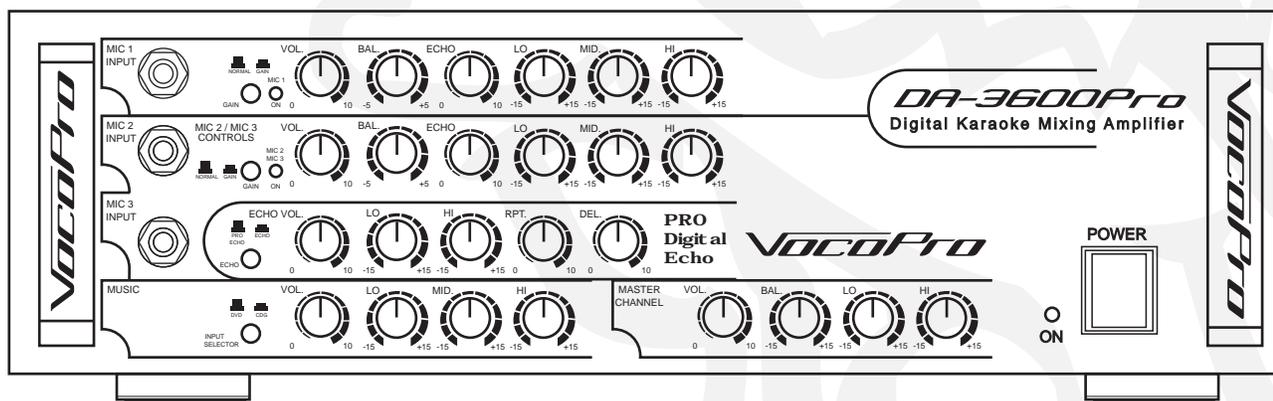


VocoPro

ULTIMATE CHOICE OF KARAOKE ENTERTAINMENT

Excellent Features:

- 100W + 100W Maximum Power Output at 8 Ohms
- 135W + 135W Maximum Power Output at 4 Ohms
- Pro Echo Circuitry for Enhanced Digital 3D-like Echo, Repeat and Delay Effects
- 3 Microphone Inputs with +20dB Gain Pad, Volume, Balance, Echo and 3-Band EQ Controls on Each Channel
- 2 RCA A/V Inputs for Source Players (DVD, CDG, VCD, etc.) with Volume and 3-Band EQ Controls on Each Channel
- 3 RCA Audio Outputs (Record, Line and Microphone) for Connection to Recording Devices, Amplifiers and Mixers
- 1 RCA Video Output for Video Connection to a TV or Monitor Device
- Effect Loop for Integration of Outboard Effect Units
- Master Volume, Balance and Low/High Frequency Controls



DA-3600Pro
200W Digital Karaoke Mixing Amplifier

o w n e r ' s m a n u a l

DA-3600 Pro

200W Digital Karaoke Mixing Amplifier

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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.

7 A. 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.

CAUTION: Read this before operating your unit

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.

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.
12. When positioning your equipment, especially regarding speakers or other accessories, avoid positioning them over areas where they can fall and cause injury to yourself and others.

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.



Welcome....

Thank you for purchasing the **DA-3600Pro** 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

Customer Service & General Information

info@vocopro.com

Tech Support

techsupport@vocopro.com

Remember Our Website

Be sure to visit the VocoPro website 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 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:

Level	Example
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:

Level	Example
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

Before Getting Started: Things to Consider

It is very important to read the following instructions prior to starting any installation procedures. Doing so will ensure a correct installation and may save you some time as well.

Protect Against Power Surges

- Connect all external components before you plug any of their power cords into the wall outlet.
- Turn off the DA-3600 Pro before you connect or disconnect any cables.
- Make sure all cables are properly grounded.

Protect Components from Overheating

- Don't block ventilation holes. Arrange any components so that air can circulate freely.
- Don't stack components.
- If you place the DA-3600 Pro on a stand, make sure you allow adequate ventilation.

Position Cables Properly to Avoid Audio Interference

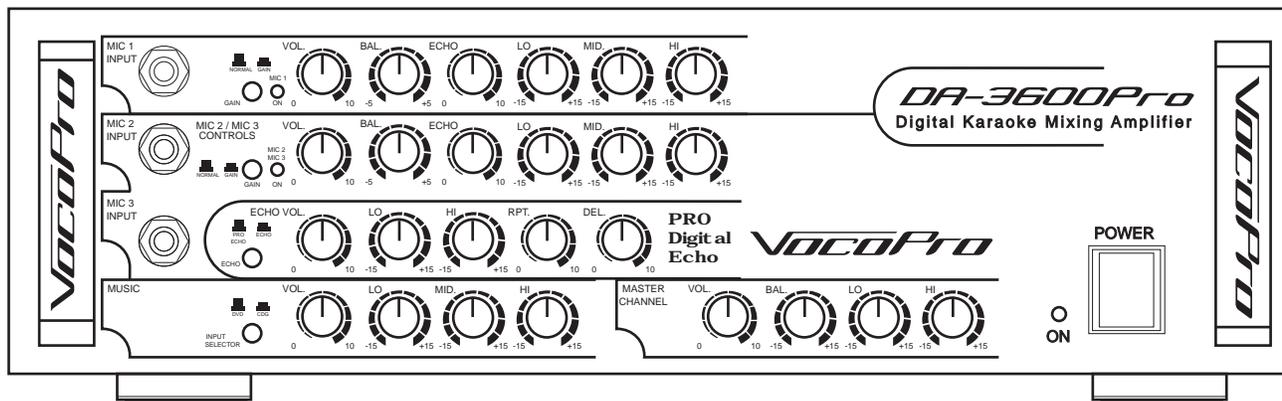
- Insert each cable firmly into the designated jack.
- If you place components above the DA-3600 Pro, route all cables down the side of the back of the DA-3600 Pro instead of straight down the middle of the back of the DA-3600 Pro.

Important Stand and Base Safety Information

Choose the location for your DA-3600 Pro carefully. If the DA-3600 Pro is placed on a stand or base, ensure that it is of adequate size and strength to prevent it from being accidentally tipped over, pushed off, or pulled off. This could cause personal injury and/or damage to the DA-3600 Pro.

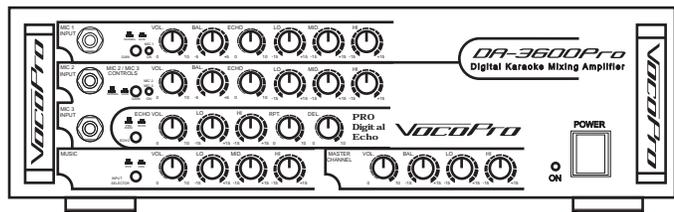
You should have received the following items:

ITEMS:	QUANTITY:
DA-3600 Pro	(1)
AC Power Cable	(1)



The DA-3600 Pro's Features

- 100W + 100W Maximum Power Output at 8 Ohms
- 135W + 135W Maximum Power Output at 4 Ohms
- Pro Echo Circuitry for Enhanced Digital 3D-like Echo, Repeat and Delay Effects
- 3 Microphone Inputs with +20dB Gain Pad, Volume, Balance, Echo and 3-Band EQ Controls on Each Channel
- 2 RCA A/V Inputs for Source Players (DVD, CDG, VCD, etc.) with Volume and 3-Band EQ Controls on Each Channel
- 3 RCA Audio Outputs (Record, Line and Microphone) for Connection to Recording Devices, Amplifiers and Mixers
- 1 RCA Video Output for Video Connection to a TV or Monitor Device
- Effect Loop for Integration of Outboard Effect Units
- Master Volume, Balance and Low/High Frequency Controls



