LELAND SKLAR
and his
Euphonic Audio iAMP®800

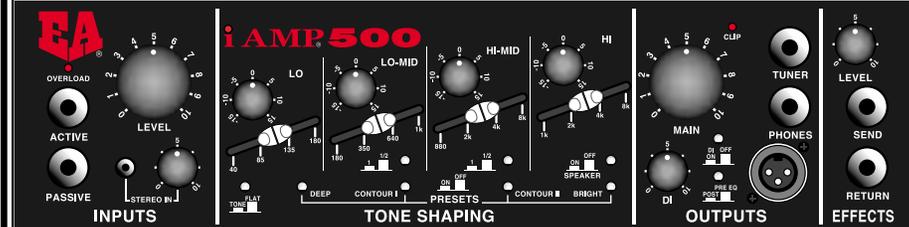# EA®

EUPHONIC AUDIO, INC.

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032304   **euphonicaudio.com**

OPERATING MANUAL

iAMP®500

*"The more I play it,
the more I'm realizing
that my iAMP500 is
the best amp I've ever owned."*

– Robert Gingery

EA®

A Note From
EUPHONIC AUDIO

Thank you for purchasing the **EUPHONIC AUDIO® iAMP®500** Integrated Bass Amplifier. We're extremely proud of our iAMP®500 and pleased that you have chosen it.

You will receive many years of satisfaction from your iAMP®500, which has been carefully designed to create accurate and exceptional bass sound.

Our confidence is the result of an extensive research and development program, coupled with our innovative design philosophy. Displeased with so-called "state-of-the-art" products available, we sought to create an integrated bass amplification system incorporating the input from the many talented and respected musicians who use EA's other products, such as our critically acclaimed speaker cabinets and our one-of-a-kind RUMBLE SEAT™.

ACKNOWLEDGEMENTS

Euphonic Audio would like to thank

★

Richard Carpenter
Michael Dimin
Kevin Drexler
David Inamine
Lynn Keller
Michael Rhodes
Kasim Sulton
and
Leland Sklar

*for their invaluable contributions
to the development of the iAMP®500
and this manual.*

Complete this form and photocopy it. Mail us a COPY of this form and a COPY of your Bill of Sale to:

Euphonic Audio Warranty Department
11 Revere Court
Princeton Junction, NJ 08550

You must mail this within 14 days of purchase to ensure your warranty is valid!

Again, thank you for purchasing Euphonic Audio's iAMP®500!
We appreciate your questions and comments.

_____
NAME

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ADDRESS

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CITY   STATE   ZIP

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TELEPHONE NUMBER(S)

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MODEL   SERIAL NUMBER

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DATE OF PURCHASE

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COMMENTS
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If you were anything like me you began experimenting with all kinds of basses, amps, strings, effects and eventually, bigger car! As you improved and looked for better sounding gear you probably bought separate components. I remember the day I bought my first power amp, pre-amp and my double 15"cabinet, which was approximately 4-1/2 feet tall, fitted with casters on the bottom and weighed a ton! Eventually, 4x10 cabinets became the rage. I knew I wanted that sound, but there was no point in owning a piece of gear I couldn't lift in or out of my car. Not to be discouraged, I found a way to make this work. Whenever I played a local gig where I wanted to stand out with a great bass sound, I would drive to a well-known amp company that was working with me at the time. I would have them place the 4x10 cabinet into the back of my car and proceed to the gig where I would wait for a another band member to arrive so that they could help me get the cabinet out of my car and onto the stage. After the gig I'd continue to wait until everyone else had packed up and loaded out all their own gear and then I would gingerly ask one of them to help me lift the 4x10 back into the car. At the end of a long night no one was thrilled by that request!

1997 was a year of triumph for me. I discovered Euphonic Audio. I began using

> *"Do you remember how you began your bass career? You bought your first bass and began the quest for bass gear…"*

their VL110 cabinets and was completely shocked to find cabinets that were portable and sounded fat, punchy and had amazing range.

Euphonic Audio has evolved into the creators of pure world-class bass sound. Euphonic Audio is known for natural sound, not adding any unwanted coloration. They and I believe that bass sound comes from your fingers first and your bass second. Why color the very sound you chose when you bought your bass? Allow your bass to speak for itself.

