

## WARNINGS

- Attempting to repair this unit is not recommended and may void its warranty.
- Missing or altered serial numbers automatically void the warranty. For your own protection, be sure the serial number labels on the unit and exterior box are intact.

## ONE-YEAR LIMITED WARRANTY

Manufacturer warrants unit to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase to the original purchaser and is not transferable. This warranty does not include damage resulting from accident, misuse, abuse, alteration, or incorrect current or voltage. If unit becomes defective within warranty period, Tech 21 will elect to repair or replace it free of charge. After warranty period expires, manufacturer will repair defective unit for a fee.

## PROOF OF PURCHASE IS REQUIRED FOR ANY REPAIR

For residents of the U.S. and Canada, please call Tech 21's main headquarters for shipping instructions and a Return Authorization Number. Tech 21 will not accept packages without prior authorization, pre-paid freight (UPS preferred), and proper insurance.

## FOR PERSONAL ASSISTANCE & INQUIRIES

Contact Tech 21 weekdays from 9:00 AM to 5:00 PM, Eastern Standard Time.

## DESIGNED AND MANUFACTURED IN THE U.S.A.



Fill in the following information for future reference:

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Dealer's Name \_\_\_\_\_

Dealer's Address \_\_\_\_\_

Date of Purchase \_\_\_\_\_

**TECH 21**  
NEW YORK CITY

Tel: 973-777-6996

E-Mail: [info@tech21nyc.com](mailto:info@tech21nyc.com)

Website: [www.tech21nyc.com](http://www.tech21nyc.com)

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# LANDMARK 60<sup>TM</sup>

## TECH 21·NYC



Owner's Manual

# IMPORTANT SAFETY INSTRUCTIONS. READ AND SAVE THESE INSTRUCTIONS. HEED ALL WARNINGS.



This symbol, wherever it appears, alerts the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol, wherever it appears, alerts the user to important operating and maintenance instructions in the accompanying literature. Read the manual.

**This unit is powered by potentially hazardous voltage. Therefore, observe the following safety precautions:**



1. Read and follow all instructions before using product.



2. Do not use product near water (such as near a bathtub, washbowl, kitchen sink, swimming pool, in a wet basement, etc.).



3. Unit should be located so that its location or position does not impede the flow of air through the ventilation openings.

4. Product should be located away from heat sources such as radiators, heat registers, or other products, including amplifiers, that produce heat.

5. Product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.

6. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the unit.

7. Do not allow objects or liquids to penetrate the enclosure through openings.

8. During heavy use, chassis may get hot to the touch. Handle with care.

9. Protect unit from strong impact.

10. Unplug product before cleaning. Never spray liquid cleaners into the amp: wipe with a clean, lint-free cloth to remove dirt and film.

11. Only use attachments/accessories specified by the manufacturer.

12. This product should be used only with a cart or stand that is recommended by the manufacturer. When a cart is used, use caution when moving the cart/product combination to avoid injury from tipping over.

13. Amplifiers may be capable of producing high volume levels that could cause permanent hearing loss or damage, if the exposure to such levels is prolonged. Such damage is progressive and irreversible! If you experience any hearing loss or ringing in the ears, consult an audiologist.



14. Unplug unit during lightning storms or when unused for long periods of time.

15. This unit must be earth grounded. To reduce the risk of electric shock, NEVER remove or otherwise attempt to defeat the ground pin of the power cord. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

**WARNING:** To avoid the risk of fire, electric shock or injury, do not expose this unit to rain or moisture. Do not remove the chassis from its cabinet, or remove metal covering from chassis parts. Removing the chassis from its cabinet exposes extremely dangerous high voltages. There are no user-serviceable parts inside. Hazardous voltages are present inside the chassis. Refer all servicing to qualified personnel.

**CAUTION:** Never modify the power cord. If original power cord becomes damaged, frayed, or has exposed wires, replace immediately with same rating and gauge, or higher. Replacements are commercially available or you can contact Tech 21 directly.

