Better Music Builder®.com



Professional UHF Wireless Microphone System

VM-62U Beta

Operating Instructions





2-in-1 Base Module ***1 Receive Module with 2 Wireless Microphones System

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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The Better Music Builder VM-62U Beta is a Second Generation UHF Dual-Channel Microphone System that uses the latest technologies and engineering. Its light-weight design features two handheld microphones with one 2-in-1 Base Module, Clear Voice Technology, and Auto Sync System.

Clear Voice Technology is featured on all the latest Better Music Builder Wireless Microphone Systems. It enhances the sound of the vocal by detecting and eliminating artifact noises, thus creating crystal clear sound. The result is a sound closer resembles that of a wired microphone. What you get is a cleaner and clearer sound at all audio levels.

The built-in Auto Sync System makes setting up frequencies a breeze. Using the technology, there is no need to adjust the microphone frequency manually. It automatically syncs with a touch of the button to create a complete interference free and crystal clear microphone system.

Better Music Builder is simply the best solution for home and professional karaoke performance!



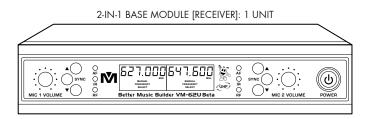
SYSTEM FEATURES

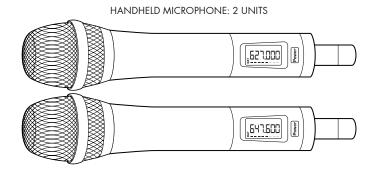
- UHF Dual-Channel in a 2-in-1 Base Module.
- Utilizing the latest wireless technologies and engineering.
- Clear LCD Screen displays Frequency and Channel.
- Clear Voice Technology delivers crystal clear sound.
- Auto Sync System makes microphone syncing a breeze.
- 80 Selectable Channels.
- 8 hours of battery life.
- AA batteries for easy usage.
- Light-weight design for portability.
- Adjustable antennas for better signal receiving.
- Rack Mountable.

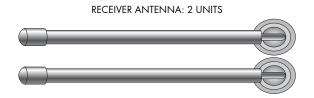


PACKAGE ACCESSORIES

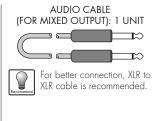
The package comes with (1) 2-in-1 Base Module [Receiver], (2) handheld microphones, (2) receiver antennas, (1) DC power adapter, (1) unbalanced audio 1/4" cable, and (4) AA batteries.

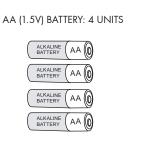








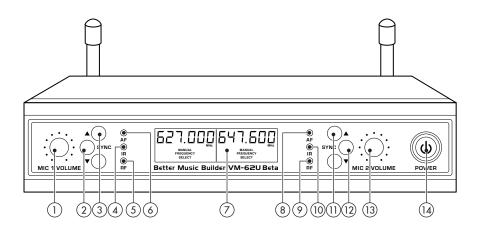






2-in-1 BASE MODULE [RECEIVER]

CONTROLS AND FUNCTIONS

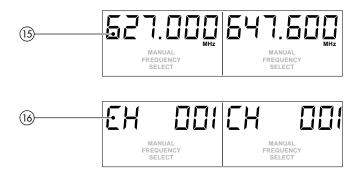


FRONT PANEL:

- 1. MIC 1 VOLUME CONTROL: Controls Microphone 1 volume.
- 2. MIC 1 SYNC BUTTON: Automatically matches the microphone's frequency to the receiver's frequency.
- 3. MIC 1 SELECTOR BUTTONS (UP/DOWN): Adjusts of frequency/channel for Microphone 1.
- 4. MIC 1 IR PORT: Infrared port for the Wireless Infrared Auto Sync System.
- 5. RADIO FREQUENCY: Strength indicator of radio signal.
- 6. AUDIO FREQUENCY: Strength indicator of incoming audio signal.
- 7. LCD SCREEN: Displays system status.
- 8. AUDIO FREQUENCY: Strength indicator of incoming audio signal.
- 9. RADIO FREQUENCY: Strength indicator of radio signal.
- 10. MIC 2 IR PORT: Infrared port for the Wireless Infrared Auto Sync System.
- 11. MIC 2 SELECTOR BUTTONS (UP/DOWN): Adjusts of frequency/channel for Microphone 2.
- 12. MIC 2 SYNC BUTTON: Automatically matches the microphone's frequency to the receiver's frequency.
- 13. MIC 2 VOLUME CONTROL: Controls Microphone 2 volume.
- 14. POWER BUTTON: Turns the system on/off.

