



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.



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OWNER'S 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. Unlike any others brand, we deliver the best cost and value to you directly. We may update our manual on short notice, so we highly recommend downloading the latest update information including operation manuals, installation instruction, and other new technologies updates, etc. from our website www.BetterMusicBuilder.com.

CPU Integrated Mixing Amplifier

DX-222 G2

DX-288 G2

G2 SERIESGeneration 2





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www.BetterMusicBuilder.com

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Based on our observations and borrowing the proven design of Karaoke equipment in Asia, Better Music Builder has been constantly improving and developing state-of-the-art Karaoke technologies to satisfy the specific needs of the consumers in North America. Therefore, we have successfully designed both commercial and home entertainment Karaoke equipment for the North America consumers.

Thank you for choosing Better Music Builder G2-Series CPU Integrated Mixing Amplifier with DSP (Digital Signal Processing) and built-in feedback destroyer. We appreciate your vote of confidence in this innovative product. Our talented engineering team has many years of experience in audio equipment design. Better Music Builder G2-Series are a new line of CPU controlled 3-channel/5-channel mixing amplifiers.

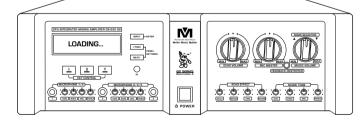
SYSTEM FEATURES

G2-Series is equipped with the following distinguished features:

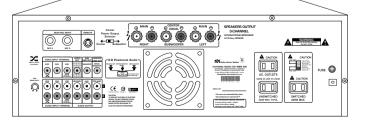
- DSP (Digital Signal Processing) technology customized by Better Music Builder
- 3-D Positional Audio, 900Watt Max Power (available on DX-222 G2)

- 5-D PRO Audio 900Watt Max Power (available on DX-288 G2)
- 3/5 + 1 (subwoofer) audio distributions
- Full reverberation effects with Microphone reverb, echo, delay, and repeat adjustments
- Dedicated 3 channels Power Output plus full array of Line Outputs which includes: record output, line output, pre-output, bass output, center channel output.
- Dedicated wireless microphone connection input in 2 groups. The volume of each group can be adjusted separately, with each group provides +/- 8dB adjustment for treble, median, and bass.
- Independent Master and Microphone maximum volume locking.
- Built-in Subwoofer and Center output stereo crossover with independently adjusted volume and cut-off frequency control from 20 Hz ~ 240 Hz.
- High-performance 24-bit dual-engine Feedback Destroyer.
- Full computerized Smart Auto Input Switching (SAIS) feature for source input selection.
- Music modulation with 9-step key control and preset effects for selection.
- Independently adjusted center speaker control for self vocal monitoring.
- Capable of driving two pairs of main speaker in different size to cover the whole frequency spectrum.
- Three extra AC power outlets for additional equipment, programmable in both 110V and 220V
- Music "Mute" allows the microphone to be active while the music is off.

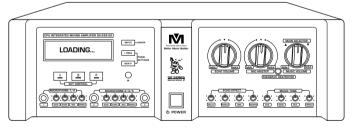
3-D Positional Audio **DX-222 G2** Front View



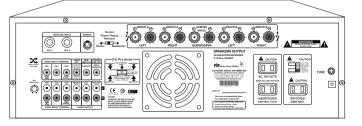
3-D Positional Audio **DX-222 G2** Rear View



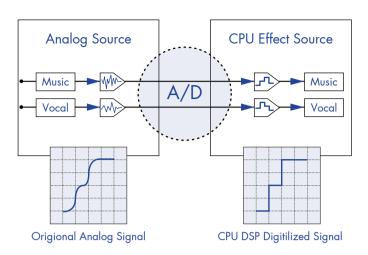
5-D PRO Audio **DX-288 G2** Front View



5-D PRO Audio **DX-288 G2** Rear View



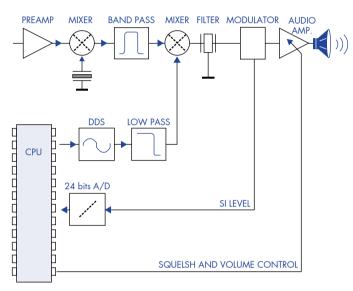
TECHNOLOGIES BEHINDS THE BASIC



The High Performance 24-Bit Multi-Engine CPU Controlled Digital Signal Processor enable unique implementation of new features such as the independent music and microphone sound effects. The computerized DSP processing allows the independent effects setting of the Microphone and Music (bass, treble, middle) as well as the independent mixing of echo effects (delay, repeat, time, reverb). The system also enabled the precise percentage allocation of music and vocal within the Center Channel and/or the Main (left/right) Channels.

With the flexibility of the Digital Signal Processing for effects and control of the vocal and music signal, an independent digital center monitoring features enable the user to self monitor the real "live-sound" effects experienced by the audience. For example, with the live "monitor" feedback setup, a Church user can have the ability to adjusted, on-the-fly, the echo and/or reverb effects to a minimum so as to deliver a crisp and clear speech to the audience; while a live performance singer would make use of the full array of echo/reverb adjustments and the built-in feedback destroyer to create a live concert effects. The live center monitoring features allowing the user to tune the effects "live" base on personal preferences and the structural demands of a church auditorium, lecture halls, etc. With large arena greater than 1000 plus square feet (greater than 1000Watt Power output needed), the G2-Series Generation 2 system can still deliver the same distinguished features with a single Power Amplifier added to the overall setup since it can act as a pre-amplifier and mixer system with all the signal lines available as line outputs. Saving huge amount of equipment cost and personnel expense compare to other systems which need a minimum of a mixer, equalizer, crossover, power amplifier, key control, specialized feedback destroyer system., etc., and of course a highly specialized professional to support and run the whole system.

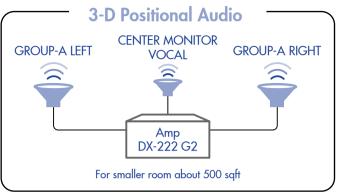
The ease of use of the G2-Series Generation 2 system allows the owner to fully lock their personalized preferences and control settings with just a few user friendly control panel configurations. The independent personal level locking features of the Microphone and Music maximum volume helps protect the damaging of the system and hearing loss. Additional personal favorite settings such as personalized Center Channel Volume control, Center Monitor/Main Channel signal effects distribution management, Subwoofer Cut-off frequency setting brings the full control of a LIVE performance to a whole new level. Extensive use of the built-in Digital Signal Processor (DSP) provide the processing power to execute our latest features: 3-D Positional Audio Technology, 5-D Pro Audio Technology, as well as Feedback Destroyer that is only unique only to the G2-Series.



Better Music Builder team has created the industry first **3-D Positional Audio Technology** (available for DX-222 G2) for small room (within 500 square feet) entertaining. By isolating, channeling, refocusing the vocal and music with advanced CPU based integrated Digital Signal Processing (DSP) Technology to create sounds beyond the stereo basis. These effects include localization of sound sources to restore clarity and definition, bringing a natural live presence to any audio source, truly deliver a fuller, more natural and immersive audio experience - users hear the difference. With rich features like speech enhancement, noise reduction, echo cancellation, noise-dependent volume control, and hearing exposure monitoring offers the most comprehensive, highest quality voice solution currently available on the market.

Prior to 3-D Positional Audio Technology, vocal speech and music are delivered to all channels to the speaker and suppressing the natural tone of the vocal creating a squelchy sounds as if the vocalist's nose is being pinched.

DX-222 G2 MODEL ONLY

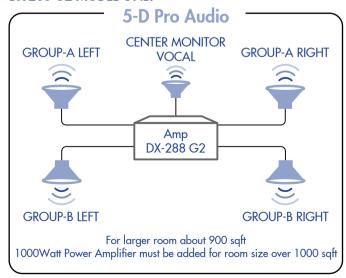


With 3-D Positional Audio Technology, user can actually experience the following effects:

- Music and sound effects are lifelike and realistic
- Sound remains clear at low volume
- Reveals natural depth and detail
- Music is natural and brilliant with rich bass response
- Superior dialog clarity

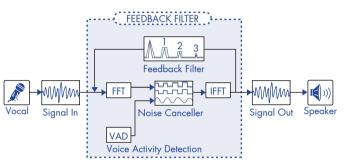
Establish on top of the proven 3-D Positional Audio
Technology is the **5-D PRO Audio Technology** (available on DX-288 G2) for large room (within 900 square feet) entertainment. By incorporating the "spot light" concept into audio technologies, the full range of frequencies response can be brought into a large room to create a "presence" experience that every audience can experience. The technology factors in the echo and reverb generated by the size and shape of the room as well as the materials used in the construction of the room into the Digital Signal Processing equation. The control of feedback can easily be done from the front panel as with the adjustment of vocal and music effects between the center vocal monitor and main speakers.

DX-288 G2 MODEL ONLY

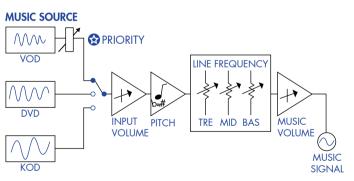


Further extending the surround sound experience for large auditorium experience is the "groups" categorization technology concept. By programming each individual group with the low/mid and/or high range frequency responses with timing delays incorporated, a truly live-sound experience are realized

The Dual Engine **Feedback Destroyer** is making use of the DSP power of the CPU to factor in the overwhelming surge of the system gain and signal amplification caused by the acoustic sound from the microphone (whistle) and other feedback problem. The feedback suppression level can be adjustable by the user and or disabled completely. With the Feedback Destroyer features, the singer and audiences can enjoy the endless entertainment with out the occasional ear piercing sound generated by the unwanted feedbacks.



The exclusive Better Music Builder designed **Smart Auto Input Switching** feature is a special function for commercial use. It helps save KTV owners the time and manpower needed to control and manage the Karaoke system.



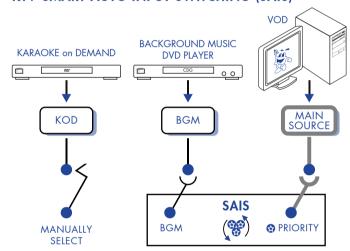
When multiple input source are connected to the system with SAIS activated. The system will scan for the availability of the set priority source (Main terminal). If everything is inactivate (not connected, stopped, or even paused) to the Main terminal, then the system will automatically switch and search for another available active signal (playing mode) source. The priority source will always be active, hence, the system will switch the source back to the Main terminal whenever it is active again, override the current selected source. Other secondary source can only be manually selected and activate when the Main input source is stop and/or deactivated.

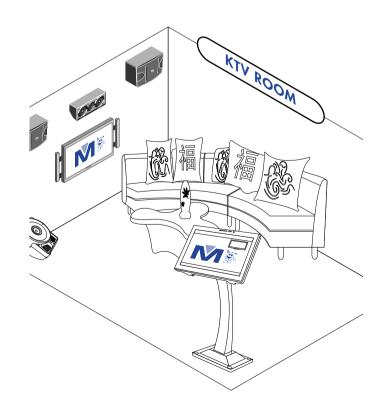
When three terminals (i.e. Main, BGM and Manual) are all operating (i.e. music source is playing) at the same time, the Smart Auto Input Switching would give the Main input terminal the first priority to operate. Even though other sources are manually/remote selected, if Main input terminal has signal, it will automatically switch back to the Main input selection because SAIS is active.

If you want to select BGM or Manual inputs, you MUST stop the Main input source from playing. Then you can select manually between BGM and Manual selections.

This SAIS feature is special designed by Better Music Builder for commercial KTV use.

KTV-SMART AUTO INPUT SWITCHING (SAIS)





SAFETY INSTRUCTIONS

We will not notify you any errors or changes in this manual in advance. If there are any errors and changes in this manual. we will make the corrections in a timely manner. The corrections and changes will be appeared in our website. Therefore, please visit our website www.BetterMusicBuilder.com frequently to find out the most

updated information, corrections on errors and changes in this manual. You may also contact us at toll free at 1-800-318-2218.



CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL

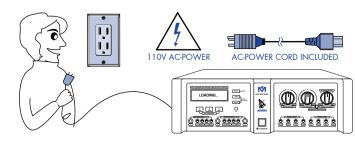
- 1. Read Instructions: All the safety and operation instructions should be read before this product is operated.
- 2. Retain Instructions: The safety and operating instructions should be kept for future reference.
- 3. Warnings: All warnings on this product in these operating instructions should be followed.
- 4. Follow Instructions: All operating and other instructions should be followed carefully.
- 5. Water and Moisture: This product should not be used near water, for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, swamp or salivating St. Bernard dog, etc.
- 6. Cleaning: Clean only with a dry cloth.
- 7. Ventilation: This product should be situated so that its location or position does not interfere with its proper ventilation. For example, the Component should not be placed on a bed, sofa, rug, or similar surface that may block any ventilation openings, or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through ventilation openings.
- 8. Heat: This product should be stayed away from heat sources such as radiators, or other devices producing heat.
- 9. Power Sources: This product should be connected to a power supply only of the type described in these operation instructions or as marked on this product.
- 10. Power Cord Protection: Power supply cords should be routed so that they are not likely to be walked upon or pinched by items placed upon or against them. Please pay particular attention to cords plugs, convenience receptacles, and the point where they exit this product.
- 11. Object and Liquid Entry: Care should be taken so that objects do not fall on, or liquids are not spilled into this product.

- 12. Damage Requiring Service: This product should be serviced only by qualified service personnel when:
- A. The power-supply cord or the plug has been damaaed; or
- B. Objects have fallen, or liquid has spilled into this product: or
- C. This product has been exposed to rain; or
- D. This product does not appear to operate normally or exhibits a marked change in performance; or
- E. This product has been dropped, or its chassis has been damaged.
- 13. Servicing: The user should not attempt to service this product beyond those means described in this operating manual. All other servicing should be referred to the Service Department.
- 14. To prevent electric shock, do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.
- 15. Grounding or Polarization: Precautions should be taken so that the arounding or polarization means of this product is not defeated.
- 16. Power Precaution: Unplug this product during lightning storms or when unused for long periods of time. Note that this product is not completely disconnected from the AC power source when the power switch is in the OFF position.
- 17. This machine does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the US Department of Communications.