**WARNING:** Attempting to repair this unit is not recommended and may void its warranty. NOTE: In the U.S. and Canada, servicing is performed at factory only. In other countries, please refer repairs to the local Tech 21 authorized distributor.

## FUSE



Fuse holder is located inside A/C cord receptacle. **You must unplug and remove power cord to change fuse.** Replace with similar type and same value:

100V and 117V units: use 3A

230V and 240V units: use 1.6A

## QUICK START INSTRUCTIONS

Here's how you can get your Landmark 60 up and running before you read the rest of the manual. By not reading the entire manual, you'll miss out on how to get the most out of your new investment!

1. Plug your instrument into the top-panel Input jack (on the left side).
2. Attach the AC cord to the amp and plug into a wall socket.
3. Be sure the Level control on the Landmark 60 is down and then turn on the amp.
4. Refer to the sample settings provided in this manual.
5. Adjust the Level control on the Landmark 60 and play your bass. If you do not hear sound coming through the amp, check that your guitar's volume control is turned up, recheck your connections, and be sure your cable isn't faulty. If there is still no sound, refer to factory or qualified technician.

## TECH 21, THE COMPANY

Tech 21 was formed by a guitarist possessing the unusual combination of a trained ear and electronics expertise. In 1989, B. Andrew Barta incorporated Tech 21 and made his invention commercially available to players and studios around the world. His highly-acclaimed **SansAmp™** pioneered Tube Amplifier Emulation in professional applications for recording direct and performing live, and created an entirely new category of signal processing. While there have since been many entries into this niche, SansAmp continues to maintain its reputation as the industry standard.

After developing a full line of SansAmp models, Tech 21 expanded its offerings to include effect pedals; a compact, battery operable MIDI footcontroller, the *MIDI Mouse*; as well as “traditional” style amplifiers for guitar and bass. Each product is thoughtfully and respectfully designed by B. Andrew Barta himself with the player in mind.

Our goal is to provide you with flexible, versatile tools to cultivate, control, refine and redefine your own individual sound. Tech 21 takes great pride in delivering consistent professional quality sound, studio to studio, club to club, arena to arena.

## LANDMARK BASS SERIES, AN OVERVIEW

The 100% analog Landmark Bass Amplifier Series reconfigures the preamp format of our exceptionally popular SansAmp Bass Driver DI pedal into self-contained combos of various wattages. This format, too, offers you an entire sound spectrum of the most coveted traditional and modern bass amp systems, including mega overdriven tones that usually require a complex mass of gear --most of which weren't designed for bass in the first place.

Each Landmark bass amp delivers a truckload of professional bass rigs from one source. Each offers such styles as Fender®, SVT®, King Crimson and King's X, to name a few --and does so even at low volume. The interactive controls give you access to specific tone shaping characteristics to create your own custom sounds as well.

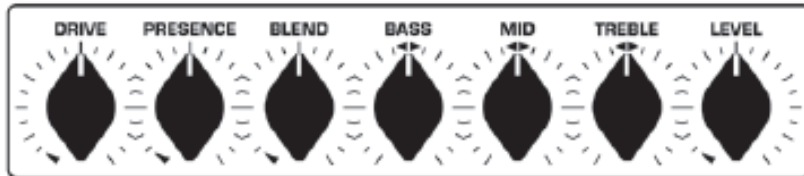
For studio and live applications, our SansAmp Tube Amplifier Emulation technology enables you to go straight into the mixer of a recorder or PA system via the XLR Direct Output.

As is customary with all Tech 21 products, the Landmark 60 is a versatile, multi-functional, super cost-effective package suitable for any player's repertoire.

## FRONT PANEL

The Landmark 60 is designed with **active** controls, which cut and boost, rather than traditional passive controls which can only cut. This gives you a much larger range of adjustability and, ultimately, more variety.

It should be noted that you need not necessarily set everything at max to achieve maximum results. As you experiment and become familiar with the controls' interrelationships, you'll easily be able to customize your own sounds.



