

Professional UHF Rechargeable Wireless Microphone System

VM-93C



Operating Instructions

UHF
64 Frequency
Selectable



Thank you for purchasing this unit. To make full and effective use of this unit, please read this Owner's Manual carefully before operating it. Please retain this manual for future reference.

Passionate about Music
www.BetterMusicBuilder.com

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INTRODUCTION

The new VM-93C wireless microphone is the second generation of UHF rechargeable wireless microphone system designed by the engineering team of Better Music Builder.

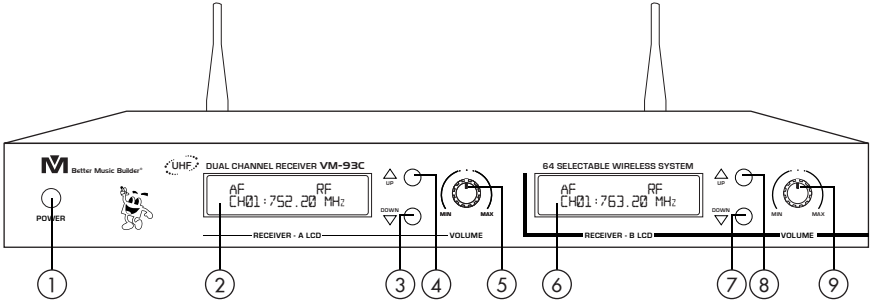
VM-93C is designed for both commercial and public use. It is a heavy duty design including two hand-held microphones with one receiver. Each hand-held microphone has a total of 32 frequencies. Two microphones together have 64 frequencies. We have set up 32 frequencies for each microphone to make the frequency selection easily. There is also a separate charger base, which is one of the best in the market with two microphones in one receiver, to allow the user to charge the battery at any place. This system is reliable for use by KTV clubs, restaurants, coffee shops and churches, etc.

SYSTEM CHARACTERISTICS

1. Equipped with the latest wireless technology and UHF dual-channel with one receiver to picks up weak signals and prevents signal interference.
2. Clear LCD screen that can allow you to check AF (Audio Frequency) and RF (Radio Frequency) signal and battery levels.
3. One receiver has two built-in units (Receiver A and Receiver B).
4. Easy to select channels with pre-set frequencies.
5. Each microphone has 32 channels. There are a total of 64 frequencies in two microphones.
6. Easy and convenient mounting for portable rack.
7. Adjustable antennas for different angles to receive better signals.
8. A separate charger base is provided.

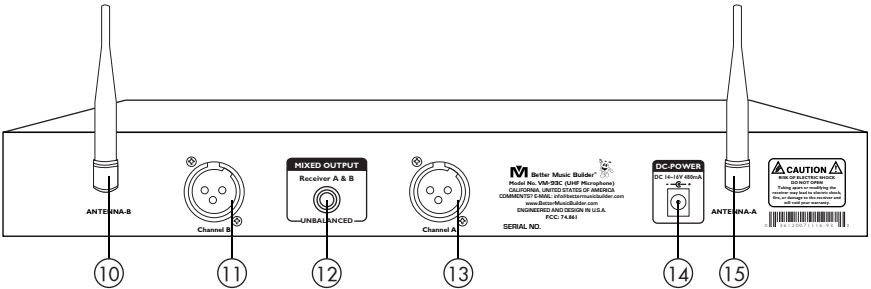
RECEIVER SPECIFICATION

A. NAMES & FUNCTION:



Front Panel:

1. Power button On/Off.
2. Receiver A LCD screen: Channel A with 32 Built-In Channels with different UHF frequencies.
3. “▼” DOWN button selects different frequency & model settings (Receiver A)
4. “▲” UP button selects different frequency & model settings (Receiver A)
5. Volume control (Receiver A)
6. Receiver B LCD screen: Channel A with 32 Built-In Channels with different UHF frequencies.
7. “▼” DOWN button selects different frequency & model settings (Receiver B)
8. “▲” UP button selects different frequency & model settings (Receiver B)
9. Volume control (Receiver B)

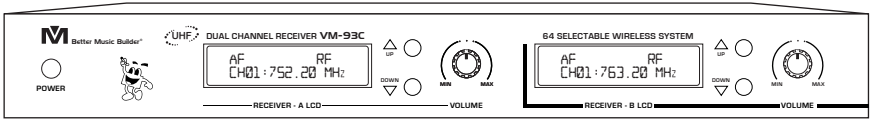


Rear Panel:

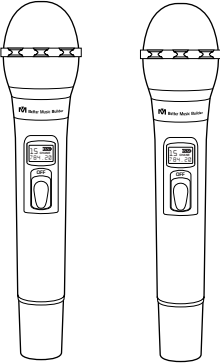
10. Receiver Antenna Input-B. (Receiver B) BNC Socket.
11. Channel B XLR 3M socket balanced audio output 50Hz~15kHz +/-3dB.
12. Receiver A & B 1/4-inch (6.3 mm) jack socket unbalanced audio output, mixed channel A & B.
13. Channel A XLR balanced audio output 50Hz~15kHz +/-3dB.
14. Power supply dock with removable IEC cable 14~16V 480mA.
15. Receiver Antenna Input-A. (Receiver A) BNC Socket.

THE SYSTEM INCLUDES THE FOLLOWING PARTS

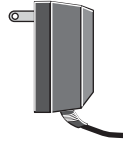
The package comes with one receiver, two transmitters, one charger base, two DC adaptor, one audio cable, four AA rechargeable batteries, and two antennas.



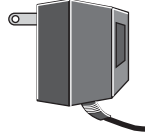
Receiver: 1 Set



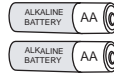
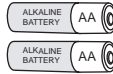
Hand-held Transmitter: 2 Set



