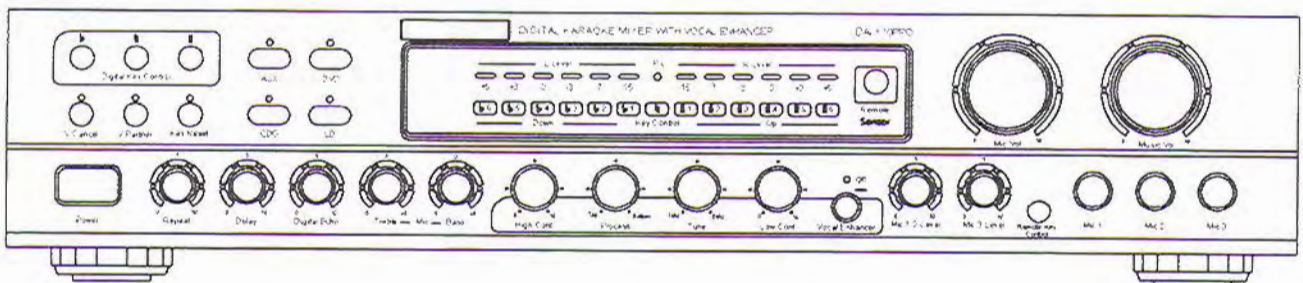
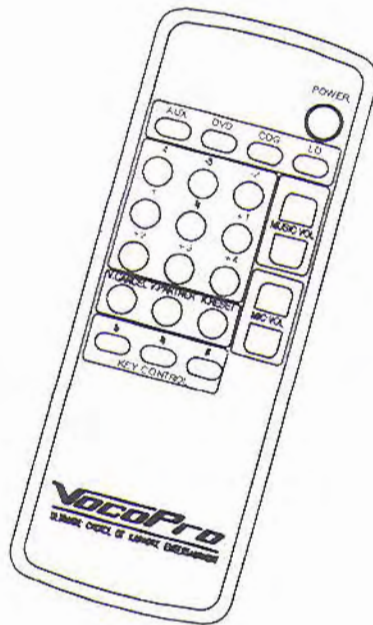


# VocoPro DA-X10PRO

Digital Karaoke Mixer with Vocal Enhancer



Owner's Manual

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# Contents

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Cautions and Warnings.....	I - II
Welcome.....	III
Listening for a Lifetime.....	IV
Features and Before Getting Started.....	1
Getting Connected.....	2-3
Front Panel Description and Functions.....	4-5
Rear Panel Description and Functions.....	6
Remote Control Descriptions and Functions.....	7
Advanced Operations.....	8-10
Specifications.....	11

#### FCC INFORMATION (U.S.A.)

**1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!**

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Vocopro may void your authority, granted by the FCC, to use this product.

**2. IMPORTANT:** When connecting this product to accessories and/or another product use only high quality shielded cables. Cable(s) supplied with this product **MUST** be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the U.S.A.

**3. NOTE:** This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurances that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the owner's manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "Off" and "On", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Use power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter(s).

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300-ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact your local retailer authorized to distribute Vocopro products. If you can not locate the appropriate retailer, please contact Vocopro, 1728 Curtiss Court, La Verne, CA 91750.

#### CAUTION

The apparatus is not disconnected from the AC power source so long as it is connected to the wall outlet, even if the apparatus itself is turned off. To fully insure that the apparatus is indeed fully void of residual power, leave unit disconnected from the AC outlet for at least fifteen seconds.

#### CAUTION: READ THIS BEFORE OPERATING YOUR UNIT

1. To ensure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
2. Install your unit in a cool, dry, clean place – away from windows, heat sources, and too much vibration, dust, moisture or cold. Avoid sources of hum (transformers, motors). To prevent fire or electrical shock, do not expose to rain and water.
3. Do not operate the unit upside-down
4. Never open the cabinet. If a foreign object drops into the set, contact your dealer.
5. Place the unit in a location with adequate air circulation. Do not interfere with its proper ventilation; this will cause the internal temperature to rise and may result in a failure.
6. Do not use force on switches, knobs or cords. When moving the unit, first turn the unit off. Then gently disconnect the power plug and the cords connecting to other equipment. Never pull the cord itself.
7. Do not attempt to clean the unit with chemical solvents; this might damage the finish. Use a clean, dry cloth.
8. Be sure to read the "Troubleshooting" section on common operating errors before concluding that your unit is faulty.
9. This unit consumes a fair amount of power even when the power switch is turned off. We recommend that you unplug the power cord from the wall outlet if the unit is not going to be used for a long time. This will save electricity and help prevent fire hazards. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
10. To prevent lightning damage, pull out the power cord and remove the antenna cable during an electrical storm.
11. The general digital signals may interfere with other equipment such as tuners or receivers. Move the system farther away from such equipment if interference is observed.

#### NOTE:

Please check the copyright laws in your country before recording from records, compact discs, radio, etc. Recording of copyrighted material may infringe copyright laws.

#### Voltage Caution

Be sure to plug this unit into a 110V-120V AC power outlet **ONLY**. If you are in an area with 220V-240V power requirement, you must first obtain an appropriate 120V to 240V power adapter prior to plugging in and powering on.

# SAFETY INSTRUCTIONS



**CAUTION**  
RISK OF SHOCK



**CAUTION:** To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Only refer servicing to qualified service personnel.

## • Explanation of Graphical Symbols




The lightning flash & arrowhead symbol, within an equilateral triangle, is intended to alert you to the presence of danger.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and servicing instructions.

## WARNING

To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.