LCD PANEL:

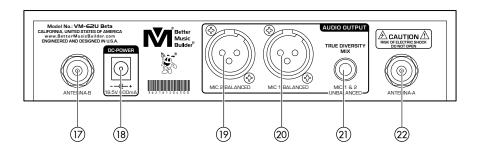
After turning on the "POWER", LCD screen will display the following:



15. FREQUENCY: Displays current frequency.

16. CHANNEL: Displays current channel.

REAR PANEL:



- 17. ANTENNA-B: Connect the antenna to the BNC socket.
- 18. POWER SUPPLY: For power adapter with DC18.5V 600mA.
- 19. MIC 2 BALANCED OUTPUT: Balanced XLR audio output.
- 20. MIC 1 BALANCED OUTPUT: Balanced XLR audio output.
- 21. MIXED OUTPUT: Unbalanced 1/4" audio output for MIC 1 & MIC 2.
- 22. ANTENNA-A: Connect the antenna to the BNC socket.



AUDIO OUTPUT CONNECTION:

There are three rear audio outputs as shown in the below diagram:

1. Mic 2 Balanced Output

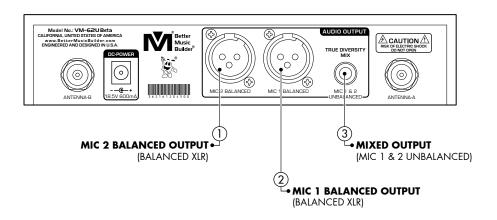
Mic 2 Balanced Output is balanced audio output for MIC 2 using XLR connection. MIC 2 effects can be controlled without affecting MIC 1 effects.

2. Mic 1 Balanced Output

Mic 1 Balanced Output is balanced audio output for MIC 1 using XLR connection. MIC 1 effects can be controlled without affecting MIC 2 effects.

3. Mic 1 & 2 unbalanced Output

Unbalanced audio output for MIC 1 & MIC 2 using 1/4" connection. MIC 1 and MIC 2 shares a single signal. To produce different effects on two microphones, MIC 1 and MIC 2 need independent signals using separate XLR connections.



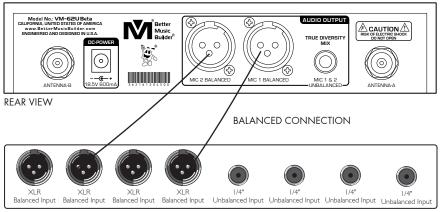


We recommend using balanced XLR connections if the distance between the microphone receiver and the mixer is more than 10 feet. The grounding of the balanced XLR connection delivers better quality signal by reducing noise.

UHF WIRELESS SYSTEM DIAGRAM:

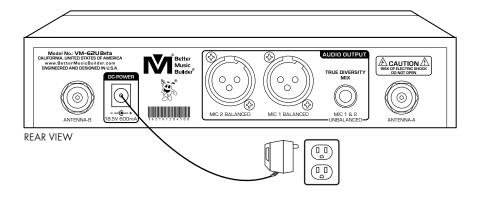






MIXER AMPLIFIER OR KARAOKE UNIT INPUT TERMINAL

CONNECTING POWER ADAPTER:



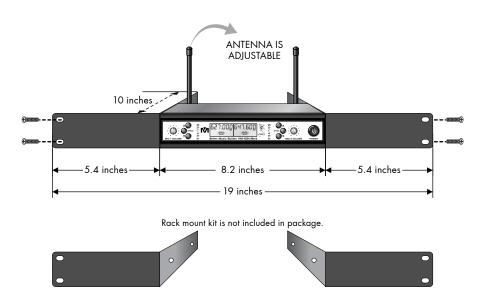
For North America, use 120V, DC 18.5V 600mA power adapter. For Asia or Europe, use 220V \sim 240V DC power adapter with a maximum battery capacity of 600mA.

NOTE Please make sure to use the correct DC power adaptor. Otherwise, it may damage the 2-in-1 Base Module and/or the charger because their maximum battery capacity is different. The warranty will be voided if product is damaged using the wrong DC power adapter.

