

CARVIN

• SPECIFICATIONS

PB200	2 Ω: 200 watts RMS Output 4 Ω: 160 watts 0.1% THD 8 Ω: 110 watts
PB400	2 Ω: Not Recommended RMS Output 4 Ω: 200, 200, 400W 0.1% THD 8 Ω: 125, 125, 250W
PB900	2 Ω: 450, 450, 900W RMS Output 4 Ω: 300, 300, 600W 0.1% THD 8 Ω: 200, 200, 400W
Preamp THD (Typical)	.01%
Frequency Response	20Hz to 20kHz ±2dB
Graphic Equalizer	Active Bandpass
One Octave Bands	75Hz, 150Hz, 300Hz, 600Hz, 1.5kHz, 3k
Boost/Cut	±15dB
Electronic Crossover	Advanced derived filters 80Hz to 2kHz fully sweepable.
EQ Characteristics	Bass: ±15 dB shelving @ 200 Hz Treble: ±15 dB shelving @ 5K Hz Mid: ±15 dB peaking 80 to 2K Hz Deep: +10 dB @ 40 Hz Bright: +10 dB @ 1.5K Hz
Noise Gate	30dB quieting
Compressor	Variable Threshold 1:3 ratio
Slew Rate	35v/μsec
Hum & Noise	>85dB below rated output
Input Sensitivity	25mv for full output
Input Impedance	>1 m for Hi input 47K for Lo input
Maximum Line Output (Bal)	+22dBm (1/4WAC)
Damping Factor	>200, 15kHz, RL=8 Ω
Enclosure Dimensions	8 1/4" x 21" x 12" deep
Weight	BP200 30 lbs BP400 42 lbs PB900 48 lbs
Power Requirements	120-240 volts 50-60 Hz
Warranty	One Year parts and labor

• LIMITED WARRANTY

Your Carvin Professional Series Product is protected against failure for ONE YEAR. Carvin will service the unit, supply all parts, and pay the RETURN shipping charges at no charge to the customer providing the unit is under warranty. CARVIN WILL NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN.

This warranty is extended to the original purchaser only and is not transferable. THIS WARRANTY DOES NOT INCLUDE FAILURES CAUSED BY INCORRECT USE, INADEQUATE CARE OF THE UNIT, OR NATURAL DISASTERS. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY.

Carvin takes no responsibility for any horn driver or speaker damaged by this unit.

This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with the sale or servicing of Carvin products. No liability is assumed for damage due to accident, abuse, lack of reasonable care, loss of parts, or failure to follow Carvin's directions. CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

In the interest of creating new products and improving existing ones, Carvin is continually researching the latest state of the art audio design methods, and modern packaging and production techniques. Thus, Carvin reserves the right to make changes in its products and specifications without notice or obligation.

• FACTORY SERVICING

We highly recommend utilizing our specialized servicing staff to bring your unit up to factory specifications. Regardless of your warranty status, please follow these guidelines when returning units for service:

1. Enclose a full description of the malfunction. Please use the "Service Authorization Form" included with this manual.
2. Include a copy of the original invoice to verify your warranty.
3. Return the product in its original carton with the original packing material. NEITHER CARVIN NOR THE SHIPPING COMPANY WILL ASSUME LIABILITY FOR IMPROPERLY PACKED UNITS. Ship the unit by UPS if possible. You must pre-pay the shipping cost.
4. Please allow five working days for servicing plus shipping time to and from destination. All repairs in by MONDAY will be ready by the following MONDAY.

• SERVICING IN YOUR AREA

You may select your own service center or have your own qualified technician work on the unit at your own expense. This will not void the warranty for future repairs unless damage was done because of improper servicing or component replacement. If damage was done, a normal fee for parts and servicing will be charged.

Under the ONE YEAR WARRANTY, Carvin will ship parts pre-paid to you or your technician providing that the defective part(s) are first returned for our inspection.

If you do not have a qualified service person, we ask that you do not involve yourself in servicing the unit. By sending the unit back to us, you may save time, money, and frustration. Also, you will know that your unit was serviced according to factory specifications.

If it is necessary to have your unit serviced locally, we strongly recommend that you have your technician call us before servicing your unit. We find that those who do this are able to make necessary repairs faster, and for less money.