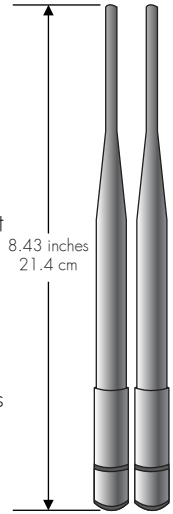
DC Adaptor for
Charger Base: 1 Unit



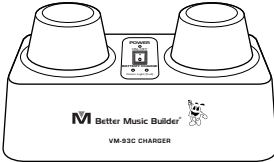
DC Power
Adaptor: 1 Unit



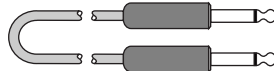
AA (1.5V) Rechargeable Battery: 4 Units



Receiving
Antenna:
2 Units



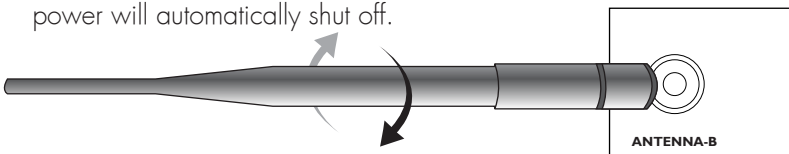
Transmitter Charger Base: 1 Set



Audio Cable (for mixed out): 1 Unit

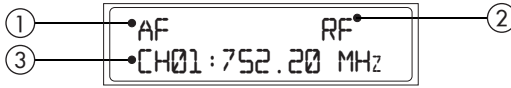
SETTING UP YOUR RECEIVER

1. Screw the antennas (BNC socket) into the rear panel of the receiver in a vertical 90° angle and turn it in clockwise to lock it.
You can adjust the antennas to angle differently for adjusting signal strengths.
2. Insert the DC adaptor into the power socket of the rear panel the power supply must comply the requirement of the system.
3. To turn on, turn Volume to the minimum. After turning on the "POWER" button, "PRO-MIC" would immediately appear in the LCD screen. Then, it takes about five seconds for ready to use.
4. Adjust the settings to your liking (See the description for the LCD or control panel).
5. To turn off, press and hold the power button until the power light turn off. Then power will automatically shut off.



RECEIVER LCD PANEL DESCRIPTION

After turning on the "POWER" button, LCD screen will light up as below:



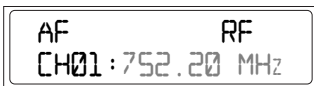
1. RF (radio frequency) Indicator
2. AF (audio frequency) Indicator
3. Current Channel/Frequency Display: current value depends on your setting.

NOTE ▶ If there is static or no sound coming out of your speakers, than there may be a frequency interruption from another system, change your frequency to match your transmitter's (microphone) frequency.

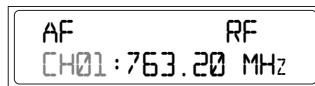
HOW TO SELECT FREQUENCIES

This receiver has two built-in receivers (i.e. Receiver A and Receiver B). The manufacturer has already pre-set a particular frequency for each channel. To select the frequency, you can use either Receiver A or Receiver B and press the upper button for selection. Selecting frequencies at either Receiver A or Receiver B will work. You can set up the same channel at both microphones because the same channel can have different frequencies.

When you set up a particular frequency at Receiver A, you also need to set the same frequency at the microphone. Please refer to the "Frequency Table" on page 16.



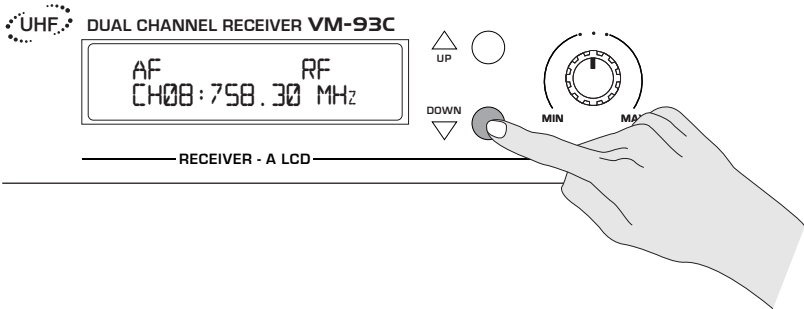
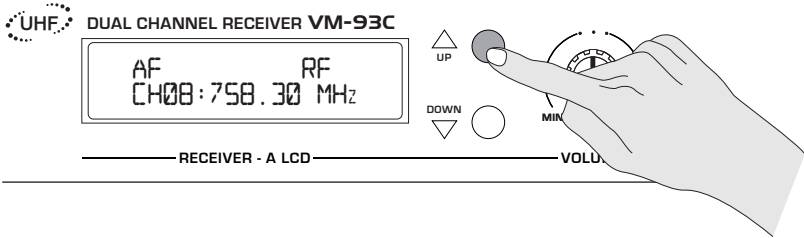
RECEIVER - A LCD



RECEIVER - B LCD

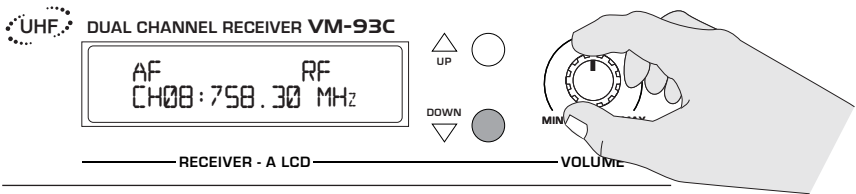
HOW TO ADJUST RECEIVER SETTINGS

To adjust your receiver's channel/frequency by pressing the "▲" UP or "▼" DOWN button to select your frequency.



Turn "VOLUME" button to adjust your vocal volume.

NOTE We recommend setting the volume to the maximum, then control it from the mixer.



NOTE If you or anyone do any damage on any part of the receiver either accidentally or intentionally, we have the right to void your warranty.

HOW TO CONNECT AUDIO OUT

There are three different connectors as shown in the following diagram:

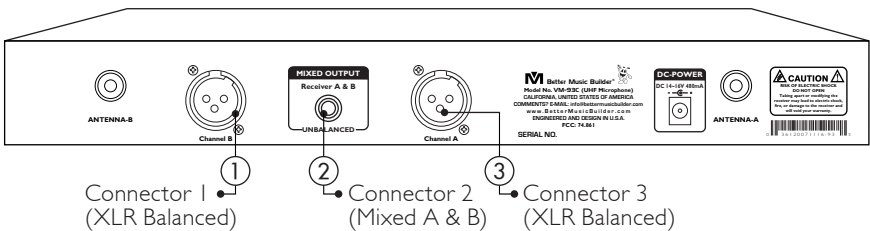
- Connector 1 is a channel B XLR-balanced audio out
- Connector 2 is a mixed audio output (Channel A and Channel B)
- Connector 3 is a channel A XLR-balanced audio out

NOTE ➤

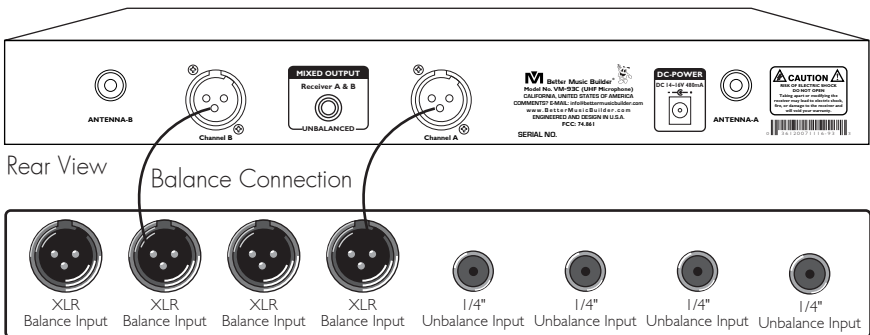
Connector 1 (Channel B) is a balanced XLR audio signal. If you connect B to the mixer or amplifier, then you can control the microphone effect on MIC. B only.