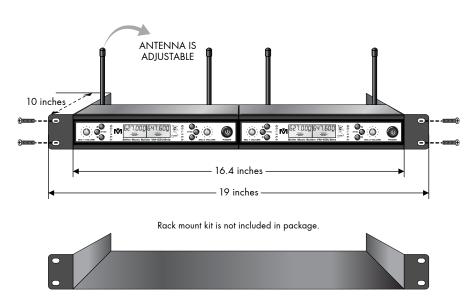
OPTIONAL 19" RACK MOUNT KIT:

To put the system onto one of the mount kits, please follow the diagram below.

Single Receiver Rack Mount Kit

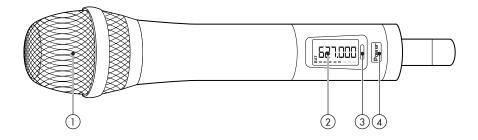


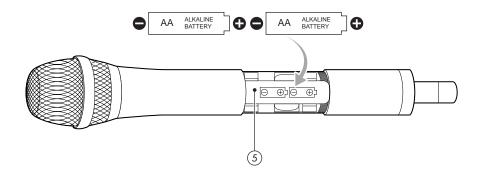
Dual Receiver Rack Mount Kit





CONTROLS AND FUNCTIONS





- 1. INTERCHANGEABLE MICROPHONE HEAD
- 2. LCD DIGITAL DISPLAY: Displays frequency and battery status.
- 3. IR PORT: Infrared port for the Wireless Infrared Auto Sync System.
- 4. POWER BUTTON
- **5. BATTERY COMPARTMENT:** Insert 2x1.5V AA battery or 2x1.2V rechargeable AA battery.

LCD PANEL:

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



- 1. FREQUENCY: Current value depends on setting.
- 2. BATTERY STATUS: Indicates battery life.

BATTERY STATUS:

Full Battery

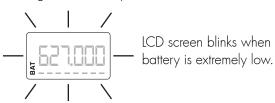


Indicates full battery on the microphone. A full battery lasts up to 8 hours.

Low Battery



Indicates low battery on the microphone. When the microphone LCD screen is blinking, it's time to replace the batteries.



NOTE Batteries are not covered under our product warranty.



SELECTING FREQUENCY/CHANNEL FOR THE RECEIVER

The 2-in-1 Base Module comes with two handheld microphones and each microphone is preset with 40 frequency channels.

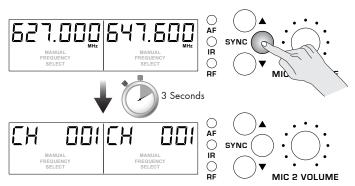
1. MANUAL FREQUENCY SELECT

Press "UP ▲ or DOWN ▼" to select the desired frequency.

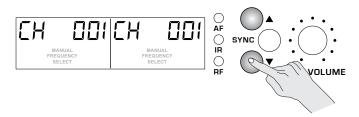


2. MANUAL CHANNEL SELECT

STEP 1: If the screen is on frequency display, press and hold "SYNC" for 3 seconds until channel displays.

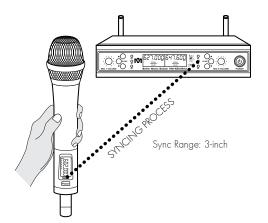


STEP 2: Press "UP \blacktriangle or DOWN \blacktriangledown " to select the desired channel.



SYNCING RECEIVER'S FREQUENCY WITH MICROPHONE

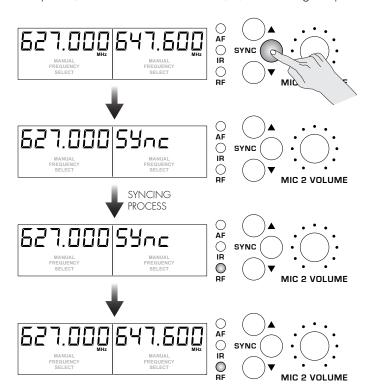
STEP 1: The microphone infrared port (IR) directly at the receiver IR PORT.



NOTE Please make sure that the other handheld microphone is powered off when adjusting the frequency on one microphone.

Each unit is fully tested and qualified by the manufacturer. However, due to the nature of wireless connection, interference may occur because of local environments and/or radio signals emitted by other wireless devices within the household.

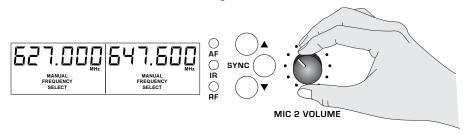
STEP 2: Press "SYNC" once, to begin syncing process. Once syncing is completed, the RADIO FREQUENCY (RF) indicator lights up.