Specifications

Amplifier

Maximum Output: 135W X 2 (4ohm)
S/N ratio: 75dB (without karaoke)
THD: 0.08%
Frequency Response: 20Hz--18KHz

MIC Tone

Treble 10kHz
Midrange 1kHz
Bass 100Hz

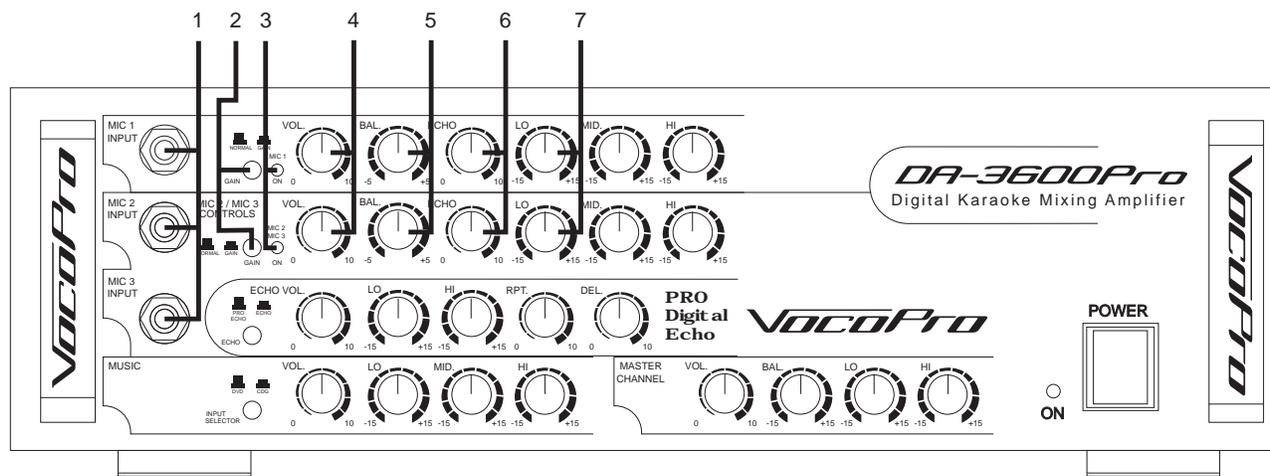
Tone adjustable range

High Frequency: 10dB 13KHz
Low Frequency: 10dB 60Hz

Input impedance

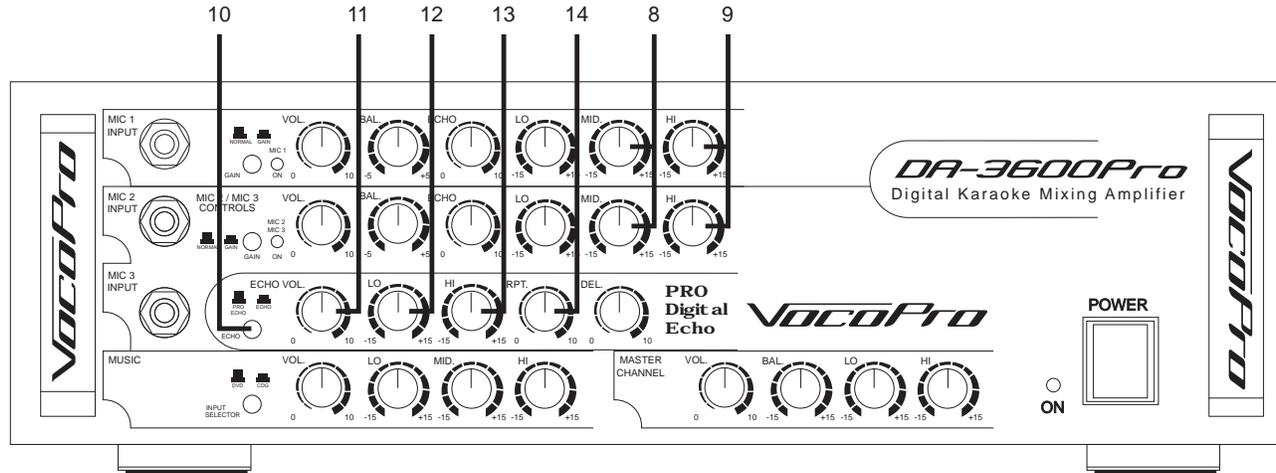
Music: 200mv/47K
MIC: 600 ohm
Supply Voltage/Frequency: AC: 110V-220V (50-60Hz)

Front Panel Descriptions



1. **1/4" MICROPHONE jacks (1,2 and 3)** – Plug microphones with a 1/4" plug to these jacks.
2. **+20dB GAIN pads** – Press pad to an inward position to have the microphone output receive a +20dB GAIN boost. Release pad to its outer position to have the microphone output revert back to NORMAL volume.
NOTE: The +20dB GAIN pad located next to the MIC 2 jack applies the GAIN to both MIC 2 and MIC 3 channels.
3. **MIC LED indicators** – The MIC LED indicators illuminate when there is an active microphone signal detected on that channel.
NOTE: The MIC LED indicator located next to the MIC 2 jack applies to both MIC 2 and MIC 3 channels.
4. **VOL. control (MIC 1, 2-3)** – This control increases/decreases the VOLUME level for the MIC channels. Turn clockwise to increase MIC VOLUME and counter-clockwise to decrease the MIC VOLUME.
NOTE: The MIC VOL control located next to the MIC 2 jack controls the MIC VOLUME for both the MIC 2 and MIC 3 channels.
5. **BAL. control (MIC 1, 2-3)** – This control fades the MIC 1, 2-3 output between the LEFT and RIGHT stereo channels. Turn counter-clockwise to fade MIC 1, 2-3 output towards the LEFT channel and clockwise to fade MIC 1, 2-3 output towards the RIGHT channel.
NOTE: The BALANCE control located next to the MIC 2 jack controls the BALANCE for both the MIC 2 and MIC 3 channels.
6. **ECHO control** – This control increases/decreases the amount of ECHO applied to the MIC channels. Turn clockwise to increase ECHO and counter-clockwise to decrease ECHO.
NOTE: The ECHO control located next to the MIC 2 jack controls the ECHO for both the MIC 2 and MIC 3 channels
7. **LO. control** – This control increases/decreases the amount of LOW frequency response applied to the MIC channels. Turn clockwise to increase the LOW frequency response and counter-clockwise to decrease the LOW frequency response.
NOTE: The LO. control located next to the MIC 2 jack controls the LOW frequency response for both the MIC 2 and MIC 3 channels.

Front Panel Descriptions



8. MID. control – This control increases/decreases the amount of MID-RANGE frequency response applied to the MIC channels. Turn clockwise to increase the MID-RANGE frequency response and counter-clockwise to decrease the MID-RANGE frequency response.

NOTE: The MID. control located next to the MIC 2 jack controls the MID-RANGE frequency response for both the MIC 2 and MIC 3 channels.