### DRIVE

Adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed.

### PRESENCE

Brings out the upper harmonic content and attack. For a smoother high end and for clean settings, decrease to taste.

### BLEND

Allows you to blend the direct instrument signal with SansAmp Tube Amplifier Emulation circuitry. In most cases, you will probably have this set at maximum (100% SansAmp). For certain applications, however, such as an ultra-transparent sound or for use with piezo pickup-equipped instruments, you may want to blend-in the direct signal to achieve your desired sound. While the SansAmp Tube Amplifier Emulation circuitry is bypassed when *Blend* is at minimum, the *Bass*, *Mid*, *Treble*, and *Level* controls remain active.

### BASS, MID and TREBLE

These active controls cut or boost  $\pm 12$ dB from unity gain at 12 o'clock. Bass is 80 Hz. Mid is 1kHz. Treble is 3.2kHz.

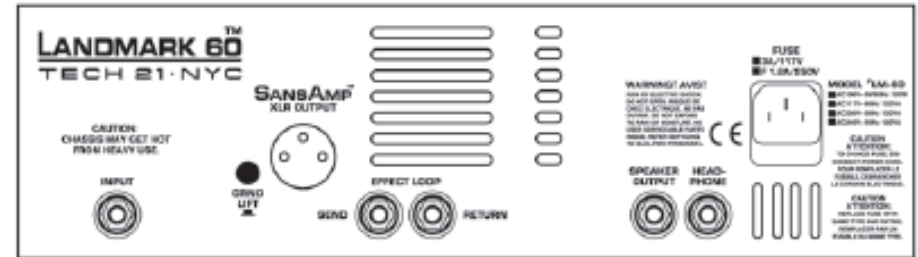
### LEVEL

Adjusts the overall volume. It also affects the XLR Direct Output, allowing you to block the signal to the audience or recording console when you want to tune or unplug your bass.

## TOP PANEL

### INPUT

Faithful to the original designs of traditional tube amplifiers, this 1/4" input is high impedance 1M $\Omega$ . A typical low sensitivity input is not needed due to the trimmable Drive control.



### SANSAMP™ DIRECT OUT

For recording in a home studio or pro facility, the SansAmp XLR output is like having a built-in direct box. The SansAmp circuitry not only captures the warm, rich, natural harmonics and sweet overdrive characteristics inherent to tube amplifiers, its speaker emulation encompasses all aspects of multiply-miked tube amp rigs. You can plug straight into the board and get the same sound that comes out of the Landmark 60 speaker directly onto tape.

The mic level, -20dBu output is matched to the output volume of the speakers, as determined by the setting of the Level control. If you were to place a microphone in front of the speakers, the volume level of the XLR Direct Out would be approximately the same.

If you need to consider family and neighbors, you can defeat the internal speakers by plugging a dummy cable into the Speaker jack. You can then use headphones through your mixer.

For live gigs, you can use this output to go direct into a PA system or to chain with our own **Bass Power Engine 60™** powered extension cabinets, in mono or stereo. (See sample Hook-up Diagrams and refer to "Optional Accessories" in the Specifications for more information.)

### GROUND LIFT

Connects or disconnects the ground circuits between the XLR Direct Out of the Landmark 60 and the mixer. We recommend starting with the ground lifted. If necessary, connect the ground by pushing the button in.

## EFFECT LOOP

The Effect Loop allows you to connect external effects between the pre-amp and power amp section of the Landmark 60. Connect the input of your effect to Send; output of your effect to Return. We recommend that time-based (i.e., chorus or delay) effects be inserted in the Effect Loop and external distortion, wah and compression be placed between your guitar and the Landmark 60's top panel Input.

Be aware that you can also use the Send as an alternate 1/4" direct out, should an XLR input not be available on your recorder.

## SPEAKER (100 watts, 80hm)

By incorporating Tech 21's exclusive technology with our custom- designed 12" speaker, the Landmark 60 gives you the speaker cabinet configuration associated with each tube amp style.