Connector 2 is an unbalanced 1/4 audio signal. If you connect to Connect 2 (1/4), both MIC. A and MIC. B will mix together to produce the same signal. If you want to produce different effects on MIC. A and MIC. B, you need to connect to XLR (Connector 1), which is equivalent to channel B, and XLR (Connector 3), which is equivalent to channel A. You can also adjust different echo or mic. tone effects on each microphone (i.e. MIC. A and MIC. B).

Connector 3 (Channel A) is a balanced XLR audio signal. If you connect A to the mixer or amplifier, then you can control the microphone effect on MIC. A only.

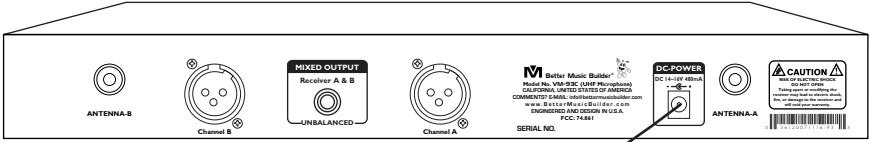


UHF WIRELESS SYSTEM DIAGRAM

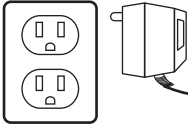


Audio Mixer Amplifier or a Karaoke Unit Input terminal

DC-POWER CONNECTION



Rear View

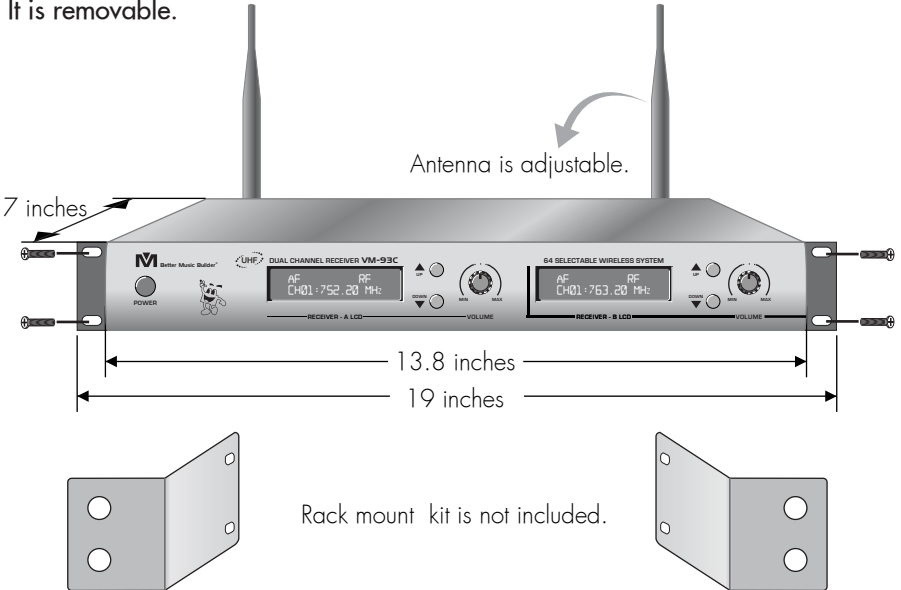


For North America Market using 120V, DC-14~16V 480mA adaptor
 For market outside North America using 220V, you may need to change to a 220V~ 240V DC adaptor with a maximum battery capacity of 480mA.

NOTE ▶ Please make sure to use the right DC adaptor. Otherwise, it may damage the receiver and the charger because their maximum battery capacity is different. The product warranty will be void if you use the wrong DC adaptor.

OPTIONAL: 19" RACK MOUNT KIT

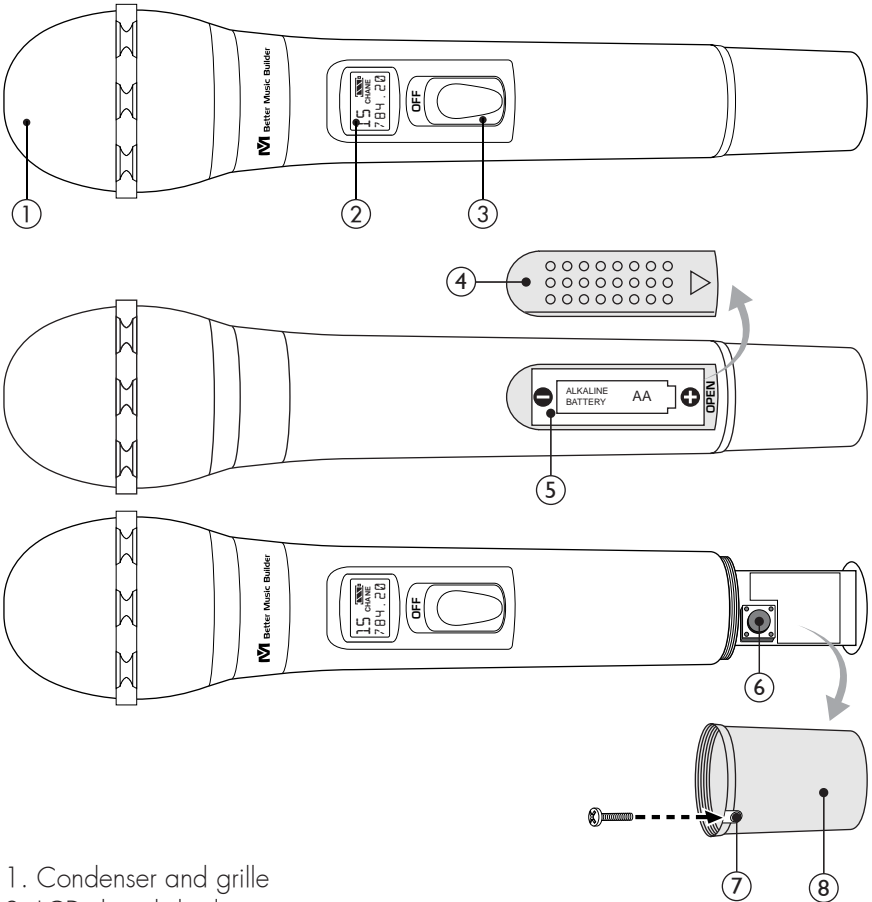
If you want to put the system onto a mount-kit, please follow the below diagram. Our design has this special feature to allow it to mount on a DJ rack. It is removable.