9. HI. control – This control increases/decreases the amount of HIGH frequency response applied to the MIC channels. Turn clockwise to increase the HIGH frequency response and counter-clockwise to decrease the HIGH frequency response.

NOTE: The HI. control located next to the MIC 2 jack controls the HIGH frequency response for both the MIC 2 and MIC 3 channels.

10. PRO-ECHO/ECHO button – Press the button to its inward position to apply the standard ECHO effect to the MIC output. Release the button to its outer position to apply the PRO- ECHO effect to the MIC output.

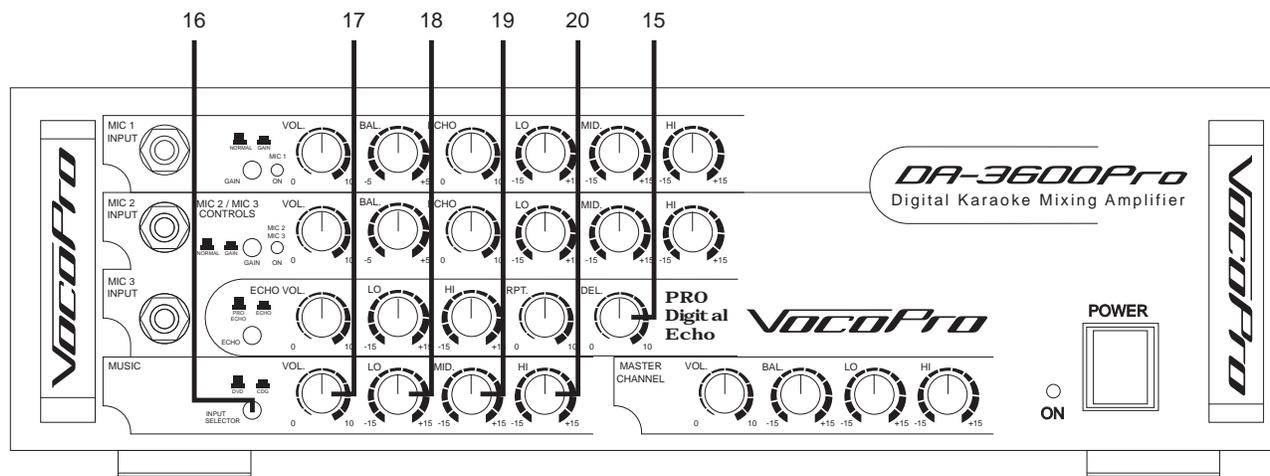
11. MASTER ECHO VOLUME control – This control increases/decreases the MASTER VOLUME LEVEL of the ECHO effect available to the MIC 1, 2-3 channels. Turn clockwise to increase MASTER ECHO VOLUME and counter-clockwise to decrease the MASTER ECHO VOLUME.

12. ECHO LO. control – This control increases/decreases the amount of LOW frequency response applied during the ECHO effect application. Turn clockwise to increase the LOW frequency response, and counter-clockwise to decrease the LOW frequency response.

13. ECHO HI. control – This control increases/decreases the amount of HIGH frequency response applied during the ECHO effect application. Turn clockwise to increase the HIGH frequency response, and counter-clockwise to decrease the HIGH frequency response.

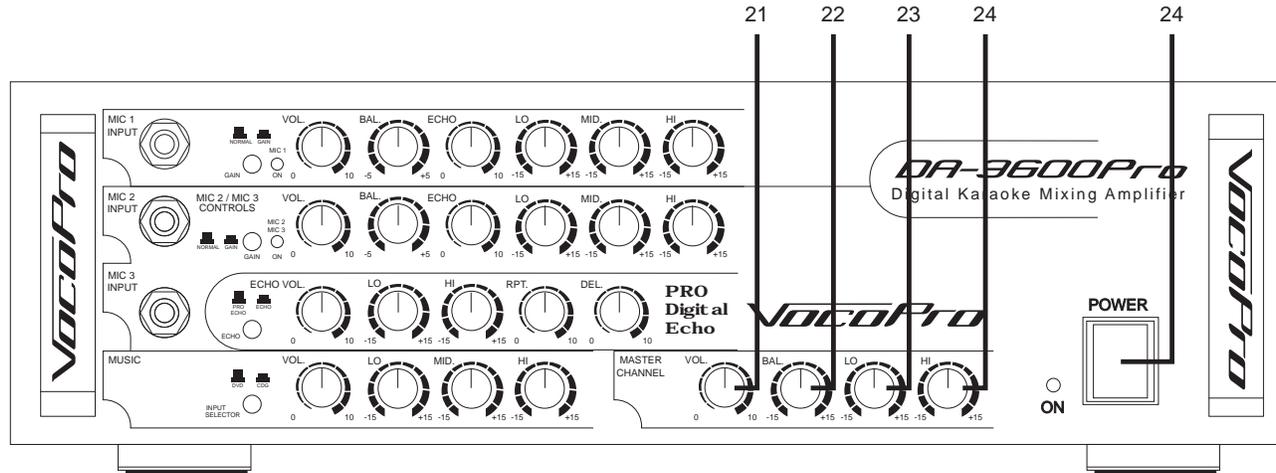
14. ECHO RPT. control – This control is a facet of the Digital Echo process. REPEAT adjusts the interval repetition of the echo effect. As more REPEAT is applied to the ECHO effect, more echo intervals will occur prior to fading out. Turn clockwise to increase the REPEAT level and counter-clockwise to decrease the REPEAT level.

Front Panel Descriptions



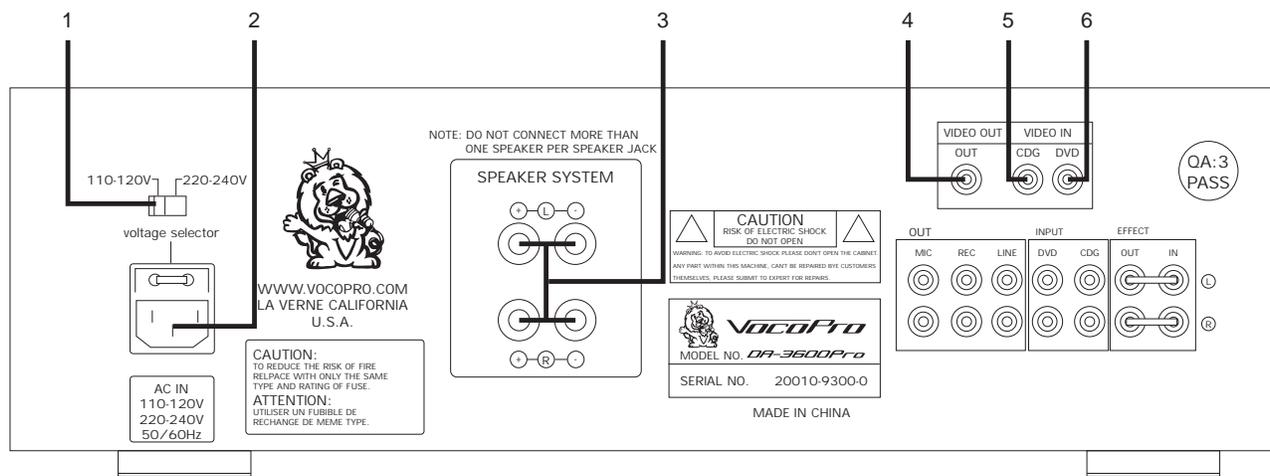
- 15. ECHO DEL. control** – This control is also a facet of the Digital Echo process. DELAY adjusts the total beginning and ending length of each echo interval. As more DELAY is applied to the ECHO effect, each ECHO interval will become longer in time. Turn clockwise to increase the DELAY level and counter-clockwise to decrease the DELAY level.
- 16. INPUT SELECTOR button** – Press the button to its inward position to select the device connected to the CDG channel as the active INPUT SOURCE. Release the button to its outer position to select the device connected to the DVD channel as the active INPUT SOURCE.
- 17. MUSIC VOL. control** – This control increases/decreases the MUSIC VOLUME level(s) from INPUT SOURCES that are connected to the CDG/DVD channels. Turn clockwise to increase MUSIC VOLUME and counter-clockwise to decrease the MUSIC VOLUME.
- 18. MUSIC LO. control** – This control increases/decreases the amount of LOW frequency response applied to the audio output of INPUT SOURCES connected to the CDG/DVD channels. Turn clockwise to increase the LOW frequency response and counter-clockwise to decrease the LOW frequency response.
- 19. MUSIC MID. control** – This control increases/decreases the amount of MID-RANGE frequency response applied to the audio output of INPUT SOURCES connected to the CDG/DVD channels. Turn clockwise to increase the MID-RANGE frequency response and counter-clockwise to decrease the MID-RANGE frequency response.
- 20. MUSIC HI. control** – This control increases/decreases the amount of HIGH frequency response applied to the audio output of INPUT SOURCES connected to the CDG/DVD channels. Turn clockwise to increase the HIGH frequency response and counter-clockwise to decrease the HIGH frequency response.