If you want to use an external speaker cabinet, simply plug in the speaker cable from the external cabinet. This will defeat the internal speaker. We do not recommend using speakers rated at less than 80hm, as 40hm speakers could cause undesirable distortion and potentially overheat the amp. Using 160hm speakers may result in loss of power. **Note:** The Landmark 60 speaker is specifically designed to complement our specialized circuitry. Therefore, using standard commercial speakers may result in a significant change of the sound. For more information, please contact Tech 21's technical support department.

**Matching 1x12 Bass Power Engine 60** is available through Tech 21. For more information, refer to "Optional Accessories" in the Specifications.

## HEADPHONE

The Headphone output overrides the speaker for undisturbed (and non-disturbing) practicing. It can also be used as a 1/4" direct out, should an XLR input not be available on your recorder. You can then use your headphones through the mixer.

## NOTEWORTHY NOTES & CONSIDERATIONS

Basses with active electronics have inherently higher output and therefore tend to generate more noise. To compensate, lower the volume on your bass and use flat tone settings or decrease the Drive, Presence and Treble controls on the Landmark 60 to achieve your desired sound.

## LANDMARK 60 SPECIFICATIONS

Note: With on-going product development and improvements, specifications and/or the cosmetic appearance of this unit may change without prior notice.

<b>Model Number:</b>	<b>LM60</b>
Input Impedance:	1M0hm
Nominal Input Level:	-10dBu
Optimal Output Load:	80hm
Power Output:	60W
Effect Loop Input Impedance:	1M0hm
Effect Loop Input Level:	approx. -20dBu* max in -10dBu
Effect Loop Output Impedance:	1K0hm
Effect Loop Output Level:	-20dBu nominal*
XLR Output Level:	approx. -20dBu*
Maximum Power Consumption:	120W
AC Input Power (factory set):	100V, 117V, 230V, 240V
Cycles:	50/60 Hz
	NOTE: Each unit is constructed for specific voltages. AC power cannot be switched.
Speaker:	Tech 21 Model #2112-B / 100W - 80hm custom-designed 12"
Dimensions:	18.25"w x 18.75"h x 14.25"d
Weight:	36 lbs.

\*Measured using a -10dB 400Hz test signal with all amp controls flat (12 o'clock).

### Optional Accessories:

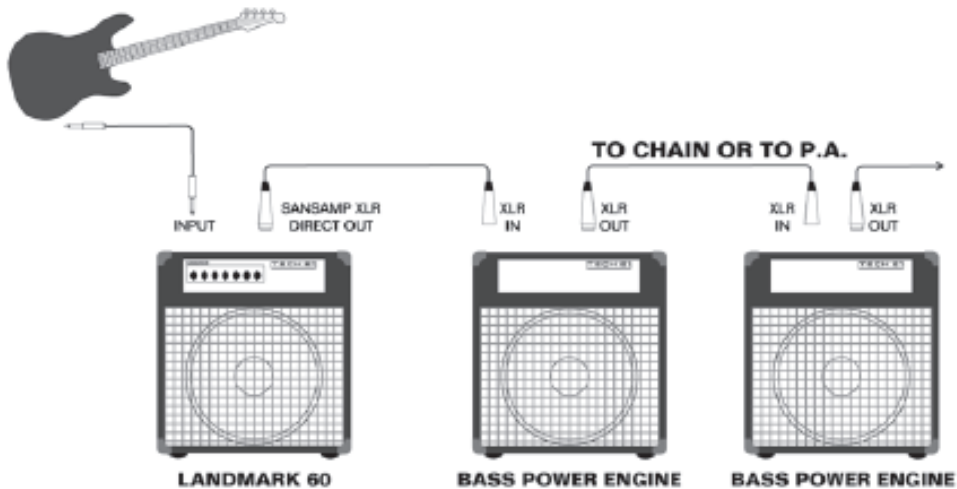
- Black vinyl cover** with silver embroidered logo.
- Bass Power Engine 60:** For running in stereo or for more volume, this matching 1x12 cabinet provides 60 watts of transparent power without any additional coloration to the sound. This multi-function cab can also be used as a pre-amp amplifier, as well as a personal monitoring system.