ADJUSTING MICROPHONE VOLUME

VOLUME CONTROL:

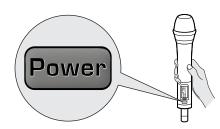
Turn left to decrease the volume and right to increase the volume.





We recommend setting the microphone volume to a medium level, then control the overall volume from the amplifier/mixer.

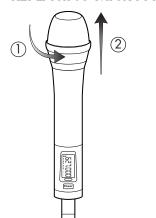
TURNING ON/OFF MICROPHONE



Press the POWER BUTTON to turn ON/OFF the microphone. The POWER BUTTON lights up when the microphone is ON.

NOTE If the microphone cannot turn on, please check the battery. It may be low, defective or near expiration date. Typical new full battery life is 8 hours with our system.

REPLACING MICROPHONE HEAD



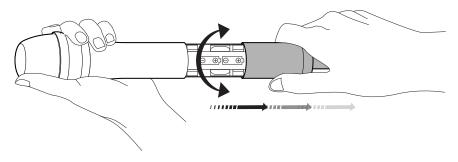


NOTE

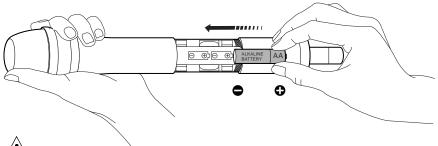
Replacement parts (such as the microphone head as shown on the left) can be purchased from authorized dealers.

REPLACING BATTERIES

STEP 1: Twist open battery cover.



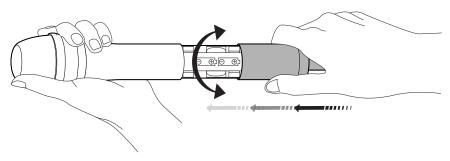
STEP 2: Use one hand to hold onto the top of the microphone and the other hand slide two AA batteries into battery compartment.



Make sure to follow the polarity of the battery according to the diagram on battery compartment.



STEP 3: Twist back battery cover.



TECHNICAL SPECIFICATIONS

A. TECHNICAL FEATURE OF THE SYSTEM:

• Channel: 40 Channels (Total 80 Channels)

• Frequency Range: UHF 627.000~667.000 MHz

• Frequency Preparation: PLL

Mode: FM

• AF Response: 80~15kHz (+/-3dB)

• Distortion: ≤0.3%

• Operating Temperature Range: -10°C~40°C

• Package Dimensions (WxHxD): $17 \times 13.2 \times 2.6$ in $/43 \times 33.5 \times 6.5$ cm

Shipping Weight: 4.6 lbs / 2.1 kg

B. TECHNICAL FEATURE OF THE 2-IN-1 BASE MODULE (Receiver):

• Sensitivity: < -105dBpV (12dB S/N)

• Image Rejection: >70dB

• Audio Output Level:

• XLR Connector: -13dBm/600 Ω • 1/4" Connector: -2dBm/300 Ω

• Audio Output: 2 x XLR Port

 Power Supply: DC 12V~18V with 600mA, AC 120V (For 220V, change to a 220V~240V DC power adapter)

• Receiver Dimensions (WxHxD): $8.2 \times 1.7 \times 6$ in $/ 20.8 \times 4.3 \times 15$ cm

Net Weight: 1.6 lbs / 0.7 kg

C. TECHNICAL FEATURE OF THE MICROPHONE:

• RF Output: 11mW (10mW~30mW)

• Spurious Rejection: <-60dBc

Battery Voltage: 2 x AA 1.5V Alkaline Battery
Battery Life: 8 Hours (GP) 2 x AA 1.5V Battery

 \bullet Microphone Height & Circumference: 10.3 & 2.2 in / 26.2 & 5.5 cm

• Net Weight: 0.6 lbs / 0.3 kg (each with two AA batteries)

D. THIS SYSTEM INCLUDES THE FOLLOWING:

• 2-in-1 Base Module [Receiver]: 1 Set

• Handheld Microphone: 2 Sets

DC Power Adapter: 1 Unit1/4" Audio Cable: 1 Unit

• Receiver Antenna: 2 Units

• AA 1.5V Battery: 4 Units

• Instructional Manual: 1 Unit

Warranty & Registration Card: 1 Unit



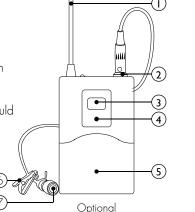
BODY-PACK MICROPHONE SYSTEM (Optional)

CONTROLS & FUNCTIONS:

Body-Pack Microphone System (including Lavalier Mic. and Headset Mic.)