AC-POWER SOURCES

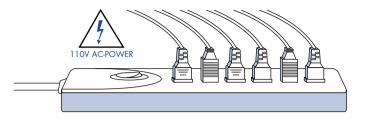
This set should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, or other sources, refer to the operating instructions.

This unit is designed for use with 120V/60Hz AC. If the area where you live have different power source, you may need to use a transformer to convert to 120 Volts AC.



OVFRI OADING

Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.





An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.

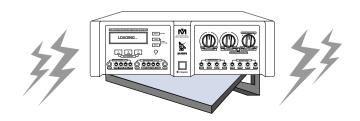
Do not place the electronic equipment onto the unstable table or stand. It is

because it would fall easily from the unstable table or stand, so it may cause accident including personal injuries and damage the equipment. Please follow our instructions to install the equipment, or you may hire a professional technician to handle the installation for safety purpose.

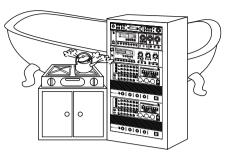
Do not place the set on an unstable cart, stand, tripod, bracket, or table. The set may fall, causing serious injury to a child or an adult and serious damage to the set. Use only a cart stand tripod, bracket, or table recommended by the manufacturer.

For the set with a three-wire grounding type ac plug:

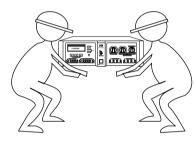
This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.



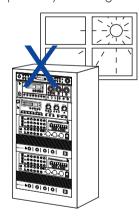
Do not store the electronic equipment near water or grea with moisture such as bathroom, kitchen sink, laundry area and swimming pool, etc.



Do not transport the electronic equipment by yourself if its weight exceeds 70 pounds. It is recommended that two people work together to transport the equipment or by using hand truck and the like.

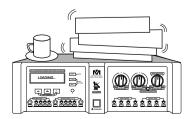


Do not place the electronic equipment directly under sunlight or close to the window. It may cause overheat on the electronic equipment by the sunlight.



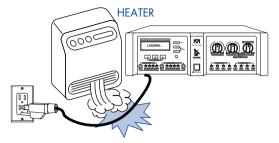
Do not block the openings and vents in the cabinet which is designed for the ventilation of the electronic equipment.

The blocking may cause overheat in the electronic equipment because of insufficient circulation of air, so it would damage the electronic equipment.



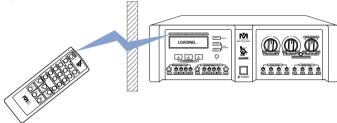
Do not place the electronic equipment near heat sources

such as stoves, radiators and heaters, etc. Placing the electronic equipment too near to these heat sources would result in damaging the equipment and causing fire.



Using the Remote Control Unit

Use the remote control unit by pointing it towards the remote control sensor on the amplifier. Objects between the remote control unit and the remote control sensor may prevent proper operation.



Cautions Regarding the Remote Control Unit

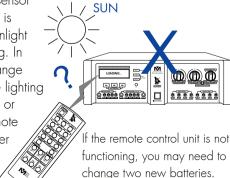
 Do not expose the remote control unit to shock. In addition. do not expose the remote control unit to liquids, and do not place in an area with high humidity.



- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the remote control unit.
- The remote control unit may not work properly if the

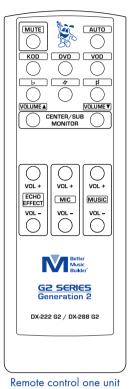
remote control sensor on the amplifier is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the amplifier, or operate the remote control unit closer to the remote control sensor.

8





The Package accessories include a remote control and one AC power cord. All other accessories mentioned in the manual for installation purpose are not included. They are sold separately.



Battery size: AAA (R6 1.5 V)



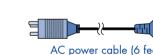
Consumer warranty

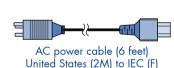
and registration card

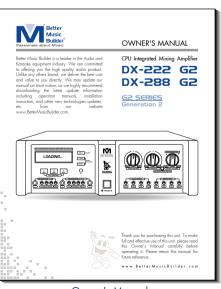
<Mail in U.S.A. only> Consumers from Canada

Software CD Note: For a full content and/or latest updates of our Effect Control Software Suite, please go to our website download area









Owner's Manual

9

SYSTEM CONNECTIONS

CONNECTING THE SPEAKERS How to connect the Center Monitor Speaker

The center monitor speaker is designed for monitoring the singer's voice used in live concert. The G2-Series was design to integrate this concept into the living room, bringing the live vocal sound experience into a single unit. There are two center connections available on the G2-Series: Center (vocal) / Subwoofer powered out dual connectors and Vocal Monitor Center line out. The Center (vocal) / Subwoofer powered out dual connectors are power driven. The Vocal Monitor Center line out is not drivable, signal only.

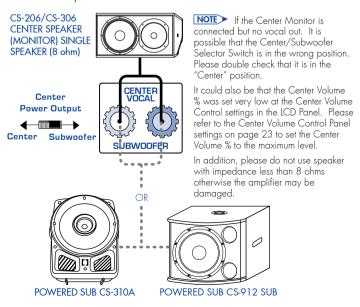
Connecting the two as right: Center Powered Out

Connect to the Center (vocal) / Subwoofer powered out dual connections in the rear panel of the system. Remember, the Center Power Output Selector switch must be switched to the "Center" tab. With this connection, the volume for center powered output are being controlled by the Center Volume ICD Control Panel.

Center Line Out

If more power vocal sound is expected/needed to cover large area such as room size greater than 600 saft., we highly recommend using a Powered Speaker that support the additional 600+ Watt power output or adding an external Power Amplifier stage to support the 600+ Watt power output. With such connection, the G2-Series provides the extra Vocal Monitor Center line out signal specifically for this

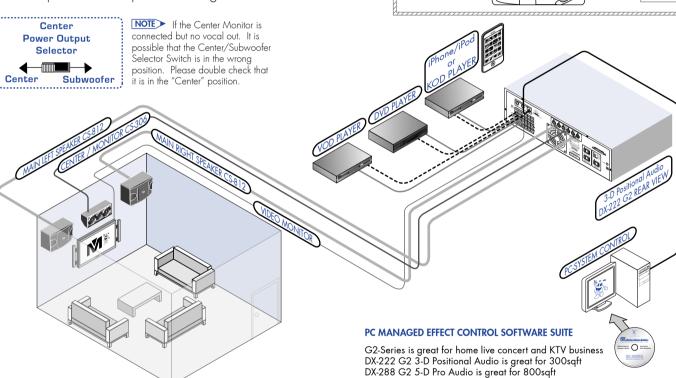
Both the Center (vocal) / Subwoofer powered out and the extra Vocal Monitor Center line out signal volume are controlled by the master Music Volume control.



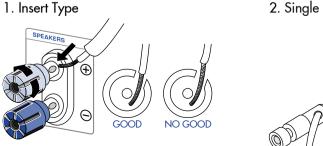
How to connect the Main Speakers of the G2-Series (DX-222 G2)

The G2-Series has two different models. The DX-222 G2 supports the 3-D Positional Audio for small room about the size of 300 sqft. While the DX-288 G2 supports the 5-D Pro Audio Technology which is great for larger room size of 800sqft enterainment. In order to fully achieve the G2-Series design of integrating the concert concept into the living room and bringing the live vocal sound experience into a single unit, please refers to the detailed connection diagrams for both the Main powered speaker out and Center Monitor powered speaker out as well as their effect settings on the LCD control panel sections.

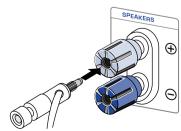
The **DX-222 G2** is capable of only driving two main speakers from the powered output connectors. Working in synchronously with the Center Monitor speaker channel using the 3-D Positional Audio Technology to bring the live vocal sound experience concept into the living room.



METHODS OF SPEAKER CONNECTION



2. Single Banana Plug Type



3. Double Banana Plug Type

Model: DX-222 G2 3-D Positional Audio

SPEAKER

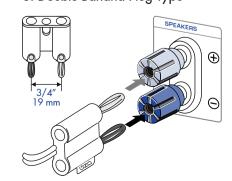
CENTER VOCAL

HD TV

Small Room 300 saft

MAIN

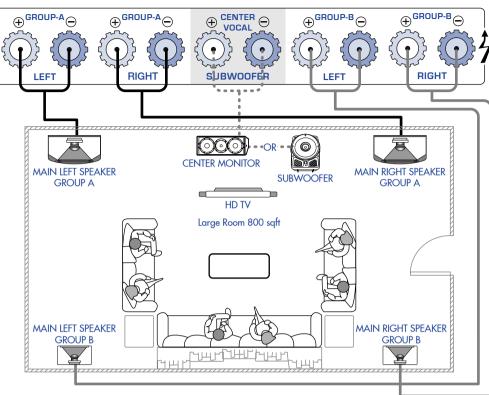
SPEAKER

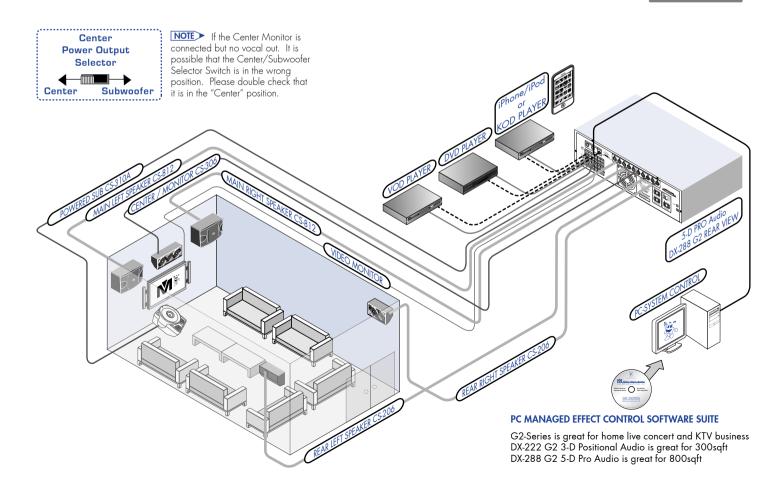


How to connect the Main Speakers of the G2-Series (DX-288 G2)

The **DX-288 G2** is capable of driving four main speakers with the 5-D PRO Audio Technology, which are grouped in Group A and Group B. We recommend you to use different size of speakers for Group A (10-inch woofer or bigger -- CS-600 or CS-812) and Group B (Center Monitor CS-306 or Powered Subwoofer CS-310A). Under this arrangement, Group A speaker can produce greater music output in the high and mid range frequency response while Group B speaker can produce clear vocal response. The mixing of music and vocal is important to produce quality sound for singing. Therefore, the audience can feel different effects from Group A and Group B speakers.

Model: DX-288 G2 5-D PRO Audio





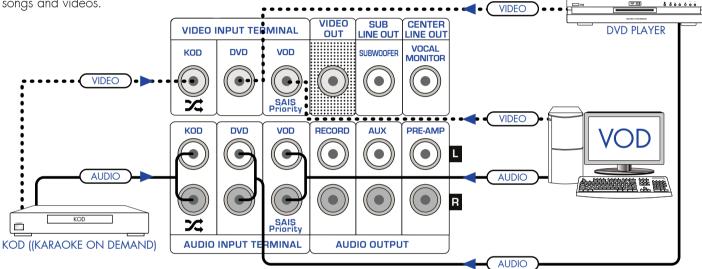
CONNECTING THE AUDIO/VIDEO INPUT SOURCE

Before connecting the source (i.e. DVD, KOD and VOD Karaoke), turn off the power for all machine, so it would protect electric shock and prevent damage to the equipment. To connect the AV source, the first thing to do is to connect the audio source to the amplifier input. Then, connect the video source. Please refer to the following diagram. To ensure high quality sound and video, we recommend using high quality cables and connectors.

KOD stands for Karaoke On Demand. It is a type of player with built-in hard drive capable of storing huge amount of songs and videos.

VOD - Video On Demand is an all inclusive software and hardware management tools. It is controlled by a computer which contains all the song/video data. The VOD is capable of handling all the accounting management includes food/beverage, hourly room rentals, content and distribution of songs/video on an as needed basis. This is the main workhorse of the KTV commercial business

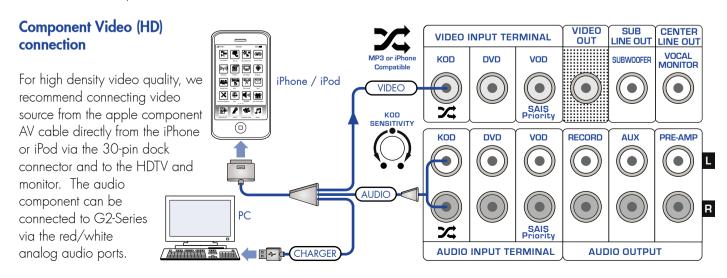
NOTICE All songs copy right have to been consented before installed into VOD.



How to connect the iPhone and/or iPod

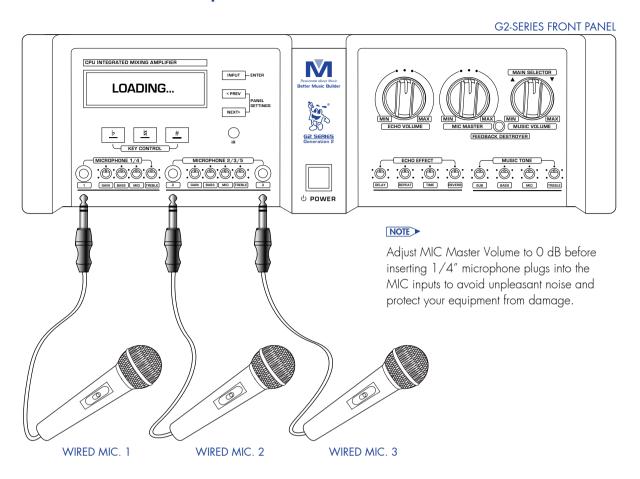
Composite AV connection

The G2-Series can connect to the Apple iPhone and iPod series composite video with stereo audio with a separate adapter (Apple Composite AV Cable – part # MB129LL, sold by Apple Inc.) via the iPhone or iPod 30-pin output dock connector. Connects the video and audio composite cable accord to the standard Yellow (video), Red (right audio channel) and White (left audio channel) ports.