**Replacement parts** (i.e., knobs, grill panel, speaker, logo plate, handle, etc.) are available through your authorized dealer, distributor or directly from Tech 21.

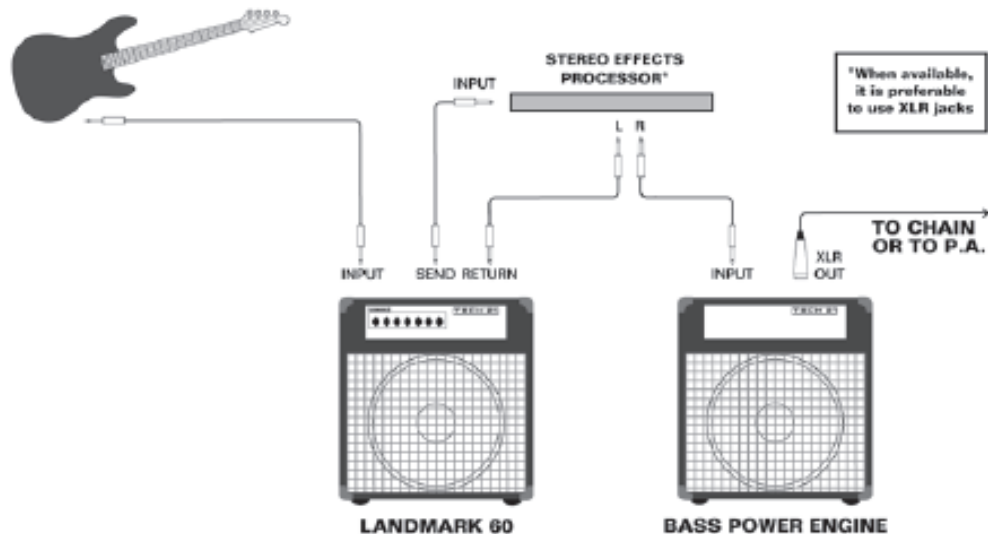
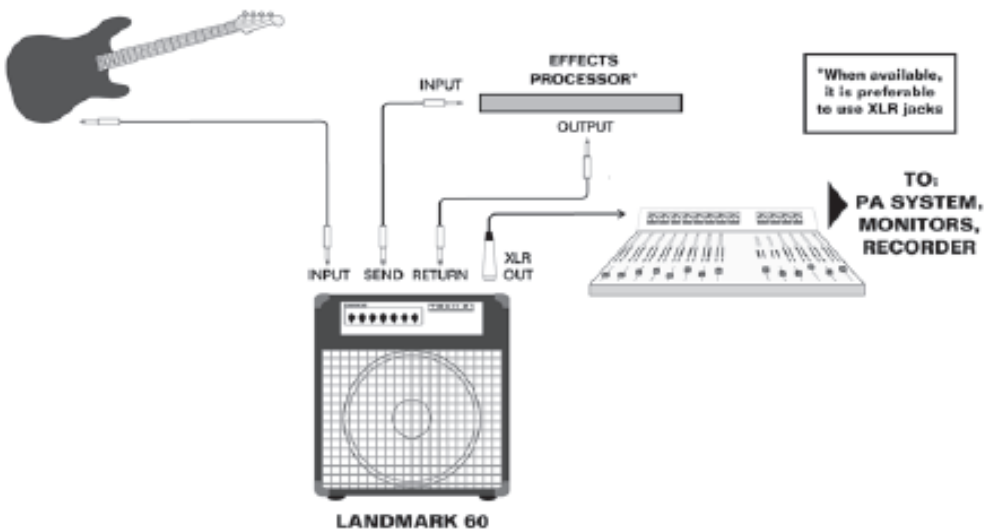
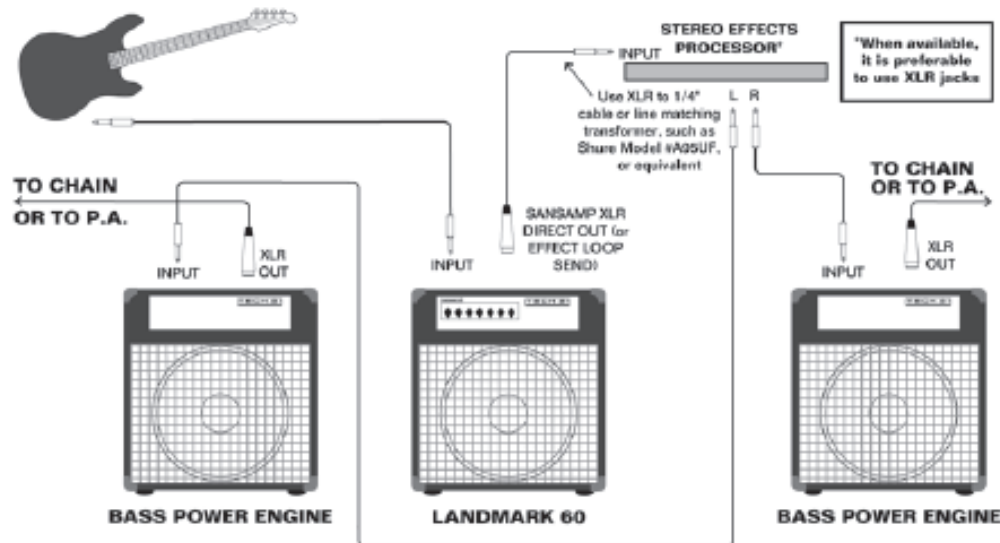
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## Landmark 60 Hook-Up Diagrams (MONO):