HAND-HELD TRANSMITTER (Wireless Mic.) DESCRIPTION

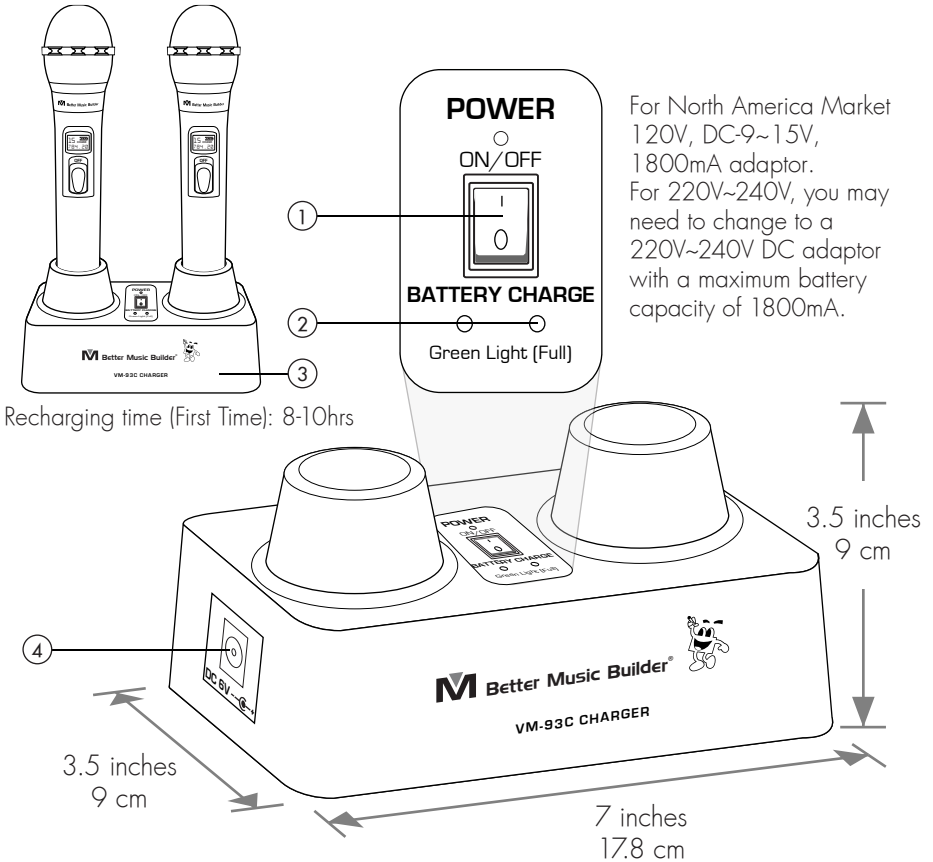
NAMES & FUNCTION:

Uncover Looking of the Handheld Transmitter:



1. Condenser and grille
2. LCD digital display
3. Power switch ON/OFF: To turn ON push the switch button UP for 2-3 seconds, until the LCD screen is on. To turn OFF push the switch button DOWN until LCD screen is off.
4. Battery cover
5. Battery dock: Insert 2x1.5V AA battery or rechargeable battery into the battery slot, putting battery's polarity on different ends may damage system and your warranty may be terminated if damage does occur because of it.
6. Channel/Frequency button: Press the button to adjust Channel/Frequency.
7. Screw hole
8. Plastic cap

RECHARGEABLE HAND-HELD TRANSMITTER CHARGER



For North America Market
120V, DC-9~15V,
1800mA adaptor.
For 220V~240V, you may
need to change to a
220V~240V DC adaptor
with a maximum battery
capacity of 1800mA.

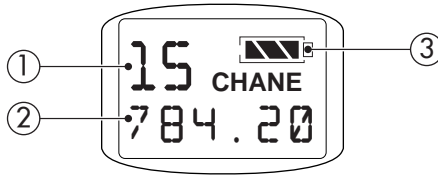
Recharging time (First Time): 8-10hrs

1. Power button ON/OFF
2. Battery Charging Indicator: When the red light is on and flashing, it indicates that the batteries are being charged. When the green light is on, it indicates that the batteries are fully charged. It takes about five hours for a full charge. If the batteries are placed at the wrong polars, it would damage the batteries. The batteries are not under product warranty.
3. Charger base: Make sure to connect the right DC adaptor to the charger base. This system has two DC adaptors: one for the charger base and the other for the receiver. They have different battery capacity.
4. Power Supply AC 110V, DC-9~15V, Maximum Battery Capacity: 1800mA, Recharging for the first time: 8-10hrs.

NOTE → Do not use the wrong DC adaptor, otherwise, it would damage the charger base, which would not be covered under our product warranty. You may order the charger base separately.

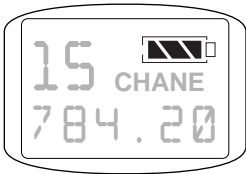
HAND-HELD TRANSMITTER LCD PANEL DESCRIPTION

After turning on the "POWER" button, LCD screen will light up as below:



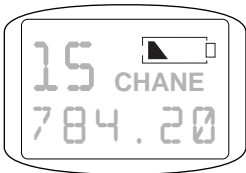
1. Display Channel: Current value depends on your setting.
2. Display Frequency: Current value depends on your setting.
3. Battery Status: Indicates charge remaining in transmitter batteries.

BATTERY STATUS



Full Battery

Indicates a full battery on the transmitter. The engineering team of Better Music Builder uses the latest technology to indicate the battery status, so you can see the battery strength.



Low Battery

Indicates a low battery on the transmitter. When it shows a low battery as shown on the left, you need to change the battery or recharge the battery immediately.

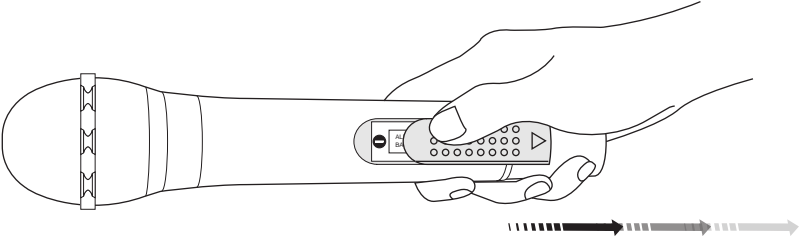
NOTE

After pressing the power button for three seconds, the transmitter should turn on. If the transmitter is still off, please check the battery. It may very low. You need to change the battery or recharge it immediately for 8 to 10 hours. Otherwise, it would damage the battery. The battery is not covered under our product warranty.