The Digital iAMP®500 combined with 2 Wizzy 112 speaker cabinets is my rig of choice for any stage, large or small. The iAMP®500 has tremendous power and headroom (350 watts@8 ohms, 500 watts @4 or 2 ohms), in addition to an easily accessible and intuitive tone shaping circuit. You will get sweet warm highs and fat, punchy lows that extend

cleanly to any 4, 5 or 6 string bass you play. Euphonic Audio makes gear that will give you exactly what you've been looking for without compromising anything.

Just think, you now own the best of the bass gear! Throw out your hand truck, sell that SUV and carry this amp into the future.

LYNN KELLER
BASSIST

OUR HISTORY

EUPHONIC AUDIO WAS FOUNDED IN 1981 BY JOHN DONG AND LARRY ULLMAN TO DESIGN HOME SPEAKER SYSTEMS FOR AUDIOPHILES. Convinced that we could create a superior product for the high-end audio market, we auditioned popular and highly praised speakers to determine the inherent relationship between the design physics and the sonic accuracy of the speaker systems. Data was compiled on hundreds of models. Every raw driver we could obtain was evaluated and quantified. The history of speaker design was extensively researched in the libraries of a major university. We determined the theories advanced in the 1930–50s include the basis for impressive products if modern materials and computerized instrumentation, design, manufacturing, and testing techniques are used.

Influenced in part by Larry's "other life" as a professional bassist, in 1995 we turned our entire focus toward the science and art of reproducing the complex timbres, transient attacks and dynamic range of bass instruments. Larry's demanding prerequisites for superior timbre and portability, coupled with John's expertise in drivers and cabinet design/construction proved invaluable. Significant sonic and performance criteria were

THE EA TEAM…

Gary   Larry   John

achieved by our novel design approach. The result: Euphonic Audio's highly portable, truly innovative bass cabinets produce a remarkable bass sound unequaled in the music industry.

Three years later, we sought to create the most complementary integrated bass amplifier for our speaker systems. Hence, the original iAMP was born. The culmination of the iAMP design philosophy is the new iAMP® series of Class D, digital power amps, including the iAMP®200, iAMP®800 and the iAMP®500. The *iAMP®500 puts out 500 watts into 4 ohms, 800 watts peak and weighs only 13 lbs. This portable powerhouse includes: honest power rating throughout the full bandwidth--meaning you'll get true power throughout the entire audio spectrum, from 20-20kHz; input level control; highly effective and intuitive tone shaping controls; professional balanced outputs (with a Jensen transformer option for the DI Output section); versatile series effects processing; rugged steel construction and more.

Gary Gibilisco joined Euphonic Audio in 2000, to oversee the design and manufacturing of a complete line of electronics products. Gary brings significant audio electronics manufacturing expertise to EA, along with many years of professional bass playing experience. His primary responsibility is to ensure that every EA electronics product reflects the absolute best that technology has to offer, while being manufactured to exacting standards.

LIMITED WARRANTY

*The warranty period for the **Euphonic Audio iAMP®500** is THREE YEARS from the date of purchase.*

This covers defects in material and workmanship.

THE WARRANTY IS VOID UNDER THE FOLLOWING CONDITIONS:

- ■ *If the unit has been damaged due to an accident, improper handling, installation or operation;*
- ■ *If the unit has been damaged in shipping;*
- ■ *Abuse or misuse;*
- ■ *Unauthorized repair or attempted repair;*
- ■ *If the serial number has been defaced or removed.*

Euphonic Audio, Inc. reserves the right to make such determination of the above on the basis of factory inspection.

All liability for any incidental or consequential damages for breach or any expressed or implied warranties is disclaimed and excluded here from.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so that the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

WARRANTY SERVICE INFORMATION

Please follow these steps if your Euphonic Audio iAMP®500 requires repair:

1. Locate your original Bill of Sale, which should include date and place of purchase.

2. Call, FAX, Email or write to Euphonic Audio describing the problem and for issue of a Return Authorization Number (RA). You may reach us during normal business hours (EST) at (866) 878-0009 (see back cover for our email, fax and address).

3. Once we have provided you with the RA number, pack the unit carefully—preferably in its original shipping carton—and enclose a brief description of the problem. Include your name, address, telephone number and Email, the units serial number and a **COPY** of the Bill of Sale. Write the RA number on the carton and ship it **PREPAID** to the factory. Please be certain to properly insure the unit for full retail price when shipping.