5. Carvin will pre-pay the shipping back to you providing the unit is covered under warranty. If you wish to have it sent back by AIR, you will be required to pay the difference COD.

6. If your unit is out of warranty, you will be charged a modest fee (generally lower than typical repair shops). You must pay shipping charges both ways. These charges will be collected COD.
7. If in doubt about the malfunction, please call a Carvin salesman toll-free 800-854-2235. Occasionally we receive merchandise that works fine, but because of an oversight, the unit was returned needlessly.

CAUTION—TO PREVENT ELECTRIC SHOCK DO NOT DEFEAT THE SAFETY GROUND ON THE POWER CORD. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE.

WARNING—TO PREVENT FIRE OR SHOCK HAZARD DO NOT EXPOSE TO RAIN, MOISTURE, EXPLOSIVE ATMOSPHERE OR INSTALL AN IMPROPER FUSE.

• FEATURES

- Advanced Technology Bass Guitar Amplifier for Recording/Performing
- Standard Rack Mount Package (5 1/4")
- Studio Grade Compressor
- Studio Grade Noise Gate
- Bass and Treble Controls Tailored for Bass Guitar
- Mid Control With Ultra-Wide Frequency Sweep (4 1/2 octaves)

- Deep and Bright Switches
- Graphic Equalizer w/Footswitch Bypass (Hi Powered Model)
- "Mudcutter" Circuit (a CARVIN Exclusive)
- Built In Crossover and Bi Amp Switching
- Subsonic Filter Available When Crossover Not Used
- Buffered Effects Loop w/Footswitch Bypass

- Footswitch Volume Boost (adjustable, +3dB to +12dB)
- Power Track Power Enhancer (A CARVIN Exclusive)
- Headphone Amplifier and Phones Jack
- Balanced Line Out Feed to Recording Console or PA Mixer
- Modular Construction



Pro Bass II

Pro Bass II Amplifiers

OPERATION MANUAL

CARVIN

FACTORY DIRECT SALES:

1155 Industrial Ave.
Escondido, CA 92025
(619) 747-1710

HOLLYWOOD RETAIL SALES:

7414 Sunset Blvd.
Hollywood, CA 90046
(213) 851-4200 Hours: M-F 10-8; Sat. 10-6

Toll Free: 800-854-2235

Pro Bass II

The Carvin Pro-Bass II amplifiers are the apex of advanced bass rigs. Every aspect of their design is specifically targeted to the needs of critical players who require studio grade equalizers and signal processing. The Pro-Bass II is "studio ready" with built in processing (noise gate, compressor and equalization) specifically tailored to the bass guitar. These signal processors have been engineered for maximum performance eliminating interference problems from chained rack effects.

The Pro-Bass II amplifiers are offered in three high powered models (200, 400 and 900 watts RMS)! Dual power amplifiers are featured in the 400 and 900 watt models for internal bi-amping and increased speaker capacity. All models are rack mountable.

I. UNPACKING

Open the carton by carefully cutting and removing the staples. Lift the unit out of the carton. **SAVE THE CARTON AND ALL PACKING MATERIALS.** In the event the unit is re-shipped ALWAYS use the original carton and packaging material to assure that your amp is not damaged or dented in shipping. CARVIN and the shipping company will not accept liability for shipping damage caused by improper packing. **SAVE YOUR INVOICE.** It will be required for warranty servicing in the event that servicing is necessary. If you did not receive all the items you ordered, please allow several days for the rest of your order to arrive before inquiring. Some items may have been split up in shipment.

II. INSPECTION

Inspect your amp (and its packaging) for damage that may have occurred in shipping. If damage is found, notify the shipping company immediately. Save all packaging for proof of damage and please notify CARVIN of any damage done. Obtain a damage inspection report or report number. Then have the goods returned to Carvin. Do not file a damage claim. This could delay your receipt of new items. Carvin will handle all claims.

III. GETTING STARTED QUICKLY

If you are like most players you probably want to get started playing it right away. CARVIN's operating instructions includes an audio cassette tape No. AC-PBII which is a tutorial guide to help you understand the Pro Bass II. Listen to it before starting and then refer back to it.

To get started you will need to connect your speaker to the amp at either the SPKR 1 or SPKR 2 jacks at the top rear of the unit. We strongly recommend that your speaker be used protected. With your speaker connected to the amp, now plug the amp into a power source (120VAC 60Hz). Turn the volume down all the way (counterclockwise) and turn the unit on by depressing the red half of the power switch at the far right of the front panel. Plug in your instrument and raise the volume slowly to a comfortable level. We suggest you start with all controls at their "normal" settings and then make adjustments from that point.