Front Panel Descriptions



- 21. MASTER VOL. control** – This control increases/decreases the MASTER VOLUME level of all audio output from the DA-3600 Pro. Turn clockwise to increase the MASTER VOLUME level and counter-clockwise to decrease the MASTER VOLUME level.
- 22. MASTER BALANCE control** – This control fades the MASTER VOLUME output between the LEFT and RIGHT stereo channels. Turn counter-clockwise to fade the MASTER VOLUME output towards the LEFT channel and clockwise to fade the MASTER VOLUME output towards the RIGHT channel.
- 23. MASTER LO. control** – This control increases/decreases the amount of LOW frequency response applied to the MASTER VOLUME output. Turn clockwise to increase the amount of LOW frequency response applied to the MASTER VOLUME output and counter-clockwise to decrease the amount of LOW frequency response to the MASTER VOLUME output.
- 24. MASTER HI. control** – This control increases/decreases the amount of HIGH frequency response applied to the MASTER VOLUME output. Turn clockwise to increase the amount of HIGH frequency response applied to the MASTER VOLUME output and counter-clockwise to decrease the amount of HIGH frequency response to the MASTER VOLUME output.
- 25. POWER button** – This button turns the DA-3600 Pro ON/OFF.

Rear Panel Descriptions



1. VOLTAGE SELECTOR toggle – This selector toggles between 110-120V and 220-240V power settings.

NOTE: Please ensure this toggle is set to the correct position, matching the receiving AC outlets power supply before plugging it in an operating it. Doing so may cause severe damage to the unit and void your product warranty.

2. AC-IN terminal – Connect AC MAINS POWER CORD from the wall outlet to this terminal.

3. SPEAKER BINDING posts (MDP) – Connect appropriate speaker cables from these SPEAKER OUTPUT jacks to the INPUT jacks located on your speakers. Standard speaker wire or speaker cables equipped with MDP (banana) plugs can be used with the DA-3600 Pro's SPEAKER BINDING posts.

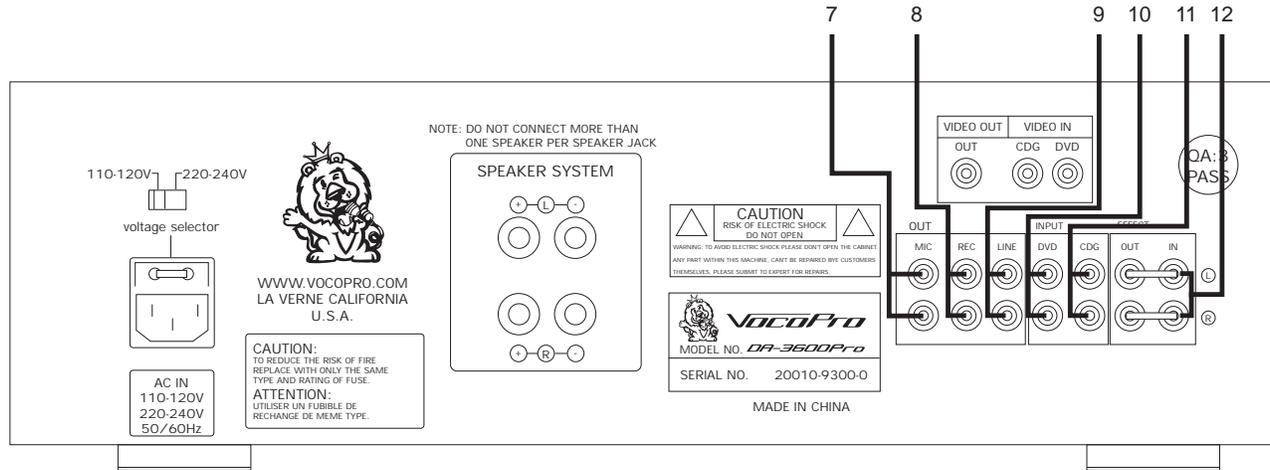
NOTE: To use standard speaker wire, unscrew the plastic color-coded (red-black) binds until you can access the wire holes located on the inner-sides of the binds and slide the wire leads into them. Fasten them down by re-tightening the binds.

4. VIDEO OUT jack (RCA) – Connect an RCA-ended patch cable from this jack to the VIDEO INPUT jack of a TV or display device.

5. CDG VIDEO INPUT jack (RCA) – Connect an RCA-ended patch cable from this jack to the VIDEO OUTPUT Jack on the device connected to the CDG channel.

6. DVD VIDEO INPUT jack (RCA) – Connect an RCA-ended patch cable from this jack to the VIDEO OUTPUT jack on the device connected to the DVD channel.

Rear Panel Descriptions



7. MIC OUTPUT jacks – These jacks export MIC 1, 2 and 3 OUTPUT only, bypassing the source audio signal in order to provide connection to vocal effects units. Connect a paired RCA-ended patch cable from these jacks to appropriate INPUT jacks on the vocal effects unit.

NOTE: MIC OUTPUT from these jacks is dry. Pro-Echo and Echo effects will not be applied to this MIC OUTPUT, regardless of the master and channel echo settings in place.

8. REC OUTPUT jacks – These jacks provide connection to recording and other external audio devices. Connect a paired RCA-ended patch cable from these jacks to appropriate INPUT jacks on the recording or other audio/video device.

9. LINE OUTPUT jacks – These jacks provide connection to external audio/video devices. Connect a paired RCA-ended patch cable from these jacks to appropriate INPUT jacks on the external audio/video device.

