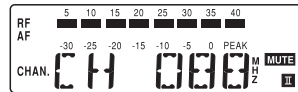
Channel-selecting and other special functions of the receiver

select channel automatically with infrared

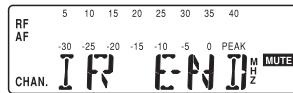
- 1) Turn on the receiver: press the power on-off and hold on until LCD lights up.
- 2) Select channel(or frequency)by pressing "▲" or "▼" then press "SET" to ensure the selection.
- 3) Turn on the mike, press "SET" ,LCD will display like pic •1, then aim the channel-selecting window of the mike of ACT □ window of the receiver,till LCD displays like pic •2,channel is well-selected.
- 4) Display like pic •3, which means infrared is sent but not yet selected by any channel,so press "▲" to select channel one more time.



(1)



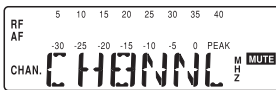
(2)



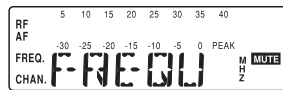
(3)

Swich channel display to frequency display

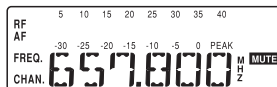
- 1) Turn on the receiver: press the power on -off and hold on until LCD lights up.
- 2) Press "SET" twice,display like pic •4.
- 3) Press "▲", sparkle like pic •5.
- 4) Press "SET" to ensure, press again, go back to frequency display state, like pic •6.



(4)



(5)



(6)

Receiving machine channel-selecting and other special functions of the the receiver.

*** switch frequency display to channel display**

- 1) Turn on the power of the receiving machine: press the power button the LCD light is bright.
- 2) Press "SET" continuously for tuile. Show it picture 4
- 3) Press "▼" button, apper "picture 3" and flash
- 4) Press "SET" to ensure. Press it again and than it will let to the situation of frequency display.

*** lock the choosen channel**

This locked function can be used when the receiving machine is adjusted. When the locked function is on, the three function button in the receiving machine panel would be locked, in order to prevent nonprofessional person(s) accidentally use.

Operortion steps below:

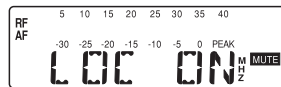
- 1) Turn on the power of receiving machine:press the power button,LCD light is bright.
- 2) Press "SET" continuously for three time, appear like picture 7
- 3) Press the"▲"button to ensure and finish the function of locked channel.

*** turn off the locked fuction**

- 1) turn on the power of the receiving machine: press the power button and LCD light is bright
- 2)Press "SET" button for once, appear picture 8
- 3) Press"▼"button, appearpicture T and flash
- 4)Press "SET" to ensure, finish the function of unlocking.



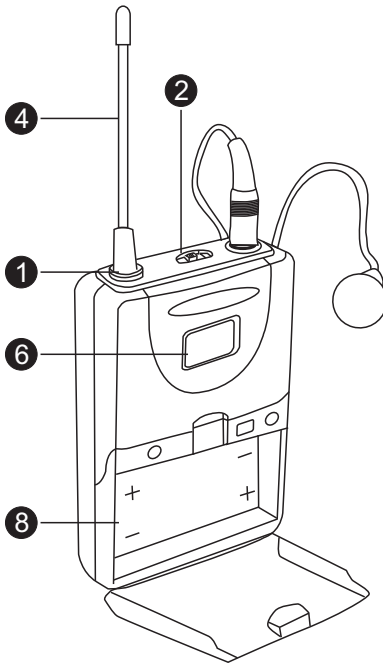
(7)



(8)

functions of the lapel mic

Introduction of the lapel mic



1) input socket

2) power on-off: "ON" means power on,"OFF" means power off

3) indicator: when the switch goes to "ON",the indicator sparkles for once, which means the battery works well. if it has no flare, the battery is empty, or not yet well-setted. if the indicator is on at all time, the battery is running out.

4) transmitting antenna:1/4 wave lengh flagelliform antenna.

5) clip: fix the mini mike some where on waist-side, can be revolved by 180°

6) LCD: current service channel and battery volume.

Lapel transmitter function

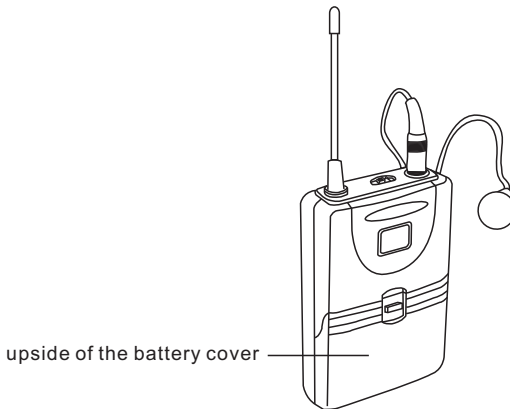
- 7) infrared channel-selecting window; work in the "SET" button of the receiving machine, set the channel number to the transmitter.
- 8) battery holder: 2x1.5V alkaline batteries
- 9) function setting button: including two "up" "down" choosing buttons and one menu selection.
- 10) "high/low" frequency emission changing button.

*** Lapel transmitter operational guidance**

operation method is the same as the handheld transmitter's. It also has "high" and "low" frequency changing function.