- 1 Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
- 2 Retain Instructions - The safety and operating instructions should be retained for future reference.
- 3 Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
- 4 Follow Instructions - All operating and use instructions should be followed.
- 5 Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- 6 Water and Moisture - Do not use this unit near water. For example, near a bathtub or in a wet basement and the like.
- 7 Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 7A An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause an overturn. 
- 8 Ventilation - The appliance should be situated so its location does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation slots.
- 9 Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- 10 Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
- 11 Grounding or Polarization - Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
- 12 Power-Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- 13 Cleaning - Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 14 Power lines - An outdoor antenna should be located away from power lines.
- 15 Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
- 16 Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
- 17 Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
  - A. The power supply cord or plug has been damaged; or
  - B. Objects have fallen into the appliance; or
  - C. The appliance has been exposed to rain; or
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
  - E. The appliance has been dropped, or the enclosure damaged.
- 18 Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Note to CATV system installer's (U.S.A.):  
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected as close to the point of cable entry as practical.

**Welcome....**

*And thank you for purchasing the **DA-X10PRO** from VocoPro, your ultimate choice in Karaoke entertainment! With years of experience in the music entertainment business, VocoPro is a leading manufacturer of Karaoke equipment, and has been providing patrons of bars, churches, schools, clubs and individual consumers the opportunity to sound like a star with full-scale club models, in-home systems and mobile units. All our products offer solid performance and sound reliability, and to further strengthen our commitment to customer satisfaction, we have customer service and technical support professionals ready to assist you with your needs. We have provided some contact information for you below.*

## **VocoPro**

**1728 Curtiss Court  
La Verne, CA 91750  
Toll Free: 800-678-5348  
TEL: 909-593-8893  
FAX: 909-593-8890**

### **VocoPro Company Email Directory**

#### **Customer Service & General Information**

[info@vocopro.com](mailto:info@vocopro.com)

#### **Tech Support**

[techsupport@vocopro.com](mailto:techsupport@vocopro.com)

### **Remember Our Website**

*Be sure to visit the VocoPro website, [WWW.VOCOPRO.COM](http://WWW.VOCOPRO.COM), for the latest information on new products, packages and promo's. And while you're there don't forget to check out our Club VocoPro for karaoke news and events, chat rooms, club directories and even a KJ Service directory!*

*We look forward to hearing you sound like a PRO, with VocoPro, your ultimate choice in Karaoke entertainment!*

#### **FOR YOUR RECORDS**

Please record the model number and serial number below, for easy reference, in case of loss or theft. These numbers are located on the rear panel of the unit. Space is also provided for other relevant information.

Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Date of Purchase \_\_\_\_\_  
Place of Purchase \_\_\_\_\_

# Listening For A Lifetime

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. VocoPro and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to a higher volume of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.
- Pay attention to the different levels in various recordings.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association's Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

Some common decibel ranges:

<u>Level</u>	<u>Example</u>
30	Quiet library, Soft whispers
40	Living room, Refrigerator, Bedroom away from traffic
50	Light traffic, Normal Conversation
60	Air Conditioner at 20 ft., Sewing machine
70	Vacuum cleaner, Hair dryer, Noisy Restaurant
80	Average city traffic, Garbage disposals, Alarm clock at 2 ft.

The following noises can be dangerous under constant exposure:

<u>Level</u>	<u>Example</u>
90	Subway, Motorcycle, Truck traffic, Lawn Mower
100	Garbage truck, Chainsaw, Pneumatics drill
120	Rock band concert in front of speakers
140	Gunshot blast, Jet plane
180	Rocket launching pad

-Information courtesy of the Deafness Research Foundation

# Features

- Vocal Enhancer with High/Low Contour, Frequency and Process Controls for an Optimized Natural Vocal Image and Rich and Vibrant Sound
- 13-Step Digital Key Controller for Transposing the Natural Key of Source Music
- Vocal Cancel/Partner MPX Modes for Removing Vocals from Multiplexed Karaoke Media
- Digital Echo, Repeat and Delay Controls Add Depth and Space to Vocals
- Full-Function Remote Control for Ease of Operation
- Three Microphone Inputs with Volume Controls
- Remote Key Control Jack for Remote Key Controllable Microphones
- Master Music and Microphone Volume Controls
- Inputs: 4 Audio (RCA), 3 Video (RCA)
- Outputs: 2 Audio (RCA), 3 Video (RCA)
- 110V-240V Switchable

# Before Getting Started

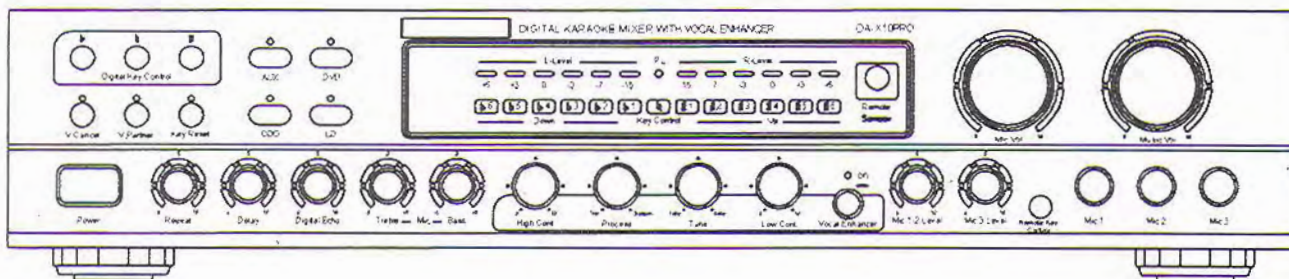
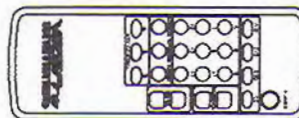
Thank you for purchasing the DA-X10PRO Digital Karaoke Mixer with Vocal Enhancer. We know the DA-X10PRO will provide years of high-quality enjoyment and reliable music entertainment for you when used properly. Please read this manual carefully before using your new DA-X10PRO to ensure best performance.

## Unpacking the DA-X10PRO

Carefully remove the DA-X10PRO from its carton. It is recommended that the original packaging materials be retained should it become necessary to return the product for any reason.