10. DVD AUDIO INPUT jacks – Connect a paired RCA-ended patch cable from these jacks to the AUDIO OUT jacks on the device connected to the DVD channel.

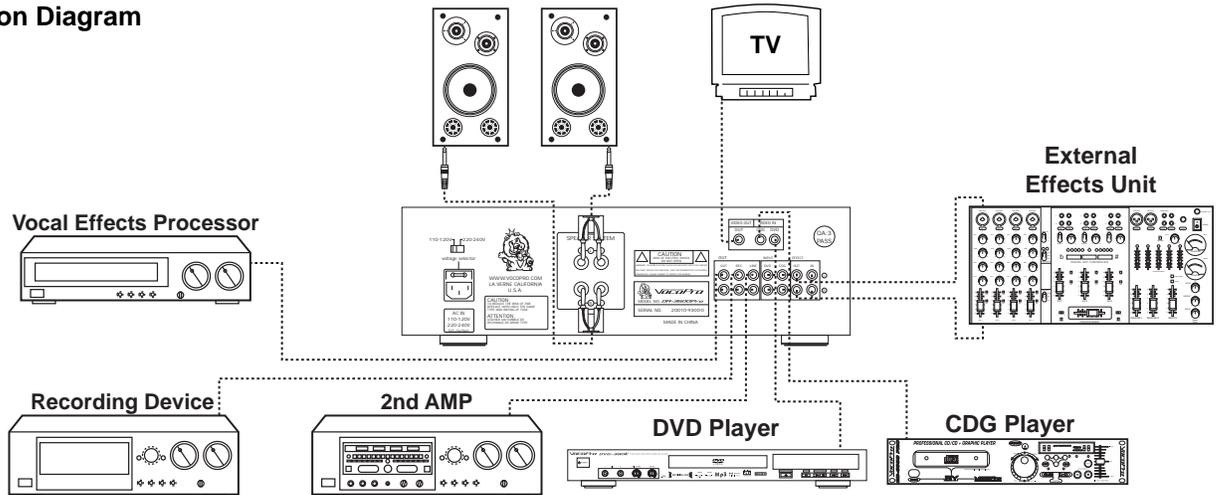
11. CDG AUDIO INPUT jacks – Connect a paired RCA-ended patch cable from these jacks to the AUDIO OUT jacks on the device connected to the CDG channel.

12. EFFECT LOOP jacks – Use these loops jacks to connect an external effects unit, such as a key controller or EQ. After removing the LOOP-BARS, connect a patch cable from the OUTPUT jacks of your external effects unit to the EFFECT LOOP IN jacks. Connect a second patch cable from the INPUT jacks of your external effects unit to the EFFECT LOOP OUT jacks on the DA-3600 Pro.

NOTE: Do not discard the loop-bars. It is necessary for the loop-bars to be in place when there is no external effects unit being used.

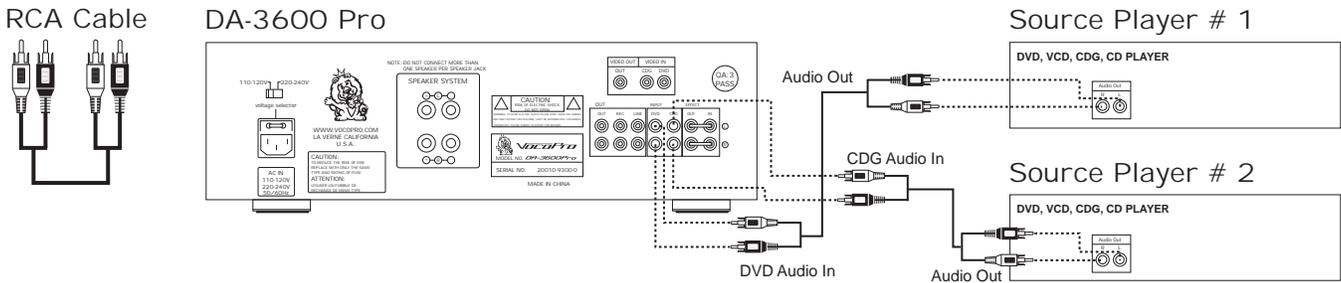
Getting Connected

Connection Diagram



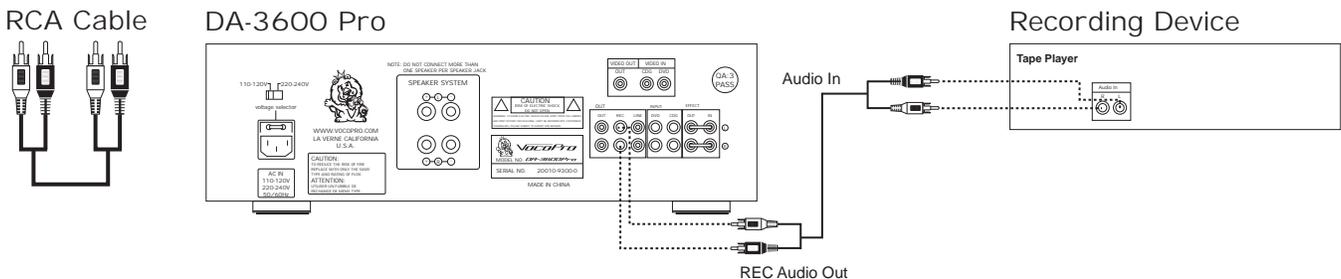
Connecting Your Source Players

Up to two source players can be connected to the DA-3600 Pro. For each source player you will need a stereo RCA patch cable. For the first source player, connect one set of RCA plugs to the AUDIO OUT jacks, and connect the other set of RCA plugs to the AUDIO IN jacks labeled DVD on the DA-3600 Pro. Repeat for the second source player, except use the AUDIO IN jacks labeled CDG on the DA-3600 Pro.



Connecting to a Recording Device

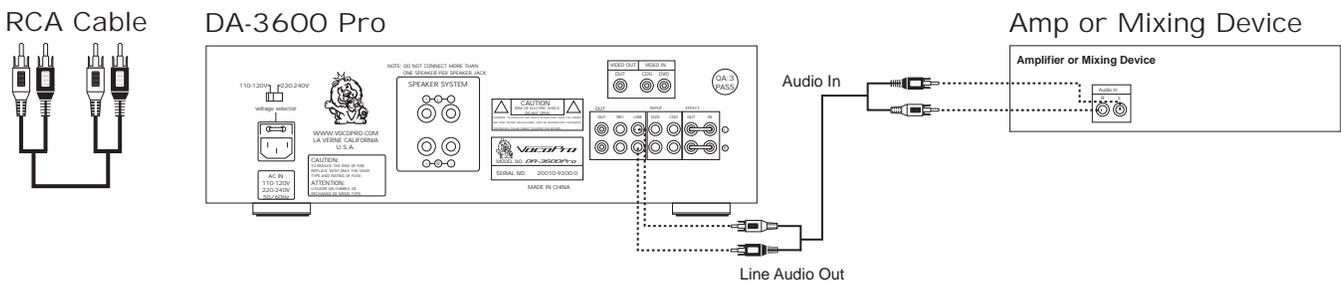
The DA-3600 Pro can be connected to Tape, CD, MD or other compatible recording device. To connect, one stereo RCA patch cable is required. Connect one set of RCA plugs to the AUDIO IN, TAPE IN or LINE IN jacks on your recording device, and connect the other set of RCA plugs to the AUDIO OUT jacks labeled REC on the DA-3600 Pro.