To "normalize" your amp set the controls as follows:

Deep Switch:	Off
Bass, Mid, and Treble:	0
Bright Switch:	Off
Compressor (Sustain):	Off
Noise Gate (Threshold):	Off
Crossover Freq:	40
Crossover Hi Level:	0 dB
Graphic Equalizer Sliders:	Centered
Bi Amp Switch (rear):	Off (Out)

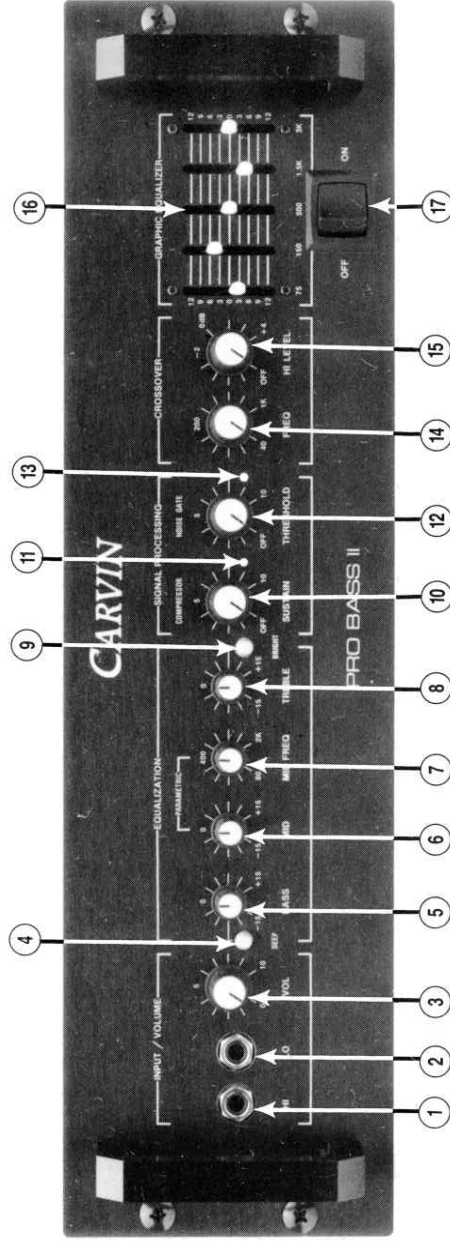
You are now ready to start experimenting with different sounds. The Pro Bass II tone controls have a very wide range of action so don't be surprised if you get extreme sounds at the extreme settings. If that happens then try easing the controls back toward the "normal" settings. You may find your best sounds at settings very close to normal.

When you are ready to start using the compressor try a setting of "5" on the "Sustain" control (with your instrument's volume at maximum). The red LED lights when signal level is high enough to cause the compressor to start working. It will normally flash on and off as you play. Likewise with the noise gate. Start with a "Threshold" setting of "5" and note that the noise gate has turned down the volume whenever the green LED is on. Set the threshold control just high enough to eliminate the noise from your bass when you are not playing. When you play the green LED will go off and when you stop the LED will come on to indicate that the amp is "gated" off.

IV. INTRODUCTION

The Pro Bass II is a natural to use. Step up to it; plug in your bass and raise the volume. Your bass lines are instantly produced through the most advanced amplifier you've ever heard. The Bass Control action is just right, giving you powerful control over the pitch range most critical to your sound. If your speaker is a little shy in the deep bass, then press the Deep Switch to restore the balance. You've probably never heard your bass sound this extended at the bottom! A special "mud cutter" circuit gives you a good "neutral" sound to start with so you will usually need only minor EQ adjustments. If your current amp has the kind of "middle" control when it's hard to hear the difference between "0" and "10" then you will especially appreciate our new parametric Mid EQ with its wide range frequency control. We've even contoured the Treble control and Bright switch for a range of action especially suited to the bass guitar. With the active tone coloring controls on the Pro Bass II you'll never complain about the lack of EQ action. This amp puts YOU in control of your sound.