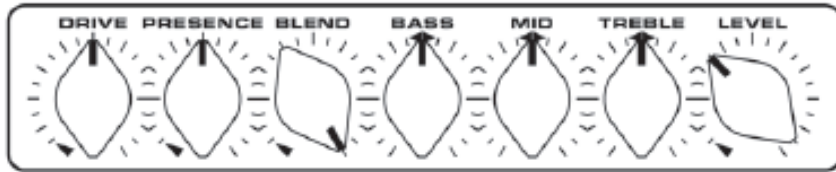


## Landmark 60 Hook-Up Diagrams (STEREO):

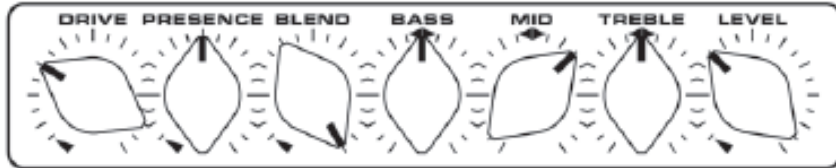


## Landmark 60 Sample Settings

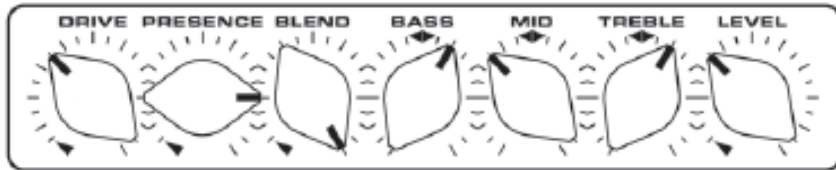
### FAT TUBE



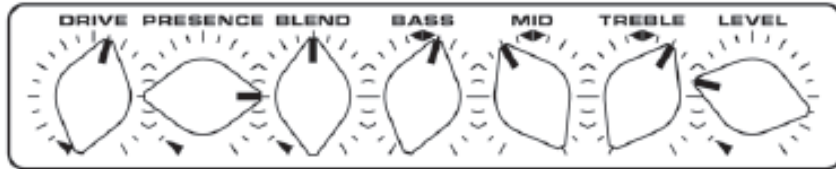
### BASSMAN®



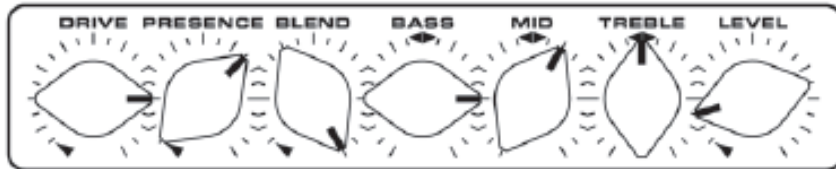
### SVT®



### KING'S X



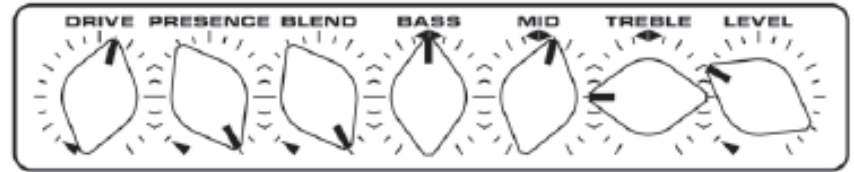
### CRIMSON



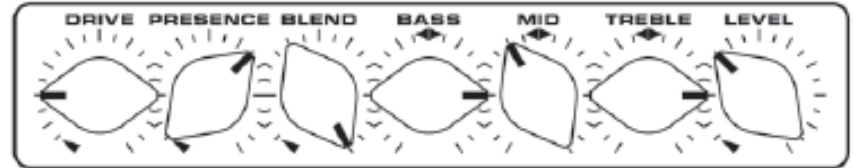
NOTE: All sample settings were written using a standard Fender® P-Bass with passive pickups and are intended to be an approximate guide to get you started. Levels should be adjusted to individual taste and environment.