HOW TO INSERT HAND-HELD TRANSMITTER'S BATTERIES

Step 1:

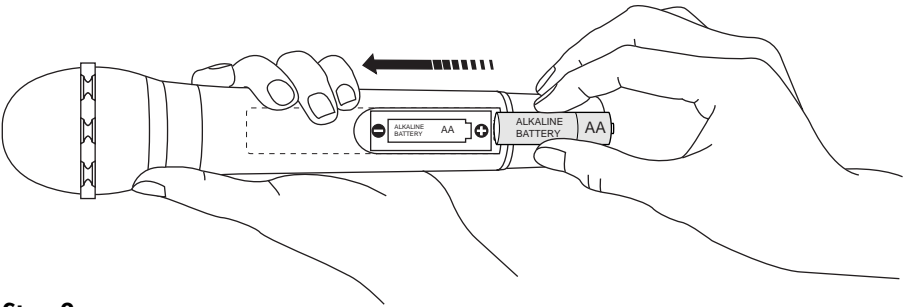
Slide open the closely tight battery cover a little bit hard because the commercial and public use microphones are designed for tight close.



Step 2:

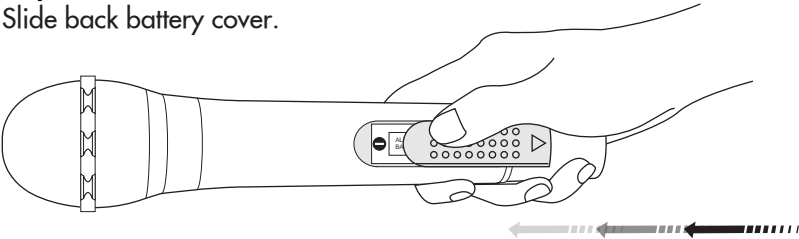
Use one hand to hold onto the top of your transmitter, with your other hand inserting two rechargeable AA batteries into battery slot. Be careful not to drop transmitter while inserting the batteries. The batteries are not under product warranty. If the batteries are dead, replace with new batteries.

NOTE Make sure that you insert the battery at the right electric poles, as shown in picture. Otherwise, it would damage the rechargeable batteries while they are recharging. The batteries are not under product warranty.



Step 3:

Slide back battery cover.

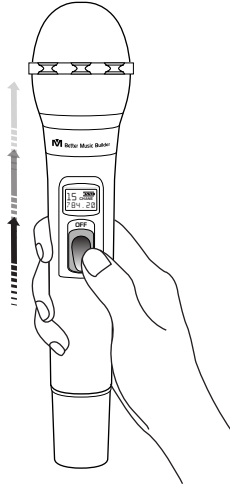


HOW TO TURN ON AND OFF HAND-HELD TRANSMITTER

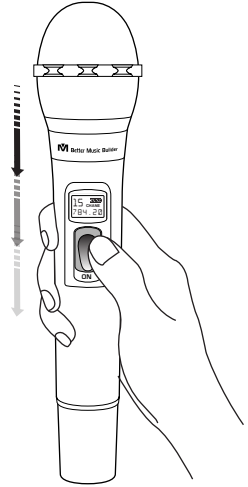
Push the power switch to turn on/off your transmitter. After turning on the transmitter, there will be signals (i.e. Channel Number, Frequency and Battery Status) appeared in the LCD screen. After turning off the transmitter, LCD screen will shut down.

NOTE ➤ Before turning on the transmitter power, please lower the receiver volume level to protect other equipment for safety.

To turn **ON**, push the switch button **UP** for 2-3 seconds until the LCD screen is on.



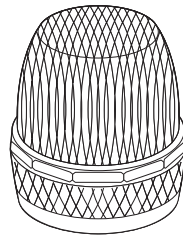
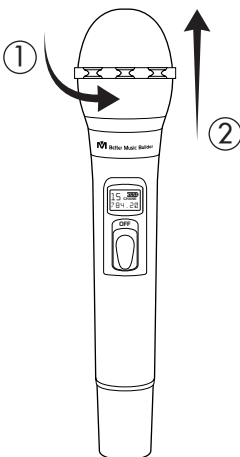
To turn **OFF**, push the switch button **DOWN** until LCD screen is off.



NOTE ➤

After pushing the power button for three seconds, the transmitter should turn on. If the transmitter is still off, please check the battery. It may very low. You need to change the battery or recharge it immediately.

INTERCHANGEABLE MICROPHONE HEAD

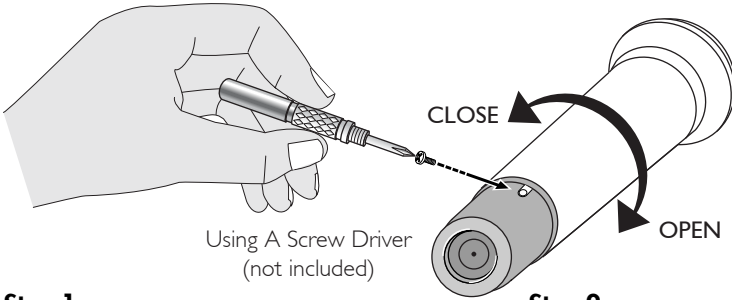


Interchangeable microphone head

NOTE ➤

You can order the replacement parts (such as the microphone head as shown in the above figure) from any of our authorized dealers.

HOW TO CHANGE HAND-HELD TRANSMITTER SETTINGS



Step 1:

The screw is designed to protect the microphone from being opened too easily to set the frequencies because this microphone is for commercial and public use. That's why we do not recommend opening the plastic cap too often to set frequencies.

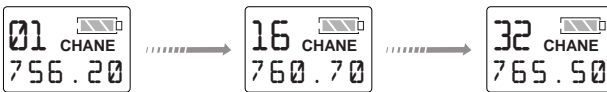
Step 2:

After removing the screw to take out the plastic cap, you can change the frequencies or the batteries (AA size). To change the frequencies, please refer to the following diagram.

Step 3: Selecting Transmitter's Channel/Frequency

1. Press the Channel/Frequency button to select Channel/Frequency.
2. There are 32 selectable channels/frequencies for high communication efficiency and also two transmitters for different frequencies.
3. Please make sure the frequency of a microphone match that of the same receiver.