**Be sure you have the following parts and components included with your DA-X10PRO :**

1 DA-X10PRO, 1 RCA Patch Cable, 1 Remote Control, 2 AAA Batteries,



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# Getting Connected

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## Connecting TV's/Monitors to the DA-X10PRO

The DA-X10PRO has three VIDEO OUTPUT jacks, all of which output source video and/or decoded CD+G graphics to TV's and display devices. This enables multiple TV configurations for performer, KJ and audience viewing.

For each video connection, follow the steps below:

- (a) Connect an RCA-type video cable from the desired VIDEO OUTPUT jack on the DA-X10PRO to the VIDEO INPUT jack on the TV or monitor device. *Some TV's will require that you manually switch the TV to the VIDEO INPUT mode. Other TV's will automatically switch video modes when they detect a video signal from the video in jack. On most TV's the jack is labeled AUX or VIDEO.*
- (b) If the TV does not have a VIDEO IN jack you may connect that end of the video cable to the VIDEO INPUT of a VCR and connect the RF OUTPUT of the VCR to the TV ANTENNA INPUT jack.
- (c) If there is no VCR present, you will need to use an RF Modulator. To obtain an RF Modulator, check with your VocoPro dealer. An RF Modulator can also be purchased from Radio Shack™.

## Connecting Input Source Players/Devices to the DA-X10PRO

The DA-X10PRO has **three** audio/video input channels and **one** audio input channel, for a total of four possible input devices to be connected.

The AUX INPUT is for connecting a device with AUDIO output only, such as a CD player, therefore it only has stereo audio jacks. For the DVD, CDG and LD channels, in addition to the standard stereo audio jacks, there is also a VIDEO jack for connecting VIDEO output. For all color-coded jacks on the DA-X10PRO, the YELLOW jacks are for connecting VIDEO, while the RED and WHITE jacks are for connecting audio. If a particular device connection does not require a video connection, simply connect the audio jacks only.

For each device connection, follow the steps below:

- (a) To connect AUDIO, connect an RCA-type audio cable (stereo) from the AUDIO INPUT jacks of the DVD, CDG or LD channels on the DA-X10PRO to the AUDIO OUTPUT jacks on the source player.
- (b) For a corresponding VIDEO connection, connect an RCA-type video cable from the VIDEO INPUT jack on the DA-X10PRO to the VIDEO OUTPUT jack on source player, being sure the audio and video connections are to the same input channel on the DA-X10PRO and external source player.

While each input channel is designated with a device association (DVD, CDG, LD, and AUX), any compatible device can be connected to them (with exception to the AUX channel, which only has stereo audio inputs and no video). The device associations are for convenience only, and should not prevent one from connecting a device different from that of the designation.

## Connecting to Amplifiers, Mixers or Recording Devices

The DA-X10PRO has TWO pairs of RCA AUDIO OUTPUTS:

**Pre-Out:** This OUTPUT is for connecting the DA-X10PRO to a power amplifier.

- (a) Using a patch cable with RCA plugs on one side, and plugs that match your amplifier's inputs on the other, connect the RCA plugs to the PRE-OUT jacks on the DA-X10PRO, and the connect the other sides plugs to the amplifiers AUDIO INPUT.

**REC Out:** This OUTPUT is for connecting the DA-X10PRO to a recording device or secondary mixer.

- (a) Using a patch cable with RCA plugs on one side, and plugs that match your recorder/mixer's inputs on the other, connect the RCA plugs to the REC-OUT jacks on the DA-X10PRO, and the connect the other sides plugs to the recorder/mixer's AUDIO INPUT.



## Connecting Microphones to the DA-X10PRO

The DA-X10PRO's microphone jacks accommodate unbalanced ¼-inch microphone plugs. Microphones with an 1/8-inch mini-plug can also be connected with an 1/8-inch to ¼-inch adapter.

- If the microphone cable is detachable, plug the XLR end into the microphone firmly till it "locks" into place.
- Unravel the microphone cable to prevent tangling and connect the ¼-inch plug in one of the DA-X10PRO's microphone jacks.