FRONT PANEL



● FRONT PANEL CONTROLS

1. HI Input Jack

This is the input normally used with bass guitars which have conventional high impedance pickups. The HI input has a high input impedance and high gain and is designed to accept normal instrument level inputs.

2. LO Input Jack

The LO input is provided to allow the Pro Bass II to take full advantage of low impedance instruments and instruments with higher ("line level") outputs. This input has less gain and a lower input impedance than the HI input. The HI and the LO inputs can be used simultaneously without any adverse loading or interaction between the two sources.

3. Volume Control

The Volume control adjusts the overall loudness of the amp at the speaker outputs, line output, crossover outputs, and at the headphones jack. This control has no effect on the signal level at the effects loop and does not affect compressor or noise gate settings. Set the volume at minimum when turning the amp on or off.

4. Deep Switch

Depressing this switch activates an equalizer which provides 10dB of boost in the low bass range. It is especially useful for compensating loudspeakers which have poor low bass response.

5. Bass Control

The Bass control (along with the Treble control) provides overall shaping of the total spectrum. The action of this control has been carefully matched to the response of the bass guitar and provides the player with powerful control over the frequency range most critical to the sound of the instrument. Setting the Bass control to "0" results in uncolored (flat) bass response.

6. Mid Control

The Mid control provides boosting or cutting action at a relatively narrow band of frequencies. The center of the frequency band is determined by the setting of the Mid Freq control (see below). A good way to use the Mid EQ is to first boost the Mid control all the way and sweep the Mid Freq control to find the frequency (pitch) range that you want to modify. Then, once you have found the frequency range you wish to adjust, set the Mid control to provide the amount of boost or cut that you want. The parametric midrange EQ is a powerful sound shaping tool that usually requires some experimentation and ear training before you get the best results. Use the Mid controls to "fine tune" the sound of your bass after you have established the overall tone with the Bass and Treble controls. Setting the Mid control to "0" results in uncolored (flat) mid response regardless of the setting of the Mid Freq control.

7. Mid Freq Control

This control works in conjunction with the Mid control (see above). When the Mid control is set to "0" the Mid Frequency control will appear to have no effect. This is normal behavior for a sweep frequency equalizer. A very wide frequency range of 4½ octaves (80 Hz to 2KHz) has been provided on the midrange equalizer to allow tone shaping of the bass guitar anywhere from the low bass to the upper midrange. Try boosting the Mid control all the way and sweeping the Mid Freq control from end to end to learn the range of frequencies which this equalizer can adjust.

8. Treble Control

Use the Treble control (along with the Bass control) to provide overall shaping of the tonal spectrum. The Treble control on the Pro Bass II has been specially designed for contouring the treble range of the bass guitar.

9. Bright Switch

When this switch is depressed it cause the upper range of the bass to be extended. This can provide good high frequency compensation for many popular 15" and 18" loudspeakers when they are used full range. Using the Bright switch while boosting the Treble control allows radically bright sounds from the bass with any speaker system.

10. Sustain Control (Compressor)

Raise the Sustain control to turn on the compressor. Because the compressor acts by turning down the volume on the louder notes you may need to increase the Volume setting to keep the same loudness you had with the compressor turned off. (See THE COMPRESSOR)

11. Compressor LED Indicator

The compressor LED comes on as you play to indicate that compression (gain reduction) is occurring. Higher Sustain control settings provide more compression which the LED indicates by staying on longer when a note is played. Your instruments volume control will also determine the amount of compressor action.

12. Threshold Control (Noise Gate)

Raise the Threshold control to turn on the noise gate. Set the control just high enough to cut the noise when you stop playing. (See THE NOISE GATE)

13. Noise Gate LED Indicator

The green LED comes on to indicate that the noise gate is muting the amp. Your instruments volume control will also affect the noise gate's threshold.

14. Freq Control (Crossover)

This control sets the crossover frequency of the built in crossover anywhere over the range from 40Hz to 1000Hz. When not used for bi-amping, the crossover can be used as a 40Hz subsonic filter. (See THE CROSSOVER)

15. Hi Level Control (Crossover)

When you are using a bi-amped speaker system the Hi Level control is used to balance the volume of the high range speaker against the volume of the low range speaker. When you are not bi-amping set this control at 0dB.