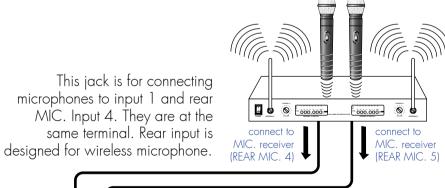


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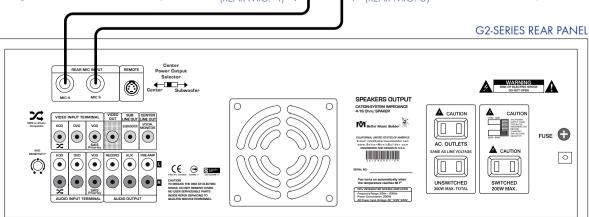
How to connect the Microphone



WIRELESS MICROPHONE RECEIVER



This jack is for connecting microphones to input 2 and rear MIC. Input 5. They are at the same terminal. Rear input is designed for wireless microphone.

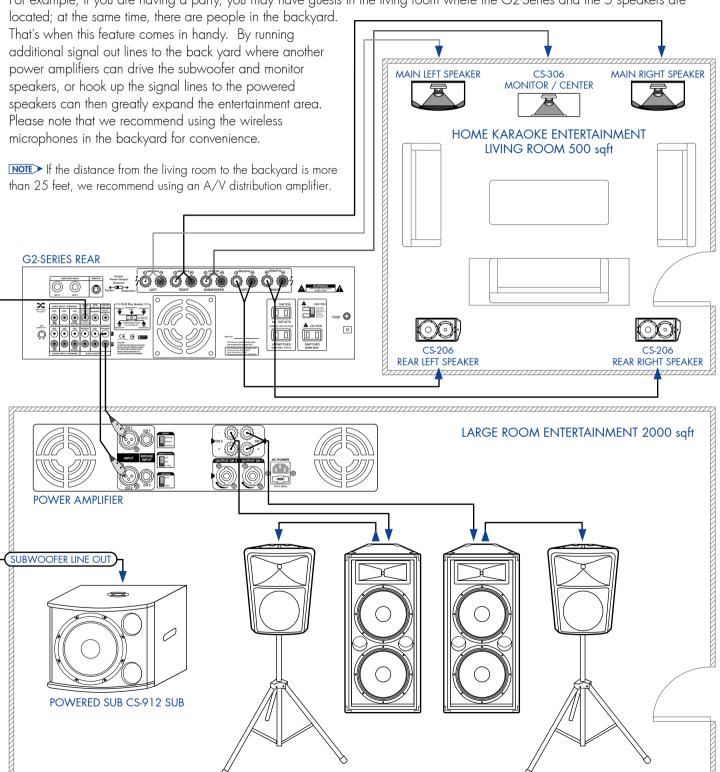


CONNECTING THE AUDIO/VIDEO OUTPUT SOURCE

Audio Out

The G2-Series is versatile. In addition to the powered signal outs, 3-pairs on DX-222 G2 and 5-pairs on the DX-288 G2, there are more external signal line outputs for recording and connection to external power amplifiers to drive subwoofers and monitor speakers. This feature is useful because it's easy to expand.

For example, if you are having a party, you may have guests in the living room where the G2-Series and the 5 speakers are



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Center Monitor Out

The G2-series was designed to bring the "Live" performance FIGURE A: STUDIO concept in to a single unit. Hence, the G2-series amplifier have designed a special features which can have the same signal sending out to two different location simultaneously. While a singer can make use of the powered line of the center vocal monitor during a live performance or practicing inside a studio, the independent signal line out can be connected out to an external amplifier in the equipment room to be controlled and monitored for volume and effect adjustment. For example, this can be used in school or church area where a small live performance can be done in an individual room while the main control is being monitor from a center administrative room by a PC with our special Effect Control Software Suite.

The Better Music Builder design team decided to incorporate the G2-series with our special Effect Control Software Suite specifically designed for this kind of applications. Allowing our customer to only needs a single G2-series amplifier to bring the "Live" performance concert to life by being able to controlled and monitor on a single PC for all the volume and effect adjustment of the G2-Series amplifier. Please refer to page 28-30 for detail descriptions of the Effect Control Software Suite.

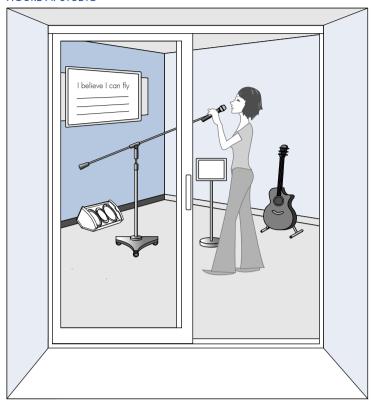
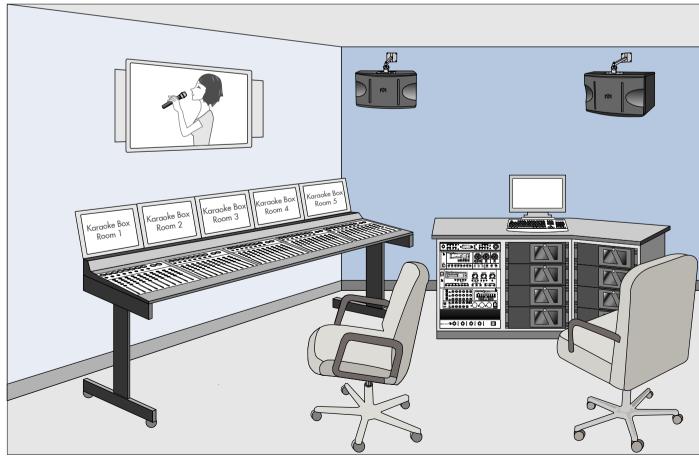
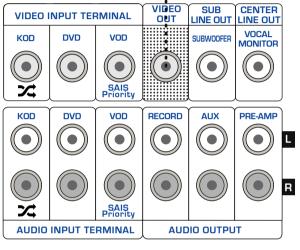


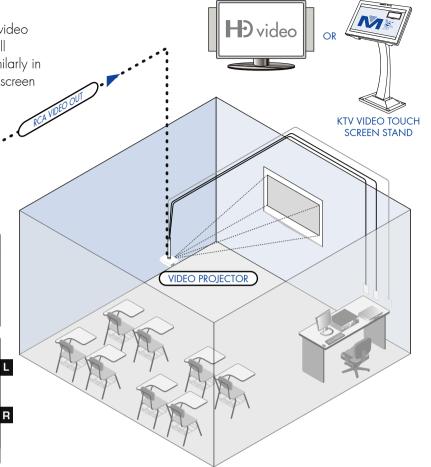
FIGURE B: RECORDING ROOM



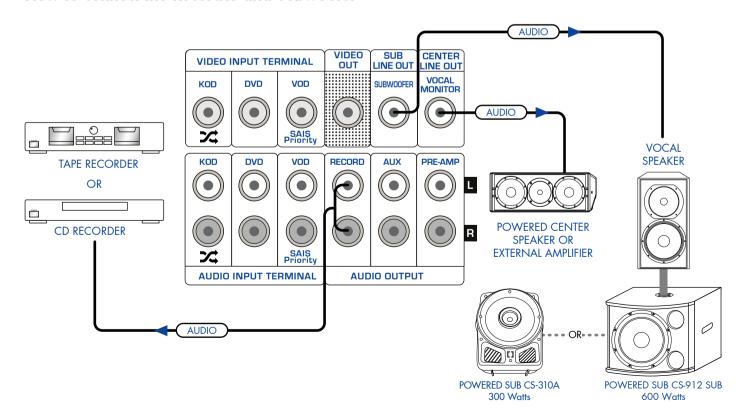
How to connect the Video Monitor

The G2-Series comes with a dedicated composite video output. Typical connection usage such as for a small classroom show in the diagram or it can be use similarly in connecting to the amplifier with a KTV video touch screen stand. If 2 or 3 more is needed, use an external composite video distributor. If the wiring distance to the output source is more than 25 feet. A composite video amplifier distributor is needed; otherwise, the video will be very poor.





How to connect the Recorder and Subwoofer



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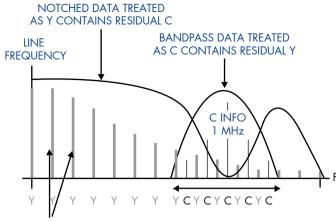
How to connect the whole System

The G2-series was designed to incorporate the highly automated SAIS for composite video at 480i or 576i resolution required by the KTV community as well providing the high power output driving demands required to bring the "Live" performance to the living room.

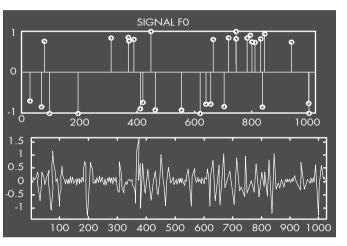
In order to bring the highest quality in both audio and video available such as high definition video. We strongly suggest using the best available High Definition connector for video such as component or HDMI formatted connections directly to the High Definition Televisions or High Resolution Monitors at 1080i or 1080p to 1600p. If the source destination for the video signal is more than 25 feet, a video signal distributor is highly recommended so to improve the poor video quality resolution due to the cabling.

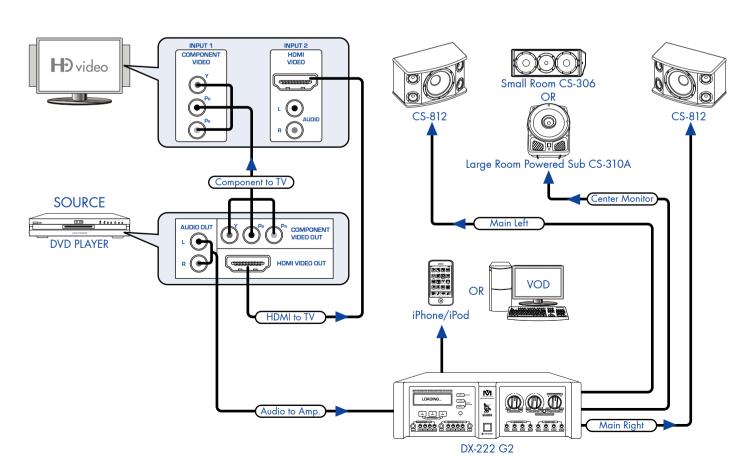
The following diagram high-light the overall connection suggestion for a whole system with high definition video with multiple other audio/video sources found in the entertainment room.

NOTE Audio and video is connected separately. When you select HD video input, you must ensure that the HD TV input is selected correctly at the TV. In addition, you must ensure that the audio input is selected correctly at the G2-Series.



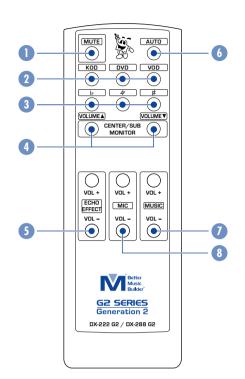
DISTANCE OF LINE FREQUENCY BETWEEN PACKETS

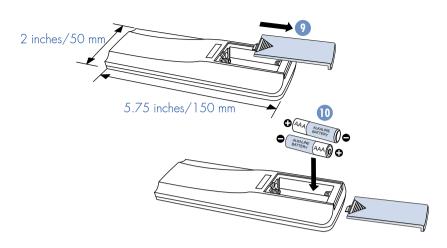




CONTROLS AND FUNCTIONS

REMOTE CONTROL:







The system comes with the standard remote. Avaiblable upon request, the Professional Karaoke Remote Control for KTV use can be purchased separately. Please refer to page 31 for details instructions on the Professional Karaoke Remote Control.

MUSIC MUTE

Music Mute Button is for music only. The microphones are still active.

MANUAL INPUT SELECT: DVD, KOD, VOD

Press this button to manual select the input source, overriding the SAIS auto feature.

3 KEY CONTROL: ♭ FLAT, ≒ NATURAL, ♯ SHARP

Key control button controls the music speed

CENTER/SUBWOOFER VOLUME CONTROL

Center/Subwoofer Volume control from 00 to 99. The control of Center or Subwoofer is based on the two way switch position on the rear panel.

5 ECHO EFFECT VOLUME CONTROL

Microphone Echo Volume control from 00 to 90.

6 SMART AUTO INPUT SWITCHER (SAIS) SELECTOR

When you press this button to select the KOD input, it would not work if VOD is in use. The reason is that this unit is designed with VOD as the first priority input. It is designed for commercial karaoke use.

MUSIC MASTER VOLUME CONTROL

Music Master Volume control from 00 to 90

8 MICROPHONE VOLUME CONTROL

Microphone Master Volume control from 00 to 90.

OPEN BATTERY COVER

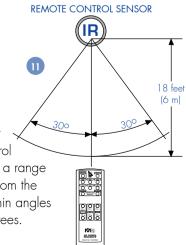
Open the battery compartment cover on the back of the remote control unit. The cover should open easily if you press on in with your thumb while sliding it in the direction of the arrow

INSERTING BATTERIES

Insert two size AAA 1.5V (R6) alkaline batteries as shown. Close the cover of the battery case.

USING THE REMOTE CONTROL UNIT

When operating the remote control unit, point the unit's infrared signal transmitter at the remote control remote sensor "IR" on the front panel. The remote control unit can be used within a range of about 18 feet (6m) from the remote sensor, and within angles of up to about 30 degrees.