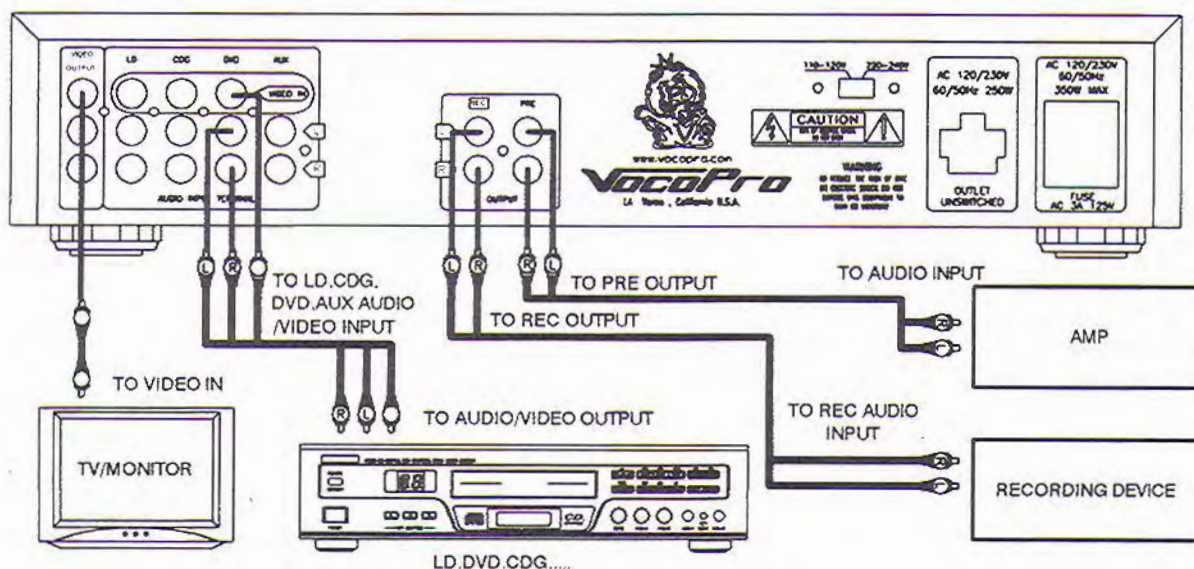
## Powering Up

- Plug the power cord of the DA-X10PRO into a 110-120V AC wall outlet, but do not turn on the DA-X10PRO yet. **NOTE: The DA-X10PRO cannot be used with 220-240V power supplies. If improperly plugged into a 220-240V AC power outlet, the DA-X10PRO may malfunction, possibly to the point of system failure. In this case, the product warranty would become void.**
- Turn on the receiver/amplifier, source player(s) and TV.
- Be sure your TV is set to receive video input from the VIDEO INPUT jack. (Some TV's use a VIDEO INPUT, AUX or CHANNEL 0 as a "dedicated" video channel). Check you TV's instruction manual to see how it selects its video channel(s).
- Turn the POWER switch on the DA-X10PRO to its ON position.

## Sound Check

- Select the correct input on your receiver/amplifier. For example, if the AUDIO OUTPUT from the DA-X10PRO is connected to the CD INPUT on the receiver/amplifier, set its INPUT CHANNEL to CD.
- Set the MASTER VOLUME controls on both the DA-X10PRO and receiver/amplifier to approximately 25%.
- Set the DA-X10PRO's MIC 1-2 and MIC 3 VOLUME controls to 50%, with the MASTER MIC VOLUME control at approximately 25%.
- Set the DA-X10PRO's INPUT SELECTOR to the correct channel that a source player is connected to. For example, if you wish to play from the player connected to the DVD input channel, set the input selector to DVD.
- Start playback from source and ensure a connected MIC is on. You should hear the playback and your vocals when singing into the MIC.

Your Sound Check Is Now Complete .



# Front Panel Descriptions and Functions

1. **POWER** button – This button turns the DA-X10PRO On/Off.
2. **V. CANCEL** button – This control turns the VOCAL CANCEL MPX mode ON/OFF.
3. **V. PARTNER** button – This control turns the VOCAL PARTNER MPX mode ON/OFF.

<u>MPX Mode</u>	<u>Function</u>
• Vocal Cancel	Cancels guide vocals on multiplexed software
• Vocal Partner	Cancels guide vocals on multiplexed software when singing only

4. **DIGITAL KEY CONTROLLER** – The Digital Key Controller allows you to modify the original key of a track without changing its tempo. You can step UP or DOWN six steps for a total of 13-steps including the neutral setting.

- To step DOWN, press the "b" button
- To step UP, press the "#" button
- To revert to the original key, press the "middle" button

5. **K. RESET** button – This button enables/disables the AUTO-RESET function of the DIGITAL KEY CONTROLLER. When the AUTO-RESET feature is ON, the DIGITAL KEY CONTROLLER will automatically reset itself after approximately 10 seconds of inactivity (no source music signal). When set to OFF, the DIGITAL KEY CONTROLLER does not reset automatically.

6. **DVD/CDG/LD/AUX** buttons – Each of these buttons select a different INPUT CHANNEL for source audio playback. For example, let's say you have player A connected to the DVD channel, player B connected to the CDG channel and player C connected to the AUX channel. If you wanted playback from player A, you would press the DVD button. The CDG button would select player B and the AUX button would select player C.

7. **LED METER** display – The LED METER displays stereo OUTPUT levels of the DA-X10PRO. An excessive OUTPUT level is represented by RED LED bars, and should be lowered if RED LED's are frequent.

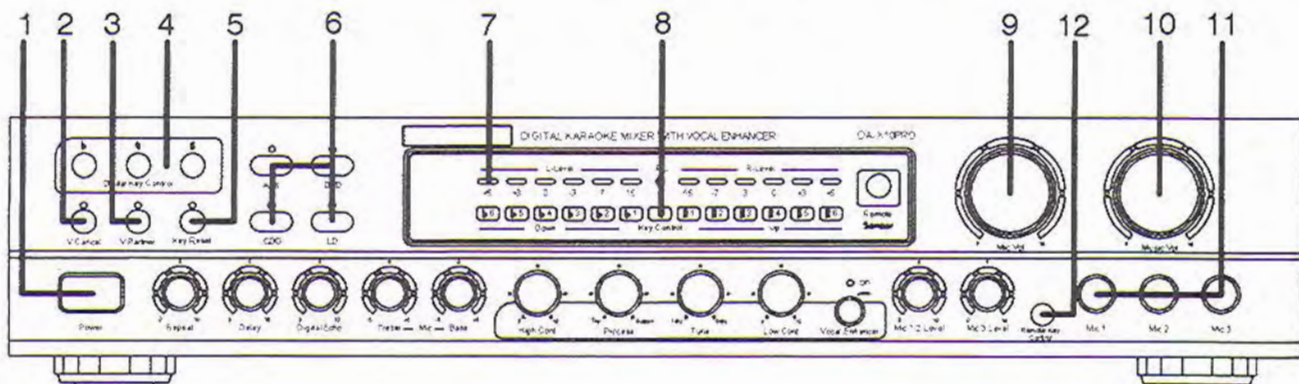
8. **DIGITAL KEY CONTROLLER LED** panel – The DIGITAL KEY CONTROLLER LED panel displays the current setting of the DIGITAL KEY CONTROLLER.

9. **MIC VOLUME** control – The MIC VOLUME control is the master volume control for MIC OUTPUT. This allows you to increase or decrease MIC VOLUME levels with one control. Turn clockwise to increase and counter-clockwise to decrease MIC VOLUME.