FRONT VIEW

- 1 Antenna
- 2. 4-pin Microphone Input Jack
- 3. LCD Digital Display
- 4. IR Port: Receives infrared beam to synchronize frequencies. IR when using multiple systems, only one microphone port should be exposed at a time
- 5. Battery Cover
- 6. Tie-Clip
- 7. Microphone Extension Jack

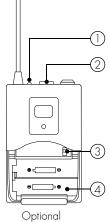




SIDE VIEW

INSIDE VIEW

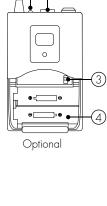
- 1. Power/Mute indicator
 - Green: Ready
 - Amber: Mute Open
 - Flashing Red: IR is transmission in process
 - Glowing Red: Low battery power
 - Pulsing Red: Battery dead (microphone cannot be turned off until batteries are changed)
- 2. Power ON/OFF/MUTE Button: Press and hold the microphone for 3 seconds to turn power ON/OFF. Press and release to mute or un-mute the microphone.
- 3. Adjustment switch
- 4. Battery compartment





TOP VIEW

- Antenna lack
- 2. Power/Mute indicator
- 3. Power Switch
- 4. Microphone Input Jack





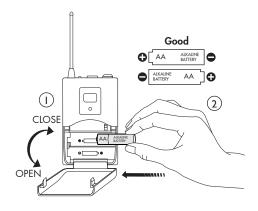
Optional

REPLACING BODY-PACK BATTERIES

STEP 1: Open battery cover.

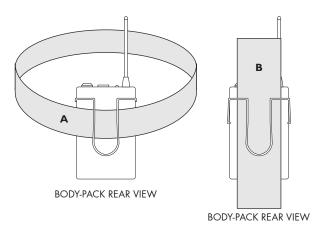
STEP 2: Insert 2 AA batteries. 2 alkaline batteries are expected to last 8 hours.

Make sure to insert batteries correctly according to diagram. When the microphone body-pack light glows red, the batteries should be replaced immediately.



WEARING BODY-PACK

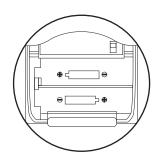
The Body-Pack can be buckled to the belt or the guitar band.



GAIN ADJUSTMENT

Three gain settings are available. Choose the appropriate setting for your instrument.

- MIC: for the microphone adjustment
- 0: Guitar with passive pickups
- -10: Guitar with active pickups





(AUTION: Before troubleshooting any symptoms make sure all devices are powered off.

1. SYMPTOM: NO SOUND COMING FROM MICROPHONE

A. CAUSE: There is no signal.

REMEDY: • Check if batteries are inserted correctly.

- If batteries are inserted correctly but still no power, insert new batteries.
- Make sure the microphone and receiver are using the same frequency.
- The volume may be turned to a low level.

B. CAUSE: The receiver is unpowered.

REMEDY: Make sure the power adapter is connected properly and there is power coming from the power outlet.

C. CAUSE: There is no AF signal.

REMEDY: Turn off the receiver and make sure it is properly connected to the mixer or amplifier. If it is, slowly turn the volume higher.

D. CAUSE: There is no indication of RF signal.

REMEDY: There may be interference so change to different channels. Adjust the antenna of the receiver and/or remove objects between receiver and microphone.

2. SYMPTOM: NOISE COMING FROM MICROPHONE

CAUSE: There is interference in the area.

REMEDY: • Change the frequency on the microphone and receiver.

- Stand further away from speakers.
- Check the amplifier status and adjust microphone and music volumes.

3. SYMPTOM: THE MICROPHONE SUDDENLY HAS NO SOUND AND THE RECEIVER LCD IS OFF.

REMEDY: Make sure the DC power adapter is properly connected to the receiver and securely plugged into the electrical outlet. Make sure the AC electrical outlet works and supplies the proper voltage.

4. SYMPTOM: THE MICROPHONE SUDDENLY HAS NO SOUND BUT THE RECEIVER SHOWS RF SIGNAL.

CAUSE: The microphone wire is damaged or disconnected.

REMEDY: Open the microphone head cover to check the wire and reconnect

the wire. If it does not work, replace the microphone head.

5. SYMPTOM: THE MICROPHONE DISTORTION LEVEL IS INCREASING GRADUALLY.

CAUSE: The microphone batteries are running out.