G2-SERIES (DX-222 G2 & DX-288 G2) FRONT PANEL

MIC 1 INPUT

GAIN/BASS/MIDDLE/TREBLE CONTROL for MIC 1 or MIC 4. These knobs control the tone of MIC 1 or MIC 4.

GAI: The gain knob controls the amount of overdrive or "distortion". It increase the internal amplification of the Microphone. This knob affects the microphone volume.

BASS: The bass controls the low tones. **MID:** The middle controls the mid-range tones. **TREBLE:** The treble controls the high tones.

MIC 2 INPUT

GAIN/BASS/MIDDLE/TREBLE CONTROL for MIC 2/ MIC 3/MIC 5. These knobs control the tone of MIC 2/ MIC 3/MIC 5.

GAI: The gain knob controls the amount of overdrive or "distortion". It increase the internal amplification of the Microphone. This knob affects the microphone volume.

BASS: The bass controls the low tones. **MID:** The middle controls the mid-range tones. **TREBLE:** The treble controls the high tones.

MIC 3 INPUT

- 6 INFRARED (IR): Infrared Sensor for remote control.
- **1 LCD:** System status display. Please refer to Page 22 for details.

MUSIC KEY CONTROL BUTTON: Please refer to Page 22 for details.

b(Falling key) ♯(Natural key) ♯ (Rising key)

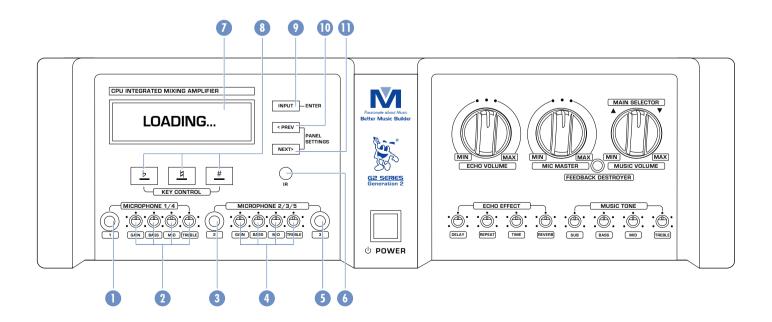


These knobs control the speeds of the music. Pressing \flat can recover the amplifier back to default parameters.

1 INPUT MODE SELECTION BUTTON (KOD, DVD, VOD):

This button is used to select the three different inputs source by pressing the button one at a time to browse through the available selection. It also serves as a confirmation button when operates under the "locking the panel" or "saving current settings" panels.

- **PREV:** Pressing the button to browser forward the available Setting Panels.
- **NEXT:** Pressing the button to browser backward the available Setting Panels.



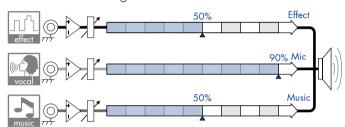
G2-SERIES (DX-222 G2 & DX-288 G2) FRONT PANEL

- 12 EFFECT: This is the master MIC effect control which is also being used within the Setting Panel to adjust the different MIC effects settings. Please refer to Page 25 for details
- (13) MIC MASTER: This is the master MIC volume control which is also being used within the Setting Panel to adjust the different MIC volume settings. Please refer to Page 25 for details.
- FEEDBACK DESTROYER CONTROL: This is the sound feedback destroyer selection control: press the button to select the level of feedback control. FeedbackO means the function is turn off, while Feedback1-3 sequentially increase the feedback suppression with maximal howling restraint effect
- (5) MUSIC VOLUME / MAIN SELECTOR BUTTON: On the top level, this is the Master Music Volume Control. However, this button is also the Main Selector button which serves as the primary selector for various adjustment in each setting panels. Please refer to Page 2.5 for details
- 16 POWER on/off.
- **DELAY:** This is the echo delay control for the microphone effects. Turning the knob to increase and decrease the echo delay time coming from the microphone.
- (B) REPEAT: This is the echo repeat control for the microphone effects. Turning the knob to increase and decrease the repeat time coming from the microphone.
- 19 **TIME:** This is the echo reverb control for the microphone effects. Turning the knob to increase and decrease the reverb time coming from the microphone.

- REVERB: This is the echo and reverb ratio control for the microphone effects. Turning the knob to increase and decrease the ratio coming from the microphone. Increasing the ratio (50% +) gives more Reverb and decreasing the ratio (-50%) gives more Echo for the microphone effect.
- 21) SUB: This is the Subwoofer volume control
- BASS/MIDDLE/TREBLE CONTROL for Music. These knobs control the music bass, middle, and treble BASS: The bass controls the low tones.
 MID: The middle controls the mid-range tones.
 TREBLE: The treble controls the high tones.

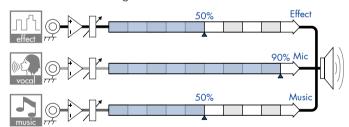
Center Monitor Power Output Block Diagram

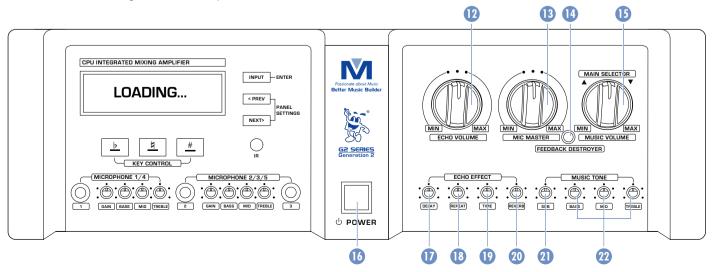
CPU FUNCTION Page 7: Center Monitor Source Panel



Main Power Output Block Diagram

CPU FUNCTION Page 6: Main L/R Source Panel





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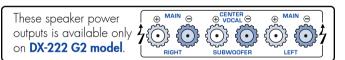
G2-SERIES (DX-222 G2 & DX-288 G2) REAR PANEL

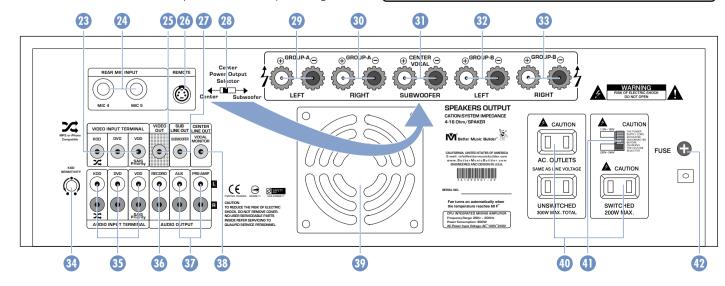
- THREE-SOURCE INPUTS FOR VIDEO: Three external video input sources: KOD, DVD, VOD.
- WIRELESS MIC REAR INPUTS (MIC4/MIC5): This is the dedicated wireless microphone inputs designed specifically to works with the available wireless microphone reception base station.
- viDEO OUTPUT: Dedicated composite video output. If 2 or 3 more is needed, use an external composite video selector. If the wiring distance to the output source is more than 25 feet. A composite video distributor is needed; otherwise, the video will be very poor.
- **REMOTE:** This S Remote control terminal is specially design to connect VOD control panel and/or the optional programmable Effects Control Software Suite connector. Please refer to Page 28 for details.
- SUBWOOFER LINE OUT: This is a dedicated Subwoofer line out. It is unaffected by the Center Power Output Selector Switch.
- **CENTER POWER OUTPUT SELECTOR:** This is a control switch to select between the center and subwoofer signal source for the Center/Subwoofer Powered Output amplification to drive the speaker.
- MAIN LEFT SPEAKER POWERED OUTPUT: Dedicated Group-A main left channel Powered Output. This output is available only on DX-288 G2 model.
- 30 MAIN RIGHT SPEAKER POWERED OUTPUT: Dedicated Group-A main right channel Powered Output.
- 31 CENTER/SUBWOOFER SPEAKER POWERED OUTPUT:
 This is a switch controlled Center/Subwoofer channel speaker Powered Output. The output is based on the Center Power Output Selector switch button. If the existing output lines is not enough to support the room size greater than the maximum 900 square feet, the amplifier might

- burn out. Use the alternative independent "center line out" or "subwoofer line out" to connect the signal to an external power amplifier so this unit can be used as a pre-amplifier.
- MAIN LEFT SPEAKER POWERED OUTPUT: Dedicated Group-B main left channel Powered Output.
- MAIN RIGHT SPEAKER POWERED OUTPUT: Dedicated Group-B main right channel Powered Output. This output is available only on DX-288 G2 model.
- 34 KOD SENSITIVITY: KOD signal sensitivity control.
- 35 THREE-SOURCE INPUTS FOR AUDIO: Three external audio input sources: KOD, DVD, VOD.
- **86** RECORD AUDIO OUTPUT
- **37** AUX AUDIO OUTPUT & PRE-AMP AUDIO OUTPUT:

When the existing Powered Lines is not enough to support the room size greater than the maximum 900 square feet, the amplifier might burn out. Therefore, this line out can be used to connect the signal to an external power amplifier so this unit can be used as a pre-amplifier.

- 33 CENTER LINE OUT: This is a dedicated Center Vocal Monitor line out. It is unaffected by the Center Power Output Selector Switch.
- 39 LOW NOISE DUAL UNITS COOLING FAN.
- 40 AC POWER OUTPUT SOCKET & AC POWER SUPPLY SOCKET.
- **POWER SUPPLY SWITCH:** Use this switch to select the appropriate power outlet supply voltage.
- 42 FUSE HOLDER: This is the housing for the power supply fuse.



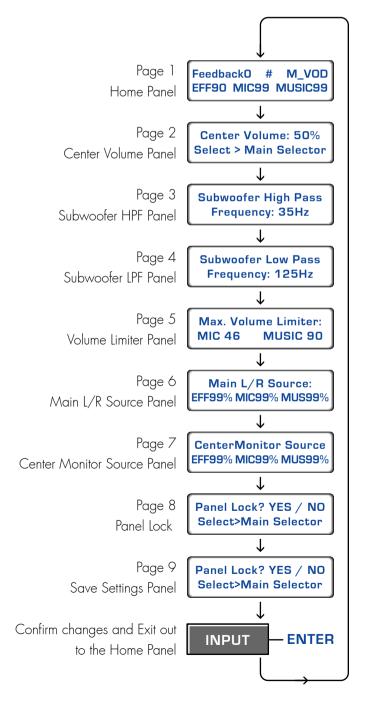


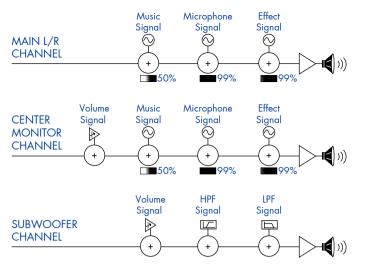


LCD CONTROL PANELS OPERATION

The G2 Series has 9 configurable settings control panels. The Home Panel screen is the default display once the system is running. Use the Panel Settings button "NEXT >" to scroll through the available settings control panels. When the last panel, Save Settings, panel is reached, use the "< PREV" button to go back to the previous setting panels or use the INPUT (Enter) button to save settings changes and Exit out to the Home Panel.

HOW TO SETUP the CPU FUNCTION





HOME PANEL

Feedback3 # M_VOD EFF90 MIC99 MUSIC99

A. The first parameter on LINE 1 of the LCD panel is the "Feedback Destroyer Settings". The default is FeedbackO, which states Feedback Destroyer feature is OFF. Increase to higher feedback level 1,2,3 to increase the feedback suppression. Feedback3 is the higher level of feedback suppression, destroys the most feedback.



Press the Feedback Destroyer button to change the Feedback level from FeedbackO to Feedback3.

NOTE Different room size and wall material effects the feedback level. For example, a room with large flat glass/windows create more feedback distortions because of reflection.

B. The second parameter on LINE 1 of the LCD panel is the "Music Key Settings". The " \flat 1~ \flat 4" flat lower the musical note by half step. While "#1~#4" sharp increase the musical note by half step. While natural sign (\sharp 1) is used to cancel a flat or sharp from either a preceding note.



Press the \flat key to change the flat musical note from \flat 1~ \flat 4. Press the \sharp key to change the musical note to natural tone. Press the \sharp key to change the sharp musical note from \sharp 1~ \sharp 4.

C. The third parameter on LINE 1 of the LCD panel is the active input source selection, (VOD, DVD, KOD). Source proceed with "M_"stands for manual mode, while "A_"stands for auto mode (Smart Auto Input Switching feature is "ON").

When the system start up in manual mode, it will default to the KOD signal source. User can specify different input source manually as desire from the LCD panel, under "M_KOD", "M_DVD", or "M_VOD". When Smart Auto Input Switch is turn on: if all input signal is inactive, when the source is "pause", "stop" or not connected, KOD is set by default as the priority input. If all input signal is active, "playing", then VOD is set as priority.

FeedbackO # A_VOD Auto Mode EFF90 MIC99 MUSIC99

Press the INPUT (Enter) key to scroll through the input sources, specifying the input source as manual mode or activating the Smart Auto Input Switch to auto mode.

For input selection, press the INPUT/Enter button to move the arrow to select the source: DVD, KOD or VOD. VOD has the first priority; DVD and KOD have the second and the lowest priorities respectively. That's why the machine always chooses VOD in auto mode. If you want to select KOD you have to turn off the source connected to VOD. For example, in a karaoke bar, KOD can be used to play background music while VOD is connected to the main mixer where the microphones are plugged in. When the DI makes an announcement through the microphone, the built-in CPU will automatically select VOD and you will not hear the background music. Instead, you will only hear the DI's voice or whatever signal source (for example, commercial advertising) is plugged into the main mixer. You may learn more on VOD from page 32 under "VOD Connection for Home" and 33 under "VOD Connection for Commercial".

D. The first parameter on LINE 2 of the LCD panel is the main microphone EFFECT setting control for the main and center speaker channels. Increasing from 0 to 90 to increase the microphone effects added to the channels.