10. **MUSIC VOLUME** control – The MUSIC VOLUME control is the master control for MUSIC OUTPUT. Turn clockwise to increase and counter-clockwise to decrease MUSIC VOLUME.

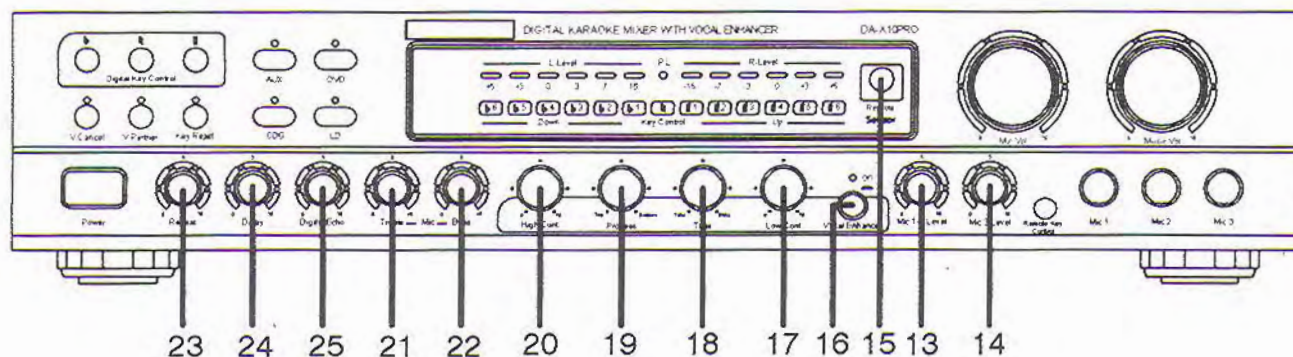
11. **MIC 1/2/3 jacks**- These 1/4" jacks are for connecting microphones with a 1/4" plug. **NOTE:** MIC 3 has its own volume control for separate KJ/DJ/PA adjustments from those of performer microphone channels 1/2.

12. **REMOTE KEY CONTROL** jack – This 1/8" mini-jack is for connecting a microphone with a 1/8" REMOTE KEY CONTROL plug in addition to the standard 1/4" plug. **NOTE:** The 1/4" plug of a remote key controllable microphone can be plugged into any one of the 1/4" plugs.



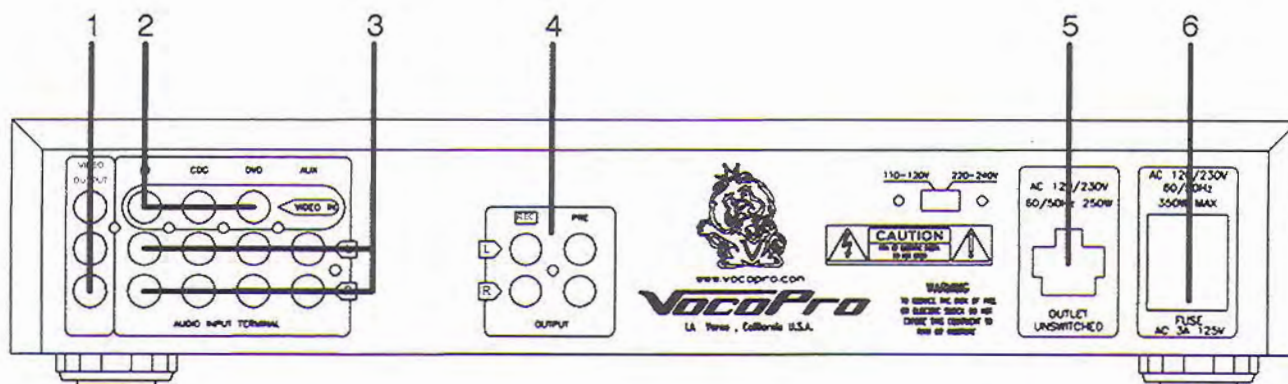
## Front Panel Descriptions and Functions (Cont)

- 13. MIC 1-2 VOL control** – This control adjusts the VOLUME levels for MIC channels 1 and 2 together. Turn clockwise to increase VOLUME, and counter-clockwise to decrease VOLUME.
- 14. MIC 3 VOL control** – This control adjusts the VOLUME level for MIC channel 3. Turn clockwise to increase VOLUME, and counter-clockwise to decrease VOLUME.
- 15. REMOTE CONTROL SENSOR** – This sensor receives signals from the Remote Control. **NOTE:** The area between the Remote Control and the DA-X10PRO should be clear of large obstacles.
- 16. VOCAL ENHANCER ON/OFF button** – This button turns the VOCAL ENHANCER processing ability ON/OFF. This is very useful for comparing a non-processed and a processed signal for fine-tuning and system diagnostics.
- 17. LOW CONT. control** – This control sets the level of LOW frequencies available for enhancement. When set to '0', LOW frequencies remain relatively unchanged. When set to '10', LOW frequency enhancement is at a maximum level.
- 18. TUNE control** – The TUNE control sets the lower cutoff frequency of the high-pass filter. Using this control, you can select the frequencies that are routed to the VOCAL ENHANCER. The cut-off frequency can be adjusted within a range of 1kHz to 8 kHz.
- 19. PROCESS control** – This control enables you to mix between TOP and BOTTOM processing. Using this control allows you to find a balance that is perfect for your vocals. As the control is turned clockwise, the ratio of "BOTTOM" enhancement decreases, while the "TOP" enhancement, a more aggressive sound, increases. At 50/50, there is an equal blend of TOP and BOTTOM processing.
- 20. HIGH CONT. control** – This control sets the level of HIGH frequencies available for enhancement. When set to '0', HIGH frequencies remain relatively unchanged. When set to '10', HIGH frequency enhancement is at a maximum level.
- 21. MIC TREBLE control** – The MIC TREBLE control adjusts the level of HIGH FREQUENCIES for all microphone output. Turn clockwise to increase TREBLE to the microphone channels, and counter-clockwise to decrease TREBLE to the microphone channels.
- 22. MIC BASS control** – The MIC BASS control adjusts the level of LOW FREQUENCIES for all microphone output. Turn clockwise to increase BASS to the microphone channels, and counter-clockwise to decrease BASS to the microphone channels.
- 23. REPEAT control** – This control is a facet of the DIGITAL ECHO effect. REPEAT adjusts the interval repetition time of each echo within the effect. As more REPEAT is applied, more echoes will occur prior to fadeout. Turn clockwise to increase and counter-clockwise to decrease the REPEAT level.
- 24. DELAY control** – This control also is a facet of the DIGITAL ECHO effect. DELAY adjusts the length of each echo interval. As more DELAY is applied, there will be more "space" applied between the starting and ending point of each echo. Turn clockwise to increase and counter-clockwise to decrease the DELAY level.
- 25. DIGITAL ECHO control** – This control increases/decreases the level of ECHO applied to the MICROPHONE channels. Turn clockwise to increase and counter-clockwise to decrease the ECHO level.