*** The batteries installation of lapel transmitter**

- 1) Press both sides of the battery cover lightly and slide out, then you can open the battery cage as below.



- 2) Put into 2x1.5V alkaline battery please ensure the battery polarities are well-set following the polarity guidance in the battery holder
- 3) Put on the battery cage cover.
(caution: please take out the batteries in the transmitter, if you will not use the system for long time)

Operation method and attentions

Operation method:

- 1) Connect the audio system well;
- 2) Set the volume of the receiving machine and the loudspeaker to mix;
- 3) Turn on the power of the audio system from backing stage to backward stage;
- 4) Turn on the power of the transmitter;
- 5) Adjust the audio effect of the audio system: first, adjust the volume of the receiving machine to the middle point, turn on the microphone, talk directly toward the microphone, adjust appropriate volume, adjust tone, volume controller carefully to ensure the voice is clear and the volume is suitable. Hdd the phone and hare the "on show" proless;
- 6) If the wireless receiving machine system has some problems. Please note that this function has troubleshooting to solve the problem. If the problem is not indicated in the troubleshooting. Please ask for the professional to solve it or negotiate with the franchiser;
- 7) After using, please turn off the power of the transmitter rather than turn off the power of all the audio system from the backstage.

Attentions:

- 1) The locaton of the antenna effect the receiving of the receiving machine directly. so pay close attention to the installation method. It is important to keep the distance between the microphone and the receiving machine as short as possible.
- 2) Avoid putting the receiving machine near the computer or other equipment which can produce RF signal.
- 3) Avoid placing the receiving machine in the orlop of the DB, excluding the installation antenna from distance.
- 4) This receiving machine system can fill 200 microphone at the same time, and it would not disturb each other. If need, please let professional to adjusted different channels.
- 5) When some wireless systems are used at the same time ,please pay attention to the setting of "SQ" of the receiving machine. The lower the sensitive, and the shorter the capacity of disturbance. It is better that the transmit phone is short because it can save the electricity and decrease jamming at the same time.

BM-520U Trouble Shoot

Questions	Solutions
<p>No voice; (situation: the receiving machine RF display does not turn on)</p>	<ul style="list-style-type: none"> • Check the transmitter and the receiving machine, see whether it displays "ON" • Check whether the "negative" and the "positive" pole of the battery is mistaking installed. • Check the connection of the receiving machine and the aerial. • Make sure that there is no block between the aerial and the transmitter.
<p>No voice;(situation:RF display is normal;AF display is normal)</p>	<ul style="list-style-type: none"> • Check whether the voice re-knob of the receiving machine is on the lowest place. • Check whether the connecting between the loudspeakers of the receiving machine are normal.
<p>No voice;(situation:RF display is normal;AF display is un-normal)</p>	<ul style="list-style-type: none"> • Check whether the power of the transmitter is open • Exchange the mike of the transmitter when it is necessary
<p>Put through the transmitter,there is some noise or some interruption noise in the receiving signal</p>	<ul style="list-style-type: none"> • Check whether the battery is tight enough. • Eliminate the RF source of the disturbance nearby. • Check the connection, if using guitar or other musical instrument. • If both of the transmitters are using the same frequency, check and close one of them off. • Maybe the signal is too weak, adjust the place of the antenna until it close to the transmitter as possible. • Replace other channel.
<p>There is some noise, after closing the transmitter.</p>	<ul style="list-style-type: none"> • Adjust the sensitivity button of the transmitter; the"SQ" button. • Eliminate source of noise of RF. • Adjust the place of the receiving machine or the place of the antenna over again
<p>While the showplace is moving, the voice from the transmitter may get lost sometimes.</p>	<ul style="list-style-type: none"> • Adjust the sensitivity button of the transmitter; the"SQ" button. • Locate the receiving machine over again and have the "on-show" experiment,observe the RF display. • If you find some voice lost, tag the point and avoid this point when performing.
<p>Can not open the transmitter</p>	<ul style="list-style-type: none"> • Change the battery of the transmitter.

Technology specification

System Parameter:

work frequency:	690-740, 740-790, 800-850MHz
modulation mode:	broadband FM
channels	200
channel frequency:	200KHz
frequency stability:	$\pm 0.005\%$
dynamic bound:	100dB
max excursion:	$\pm 45\text{KHz}$
frequency response:	60Hz-18KHz($3\pm\text{dB}$)
S/N	$>105\text{dB}$
T.H.D	$\approx 0.5\%$
operation distance:	about 100m (under the situation of no interruption)
working environment temperature:	$-10\text{ }^{\circ}\text{C}--+50\text{ }^{\circ}\text{C}$

Receiving machine index:

receiving machine mode:	superheterodyne
IF	110MHz, 10.7MHz
antenna receive:	BNC/50次
sensitivitre:	12dBuV(80dB S/N)
sensitivitre adjustable rang:	12-32dBuV
erratic control:	$\approx 75\text{dB}$
max output frequency	+10dBV

Transmitter index:

antenna:	hand microphone has on in built helix antenna transmitter 1/4 wave-lergh flagelliform antenna
output frequency:	max frequency 30mw; min frequency 3mw
erratic control:	-60dB
power supply:	2x1.5V alkaline batteries
battery vitality:	about 10 hours under normal frequency transmission, about 15 hours under low frequency transmission.

UHF

<http://www.bestmediausa.com>
1(800)507-5203