FeedbackO # A_VOD

EFF90 MIC99 MUSIC99

Effect Level

Turn the ECHO VOLUME knob min to max to adjust the desire echo effect from 0 to 90.

E. The second parameter on LINE 2 of the LCD panel is the main microphone volume setting control. This increase the microphone volume until the maximum programmed volume limiter reached.

FeedbackO # A_VOD
EFF90 MIC99 MUSIC99

Microphone Level

Turn the MIC MASTER knob min to max to adjust the desire microphone volume from 0 to the maximum limit set by the MIC Volume Limiter settings (default maximum is 99).

F. The third parameter on LINE 2 of the LCD panel is the main music volume setting control. This increase the music volume until the maximum programmed volume limiter reached.

FeedbackO # A_VOD
EFF90 MIC99 MUSIC99

Music Level

Turn the MUSIC VOLUME knob min to max to adjust the desire microphone volume from 0 to the maximum limit set by the Music Volume Limiter settings (default maximum is 99).

CENTER VOLUME PANEL

The "Center Volume" allows specifically adjusting of the center/subwoofer powered line output channel's volume.

Center Volume: 50%
Select > Main Selector

Press the "Next >" until the Center Volume control panel is reached. Then use the Main Selector (MUSIC VOLUME) knob min to max to adjust the desire center channel volume from 0 to 99.

SUBWOOFER HPF PANEL

The "Subwoofer HPF" allows tuning of the subwoofer by increasing or decreasing the cutoff frequency from 20-80Hz of the Subwoofer High Pass Filter. The filter can also be turn off manually by selecting "OFF". The higher the frequency the higher pitch of the woofer.

Subwoofer High Pass
Frequency: 20Hz

Hight Frequency Level

Press the "Next >" until the Subwoofer HPF control panel is reached. Then use the Main Selector (MUSIC VOLUME) knob min to max to adjust the desire High Pass Filter cutoff frequency from 20 to 80Hz. Or select "OFF" to disable the filtering.

SUBWOOFER LPF PANEL

The "Subwoofer LPF" allows tuning of the subwoofer by increasing or decreasing the cutoff frequency from 80-335Hz of the Subwoofer Low Pass Filter. The filter can also be turn off manually by selecting "OFF". The lower the frequency the more the bass of the woofer.

Subwoofer Low Pass Frequency: 335Hz

Low Frequency Level

Press the "Next >" until the Subwoofer LPF control panel is reached. Then use the Main Selector (MUSIC VOLUME) knob min to max to adjust the desire Low Pass Filter cutoff frequency from 20 to 80Hz. Or select "OFF" to disable the filtering.

VOLUME LIMITER PANEL

The "Volume Limiter" is the master MIC and MUSIC maximum volume setting control. This set a maximum limit individually on the microphone and music control on the system, safeguarding damages to the equipment because of excess overloading / overdriving. Once set, the MIC volume and MUSIC volume control knob is maximum based on this settings.

Max. Volume Limiter
MIC 46 MUSIC 90

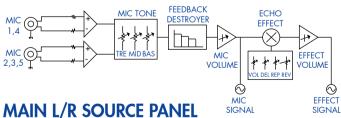
← Microphone Limiter

Press the "Next >" until the Volume Limiter control panel is reached. Then turn the MIC MASTER knob min to max to adjust the desire microphone volume from 0 to 90.

Max. Volume Limiter
MIC 46 MUSIC 90

Music Limiter

Press the "Next >" until the Volume Limiter control panel is reached. The turn the MUSIC VOLUME knob min to max to adjust the desire music volume limit from 0 to 90.



The "Main L/R Source Controller" allows the musical, vocal, and effects tuning of the Main L/R source channel. It enable setting the amount of Effect for the main channel speakers where EFF00% means no effect at all and EFF99% allows the maximum effect. While MIC00% means turning off the microphone vocal in the main speaker channels and MIC99% means allowing maximum volume to the micro-

phone. Similarly, MUSOO% means turning off the music in the main speaker channels and MUS99% means allowing maximum music volume on the main speakers channel.

Main L/R Source: EFF99% MIC99% MUS99%

Press the "Next >" until the Main L/R Source control panel is reached.

Main L/R Source: EFF99% MIC99% MUS99%

← Main Effect Level

Then turn the ECHO VOLUME knob min to max to adjust the desire percentage effect volume from 0 to 99% for the main L/R channel. The higher the percentile, the more effects are allowed into the main L/R speaker channel.

Main L/R Source: EFF99% MIC99% MUS99%

Main Mic Level

Then turn the MIC MASTER knob min to max to adjust the desire microphone volume from 0 to 99% for the main L/R channel. The higher the percentile, the more microphone volume are allowed into the main L/R speaker channel.

Main L/R Source: EFF99% MIC99% MUS99%

← Main Music Level

Then turn the MUSIC VOLUME knob min to max to adjust the desire music volume limit from 0 to 99% for the main L/R channel. The higher the percentile, the more music volume are allowed into the main L/R speaker channel.

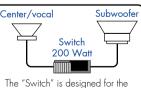
CENTER MONITOR SOURCE PANEL

The "Center Monitor Source Controller" allows the musical, vocal, and effects tuning of the center monitor source channel. It enable setting the amount of Effect for the center monitor channel speakers where EFF00% means no effect at all and EFF99% allows the maximum effect. While MIC00% means turning off the microphone vocal in the center monitor speaker channels and MIC99% means allowing maximum volume to the microphone. Similarly, MUS00% means turning off the music in the center monitor speaker channels and MUS99%

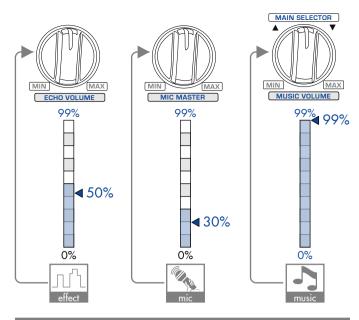
means allowing maximum music volume on the center monitor speakers channel.

Center Monitor Source: EFF99% MIC99% MUS99%

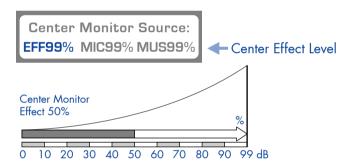
Press the "Next >" until the Center Monitor Source control panel is reached.



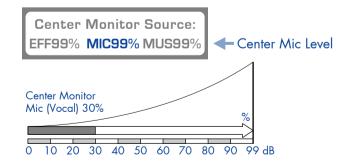
Center/Subwoofer Line Output only. The alternative independent "center line out" or "subwoofer line out" can be used separately to connect the signal to an external power amplifier so this unit can be used as a pre-amplifier.



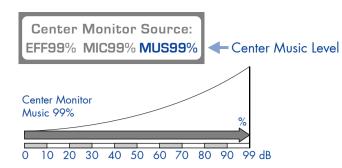
Center Monitor Source:
EFF50% MIC30% MUS99%



Then turn the ECHO VOLUME knob min to max to adjust the desire percentage effect volume from 0 to 99% for the center channel. The higher the percentile, the more effects are allowed into the center monitor speaker channel.



Then turn the MIC MASTER knob min to max to adjust the desire microphone volume from 0 to 99% for the center channel. The higher the percentile, the more microphone volume are allowed into the center monitor speaker channel.



Then turn the MUSIC VOLUME knob min to max to adjust the desire music volume limit from 0 to 99% for the center channel. The higher the percentile, the more music volume are allowed into the center monitor speaker channel.

PANEL LOCK

The "Panel Lock" allows owner to lock all the control panels and knobs except for the three main knobs: Echo Volume, MIC Master, and Music Volume.

Panel Lock? YES/NO Select > Main Selector



Press the "Next >" until the Panel Lock control panel is reached. Use the Main Selector (Music Volume) knob to select YES or NO for Panel Locking. Then Press Input (ENTER) key to confirm the changes.

Panel Locking...

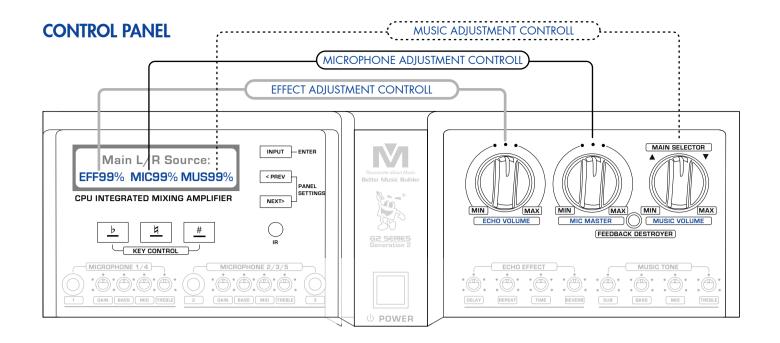
SAVE SETTINGS PANEL

The "Save Settings" allows owner to saves all the changes made on the LCD control panels.

Save Settings? YES/NO Select > Main Selector

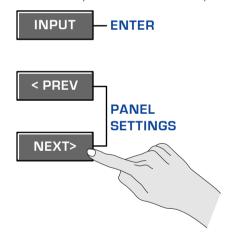
Press the "Next >" until the Save Settings control panel is reached. Use Main Selector (Music Volume) knobs to select YES or NO for Save Settings. Then Press Input (ENTER) key to confirm and save all the changes.

Saving...



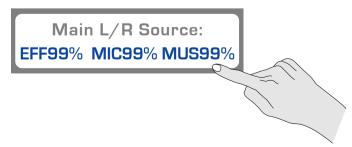
STEP: 1

Press the "NEXT" button to scroll through the available 9 pages of CPU Control Panels. Use the "PREV" button to go back to the previous CPU Control panel.



STEP: 2

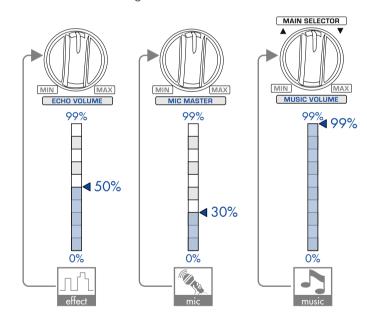
For each parameter of the 8 CPU Control Panels, use the corresponding control knob to adjust each settings. For example, use the Echo Volume knob to adjust the EFF parameter and use the MIC Volume knob to adjust the MIC parameter.



STEP: 3

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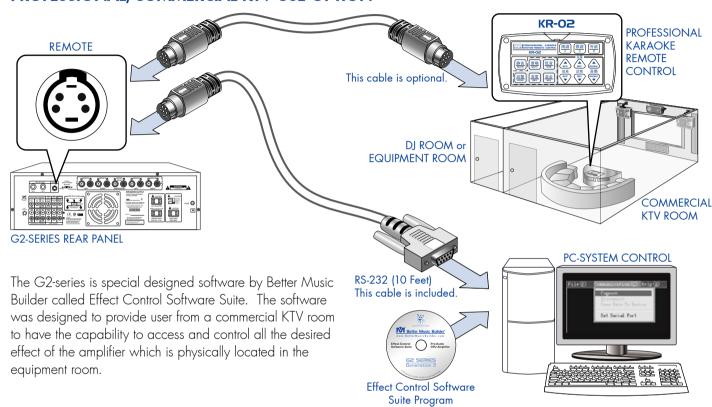
Once each parameters are adjusted on the CPU Control Panels, use the INPUT-"ENTER" button to confirm and save customized the changes to the CPU memories.



PROFESSIONAL/COMMERCIAL USE

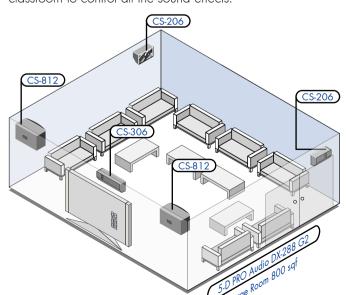
The G2-Series was designed with professional and/or commercial KTV usage in mind. Hence, the G2-Series rear panel has a special designed S-terminal connector specifically for the optional Professional Karaoke Remote Control and the Effect Control Software Suite use.

PROFESSIONAL/COMMERCIAL KTV USE OPTION



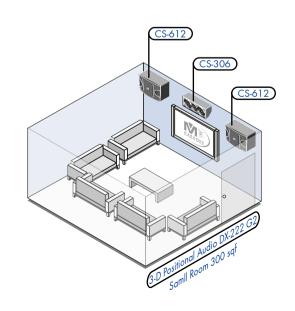
5-D PRO AUDIO DX-288 G2

The DX-288 G2 for the large room 800square feet. While all the songs and amplifier are stored inside the equipment room, the user can use the PC in the KTV room or school classroom to control all the sound effects.



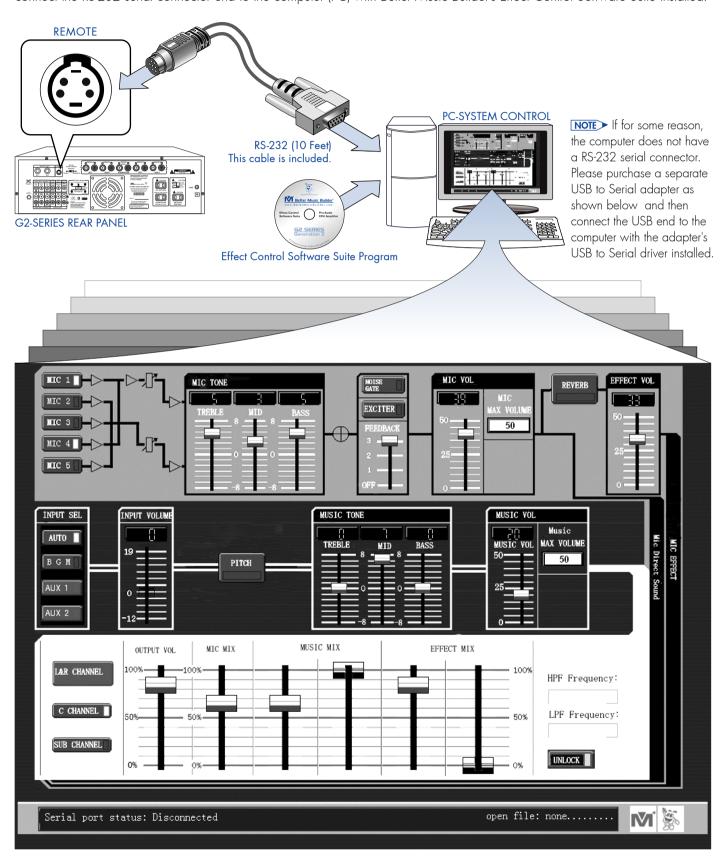
3-D POSITIONAL AUDIO DX-222 G2

The DX-222 G2 for the small room 300square feet. While all the songs and amplifier are stored inside the equipment room, the user can use the PC in the KTV room or school classroom to control all the sound effects.