# Rear Panel Descriptions and Functions

- 1. VIDEO OUT (1/2/3) jacks** – These VIDEO OUT jacks supply video to monitors, TFT displays and TV's. Connect RCA style video cables from these VIDEO OUT jacks to the VIDEO IN jacks on your display devices.
- 2. VIDEO IN (DVD/CDG/LD) jacks** - These VIDEO IN jacks allow the VIDEO signal of A/V device output i.e. CDG, LD, DVD players to be connected to the DA-X10PRO. Connect RCA style cables from these jacks to the VIDEO OUT jacks on your A/V devices.
- 3. AUDIO IN (DVD/CDG/LD) jacks** – These AUDIO IN jacks allow the AUDIO signal of A/V device output i.e. CDG, LD, DVD players to be connected to the DA-X10PRO. Connect stereo RCA style cables from these AUDIO IN jacks to the AUDIO OUT jacks on you're A/V devices.
- 4. AUDIO OUT jacks** – These AUDIO OUT jacks are for connecting the DA-X10PRO to power amplifiers, pre-amps, receivers or recording devices. It is important to note a difference between the two AUDIO OUT jacks:
  - The REC-OUT jacks are designed for connection to a recording device such as a tape recorder or similar device. Output from the REC-OUT jacks is line-level, meaning that adjusting the master volume control on the DA-X10PRO does not affect the output signal. This is so since power amplifiers require more signal input.
  - The PRE-OUT jacks are designed for connection to power amplifiers. Output signals from the PRE-OUT jacks are suited for most amplifier inputs. If your amplifier has input jacks other than RCA, obtain an appropriate set of cables to match the inputs on your amplifier.
- 5. AC POWER outlet** – This AC outlet is for providing power to an external device. **NOTE: DO NOT CONNECT A DEVICE THAT IS DESIGNED FOR 240V USE OR HAS A POWER CONSUMPTION LEVEL HIGHER THAN 200W.**
- 6. FUSE terminal** – This terminal houses the system FUSE. To remove FUSE, twist the terminal cap and unscrew. **NOTE: ONLY REPLACE FUSE WITH ONE OF THE SAME TYPE AND RATING.**



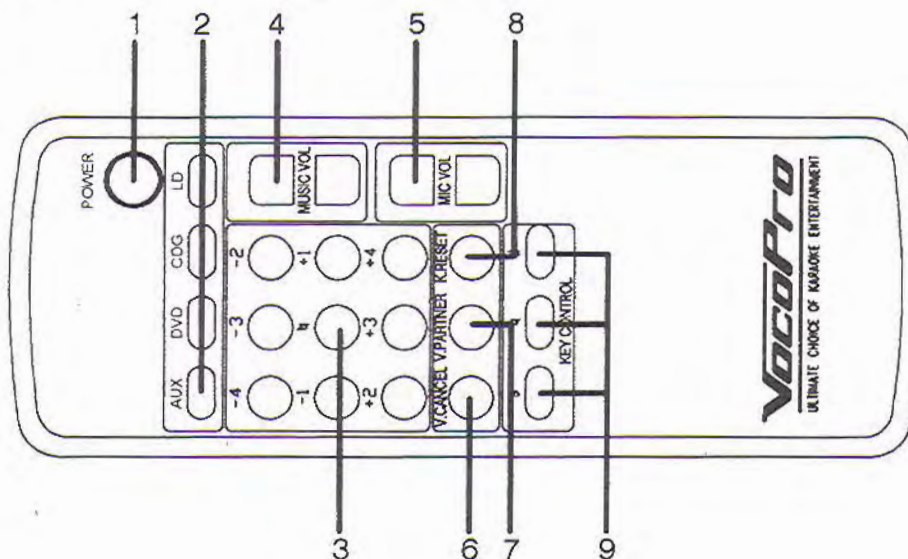
# Remote Control Description and Functions

1. **POWER** button – This button turns the DA-X10PRO On/Off.
2. **AUX/DVD/CDG/LD** buttons – Each of these buttons select a different INPUT CHANNEL for source audio playback. For example, let's say you have player A connected to the DVD channel, player B connected to the CDG channel and player C connected to the AUX channel. If you wanted playback from player A, you would press the DVD button. The CDG button would select player B, the AUX button would select player C.
3. **DIRECT ACCESS KEY CONTROL** buttons – To go directly to a particular key, press the key's direct access button (-6,-5,-4, -3, -2, -1, #,+1, +2, +3, +4,+5,+6). Press the middle button to go back to the NEUTRAL key.
4. **MUSIC VOLUME** buttons – Use these buttons to raise/lower the MUSIC VOLUME. Pressing the UP button repeatedly will raise the MUSIC VOLUME. Pressing the DOWN button repeatedly will lower the MUSIC VOLUME.
5. **MIC VOLUME** buttons – Use these buttons to raise/lower the MIC VOLUME. Pressing the UP button repeatedly will raise the MIC VOLUME. Pressing the DOWN button repeatedly will lower the MIC VOLUME.
6. **V. CANCEL** button – Press this button to enable the VOCAL CANCEL audio mode. Press again to disable VOCAL CANCEL audio mode.
7. **V. PARTNER** button – Press this button to enable the VOCAL PARTNER audio mode. Press again to disable VOCAL PARTNER audio mode.