16. Graphic Equalizer (PB400 and PB900 Models)

In order to provide the highest degree of tonal versatility, the higher powered models of the Pro Bass II is provided with a five band graphic equalizer. Each slider allows you to either boost or cut a portion of the sonic spectrum which is centered at the frequency indicated below that slider. With all sliders at the center (detent) position the equalizer has a flat (uncolored) response. When the optional FS-36XLR Footswitch is used with the Pro Bass II the "EFF 2" switch will turn the Graphic EQ on and off so that a preset tonal change is instantly available during a performance. When the footswitch is not connected the Graphic EQ is "on".

17. Power On/Off Switch

A red LED located between the input jacks indicates when the amp is on.

Special Features of the Pro Bass II

● THE COMPRESSOR

CARVIN's "one knob" compressor is extremely simple to operate and provides all the benefits of studio quality compression without all the knob tweaking. That's because it was designed for bass players rather than recording engineers. We have carefully selected compression parameters which provide excellent results with the bass so that you can keep your mind on the music! Use the compressor to level out your volume and increase sustain. Because this is a quality compressor its action will not be obvious. As an experiment to learn how the compressor works, try alternating between very loud and very soft notes, first with the Sustain control "off", and then with it on "10" so that you can hear how it is leveling out the loud and soft passages. Note that with the Sustain control at maximum, the loudness difference between the very loud and the very soft notes is greatly reduced. This is the volume leveling or "dynamics compression" effect of the compressor. Note also how the compressor will maintain the volume of a single note which is held for a long time. In this case we perceive the leveling action of the compressor as increasing the sustain of the note. For recording you will find that the compressor makes it much easier to set record levels and also allows for higher average recording levels.

With the Sustain control set at "off" the compressor is defeated and the LED does not illuminate. As you raise the Sustain control the LED will begin to light in response to louder notes which indicates that the compressor is becoming active. Raising the sustain control higher will cause greater compressor action which the LED indicates by coming on sooner and staying on longer. Use the LED as an indication of how much compression is occurring. When the LED is on the compressor is acting to maintain a relatively constant volume from your bass. Note that the volume control on your bass will act like a remote Sustain control. Lowering the volume control on your bass will reduce the compression action and raising it will result in more compression.

● THE NOISE GATE

Raise the Threshold control to activate the noise gate. With your instrument's volume at maximum and the strings muted raise the control until the noise from the instrument is gated off and the green LED illuminates. As you begin playing you will hear your instrument's noise return as the noise gate returns the volume to normal. But notice that as soon as you pause the noise gate will reduce the volume so that the background noise from the instrument (or any effect used in the effects loop) is not heard. The noise tends to be inaudible while you play because the bass notes cover up or "mask" the background noise. The net result is that the noise gate eliminates the usual background noise from your bass. We recommend that you use the noise gate whenever you use your amp and especially for recording. Now your stage sound can be as clean as your studio sound!

The green threshold LED comes on to indicate that the noise gate has gated off (turned down) the amp. It will light whenever the input signal level falls below the gating threshold level set by the Threshold control. As soon as you play a note the gate opens to pass the music signal through the amp. Other than cutting out the noise the noise gate has no audible effect on the music signal.

You may notice a burst of noise when you tap your strings while using the noise gate. This is normal action for any noise gate. The noise gate is not creating any noise of its own it is merely gating on in response to the signal from your instrument and then quickly gating off. A potential problem with any noise gate is that it can cut off weak notes or the ends of long sustained notes if the threshold is set too high. This is especially true if you have set the threshold with the volume on your instrument at maximum and then later reduce the instrument's volume setting. If you take care to set the Threshold control only high enough to effectively cut out the noise then you should have no problems.

● THE PowerTrack POWER ENHANCER

CARVIN's PowerTrack circuit allows you to achieve higher average sound levels before overdriving the power amp. Because of the action of this circuit, you may notice that increasing the volume setting when in the upper range of your volume control gives only a slight increase in volume. This is because the PowerTrack circuit is acting to prevent you from overdriving the power amp. If you continue to raise the volume, the pre-amp may distort. Technicians should note that the PowerTrack circuit will make it difficult to achieve accurate rms power measurements.