EFFECT CONTROL SOFTWARE SUITE INSTRUCTIONS

For Professional/Commercial use of the Better Music Builder® Effect Control Software Suite, connect the Serial S connector on the provided RS-232 to Serial S wire to the Serial S Remote control terminal in the rear of the G2-Series Mixing Amplifier and connect the RS-232 serial connector end to the computer (PC) with Better Music Builder's Effect Control Software Suite installed.



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Once the hardware are connected with proper drivers installed, launch the program, Karaoke Professional Pre-amplifier Controller v1.03.exe, from the Better Music Builder® Effect Control Software Suite CD

In the program, under the Communication tab, there is a drop down list, select Connect.

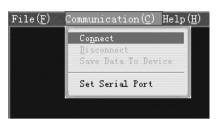


Fig 1. COM port Connect

If for some reason, there was a COM port error, then under the Communication tab, drop down list, select Set Serial Comport.



Fig 2. Manual Set Serial Port (COM)

Select the available Serial Comport (COM) below and click OK to confirm.

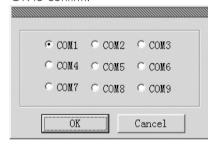


Fig 3. COM port Select

Once connection has been established, it will prompt to select "Read Data From Device" or "Write Data to Device". We suggest to start off by reading the current settings on the system as a reference and then further make adjustment accordingly. Choose "Read Data From Device". Then OK to confirm.

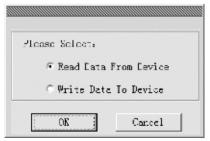


Fig 4. Data Read from Device

After the G2-Series Mixing Amplifier settings has been read. Different parameters can be set as below. Different controls will be high-lighted based on the specific settings set. Otherwise, the control will be grayed-out and not adjustable.

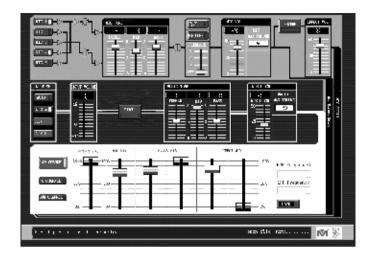


Fig 5. Main L/R Channel Control Panel Settings

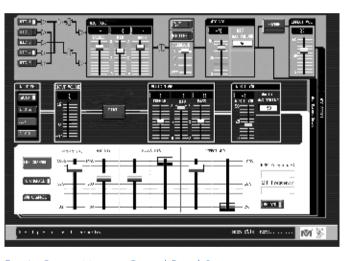


Fig 6. Center Monitor Control Panel Settings

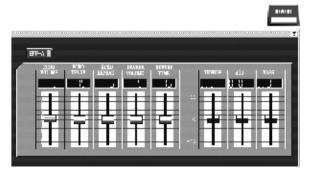


Fig 7. Echo/Reverb Effect Control Settings

The parameters adjusted can be saved to a program file (.kcc) for future use or save directly to the connected G2-Series Mixing Amplifier.

Save to program file (.kcc)



Fig 8. Save Program File

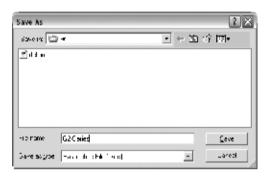


Fig 9. Save (.kcc) File

Saving directly to device



Fig 10. Saving Data Directly to Device

After all parameters are set and done. Please disconnect out of the program as follows.



Fig 11. Disconnecting COM port

NOTE The G2-Series Mixing Amplifier control panel settings can be professionally controlled and program via the optional Professional Series Remote Control. Professional Series Remote Control can be infrared (IR) controlled or via the Serial S connector wire.

OPTIONAL PROFESSIONAL KARAOKE REMOTE CONTROL

The optional Professional Karaoke Remote Control comes with integrated drive-by-wire S-terminal connector and wireless infrared (IR) functions specially designed for the G2-Series Mixer-Amplifier. The remote can be used for both fixed installation and/or mobile situation.

WIRELESS INFRARED (IR) EMITTER
This is the Infrared Emitter window where the infrared signals are being sent out. Do not block the window with any object including hand and fingers.

THE LED INDICATOR

When each buttons are pressed. The LED will light to indicate signal have been accepted and sent out correctly.

FALLING TONE

Buttons used to adjust the flat tone of the microphone when pressed.

4 NATURAL TONE

Reset. The tone will reset the tone back to the Natural tone when this button is press.

RISING TONE

Buttons used to adjust the sharp tone of the microphone when pressed.

MUSIC MUTE

Press this button to mute music signal on the system.

FCHO BUTTON

Press this button to set the Echo volume to the highest and shut off the Reverb volume.

ORIGINAL VOCAL MUTE

Press this button to mute the original vocal sound track signal on the system.

REV BUTTON

Press this button to set the Reverb volume to the highest and shut off the Fcho volume.

10 SUB BUTTON

Press this button to decrease the subwoofer volume by attenuating the signal by 6dB.

III MIX BUTTON

Press this button to set the current mixing setting of the Echo and Reverb Volume.

12 EFFECT VOLUME

Buttons used to adjust the effect music volume up to the pre-set limit.

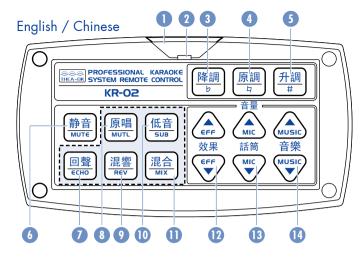
MIC VOLUME

Buttons used to adjust the MIC music volume up to the pre-set limit.

MUSIC VOLUME

Buttons used to adjust the music volume up to the pre-set limit.

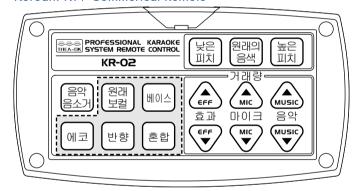
OPTIONAL PROFESSIONAL KARAOKE REMOTE CONTROL



This unit is designed for professional KTV. We provided different languages translation for each. This remote control is sold separately.

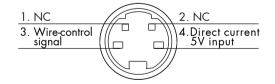
该机组是为专业KTV包房设计的。我们提供不同语言的翻译。这个遥控器是 单独出售。

Korean: KTV Commerical Remote

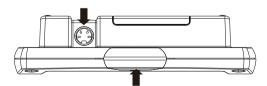


단위 전문 사우나 및 개별 실 위해 설계되었습니다. 우리는 서로 다른 언어로 번역을 제공합니다. 원격 제어를 별도로 판매됩니다.

S-terminal Connector Signals S-terminal Signals

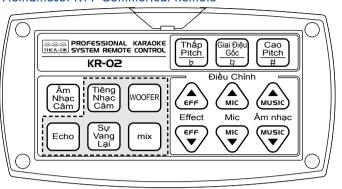


Insert the S-terminal control wire, distance ~3m.



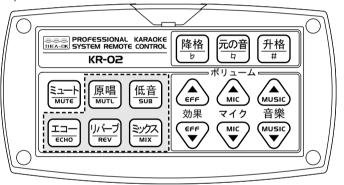
Wireless infrared (IR) emitting distance ~8m, at controllable degree $< 75^{\circ}$)

Vietnamese: KTV Commerical Remote



Đơn vị được thiết kế cho Phòng KTV chuyên nghiệp tư nhân. Chúng tôi cung cấp các bản dịch bằng các ngôn ngữ khác nhau. Điều khiển từ xa được bán riêng.

Japanese: KTV Commerical Remote



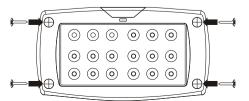
ユニットプロ式KTVの個室用に設計されます。我々は異なる言語での 翻訳を提供します。リモコンは別売りです。

Remote Installation Setup

Hanging hole: Used for installation on the wall.



Fixed screw mounting hole: Insert longer screws on the cross for fixed installation on desk top.



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INSTALLATION SETUP

Through many years of experience in installation and design for Karaoke business in Asia, the engineering team of Better Music Builder has designed two installation setups as illustrated in figure 1 and figure 2 that can produce excellent sound performance. This design is specifically for North America.

G2-Series is a three channel (DX-222 G2) / five-channel (DX-288 G2), Integrated CPU Mixing Amplifier. For DX-288 G2, the music comes from Group A and Group B speakers. You can mix the music and vocal together or by percentage (for example, 70% for music and 30% for vocal), and 100% original vocal comes from the center speaker. This setup can reduce the humming feedback to protect your audio equipment.

NOTE C2-Series with five-channel output would produce different effects from that of the 5.1, 7.1 and 7.2 home theater systems for playing movie.

In figure 1, Group A speakers are set up in the front and the Group B speakers are set up in the rear.

In figure 2, all speakers are positioned in parallel in the front. Therefore, we recommend using different size of speakers for Group A and Group B. The reason is that Group A has a bigger woofer (10-inch woofer or bigger) for music and Group B has a smaller woofer (6-inch woofer) for clear vocal. In addition, the vocal comes independently from the center monitoring speaker. Therefore, the audience can feel the better sound performance and unprecedented experience.

MAIN LEFT SPEAKER
GROUP A

CS-306
MAIN RIGHT SPEAKER
GROUP A

ELECTRONIC
SCREEN

HD TV

HD TV

HD TV

MEDIUM ROOM 800 SQUARE FEET

REAR POST LEFT SPEAKER
GROUP B

PLASMA TV

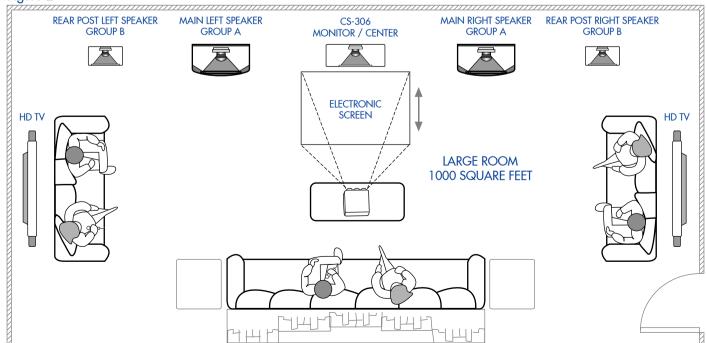
GROUP B

REAR POST RIGHT SPEAKER
GROUP B

PLASMA TV

GROUP B

Figure 2



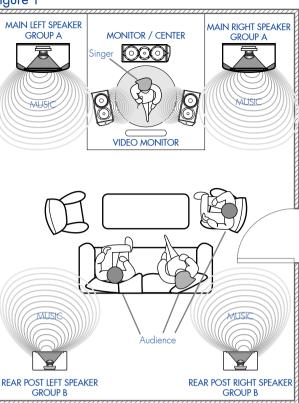
32

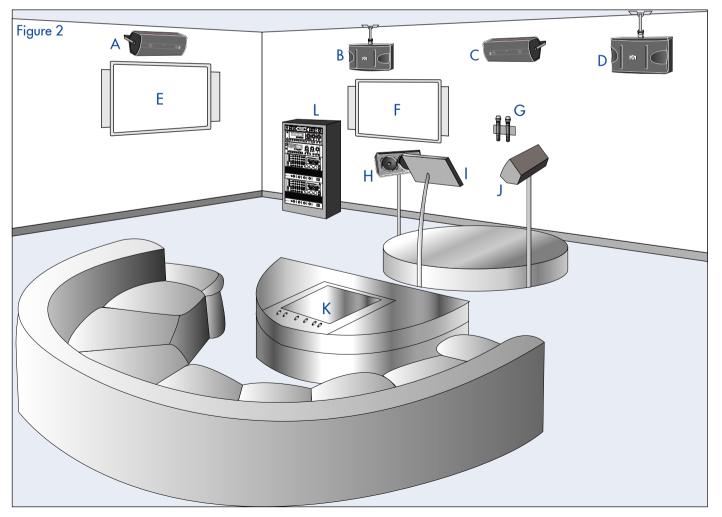
Home Theater and Karaoke

With the G2-Series Integrated CPU mixing amplifier, the center speaker monitors the microphone vocal only for singing. No music comes out from this center speaker. Please refer to figure 2 for the best setup of the Group A and Group B speakers for the DX-288 G2. To achieve the best Karaoke sound performance, we recommend you to use two different sizes of speakers for Group A and Group B. For example, the speaker of Group B uses a 5-inch woofer while the speaker of Group A uses a 10-inch woofer. This setup will be the most ideal for space (such as a room) with 1,000 to 2,000 (12" woofer) square feet.