Getting Connected

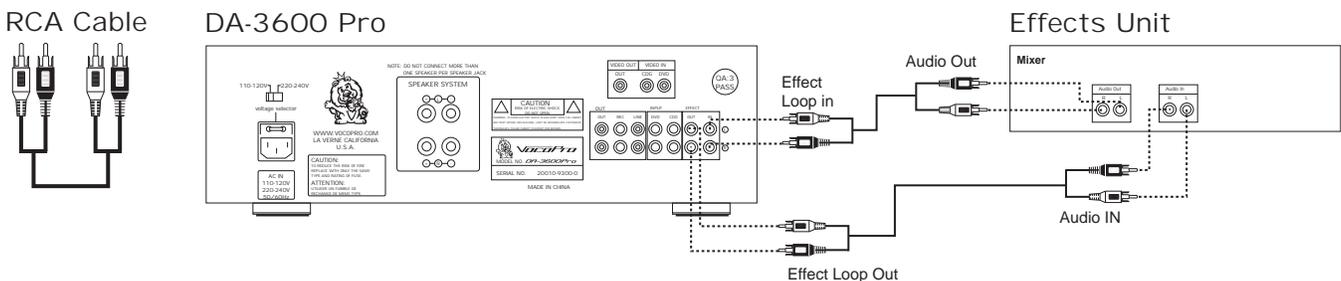
Connecting an Amplifier, External Sound System or Mixing Device

The DA-3600 Pro's LINE OUT jacks can be used to connect to a second power amplifier, an external sound system or mixing device. The type of cable needed for this connection will depend on the type of jacks that are available on your external device (cable needs to have RCA plugs on one end for the LINE OUT jacks on the DA-3600 Pro). To make connection, connect plugs from one end of the patch cable to the AUDIO IN, LINE IN or CH.A-B jacks on your external system device, and connect the RCA plugs from the other side to the LINE OUT jacks on the DA-3600 Pro.



Connecting an External Effects Device to the Effect Loop

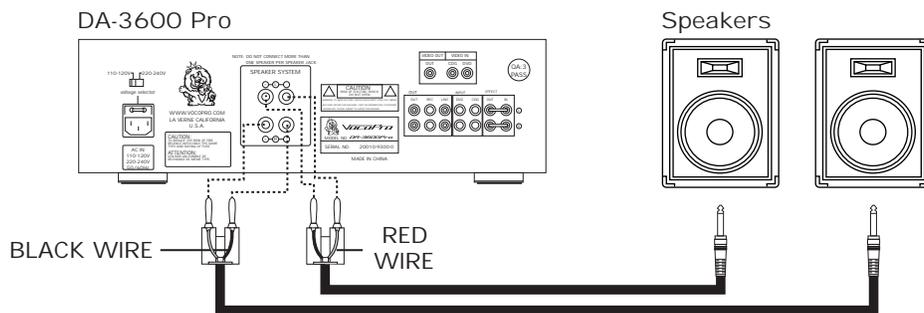
To connect an external effects device to the EFFECT LOOP, you will need two stereo RCA patch cables. First, you will need to remove the LOOP-BARS connecting the EFFECT LOOP IN & OUT jacks. Be sure to keep the LOOP-BARS in a safe place when they are not being used, as they MUST be connected to "complete the loop" when there is no external effect device connected. After removing the LOOP-BARS, connect a patch cable from the OUTPUT jacks of your external effects unit to the EFFECT LOOP IN jacks on the DA-3600 Pro. Connect a second patch cable from the INPUT jacks of your external effects unit to the EFFECT LOOP OUT jacks on the DA-3600 Pro. When reconnecting the LOOP-BARS to the EFFECT LOOP, connect one LOOP-BAR horizontally between the L-OUT & L-IN jacks, and the other LOOP-BAR also horizontally, between the R-OUT & R-IN jacks.



Getting Connected

Connecting Speakers

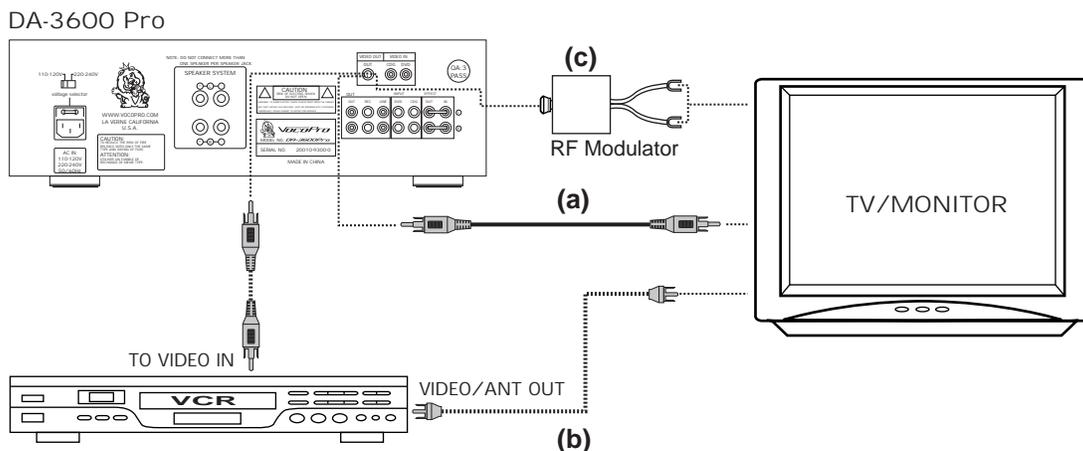
Either using MDP (banana plug) speaker cables or standard speaker wires, connect speakers paying attention to correctly match the polarities (+/-). Connect speakers rated no lower than 4-Ohms to the DA-3600 Pro. Please do not try to connect more than one speaker per channel, as the load may exceed the amplifiers handling capacity, causing it to overload. If using standard speaker wire, unscrew each plastic bind till you are able to see an interior hole for speaker wire (easier to locate when viewing from a side angle). Slide the speaker wires into the slots and tighten the plastic binds to tighten them in place. Be sure there is no insulation on the speaker wire preventing conductivity.



Connecting to a TV or Display Device

There are 3 ways to get video from the DA-3600 Pro to a TV or display device:

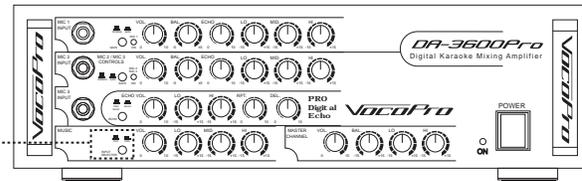
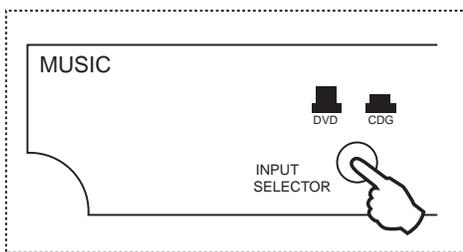
- Connect an RCA video cable from the VIDEO OUTPUT jack on the DA-3600 Pro to the VIDEO INPUT jack on the TV. Some TV's will require that you manually switch the TV to the VIDEO INPUT mode. Other TV's will automatically switch to the video mode when they detect a video signal at the video input jack. On most TV's the jack is labeled AUX or VIDEO.
- If the TV does not have a VIDEO INPUT jack you may connect that end of the cable to the VIDEO INPUT of a VCR and connect the RF OUTPUT of the VCR to the TV ANTENNA INPUT jack.
- 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™.