● THE CROSSOVER

In recent years many bass players have discovered the advantages of loudspeaker bi-amplification. A bi-amped loudspeaker system requires the following components:

1. An active crossover (included in the Pro Bass II)
2. A power amp for the hi-range speaker (included)
3. A power amp for the low-range speaker (included in 400 and 900 watt models only)
4. A high range speaker
5. A low range speaker
6. Appropriate interconnect cables

400 and 900 W Models

When the Bi-amp switch is depressed the "hi" output from the crossover feeds one power amp and the "low" output feeds the other amp. The first amp feeds the SPKR 1 (HI) jack and the second amp feeds the SPKR 2 (LOW) jack.

200 W Model

When the Bi-amp switch is depressed the "hi" output of the crossover feeds the internal power amp and the "low" output is available at the rear panel to feed an external power amp to complete the bi-amplified speaker system.

All Models

Unless the amp is switched to the bi-amp mode by depressing the Bi-amp switch (on the rear panel) the crossover controls will appear to have no effect on the sound from the amp.

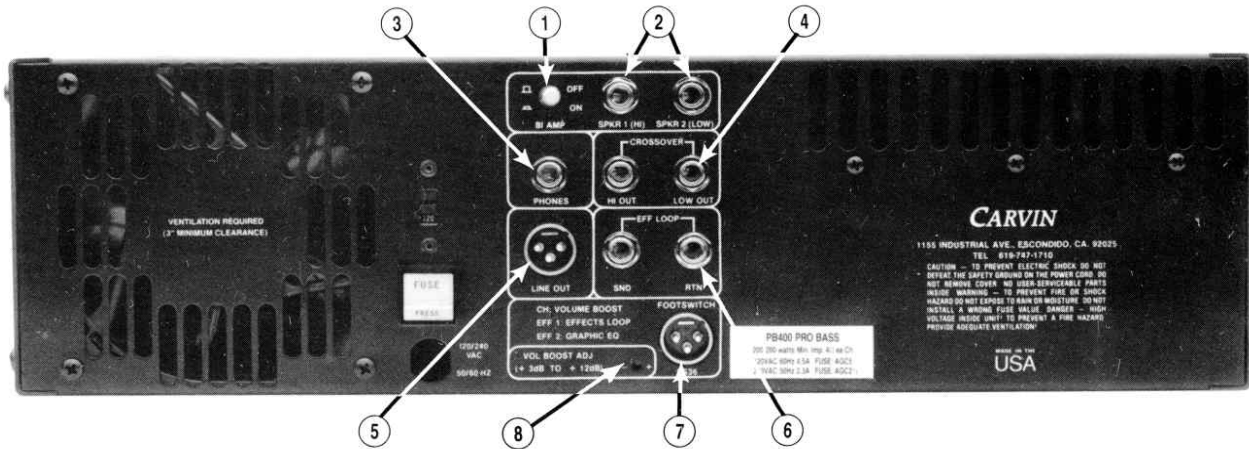
If you are not using a bi-amplified speaker system then the crossover can be used as a subsonic filter or effects filter. Switch to the bi-amp mode and set the Freq control at 40Hz for subsonic filtering or sweep it higher for low cut effects. (On the 400 and 900 W models be sure to use the SPKR 1 (HI) output). The 40Hz subsonic filter is highly recommended for high sound level applications as it prevents amplifier power from being wasted on subsonic signals and reduces loudspeaker cone travel to allow the speaker to handle more audio power. The net result is that the subsonic filter can greatly reduce distortion from the power amp/speaker combination when extremely high sound levels are required. If you are in a situation where you need more sound level than your amp/speaker combination will normally provide then sweeping the Freq control higher than the 40Hz setting will allow you to trade some low bass response for even higher sound levels before distortion occurs. Some unique tonal effects can be obtained by sweeping the Freq control higher and working with the tone controls. Experiment!

● THE "MUDCUTTER" CIRCUIT

Recording engineers have long known that when the bass guitar is connected directly to the recording console and auditioned through an accurate monitoring system it tends to sound "muddy". If you've ever played your bass directly through your hi-fi system you will recognize the sound. At CARVIN we discovered the reason for this undesirable coloration while studying the energy spectrum that is produced by the bass. Using sophisticated spectrum analyzers we carefully plotted long term averages of the energy from the bass guitar and found that there is a pronounced accumulation of energy in the mid-bass region. This is the same region of the spectrum which corresponds to a "muddy" sound when it is overemphasized. In response to this discover we created a special filter which was designed to mirror the energy peak we were observing and flatten out the energy spectrum from the instrument. The results were very impressive! When the bass was auditioned through the new circuit the "muddy" sound was gone and we were left with a clean natural sounding bass guitar. When players were allowed to switch the new circuit in or out they consistently preferred the clear, neutral sound of the "mudcutter" circuit. It came as no surprise to realize that the action of our new circuit was basically the same corrective action that recording engineers were applying in the studio to get the clean, punchy bass sounds you hear on popular hit songs.