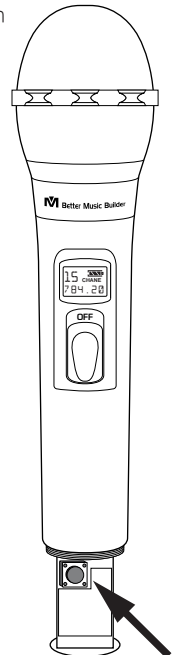
NOTE There are two receivers (Receiver A and B) for the system. Each channel/frequency has been pre-set by the manufacturer. Please refer to the following "Channels/Frequencies Table."



NOTE When you first start with Channel 01 and keep on pressing it to Channel 32, then it will return to Channel 01.

Channels/Frequencies Table

Channel Number	Frequency	Channel Number	Frequency	Channel Number	Frequency
1	756.20 MHz	12	759.50 MHz	23	762.80 MHz
2	756.50 MHz	13	759.80 MHz	24	763.10 MHz
3	756.80 MHz	14	760.10 MHz	25	763.40 MHz
4	757.10 MHz	15	760.40 MHz	26	763.70 MHz
5	757.40 MHz	16	760.70 MHz	27	764.00 MHz
6	757.70 MHz	17	761.00 MHz	28	764.30 MHz
7	758.00 MHz	18	761.30 MHz	29	764.60 MHz
8	758.30 MHz	19	761.60 MHz	30	764.90 MHz
9	758.60 MHz	20	761.90 MHz	31	765.20 MHz
10	758.90 MHz	21	762.20 MHz	32	765.50 MHz
11	759.20 MHz	22	762.50 MHz		



TECHNICAL SPECIFICATION

A. TECHNOLOGICAL FEATURE OF THE RECEIVER:

1. Frequency Range: UHF 752~798MHz
2. Maximum Frequency Deviation: ± 15 KHz
3. Signal to Noise Ratio: >100 dB
4. Total Harmonic Distortion: $<0.2\%$
5. Frequency Stability: $\pm 0.5\%$
6. Frequency Response: ± 40 Hz~ 16 KHz
7. Dynamic Range: >100 dB
8. Power Supply: AC 110V (For 220V, you may need to change to a 220V~240V DC adaptor)
9. Operating Temperature: $-20^{\circ}\text{C}\sim + 50^{\circ}\text{C}$
10. Power Supply: DC 14~ 16 V
11. Work Current: 480mA
12. Dynamic Range: >100 dB
13. Receiver Dimensions (WxHxD): 13.8x1.8x7.2 (inches)/35x4.5x18.3 (cm)
14. Shipping Weight: 10 lbs / 4.54 kg

B. TECHNOLOGICAL FEATURE OF THE TRANSMITTER:

1. Frequency Range: UHF 752~798MHz
2. Maximum Frequency Deviation: ± 15 KHz
3. Signal to Noise Ratio: >100 dB
4. Total Harmonic Distortion: $<0.2\%$
5. Frequency Stability: $\pm 0.5\%$
6. Frequency Response: ± 40 Hz~ 16 KHz
7. Dynamic Range: >100 dB
8. Transmitter: 8.5mW
9. Operating Temperature: $-20^{\circ}\text{C}\sim + 50^{\circ}\text{C}$
10. Battery Life: 14~ 16 hr
11. Work Current: 140mA
12. Handheld Transmitter Dimensions (WxH): 1.97x10 (inches)/5x25 (cm)

C. TECHNOLOGICAL FEATURE OF THE CHARGER:

1. Power Supply: AC 110V (For 220V, you may need to change to a 220V~240V DC adaptor)
2. Current: 350mA
3. Power Supply: DC 9V~ 15 V
4. Maximum Battery Capacity: 1800mA
5. Recharging time: 8- 10 hrs
6. Charger Dimensions (WxHxD): 7x3.5x3.5 (inches)/17.8x9x9 (cm)

THIS SYSTEM INCLUDES THE FOLLOWING

Receiver: 1 Set Charger Base: 1 Unit DC-Power adaptor: 1 Unit
Handheld Transmitter: 2 Sets DC adaptor for Charger Base: 1 Unit
AA 1.5V Rechargeable Battery: 4 Units Audio Connecting Cable: 1 Unit
Antenna: 2 Units Instructional Manual: 1 PC

VM-93C FCC FREQUENCY 750 MHz and 800 MHz

Group A

Channel Number	Receiver A Frequency	Receiver B Frequency
1	752.200 MHz	775.200 MHz
2	752.500 MHz	775.500 MHz
3	752.800 MHz	775.800 MHz
4	753.100 MHz	776.100 MHz
5	753.400 MHz	776.400 MHz
6	753.700 MHz	776.700 MHz
7	754.000 MHz	777.000 MHz
8	754.300 MHz	777.300 MHz
9	754.600 MHz	777.600 MHz
10	754.900 MHz	777.900 MHz
11	755.200 MHz	778.200 MHz
12	755.500 MHz	778.500 MHz
13	755.800 MHz	778.800 MHz
14	756.100 MHz	779.100 MHz
15	756.400 MHz	779.400 MHz
16	756.700 MHz	779.700 MHz
17	757.000 MHz	780.000 MHz
18	757.300 MHz	780.300 MHz
19	757.600 MHz	780.600 MHz
20	757.900 MHz	780.900 MHz
21	758.200 MHz	781.200 MHz
22	758.500 MHz	781.500 MHz
23	758.800 MHz	781.800 MHz
24	759.100 MHz	782.100 MHz
25	759.400 MHz	782.400 MHz
26	759.700 MHz	782.700 MHz
27	760.000 MHz	783.000 MHz
28	760.300 MHz	783.300 MHz
29	760.600 MHz	783.600 MHz
30	760.900 MHz	783.900 MHz
31	761.200 MHz	784.200 MHz
32	761.500 MHz	784.500 MHz