Advanced Operations

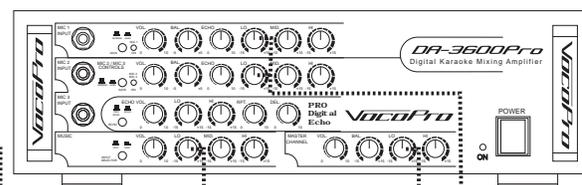
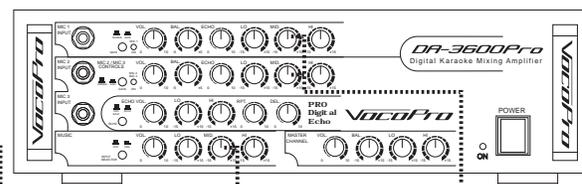
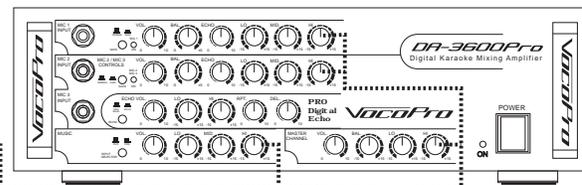
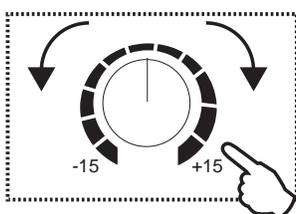
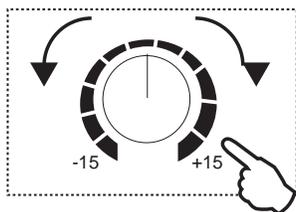
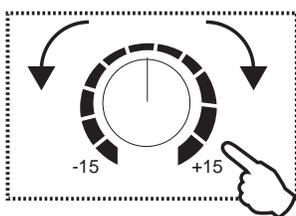
Switching A/V Channels

Since the DA-3600 Pro has 2 A/V inputs, you can switch between them via the INPUT SELECTOR button. After your source players are connected to the DVD and CDG channels, press the INPUT SELECTOR to its inward position for the source player connected to the CDG channel and depress the INPUT SELECTOR to its outward position for player connected to the DVD channel.



Balancing the Music with the Vocals

Have you ever been to a musical performance where the music was so loud that you could barely hear the singer? Or maybe to a performance where the singer was so loud that the music was drowned out? Those situations are created with poor musical balancing. To avoid these situations the DA-3600 Pro has MASTER, HIGH, MID and LOW controls for both the music and the microphone levels. If you find that music is too loud, simply adjust the MUSIC VOLUME control. Also, keep in mind that HIGH, MID and LOW levels also affect the overall "sound" and can be adjusted to correct sound balancing problems. Excessive high frequencies can lead to feedback, so be careful when adjusting them.



Advanced Operations

Balancing a Microphone Channel

When adjusting Mic levels, it is recommended to do so in this order:

1. First adjust the MIC VOLUME control to approximately 50%. **(Shown on Fig. 1)**
2. Then balance the LOW, MID and HIGH controls to approximately 40-60%. **(Shown on Fig. 2)**
3. Start background music with the MUSIC VOLUME set at approximately 50%. **(Shown on Fig. 3)**
4. Fine-tune each MIC CHANNEL as necessary till you get a clean balanced mix (MIC channels 2 and 3 are controlled together).
5. Remember to compensate if the background music has striking volume changes. To do this, you can utilize the +20dB GAIN PAD. The +20dB Gain Pad toggles between a current volume level and boosted gain volume level. This control can be used to immediately go from one volume level to another by a quick push of the button.
6. Once all the settings are complete, do a complete song for complete balancing success.

Fig. 1

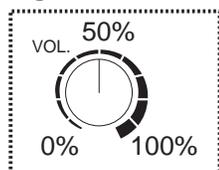


Fig. 2

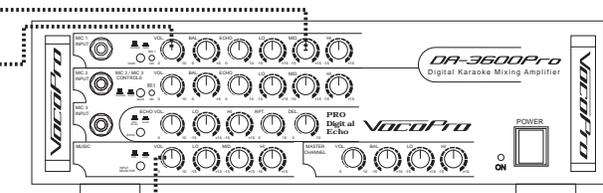
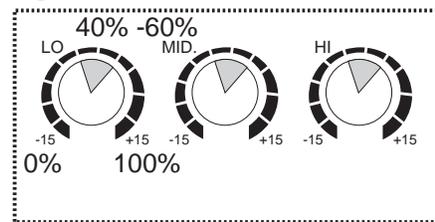
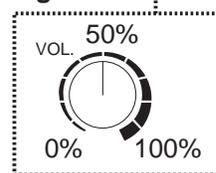


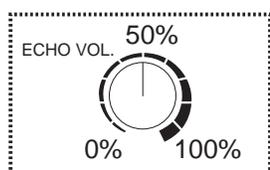
Fig. 3



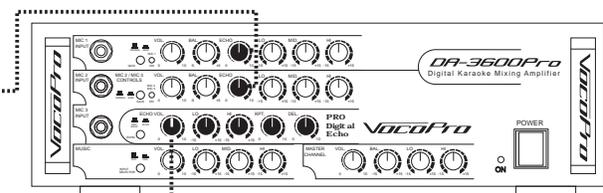
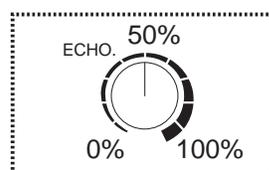
Using Digital Echo

The DA-3600 Pro has built in Pro-Echo circuitry that can be applied to the Digital Echo effect. Digital echo provides a very spacious feeling to the vocals, however when Pro-Echo is applied, you get a 3-D-like feel with stereo enhanced echo positioning. You can adjust the ECHO in several ways. First off, you can adjust the overall ECHO applied to the Mic channels via the ECHO VOLUME control. This limits the echo to all 3 channels together. Once you have your ECHO VOLUME level established, you can control the level of echo applied to each MIC channel individually by adjusting the ECHO control on each MIC channel (MIC channels 2 and 3 are controlled together). After all the echo levels are set, you can start customizing the nature of the echo via the HIGH, LOW, DELAY and REPEAT controls. The HIGH (HI.) and LOW (LO.) controls adjust the levels of high and low frequencies applied to the echo processed signal. The DELAY control adjusts the interval time between each echo, while the REPEAT control adjusts the # of times the echo will repeat prior to fading out. To toggle the PRO-ECHO and normal DIGITAL ECHO effects, use the PRO-ECHO/ECHO button. Set the PRO-ECHO/ECHO button to its outer position to apply the PRO-ECHO effect and press the PRO-ECHO/ECHO button to its inward position to use the normal DIGITAL ECHO. By fine tuning these controls, you can achieve the "perfect" echo effect.