The way players usually try to fix a "muddy" sound with a conventional bass amp is to cut the bass. Unfortunately this cuts not only the mid bass "mud" but cuts that good, fat low bass tone as well. With CARVIN's Pro Bass II you will never have this problem. Our exclusive "mudcutter" circuit restores a neutral tone to your bass while leaving the Bass control free for you to use for overall tone coloring.

REAR PANEL AND CONNECTIONS



● REAR PANEL AND CONNECTIONS

1. Bi-Amp Switch 400 and 900 Watt Models

When the amp is out of the bi-amp mode (bi-amp switch not depressed) the full range output of the preamp feeds both power amps and is available at both the SPKR 1 (HI) and SPKR 2 (LOW) jacks. The front panel crossover controls are defeated.

Depressing the Bi-Amp switch puts the amp in the bi-amp mode and enables the front panel crossover controls. The hi range output is at the SPKR 1 (HI) jack and should be connected to your high range speaker. The low range output is at the SPKR 2 (LOW) jack which you connect to your low frequency speaker system.

200 Watt Model

Depressing the Bi-Amp switch puts the amp in the bi-amp mode and connects the hi output of the crossover to the internal power amp. (See CROSSOVER)

2. Minimum Speaker Impedance (All Models)

The minimum allowable load impedances for the Pro Bass II models are as follows:

Pro Bass II 900:	2Ω per amp	(four 8Ω speakers per jack)
Pro Bass II 400:	4Ω per amp	(two 8Ω speakers per jack)
Pro Bass II 200:	2Ω total	(two 8Ω speakers per jack)

3. Phones Jack

For private practice, disconnect the speaker and plug a pair of stereo headphones into the phones jack. The phones output is also a useful feature for recording. The signal at the Phones jack is not affected by the crossover.

4. Crossover Hi and Low Output Jacks

These outputs follow the settings of the crossover Freq and Hi Level controls regardless of the position of the Bi-Amp switch. (See Bi-Amp switch)

5. Line Out Connector

This is a balanced pre amp output which can be connected to the mic input of a mixer either for recording or for sound reinforcement through a PA system. This output follows the Volume control but is not affected by the crossover. If you wish to record with low cut filter effects use the crossover Hi out as a recording output.

6. Effects Loop SND and RTN Jacks

In order to connect an external effects unit into the Pro Bass II first patch the signal from the EFF SND jack into the input of the effects unit and then patch the output of the effects unit back into the EFF RTN jack on the Pro Bass II. Use the EFF 1 switch on the FS-36XLR footswitch (optional) to switch the external effects unit in and out of the signal path. Several effects units can be used in the loop at once by connecting the effects units in series before returning the signal to the EFF RTN jack. When the footswitch is not connected the effects loop is "off".

7. Footswitch Connector

Connect the optional FS-36XLR lighted footswitch here. CARVIN has chosen to use high quality XLR connectors with the FS-36XLR footswitch so that you can be assured years of trouble free service even under strenuous touring conditions.

The assignment of the footswitch functions is as follows:

CHANNEL:	Volume Boost On/Off
EFF 1:	Effects Loop On/Off
EFF 2:	Graphic EQ On/Off (400 and 900 W Models)

(Note that a lighted LED above each switch indicates when a function is "on")

8. Volume Boost Adjustment

By inserting a small screwdriver through this rear panel access you can adjust the amount of volume boost anywhere from +3dB to +12dB. Use the CHANNEL switch on your FS-36XLR footswitch (optional) to turn the volume boost on and off. When the footswitch is not connected the volume boost is "off".

9. Variable Speed Fan (400 and 900 Watt Models Only)

Electronic speed control minimizes fan noise and wear by driving the fan only as fast as necessary. Under most conditions the fan runs at whisper quiet speeds. As the signal level, load, or ambient temperature changes the fan controller smoothly adjusts the fan speed to compensate.

The fan intake and exhaust vents must be kept clear at all times when the unit is in use.