Group B

Channel Number	Receiver A Frequency	Receiver B Frequency
1	763.200 MHz	787.200 MHz
2	763.500 MHz	787.500 MHz
3	763.800 MHz	787.800 MHz
4	764.100 MHz	788.100 MHz
5	764.400 MHz	788.400 MHz
6	764.700 MHz	788.700 MHz
7	765.000 MHz	789.000 MHz
8	765.300 MHz	789.300 MHz
9	765.600 MHz	789.600 MHz
10	765.900 MHz	789.900 MHz
11	766.200 MHz	790.200 MHz
12	766.500 MHz	790.500 MHz
13	766.800 MHz	790.800 MHz
14	767.100 MHz	791.100 MHz
15	767.400 MHz	791.400 MHz
16	767.700 MHz	791.700 MHz
17	768.000 MHz	792.000 MHz
18	768.300 MHz	792.300 MHz
19	768.600 MHz	792.600 MHz
20	768.900 MHz	792.900 MHz
21	769.200 MHz	793.200 MHz
22	769.500 MHz	793.500 MHz
23	769.800 MHz	793.800 MHz
24	770.100 MHz	794.100 MHz
25	770.400 MHz	794.400 MHz
26	770.700 MHz	794.700 MHz
27	771.000 MHz	795.000 MHz
28	771.300 MHz	795.300 MHz
29	771.600 MHz	795.600 MHz
30	771.900 MHz	795.900 MHz
31	772.200 MHz	796.200 MHz
32	772.500 MHz	796.500 MHz

FREQUENCY SCAN GROUPS FOR BAND C & BAND D

Band C

Band C Scan Group 1			Band C Scan Group 2			Band C Scan Group 3		
TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *	
25	(None)	0	25	541.500	1	25	541.500	1
26	542.750		26	542.750		26	542.125	
26	545.500		26	544.375		26	543.500	
26	547.125		26	544.750		26	544.000	
26	547.375	4	26	545.750		26	546.250	4
27	549.750		26	547.500	5	27	548.250	
27	550.375		27	(None)	0	27	549.750	2
27	550.625	3	28	554.250		28	555.750	
28	557.250		28	556.125		28	556.625	
28	557.500		28	557.500		28	558.250	
28	559.250		28	559.375	4	28	559.375	4
28	559.500	4	29	560.000		29	560.125	
29	562.000		29	561.875		29	561.500	
29	563.375		29	562.250		29	564.000	
29	563.625	3	29	563.250		29	564.250	4
30	566.000		29	565.500	5	30	566.125	1
30	566.250	2	30	566.000	1			

Band D

Band D Scan Group 1			Band D Scan Group 2			Band D Scan Group 3		
TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *	
44	655.500	1	44	655.875	1	44	655.500	
45	658.000		45	656.250		44	655.750	2
45	658.375		45	658.500		45	656.625	
45	659.250		45	659.750		45	658.500	
45	659.500		45	660.000		45	658.750	
45	661.500	5	45	660.500	5	45	659.500	4
46	662.375		46	664.375		46	662.750	
46	662.750	2	46	665.500	2	46	665.250	2
47	669.625		47	671.625		47	671.250	
47	671.750	2	47	672.000	2	47	672.375	
48	674.750		48	674.000		47	673.125	3
48	675.750		48	674.500		48	674.125	
48	676.125		48	675.750		48	674.500	
48	678.000		48	676.750		48	675.375	
48	678.250		48	678.250	5	48	678.625	
48	679.500	6	49	680.250	1	48	679.125	5
49	(None)	0	49	(None)	0			

* Number of wireless frequencies in TV Channel.

US UHF WIRELESS OPERATING FREQUENCIES

TV ch.	Band C: 541.500 - 566.375 MHz							
25	–	–	–	–	541.500	541.625	541.750	541.875
26	542.000	542.125	542.250	542.375	542.500	542.625	542.750	542.875
26	543.000	543.125	543.250	543.375	543.500	543.625	543.750	543.875
26	544.000	544.125	544.250	544.375	544.500	544.625	544.750	544.875
26	545.000	545.125	545.250	545.375	545.500	545.625	545.750	545.875
26	546.000	546.125	546.250	546.375	546.500	546.625	546.750	546.875
26	547.000	547.125	547.250	547.375	547.500	547.625	547.750	547.875
27	548.000	548.125	548.250	548.375	548.500	548.625	548.750	548.875
27	549.000	549.125	549.250	549.375	549.500	549.625	549.750	549.875
27	550.000	550.125	550.250	550.375	550.500	550.625	550.750	550.875
27	551.000	551.125	551.250	551.375	551.500	551.625	551.750	551.875
27	552.000	552.125	552.250	552.375	552.500	552.625	552.750	552.875
27	553.000	553.125	553.250	553.375	553.500	553.625	553.750	553.875
28	554.000	554.125	554.250	554.375	554.500	554.625	554.750	554.875
28	555.000	555.125	555.250	555.375	555.500	555.625	555.750	555.875
28	556.000	556.125	556.250	556.375	556.500	556.625	556.750	556.875
28	557.000	557.125	557.250	557.375	557.500	557.625	557.750	557.875
28	558.000	558.125	558.250	558.375	558.500	558.625	558.750	558.875
28	559.000	559.125	559.250	559.375	559.500	559.625	559.750	559.875
29	560.000	560.125	560.250	560.375	560.500	560.625	560.750	560.875
29	561.000	561.125	561.250	561.375	561.500	561.625	561.750	561.875
29	562.000	562.125	562.250	562.375	562.500	562.625	562.750	562.875
29	563.000	563.125	563.250	563.375	563.500	563.625	563.750	563.875
29	564.000	564.125	564.250	564.375	564.500	564.625	564.750	564.875
29	565.000	565.125	565.250	565.375	565.500	565.625	565.750	565.875
30	566.000	566.125	566.250	566.375	–	–	–	–

Avoid using same frequencies as TV channels or other radio signals for better performance.

TV ch.	Band D: 655.500 - 680.375 MHz							
44	–	–	–	–	655.500	655.625	655.750	655.875
45	656.000	656.125	656.250	656.375	656.500	656.625	656.750	656.875
45	657.000	657.125	657.250	657.375	657.500	657.625	657.750	657.875
45	658.000	658.125	658.250	658.375	658.500	658.625	658.750	658.875
45	659.000	659.125	659.250	659.375	659.500	659.625	659.750	659.875
45	660.000	660.125	660.250	660.375	660.500	660.625	660.750	660.875
45	661.000	661.125	661.250	661.375	661.500	661.625	661.750	661.875
46	662.000	662.125	662.250	662.375	662.500	662.625	662.750	662.875
46	663.000	663.125	663.250	663.375	663.500	663.625	663.750	663.875
46	664.000	664.125	664.250	664.375	664.500	664.625	664.750	664.875
46	665.000	665.125	665.250	665.375	665.500	665.625	665.750	665.875
46	666.000	666.125	666.250	666.375	666.500	666.625	666.750	666.875
46	667.000	667.125	667.250	667.375	667.500	667.625	667.750	667.875
47	668.000	668.125	668.250	668.375	668.500	668.625	668.750	668.875
47	669.000	669.125	669.250	669.375	669.500	669.625	669.750	669.875
47	670.000	670.125	670.250	670.375	670.500	670.625	670.750	670.875
47	671.000	671.125	671.250	671.375	671.500	671.625	671.750	671.875
47	672.000	672.125	672.250	672.375	672.500	672.625	672.750	672.875
47	673.000	673.125	673.250	673.375	673.500	673.625	673.750	673.875
48	674.000	674.125	674.250	674.375	674.500	674.625	674.750	674.875
48	675.000	675.125	675.250	675.375	675.500	675.625	675.750	675.875
48	676.000	676.125	676.250	676.375	676.500	676.625	676.750	676.875
48	677.000	677.125	677.250	677.375	677.500	677.625	677.750	677.875
48	678.000	678.125	678.250	678.375	678.500	678.625	678.750	678.875
48	679.000	679.125	679.250	679.375	679.500	679.625	679.750	679.875
49	680.000	680.125	680.250	680.375	–	–	–	–

Avoid using same frequencies as TV channels or other radio signals for better performance.