- A. Main Left Speaker (Group B)
- B. Main Left Speaker (Group A)
- C. Center/Monitor Speaker for Audience
- D. Main Right Speaker (Group A)
- E. Karaoke Video Display
- F. Karaoke Video Display
- G. Wireless Microphone
- H. Monitor for Singer (Left)
- I. Karaoke Video Monitor for Singer
- J. Monitor for Singer (Right)
- K. KTV Touch Screen System
- L. Audio Equipment Rack

Figure 1





Ideas for Home Theater and Karaoke

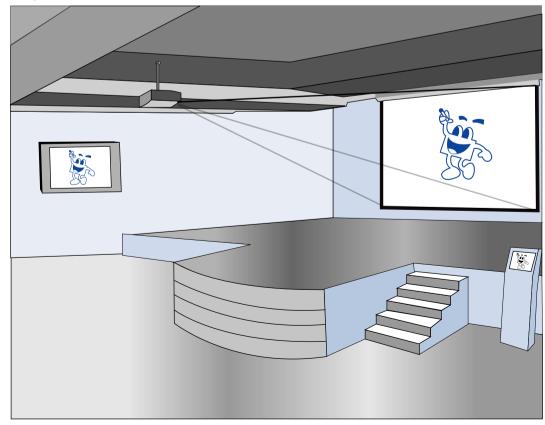
The engineering team of Better Music Builder develops and provides you great ideas to satisfy our customer specific needs. For example, modifying the living room or basement to become an entertainment place that will support the "Live" concert concept of the G2-Series for home theater and Karaoke house party.

The G2-Series enable the singer to bring the full range of on-stage vocal monitoring while the audience can enjoy the exception clarity of music from the front main speakers and mellow tone coming from the center vocal speaker.

With the DX-288 G2, every family can feel the same atmosphere at home as in a Diagram 2 nightclub or a 5-channel home theater settings at an affordable budget. Go ahead and try to follow our great ideas for your own "Live" concert entertainment needs.

Diagram 1





Commercial Applications

G2-SERIES REAR VIEW

POWER AMPLIFIER REAR VIEW 1,000W.

The engineering team of Better Music Builder designed the G2-Series, which is a CPU-controlled unit, specially for Karaoke commercial application (such as auditorium, restaurant, coffee shop, and hotel ballroom, etc.) to replace the traditional DJ equipment (such as 20-channel mixer, effect processor, key controller, 30-band equalizer and feedback destroyer, etc.) for Karaoke.

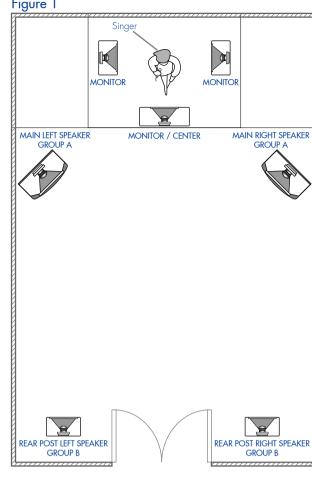
If you want to set up the G2-Series inside an auditorium or a commercial business of 2,000 square feet or more, we recommend using an external power amplifier for output. In this case, connect the "Audio Out" of G2-Series to a power

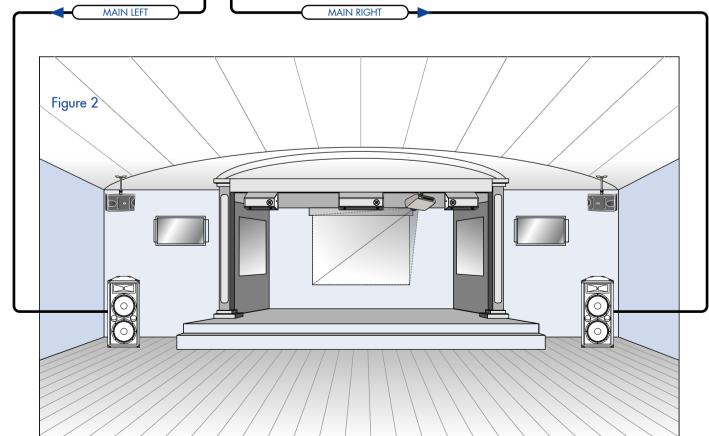
> amplifier and a speaker system (with a 12-inch woofer) with power rating of at least 1,000 watts.

NOTE > We recommend hiring a professional technician to handle the installation for safety purpose.



Figure 1





KTV Commercial Applications

Our Better Music Builder engineering team is specialized in KTV equipment design and commercial applications. In KTV audio signal sources (i.e. computer, DVD, VCR and cassette deck) normally come from the DJ room. Each Karaoke room has independent power amplifier and speakers, so it can allow customers to freely make adjustments on music and microphone settings in the Karaoke room. For KTV business application, an audio/video distribution amplifier is needed (or simply called AV Distribution amplifier), if the distance between the DJ room and Karaoke room is more than 25 feet to make up for the loss of original signal strength.

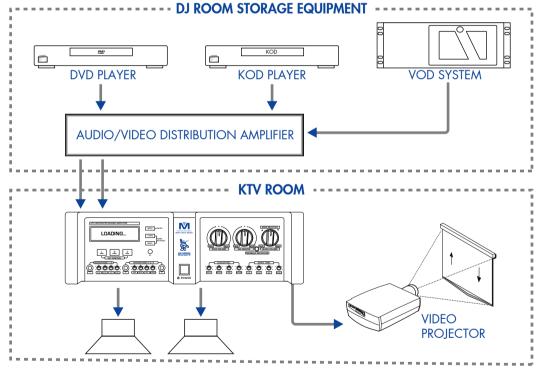
A/V Distribution Amplifier is the perfect solution for KTV commercial applications. It is compact, practical and convenient for installation. You can buy this equipment

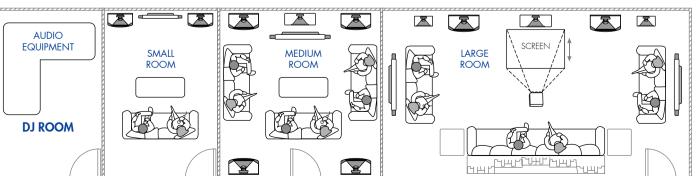
at any audio professional installation company. AV Distribution Amplifier can strengthen the original signals to each Karaoke room from the DJ room. It is also the ideal choice for high-quality and economical 3-channel Analog signal distribution from any HDTV (YPbPr) or RGBHV Video source including 1080p, as well as analog stereo or digital (PCM) Audio.

A/V Distribution Amplifier can deliver crystal-clear, color-rich, artifact-free, and pristine HDTV images to component HDTV-ready monitors in all video formats. In addition, it can be adapted for Composite Video applications. Therefore, you definitely need the AV Distributor Amplifier for KTV commercial use. It would offer your customers excellent sound and video quality for entertainment, so it can enhance the image of your KTV and increase the business.

KOD: It is a DVD player with built-in hard drive storage for large quantity of songs.

VOD: It is a complete system that has the hardware storage and software songs management as well as business point of sales such as food, beverages, and hourly rental, etc. This is the core of most commercial KTV business operation.



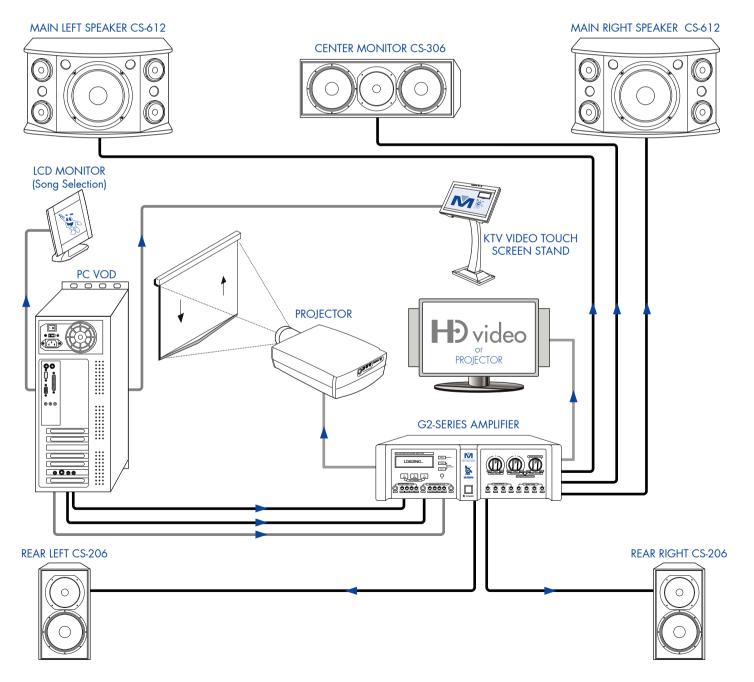


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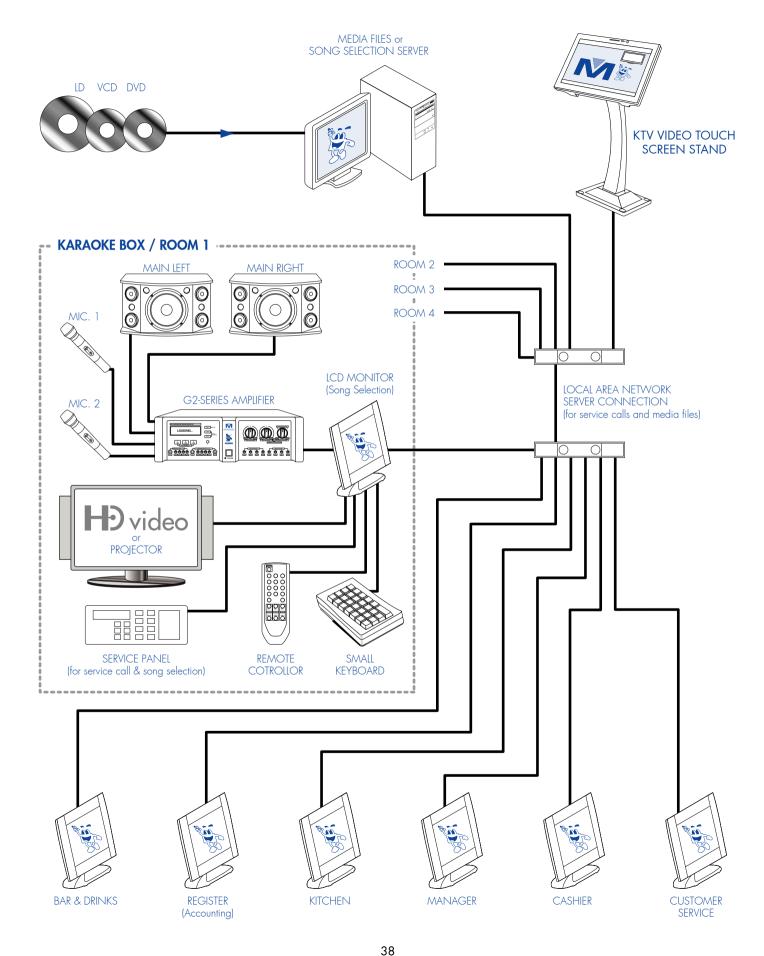
VOD For Home

Better Music Builder Video-On-Demand (VOD) system is designed with the state-of-the-art technology by our in-house engineering team. This VOD system is loaded with a maximum of 8 hard drives (300 GB each) to allow plenty of memory space. Generally speaking, a personal computer has only 4 hard drives. Now you can load all your favorite video and audio discs (including VCD, CDG and DVD format), and your favorite Karaoke songs (in different languages as well) into this VOD system. Therefore, would not have to worry about satisfying the various entertainment needs of your guests. You can certainly meet their expectations with this system.

Our Better Music Builder VOD system is also a great place to store memories of pictures for kids, parties and trips, etc. Because of the direct built-in TV feature, this system enables the presentation of slideshow for any pictures like kid's birthdays, parties, trips, banquets, functions, events and festivities, etc. By using our Better Music Builder VOD system, you can say goodbye to your dusty photo albums and bulky video cassettes. You can also organize your video and audio discs easily and retrieve the information electronically. Now you can save a lifetime of your charitable memories with this VOD system.

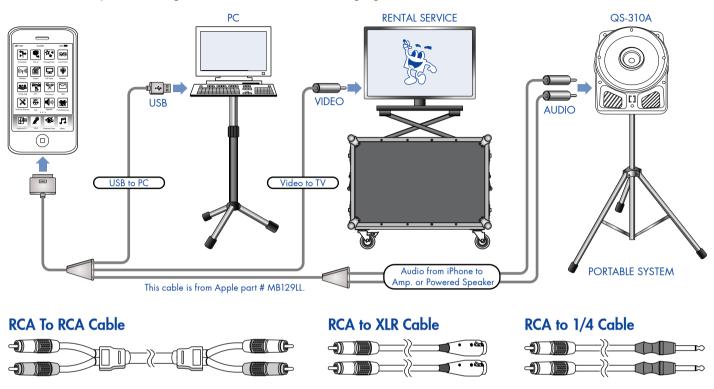


VOD For Commercial



USING EXTERNAL EQUIPMENT

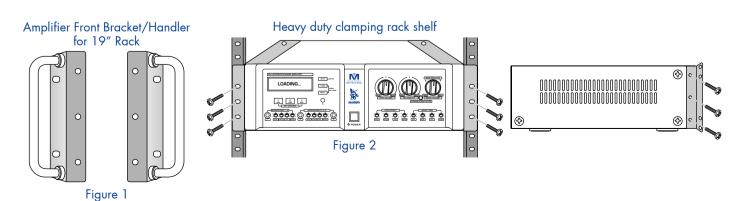
G2-Series is not only a mixing amplifier, but it is also a pre-amplifier specially designed for using external equipment. When you connect other equipment to the mixing amplifier, you may need a different type of cable such as RCA to XLR cable. We highly recommend you using high quality cable for connection, so it can give you the crystal clear sound and sharp video image. Please refer to the following figures.



OPTIONAL 19" RACK MOUNT KIT

The Rack Mount kit is optional. Please make sure to get the right kit size, then put the amplifier into the rack. The rack is used to protect the amplifier. With such portable equipment, it is possible to have party at home anytime or use it for Karaoke rental business.

The Bracket/Handler in figure 1 is used to hold your audio/video equipment firmly in place, but not for transportation. If you need to transport the equipment, we recommend you using the heavy duty clamping rack shelf (optional) as illustrated in figure 2. You should place the heavy duty clamping rack shelf into the portable case. This would protect your equipment. There are different sizes of the heavy duty clamping rack shelves to suit your specific needs. Please note that the bracket/handler, rack shelf and case are not included in the package. They are optional items and sold separately.