4. If it is determined that the unit is under warranty, we will repair the unit as deemed appropriate (repair or replacement parts) free of charge and return the unit to you, shipping prepaid.

5. If it is determined that the unit is not under warranty, we will return the repaired unit COD for the cost of repair, shipping and insurance.

WARNING - When electrical products are used, basic precautions should be followed, including:

■ Read all instructions before using this product.

■ Do not use this product near water, for example near a bathtub, sink, in a wet basement, near a swimming pool or the like. Prevent the unit from getting wet from rain, snow, etc.

■ Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.

■ This product should be located so that its position or location does not interfere with its proper ventilation. It is important that the bottom of the unit is allowed "to breathe."

■ The iAMP®500 should be located away from heat sources such as radiators, heat registers, or other products that produce heat. Do not leave the unit in an extremely hot environment (such as inside a car) for extended periods of time.

■ The product should be serviced by qualified personnel when:

• The power supply cord or the plug has been damaged; or

• Objects have fallen, or liquid has been spilled into the product; or

• The product has been exposed to rain or moisture; or

• The product does not appear to operate normally or exhibits a marked change in performance; or

• The product has been dropped, or the enclosure damaged.

■ The product should be connected to a power supply of the type described in the operating instructions or as marked.

■ If you live in area prone to frequent lightning strikes (e.g., Florida), as a precautionary measure, unplug the iAMP®500 from the AC power source, especially during severe thunderstorms.

■ Do not attempt to service the product yourself. All servicing should be referred to qualified service personnel at Euphonic Audio, Inc.

■ For continued protection against damaging your equipment or causing a fire, replace fuses only with those of the same type and rating as indicated on the back of the product (For 115V, use T6A 250V fuse. For 230V, use T4A 250V fuse.).

■ Use of the iAMP®500 may cause permanent hearing loss. Do not operate for long periods of time at a high volume level or at a volume level that is uncomfortable, particularly in a small, enclosed area. If you experience any ringing in the ears or any suspected hearing loss you should consult an audiologist.

WARNING–ATTENTION THIS UNIT MUST BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION. REPLACE ONLY WITH SAME TYPE AND RATING OF FUSES.

WARNING TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

The lightning flash symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within this product's enclosure that may be of sufficient magnitude to constitute risk of electric shock. **The unit contains no user serviceable components, under no circumstances should the unit be turned on or plugged in with the top cover removed.**

The exclamation point is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

GROUNDING INSTRUCTIONS This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to travel, which will reduce the risk of electric shock. The product is equipped with a power cord having an equipment grounding conductor and a grounding plug. It must be plugged into an appropriate outlet that is properly installed and grounded in accordance with local codes and ordinances.

DANGER Improper connection, lack of connection, or modification of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceperson if you are in doubt as to when the product is properly grounded. Do not modify the plug provided with the product if it will not fit an outlet; instead, have a proper outlet installed.

Make sure that the speaker connections and AC power connections are both properly made before powering on the amplifier. Likewise, power off the amplifier before disconnecting the speaker connections and before removing the AC power cord from the rear connector.

Do not change the VOLTAGE SELECT SWITCH while the unit is powered on! For continued protection against damaging your equipment or causing a fire, replace fuses only with those of the same type and rating as indicated on the back of the product (115V, use T6A 250V fuse. For 230V, use T4A 250V fuse).

OUR **OBJECTIVE** was to create a compact, full–featured integrated bass amplifier with a wide bandwidth, possessing more than adequate power and exceptional "headroom" *(for extra power demands, when needed)*, an amplifier capable of driving and extracting all the nuances from EA's expressive line of speaker cabinets. Our overall design mandate included balancing between two competing ideals: simple to use, yet extremely flexible.

We took our cue from today's high-end recording studio equipment, thus creating a robust integrated amp with an intuitive layout, providing today's bassist with exceptional versatility. Notice the "organic" placement of the controls on the Front Panel. As the signal flows from left to right—from the **INPUT SECTION** to the **TONE SHAPING SECTION** to the **OUTPUT SECTION**—you adjust the parameters at each stage, corresponding to actual the signal path within the iAMP®500 itself.