<u>MPX MODE</u>	<u>FUNCTION</u>
• Vocal Cancel	• Cancels guide vocals on multiplexed software
• Vocal Partner	• Cancels guide vocals on multiplexed software when singing only
• Off	• None

NOTE: The karaoke media must be MULTIPLEX formatted in order for these features to work.

8. **K. RESET** button – This button enables/disables the AUTO-RESET function of the DIGITAL KEY CONTROLLER. When the AUTO-RESET feature is ON, the DIGITAL KEY CONTROLLER will automatically reset itself after approximately 10 seconds of inactivity (no source music signal). When set to OFF, the DIGITAL KEY CONTROLLER does not reset automatically.
9. **DIGITAL KEY CONTROL** buttons – The Digital Key Controller allows you to modify the original key of a track without changing its tempo. You can step UP or DOWN six steps for a total of 13-steps including the neutral setting.
  - To step DOWN, press the "b" button
  - To step UP, press the "#" button
  - To revert to the original key, press the "middle" button



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## Working with Vocals Using External Effects Devices

Often, vocalists use external effects such as echo, repeat, delay, reverb and key control. As these effects do enhance the overall vocal experience, they can also considerably limit the signal's sound quality. Here too, the Vocal Enhancer will be of help to clean up the vocal image. Depending on the effect and voice in use with the Vocal Enhancer, we must recommend experimenting with the different settings to find the best possible setting for the situation. Use the general setting above as a starting point if you are unsure about setting up.

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## Enhancing the Vocal Image

The frequency bandwidth of most vocalists is approximately 300Hz – 6kHz. The DA-X10PRO can improve the range of sound so that vocals have a more natural and transparent sound by enhancing frequencies within that range. Even minute aspects of a vocal image can be emphasized without affecting the overall sound. Because every vocal image is different, it is best recommended to experiment with different settings to see which sound is closest to what you are seeking. Use the general setting above as a starting point if you are unsure about setting up.

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## Enhancing the Vocals within Pre-existing Karaoke/P.A. Systems

If used with Karaoke and P.A. systems, for studio or live situations, the DA-X10PRO offers dramatic advantages:

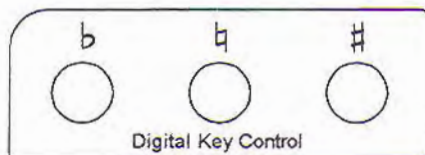
In Karaoke or P.A. systems, the DA-X10PRO is placed either directly before the power amp or in a loop. The intelligibility and range of your vocals will be noticeably improved and the vocal image will become clear and transparent, even at low volume levels. You will quickly find that the DA-X10PRO can be a valuable tool in solving otherwise difficult audio problems. For instance, excellent sounding vocals in clubs, you do not need to constantly read just the high frequencies, as the room becomes increasingly crowded.

Use of the Vocal Enhancer will increase the speaker system's acoustic performance and its ability to penetrate a room, particularly in places with difficult acoustics. The system may need **LESS** effective amplifier power, since the perceived level of volume level increases. Powerful and detailed vocal reproduction can thus be achieved in "weaker" sounding systems. Often the DA-X10PRO can help you prevent spending a small fortune on upgrading your entire system.

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## Using Digital Key Control

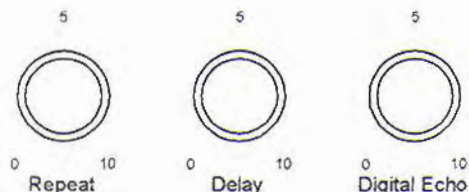
Use the Digital Key Controller to obtain the desired musical key ( $\pm 3$  notes, 13-steps). The Digital Key Controller indicators ( $\pm 6$  and 0 indicators) display the selected pitch. To step up, press the left button marked "b". To step down, press the right button marked "#". To revert back to the original key, press the MIDDLE button.



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## Customizing Digital Echo Settings

When using Digital Echo, you can customize the effect by adjusting the Echo, Repeat and Delay controls. First set the ECHO level control to mid-level. Then customize the effect with the REPEAT and DELAY level controls. Repeat adjusts the interval repetition of the echo effect. As more Repeat is applied, more echo intervals will be heard when using it and vice versa. Delay adjusts length of each interval. As more Delay is applied, there will be more "space" between the starting and ending point of each echo. When the Digital Echo effect is customized, adjust the ECHO level control as you would a master level control.

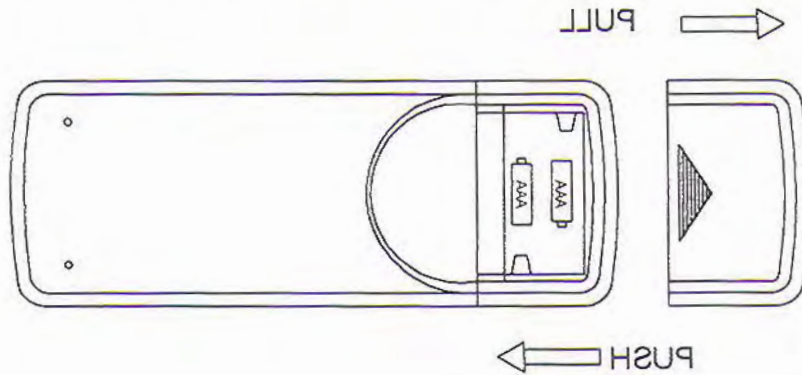


**When to replace the batteries**  
 The maximum operational distance between the remote control and the sensor is approximately 23 ft. If this distance decreases, it is time to replace the batteries.