TROUBLESHOOTING

1. SYMPTOM: RECEIVER HAS NO POWER.

If you press the power button on the receiver for more than 5 seconds, you may use the wrong DC adaptor. There are two types of adaptor; AC adaptor and DC adaptor.

2. SYMPTOM: NO SOUND

Before there was sound coming from the speaker, but now there is no sound. Please check your cable connection or your battery.

When you change a new battery, but there is still no sound, the battery may be placed in a wrong position inside the transmitter. Check the battery position.

3. SYMPTOM: NOISE AND INTERFERENCE

If you connect the receiver audio out to the mixer for more than 10 feet, we recommend you changing it to a balanced cable (XLR to XLR). It would reduce the noises. It is also possible that you may use a wrong adaptor. The receiver adaptor is in DC 14~16 and 480mA. The charger for the DC power is 9V~15V with a maximum battery capacity of 1800mA.

If you hear some noises from your speaker, but the microphone is off, it means that two same frequencies are being used within 200 feet. Therefore, we recommend you changing to a different frequency.

When the hand-held microphone is off, the RF should not brink to the maximum level in your receiver.

4. SYMPTOM: POOR SIGNAL

Your receiver antenna is not connected properly. Therefore, we recommend you extending the antennae to its maximum length.

Receiver is placed in the portable rack. When receiver and transmitter are placed in different rooms made of concrete wall. This would cause poor signal.

Your audio equipment is close to the police, fire or radio stations. In this case, you need to change to a different frequency. The first step is to change to a different frequency in the receiver. Then, change to a different frequency in the transmitter.

5. SYMPTOM: THE FREQUENCY OF THE HAND-HELD TRANSMITTER IS DIFFERENT FROM THAT OF THE RECEIVER.

The frequency of the hand-held transmitter (microphone) is different from that of the receiver. It is because you may match the hand-held transmitter with the wrong receiver. For example, the transmitter A must match with Receiver A. If the transmitter A matches with Receiver B, it would have different frequency. Please refer to "How to Change Hand-Held Transmitter Settings" on page 14.

6. SYMPTOM: THE SPEAKER HAS DA..... NOISE.

If you use the wrong DC adaptor, the speaker would produce the Da..... noise. This system has two different DC adaptors: one for the receiver and the other one for charger base.

It is also possible that the audio cable has poor quality. Therefore, you may need to use another cable of higher quality.

When your receiver is on and both microphone receivers are off, there are still noises from the speakers, it is possible that the receiver picks up the same frequency of other source within 200 feet. You may need to change to another frequency. This wireless system has a total of 64 different UHF frequencies.

7. SYMPTOM: HAND-HELD MICROPHONE CANNOT BE TURNED ON.

When you push the power button of the hand-held microphone for more than 3 seconds, the microphone is still not on yet. There are several possibilities.

- You may place the batteries at the wrong polars.
- The batteries are very low.
- The batteries are dead and cannot be rechargeable.

Therefore, you need to change to new batteries and make sure that the batteries are fully charged.

8. SYMPTOM: BATTERIES CANNOT BE RECHAGEABLE.

It is possible that the batteries are placed at the wrong polars. Please refer to "How to Insert Hand-Held Transmitter's Batteries" on page 12.

The batteries are dead. Then, you need to change to a new battery. Charge the new battery for at least 5 hours. Do not charge it for over 24 hours.

WARRANTY

One-Year Limited Warranty for Home Use Equipment

Our one-year warranty applies to speakers, amplifiers, mixers and microphones for home use only. It covers both parts and labors. The warranty becomes effective from the date of your purchase for one year.

Our warranty only covers defects due to product defectiveness with free of defects in materials or workmanship. However, our warranty does not cover defects due to normal wears, damage in transit, improper use, abuse or failure to follow the proper instructions for maintenance. This warranty is void in the event of unauthorized repairs, alternations, modifications and removing of the product label.

Please also note that our warranty does not cover any shipping cost for the return of defective products to us for inspection, repair and maintenance. Our warranty for Better Music Builder products can only be executed in North America.

NOTE ▶ Our warranty does not cover the battery for wireless microphone products.

90-Day Limited Warranty for Public and Commercial Use Equipment

Our 90-day warranty applies to speakers, amplifiers, mixers and microphones for both public and commercial use such as restaurant, coffee shop, KTV nightclub, church and school, etc. It covers both parts and labors. The warranty becomes effective from the date of your purchase for 90 days.

To Register Your Warranty

Please fill out the warranty card that came with your unit, download or submit online warranty form. However, we need the invoice for your purchase in order to process this warranty. You may also register your warranty online.

Please visit our website at www.bettermusicbuilder.com.

PRECAUTION

1. If you want to use more than one of this system, please select the work frequency (or signal channel) carefully so as to avoid disturbing.
2. The input power voltage of the receiver is 120V ($\pm 10\%$). If it is too low or too high, it will affect the work of the machine.
3. When you install the battery, you must not reverse the electrode or you will damage the machine.
4. When using the sensitivity solution function, the numerical value you select must be at least 15dB. Otherwise, if the distance is too far, its signal-to noise ratio goes worse.



Caution: To reduce the risk of electrical shock, do not remove the cover (or back). No user serviceable parts inside: refer servicing to qualified personnel.

Warning: To reduce the risk of fire or electrical shock, do not expose this appliance to rain or moisture.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.

Better Music Builder is a leader in the Audio and Karaoke equipment industry. We are committed to offering you the high quality audio product.

We may update our manual, so we highly recommend you to download the free update from our website www.BetterMusicBuilder.com.



Passionate about Music
www.BetterMusicBuilder.com