INSTALLATION SETUP

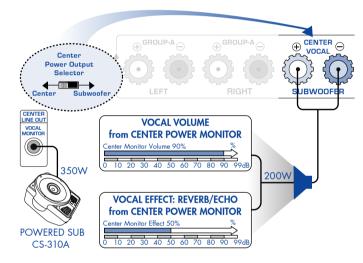
1. Echo Malfunction

Symptom: no echo from the center speaker.

Probable cause: CENTER ECHO is turned off.

Remedy: turn on CENTER ECHO.

We design this system in such a way that the echo from the main speakers is independent with that of the center monitor speaker (which helps the singer monitor his/her own singing). There is a switch in the rear panel to turn on/off the echo for the center speaker only. It would not affect the echo function of the main speakers. Therefore, if you do not hear any echo from the center speaker, it doesn't mean that the system is defective. If you need the echo from the center speaker, you just turn on the switch in the rear panel.



2. MIC MASTER VOL & MUSIC VOLUME Malfunction

Symptom: no change in sound output when adjusting the MIC MASTER and MUSIC VOLUME potentiometers.

Probable cause: only main speakers are connected.

Remedy: connect an external amplifier to Center Monitor signal out in the rear panel and hook up speakers to the external amplifier.

NOTE The two potentiometers only affect the Center Monitor signal out, and they have no effect on the main speakers output.

3. Input Select: KOD

Symptom: When trying to select KOD, it automatically jumps back to VOD.

Probable cause: VOD is the priority for the Smart Auto Input Switching feature.

Remedy: refer to page 22. Another alternative is to disconnect the equipment at the VOD connection and connect your KOD directly to the VOD input.

4. Music Low Volume Output

Symptom: the music power output is too low even with the MUSIC VOLUME knob turned all the way up to maximum.

Probable cause: "Volume Limiter" is adjusted too low.

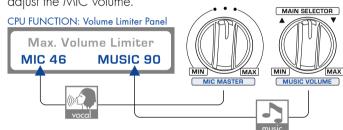
Remedy: refer to page 23 under "Volume Limiter Panel" to re-adjust the "MUSIC LIMIT VOL".

5. Microphone Low Volume Output

Symptom: MIC EFFECT MODE, ECHO VOLUME and MIC MASTER VOLUME can not be changed.

Probable cause: MIC VOL Limiter is on too low.

Remedy: refer to page 23 under "Volume Limiter Panel" to adjust the MIC volume.





The use of the Mic Limiter is to allow user to customize their protection setting on their microphone equipment. Once the limiter has been set here, the max limiter number will be the max setting at the Mic Master knob.

If you want to release the max limiter features. Go to Volume Limiter Panel and change the Mic Settings to maximum of 90.



The use of the Music Limiter is to allow user to customize their protection setting on their musical equipment. Once the limiter has been set here, the max limiter number will be the max setting at the Music Master knob.

If you want to release the max limiter features. Go to Volume Limiter Panel and change the Music Settings to maximum of 90.

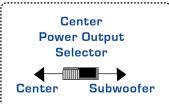
6. Speaker Power Output

Symptom: When singing, the symptom of no vocal coming out from the center speaker.

Probable cause: It is possible that the center/subwoofer switch was select in the wrong position.

Remedy: Center/subwoofer no vocal because

center/subwoofer switch is not switched. Please refer to page 9 under "How to connect the Center Monitor Speaker" for details.



7. Input signal auto jump

Symptom: Why when selected VOD or KOD input source, the system automatically select back to the DVD input terminal?

Probable cause: The reason is because this model is design for priority input select.

Remedy: When set on auto mode, the priority source is DVD by default. Therefore, if multiple source is use simultaneously, it will auto jump to the priority source. Adjusting to manual mode will turn off the auto priority mode.



"A_"stands for auto mode

M_KOD

"M_"stands for manual mode

8. Loud Speaker Output Noise

Symptom: Speaker power output has large feedback distortion Probable cause: Microphone master volume gain is over 80dB hitting the maximum, and its is possibly because its overloaded so the amplifier power output can not cover such huge area.

Remedy: Please do not continue as this might damage the system. We highly recommend using a Power Amplifier to support such load.

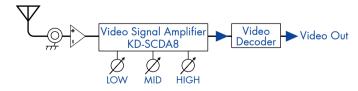
9. Video Problem

Symptoms: The video display appears in black and white color only or it has unstable image.

Possible Causes:

- 1. Video source (i.e. DVD player) is in different formats like NTSC or PAL. Therefore, you should select the right "Video Format" in the "Output" of the DVD player. It is because the video display is incompatible with the video source.
- 2. The video out from the amplifier to the video display has a distance over 25 feet. Therefore, you need to add an additional signal distribution amplifier to further enhance the signals for longer destinations.

Video Block Diagram

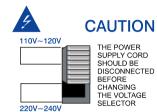


- 3. You may be using the wrong cable for connection. The cable for video signal is different from the cable for audio, microphone and speaker. Therefore, you should use coaxial cable for connection.
- 4. You may be using a low quality cable with poor connection. We highly recommend you using high quality audio/video cable for connection. Please refer to page 38 for high quality cable.

10. Amplifier Shut Down/Interference Noise

Symptom: The amplifier turned on but there is no music coming out from the speaker powered output channels. Probable cause: This unit comes with multiple switch able AC-power. For North America its 115V and for Asia and Europe markets are 230V.

Remedy: Make sure that the AC-power supply is connected to the correct voltage level according to the local market. See illustration below for the proper switching of the AC-power supply level.



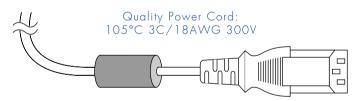
11. Protection for Audio/Video Equipment

Before you hook up or disconnect any audio/video equipment, you must turn off the power for all equipment for connection. Otherwise, it may cause black spots to appear on the Plasma (or LCD) TV screen.

12. Noise and Distortion

When humming noise or displeasing sound appears, you may do the following:

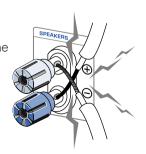
You may purchase an AC power cord with a magnetic device as shown in figure below to replace the supplied power cord.



13. Sound Problem

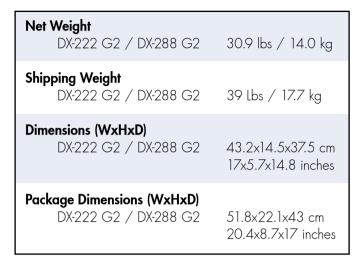
Symptom: No sound.
Possible Cause:

1. Speaker wires positive and negative touch each other at the terminals. We recommend you using the double banana plug.

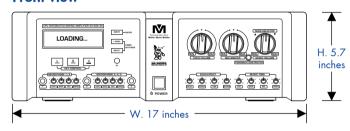


- 2. "Mute" is accidentally turn on from the remote.
- 3. "MUSIC Limit" is on with music volume limit adjusted too low. Please refer to page 23 under "Volume Limiter Panel" to re-adjust the "MUSIC LIMIT VOL".

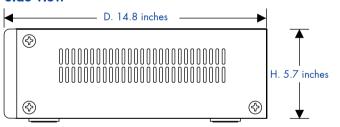
PHYSICAL DIMENSIONS



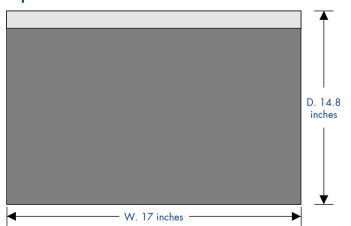
Front view



Side view



Top view





Power Output (RMS)	
DX-222 G2 3-Channel Output	2X350 W (1kHz, 4 Ohm) 200 W Cneter (1kHz, 8 Ohm)
DX-288 G2 5-Channel Output	2X350 W (1kHz, 4 Ohm) 200 W Cneter (1kHz, 8 Ohm)
THD	(1kHz, 8 Ohm) < 0.03%
Frequency Response	20Hz-20kHz ± 1dB
Input Sensitivity/Impedan	се
Front Mic Rear Mic Line Video	20 mV ±10% / 2k Ohm 40 mV ±10% / 2k Ohm 200 mV ±10% / 10k Ohm 1Vp-p / 75 Ohm
Pitch Control Music	
Bass (100Hz) Middle (1.6kHz) Treble (10kHz) Microphone Bass (100H) Middle (1.6kHz) Treble (6.3kHz)	± 8 dB ± 8 dB ± 8 dB dz) ± 8 dB ± 8 dB ± 8 dB
Effect	ECHO + REV
Loading Impedance	
Output Impedance Recommend Impedance	4~16 Ohm 8 Ohm
Power Supply	110V~/220V
AC Power Outlets	
Switched Unswitched	200 W 300 W
Static Power Consumption	30 W



The engineering team of Better Music Builder has many years of experience in audio equipment design. The team constantly develops new audio technologies, designs innovative audio and Karaoke equipment to suit your specific needs and provides you great ideas for home entertainment.

Our engineering team also designs audio equipment for commercial use by restaurants, coffee shops, churches, and school auditoriums, etc. If the commercial area for audio equipment installation exceeds 2,000 square feet, we highly recommend you to hire audio professionals to handle the installation in order to avoid risks in breaking the equipment with improper installation and safety protection purposes.

We also provide educational and technical information on audio equipment and technologies. For example, we provide free installation diagrams to make it easier to connect the system. In addition, to get best connections for the sharpest image and sound quality, we provide hot tip for choosing the high quality type of A/V cable connections. Free information on audio equipment and technologies available for download from our website, www.Better/MusicBuilder.com.

Please do not remove the "Yellow Label" in the rear of the machine; otherwise, the warranty will be void automatically. We design it to protect your own safety. If repair and maintenance service is needed, please contact us directly or hire a professional technician. To learn more about the technical



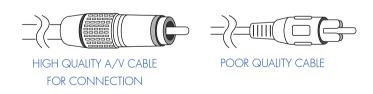
aspects, visit our website www.BetterMusicBuilder.com and download the relevant information for review.

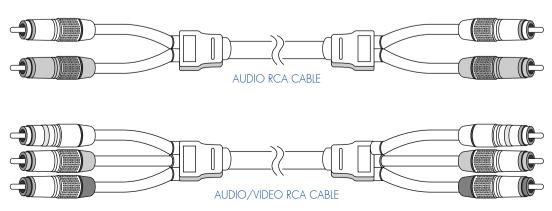
NOTE

Before hooking up the system, turn off the AC powers on all machines including audio/video equipment and TV. Otherwise, it may damage the equipment, especially on the HDTV in which a spot might appeared on the TV screen. After hooking up the system, double check the audio/video connections to ensure that they are connected correctly.

Sometimes, loose or poor cable quality would affect the microphone effects, picture quality, or even cause the machine to shut down suddenly.

Again, we must thank you for choosing Better Music Builder product. We hope you can make the best use of the machine and enjoy it for years to come. If you have any questions regarding our product, please feel free to contact us at www.BetterMusicBuilder.com.







ONE-YEAR LIMITED WARRANTY FOR HOME USE EQUIPMENT

Our one-year warranty covers both parts and labors. The warranty becomes effective from the date of your purchase for

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.

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.

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.

ADDITIONAL NOTES:

- 1. Limited warranty for home use equipment is only valid in North America
- 2. Limited warranty is valid only if you purchase our products from our authorized dealers (including both regular retailers and online retailers) in North America. If you choose to purchase our products from an authorized dealer, we will not provide any limited product warranty for you. To protect your limited product warranty, please purchase our products from one of our authorized dealers in North America near vou.
- 3. Limited warranty is automatically void if the yellow label stating "No Warranty After Openina" is removed from the product.

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.

AGENCY REGULATORY NOTICES

Federal Communications Commission Notice

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and the
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not approved may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/FMI connector hoods to maintain compliance with FCC rules and regulations.

Materials Disposal

Disposal of this material can be regulated because of environmental considerations. For disposal or recycling information, contact your local authorities or the Electronic Industries Alliance (EIA) (http://www.eiae.ora).

Disposal Of Waste Equipment By Users In Private Households In The European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of

your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Japanese Notice

この装置は、情報処理装置等電波障害自主規制協議会(VCC)の基準 - に基づくクラスB情報技術装置です。この装置は、家庭環境で使用すること | 多目的としていますが、この装置がラジオやテレビジョン受信機に近接して| 使用されると、受信障害を引き起こすことがあります。

. 乗扱発明書に従って正しい取り扱いをして下さい。

Japanese Power Cord Notice

製品には、同梱された電源コードをお使い下さい。 同梱された電源コードは、他の製品では使用出来ません。

Japanese Material Content Declaration

A Japanese regulatory requirement, defined by Specification JIS-C-0950, 2005, mandates that manufacturers provide Material Content Declarations for certain categories of electronic products offered for sale after July 1, 2006.

Korean Notice

B급 기기 (가장영 방송통신기기) 이 기기는 가정용(B급)으로 전사파석합등록을 한 기기로써 수 로 가장에서 사용하는 것을 목적으로 하며, 모든 지역에서 사 용할 수 있습니다.

Recycling Program

The terms and availability of these programs vary by geography because of differences in regulatory requirements and local customer demand.

因为在当地的监管要求和客户的需求,这些条件和程序的情况

CONTACT INFORMATION

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: info@bettermusicbuilder.com Website: www.bettermusicbuilder.com

MAINTENANCE

With proper maintenance and regular service, it would maintain the machine quality and prolong its life. We recommend you to print the following information clearly for future reference on maintenance and warranty.

MODEL#	_ Date Purchased (MM/)	DD/YYYY)	
DEALER NAME	CITY	_ ST./PROV	ZIP/P.C
DEALER WEBSITE http://www			_ INVOICE #
DEALER PHONE #	DEVIED E-WVII		

MAINTENANCE

NOTE >	