**NOTES:**

- When operating the remote control, point the top of the remote control toward the front panel.
- Keep the line of sight between the remote control and DA-X10PRO clear of obstacles to prevent signal deflection.

**Installing the batteries**  
 To install the batteries, first remove the battery compartment lid from the back of the remote control. Insert two AAA batteries, ensuring that the polarities are aligned correctly.



## Advanced Operations

### Using the Vocal Enhancer

**General Settings**

We recommend setting the controls as indicated in the following three sections. This will give you a better idea of the switch and control functions:

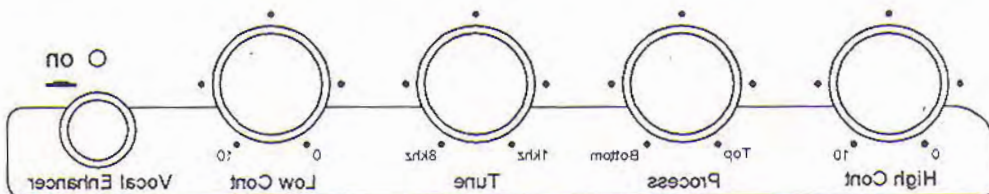
1. Set the VOCAL ENHANCER to OFF (the button OUT with no LED lit).

Set the LOW CONTOUR, TUNE and PROCESS controls to their center positions.

Plug in a microphone with a constant signal for sound.

2. Turn the LOW CONTOUR control counterclockwise from the center position and the HIGH CONTOUR control slowly clockwise until the fundamental bass and high frequencies become more emphasized and the sonic image begins to "open up" or to "widen".

1. The quality of the vocal enhanced signal can be adapted to the source audio by varying the LOW CONTOUR and TUNE controls. When using the Vocal Enhancer, it is easy to get carried away with excessive settings. Therefore, we recommend regular ON/OFF comparisons (INPUT) while setting the controls, in order to constantly check the vocal integrity. Rule of thumb: The Vocal Enhancer should not be considered a "full-time" device that operates within the "more is better" paradigm. Listening at high volume levels over long periods (in studios, for example) leads to listening fatigue and thus reduces sensitivity to higher frequencies. Regular pauses keep your hearing "healthy" and helps you avoid exaggerated sound processing.

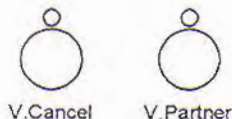


## Removing the Vocal Layer from a Multiplex Disc

When playing a Multiplex disc, you can use either the CANCEL or PARTNER feature to remove the vocal layer from playback.

If you select CANCEL the vocal layer will be removed. To have the vocal layer return to the mix, select NORMAL mode.

If you select PARTNER, the vocal layer will be removed only as long as you are singing into a Mic. When Mic activity ceases, the vocal layer automatically returns. To have the original vocal layer return to the mix, select NORMAL mode.

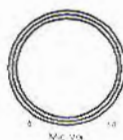


## Balancing Microphone Levels

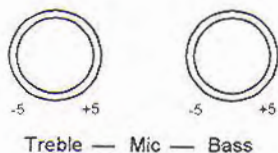
Set the MIC 1 and MIC 1-2 controls to their center positions.



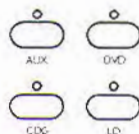
Set the MIC VOLUME control to about 25-percent from its minimum position.



Make adjustments to the MIC BASS and TREBLE controls. *It is recommended not to apply too much TREBLE as that can lead to microphone feedback.*



Set the DA-X10PRO's INPUT SELECTOR to a channel where the test music is. (For example, if you wish to play music from a player connected to CDG input, set the INPUT SELECTOR to CDG).



Adjust ECHO, REPEAT and DELAY settings to personal taste via the ECHO, REPEAT and DELAY controls.



Ensure that the microphone is on and start playback from the source. When singing into the microphone, you should hear the playback music and your vocals together.

Do a complete song, preferably with volume changes, to ensure microphone balancing is correct.



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# SPECIFICATIONS

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## AUDIO INPUT (AT 1KHz)

MICROPHONE	2.5MV/10K $\Omega$
AUX/DVD/CDG/LD	150MV/50 K $\Omega$
AUDIO OUTPUT	>300MV

## VIDEO

DVD/CDG/LD	1V P-P/75 $\Omega$
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## FREQUENCY RESPONSE

DVD/CDG/LD	20Hz–20kHz $\pm$ 3db
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## TONE CONTROL (MIC)

BASS	$\pm$ 3db (100Hz) $\pm$ 3db
TREBLE	$\pm$ 8db (10KHz) $\pm$ 3db

## EXPANDER PROCESSOR

VOCAL ENHANCER	HIGH, PROCESS, TUNE, LOW CONTROL
ECHO DELAY TIME	100 mSec – 200 mSec
KEY CONTROL RANGE	+6/-6 INTERVALS (13 STEPS)
SIGNAL TO NOISE RATIO	MORE THAN 65db

## POWER

POWER REQUIREMENTS	AC 117V/230V 60Hz/50Hz
POWER CONSUMPTION	8 WATT

## AC OUTLETS

UNSWITCHED	1 (TOTAL 250W)
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## DIMENSIONS

(W x D x H):	430 x 325 x 90 (mm)
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## ACCESSORIES

POWER CORD	1
AUDIO CORDS	2
OPERATING INSTRUCTIONS	1
REMOTE CONTROL UNIT	1
BATTERIES	2
WARRANTY CARD	1

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