REMEDY: Replace the microphone batteries.

6. SYMPTOM: POOR SIGNAL

When the 2-in-1 Base Module and microphone are placed in different rooms seperated by a wall, this would cause poor signal.

Your audio equipment is close to the police, fire or radio stations. In this case, a different frequency MUST be selected.

7. SYMPTOM: THE FREQUENCY OF THE MICROPHONE IS DIFFERENT FROM THE RECEIVER.

The microphone's frequency must match with receiver's frequency.



VM-62U Beta FCC FREQUENCY: 627.000~667.000 MHz

UHF Frequencies Available for Use for Home Electronics in North America

The radio frequencies used in the transmission of wireless information are closely regulated in most countries including North America. A lot of countries strictly enforce their regulations stating which frequencies are available for use for certain device, so it can help limit the amount of radio frequency interference in all wireless communications.

Please refer to the following table for MIC 1 and MIC 2 frequencies. If the frequencies indicated in the following table are in conflicts with the local wireless information law, please switch to a different product model.

FCC Information to User for Reference

This equipment is designed in compliance with the limits for a Class A digital device pursuant to part 15 of the FCC Rules from the United States of America. These limits are designed to provide protection against harmful interference when the equipment is operated in public environment. This equipment generates, uses, and can radiates radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, and users will have to correct the interference at their own expense.

VM-62U Beta FREQUENCY: 627.000~667.000 MHz

MIC 1 FREQUENCY 627.000-647.000 MHz			MIC 2 FREQUENCY 647.600-667.000 MHz				
СН	FREQUENCY	СН	FREQUENCY	СН	FREQUENCY	СН	FREQUENCY
1	627.000	21	637.000	1	647.600	21	657.600
2	627.500	22	637.500	2	648.000	22	658.000
3	628.000	23	638.000	3	648.500	23	658.500
4	628.500	24	638.500	4	649.000	24	659.000
5	629.000	25	639.500	5	649.500	25	659.600
6	629.500	26	640.000	6	650.000	26	660.000
7	630.000	27	640.500	7	650.500	27	660.600
8	630.500	28	641.000	8	651.000	28	661.000
9	631.000	29	641.500	9	651.500	29	661.500
10	631.500	30	642.000	10	652.000	30	662.000
11	632.000	31	642.500	11	652.500	31	662.500
12	632.500	32	643.000	12	653.000	32	663.000
13	633.000	33	643.500	13	653.500	33	663.400
14	633.500	34	644.000	14	654.000	34	664.000
15	634.000	35	644.500	15	654.500	35	664.500
16	634.500	36	644.900	16	655.000	36	665.000
17	635.000	37	645.500	17	655.500	37	665.500
18	635.500	38	646.000	18	656.000	38	666.000
19	636.000	39	646.500	19	656.500	39	666.400
20	636.500	40	647.000	20	657.000	40	667.000



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 on the date of purchase.

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 on the date of purchase.

To Register Your Warranty

Please submit the warranty card that comes with your unit. You may also register your warranty online. Please visit our website at www.BetterMusicBuilder.com.

PRECAUTION

- 1. If using more than one microphone system, please select operating frequencies carefully to avoid interference.
- 2. The input power voltage of the 2-in-1 Base Module is 110V/120V ($\pm 10\%$). If it is too low or too high, it will affect the work of the machine.
- 3. When installing batteries, reversing the electrode will damage the machine.



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.

MAILING ADDRESS



BETTER MUSIC BUILDER 29300 Kohoutek Way #150 Union City, CA 94587 U.S.A.

TELEPHONE NUMBERS



USA Region
USA Toll Free: 1-800-318-2218
Sales & Marketing: 510-477-9955
Customer Service: 510-477-9955

FAX NUMBERS



USA Region Sales & Marketing: 510-477-9922 Customer Service: 510-477-9922

WORLD WIDE WEB



E-mail: sales@bettermusicbuilder.com Website: www.bettermusicbuilder.com

MAINTENANCE

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MAINTENANCE

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Better Music Builder® is a leader in the Audio and Karaoke equipment industry. We are committed to offering you high quality audio products. Unlike any others brand, we deliver the best cost and value to you directly. For the latest update information including operation manuals, installation instructions, hook-up diagram and other new technologies updates etc. please visit us at our website www.BetterMusicBuilder.com.





Passionate about Music www.BetterMusicBuilder.com



Code: 20170302