Master Echo



Individual Mic Echo

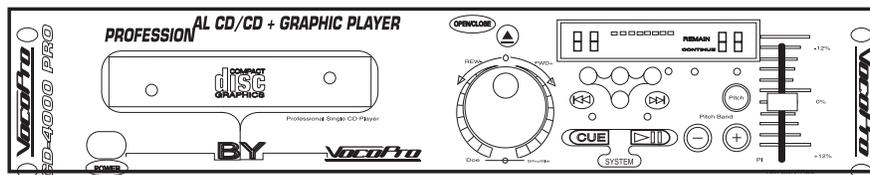


Troubleshooting

PROBLEMS	CAUSE	SOLUTIONS
No sound coming from selected music source	Input Selector is set incorrectly	Change Input Selector to the correct current playing source
	Music Master Volume control is set to minimum	Raise Music Master Volume level to an appropriate level
	The Effect Loop bars are either not inserted or inserted incorrectly; or the device connected to the Effect Loop is incorrectly working	Connect the Loop Bars horizontally (L-OUT to L-IN and R-OUT to R-IN); or reconnect the connected device as stated in the instruction manual (page 14)
	Speakers and Speaker Cables are either not connected, loose or malfunctioning	Check Speakers and Speaker Cable connections. Tighten or replace if necessary.
	Source player is functioning incorrectly	Replace player and reset the DA-3600 Pro's power supply
	Video cable(s) are not properly connected	Reconnect cables firmly to correct video jacks as stated in the instruction manual (page 15)
No graphic output from display devices when playing CDG's	Disc medium is not a CDG	Insert a CDG for playback
	TV or monitor device is not set to the correct video setting	Change TV or monitor settings to accept video
High pitched squealing occurs when using the microphone	Microphone is pointed to, or too close to speakers	Move microphone away from speakers
	Treble level(s) are too high on microphone channel(s)	Turn down treble level(s) on microphone channel(s)
No microphone output is present	The microphone is not turned on	Turn on the microphone
	The microphone cable is either loose or not functioning	Tighten or replace the microphone cable
	The Microphone Volume for that channel is set to a minimum	Turn up the Microphone Volume for that channel
	The microphone is not functioning correctly	Replace the microphone

Recommended VocoPro Gear

CDG-4000 PRO

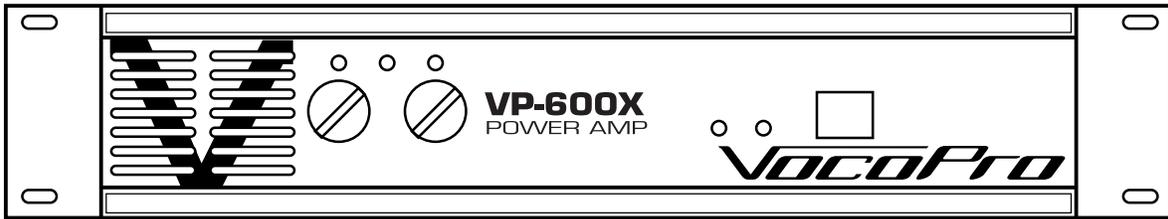


Professional CD/CD+ Graphic Player

- Pro CD Player W/ CD + Graphics Decoder
 - Pitch Control To 12% (+) Or (-)
- Scramble protection during pitch changes
 - Single Track Mode
 - Frame Search W/ Jog Dial
- 4-Speed Fast Forward/Rewind Shuttle.
 - Pitch Slider, Pitch Bend and Jog Dial
- BPM (Beat Per Minute) Synchronization
 - Cue Detect Function
- Professional 19" Rack Mount Chassis
 - Switchable 110-240V
 - NTSC/PAL
- Dimensions: 19" W X 3 1/2" H X 10" D
 - Shipping Weight: 9.35 Lbs.

Recommended VocoPro Gear

VP-600X

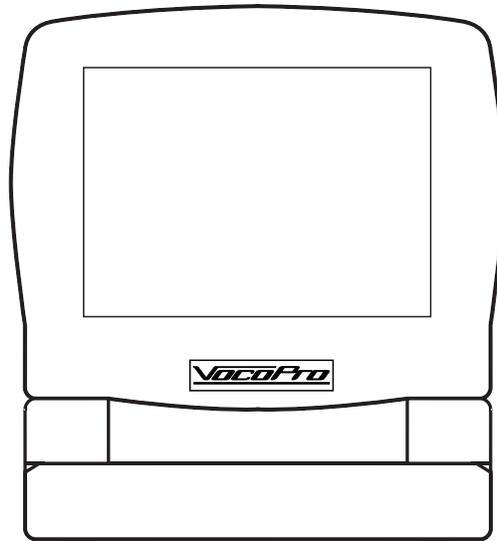


2 Space 600W Professional Power Amplifier

- 300W + 300W RMS
- 600W + 600W Max
 - THD: 0.05%
- Frequency Response: 20HZ-20KHZ Signal to Noise
 - 1/4" or XLR Inputs
- Input Ratio: Less than 100DB
 - Input Sensitivity: 1.23V
- Dimension: W x D x H (19" x 13" x 1.5")
 - Shipping Weight: 47 Lbs

Recommended VocoPro Gear

LCD-V5

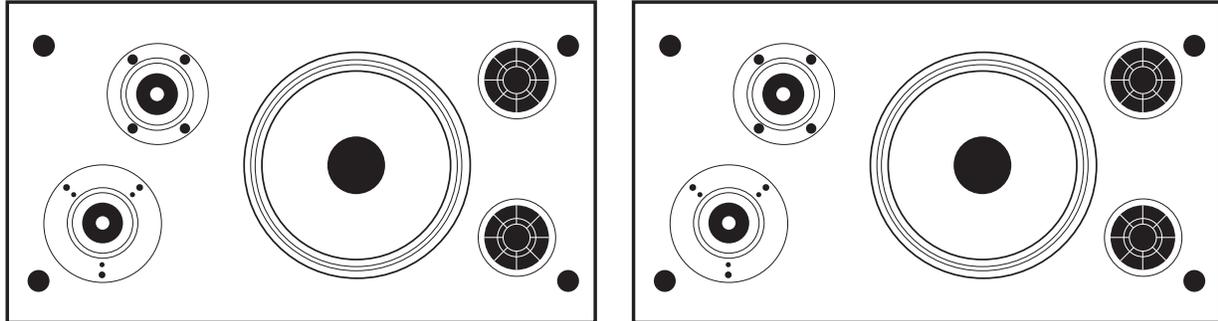


5" TFT LCD Color Monitor

- TFT LCD Color Monitor
 - Audio/Video Input
 - 3 Watts Stereo Speakers
- Headphone Output With Volume Control
 - Color/Brightness Adjustment
- Reversible Screen Control For Both Table Top Or Auto Roof Mounting
 - 12v Dc Adapter Included

Recommended VocoPro Gear

SV-420



Professional 8" 3 Way Vocal Speakers

- 3 Way 8" Karaoke Vocal Speakers (Sold in Pair)
 - Design for Karaoke Studio or Singers Monitor
 - Power Rating: 180 Watts Peak / 90 Watts RMS
 - Metal Grill
 - Impedance: 8 OHM
 - Sensitivity: 92 DB
 - Frequency Response: 20HZ-20KHZ
- Dimensions H x W x D: 19" x 12" x 11.25" (each)
 - Shipping Weight: 50 Lbs. (pair)
- (Dimensional Weight: 60 Lbs. Due to Oversize)