REMINDER: Basses with active electronics have inherently higher output and therefore tend to generate more noise. To compensate, lower the volume on your bass and use flat tone settings or decrease the Drive, Presence and Treble controls shown in the Sample Settings to achieve your desired sound.

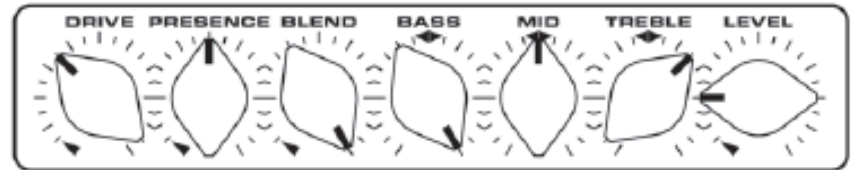
### SOLO



### SLAP

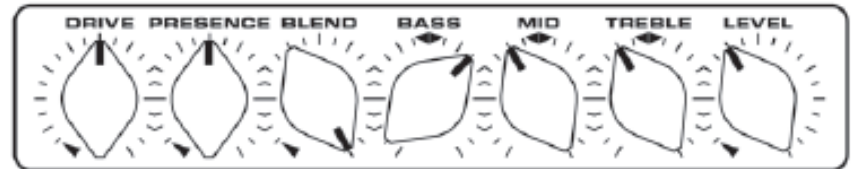


### REGGAE

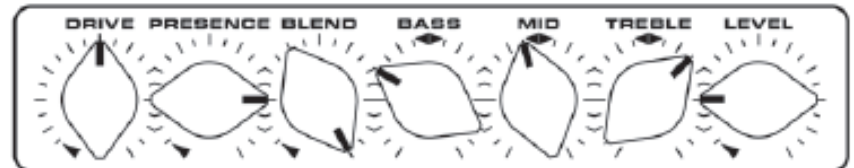


## Sample "Biamp" Settings

### LOW BIAMP



### HIGH BIAMP



®Registered trademarks of their respective companies. Names of sample settings are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with the companies, products, or artists named.

**Landmark 60 Custom Settings**  
(Keep a record of your personal favorites)