Please read all instructions before using this product!

| A | B | C | D |
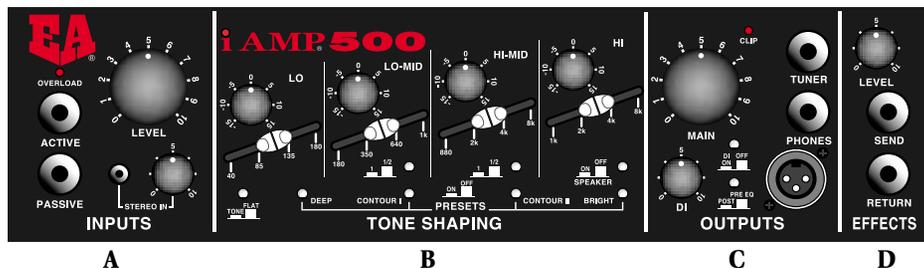
A — INPUT SECTION

ACTIVE INPUT: Low Impedance (Low Z) 10K ohms, optimized for active systems (basses with internal power pre-amps, i.e., those that use batteries).

PASSIVE INPUT: High Impedance (High Z) 1meg ohm, optimized for piezo, and/or passive systems as well as active basses which have low to moderate output levels.

STEREO IN: This feature allows the input of an outside signal other than the primary instrument such as a CD player or Drum Machine.

FIRST STAGE OVERLOAD INDICATOR: A red warning light indicates when excessive input, dangerous clipping or distortion levels are being sent into this critical first stage of the iAMP®500. Occasional peaks which illuminate the overload LED are not dangerous.

LEVEL CONTROL: At the maximum setting for Level Control, the red Overload light barely lights. Avoid prolonged or constant lighting of the red Overload light. If your Active signal is not loud enough, switch to the Passive input jack, this will provide 6dB more signal.

REAR PANEL FUNCTIONS

POWER SWITCH: Turns unit on/off.

A/C INPUT: Use appropriately grounded, three-prong A/C plug.

FUSES: For 115V, use T6A 250V fuse. For 230V, use T4A 250V fuse.

SPEAKER OUTPUTS: Two Speakon connectors, wired 1+, 1-.

VOLTAGE SELECT SWITCH: Use this switch to select 115V or 230V 50/60Hz power source.

COOLING VENTS: Your iAMP®500 is so efficient it needs no cooling fan. Although the iAMP®500 needs no fan, the vents on the side, back and bottom need to be kept clear. If you are putting your iAMP®500 in a rack, consider a 3-space rack for adequate ventilation.

EA'S QUALITY CONTROL

To ensure your iAMP®500 meets its rigid design specifications:

- *Every board is pre-tested before it is installed into the amp.*
- *Post assembly, each iAMP®500 is bench-tested before its burn-in phase.*
- *Each unit is burned-in (turned on and allowed to sit "in idle").*
- *Each unit is individually tested with a bass and speaker cabinets.*

Additionally, the preamplifier section uses state-of-the-art surface mount components and construction techniques for lower noise and better reliably. These extensive and time-consuming procedures guarantee that Euphonic Audio's production units are of a consistently high quality. Careful packaging helps ensure safe transport to the customer.

SPECIFICATIONS

Model:	iAMP®500
Type:	Solid State, Integrated Bass Amplifier with Class D Power Amp
Power:	500 watts RMS@4 ohms, 500 watts RMS@2 ohms, 350 watts RMS@8 ohms, 800 watts peak
Weight:	13 pounds (without optional rack ears)
Country of Manufacture:	United States of America
Optional Features:	Jensen Transformer JT-11-DMCF (dealer installed)

Euphonic Audio, Inc. reserves the right to modify design or specifications when deemed necessary, or when materials or procedures dictate.

C — Output Section

MAIN CONTROL: Adjusts the level going into the power amplifier section. The iAMP®500 was designed to be exceptionally clean, accurate and versatile. If you want a "dirtier" overdriven-type sound, it is best to use an effects device through the EFFECTS loops (see EFFECTS SECTION).

OUTPUT CLIP LED: The iAMP®500 has a limiter that will keep the amp from sustained clipping. Lighting the LED is not dangerous. When the OUTPUT CLIP LED lights it is just an indication you are at maximum power.

DI OUTPUT LEVEL: Adjusts the level of the DI, for finer control of levels going to an external mixing board or recording device. Note that the ground pin of the DI XLR connector is permanently lifted from ground.

POST/PRE EQ: Sets the DI output to send either a clean (PRE) or colored (POST) signal—created in the TONE SHAPING SECTION, including PRESETS—to external sources.

DI ON/OFF: Turns DI on and off.

XLR OUTPUT PLUG: For sending a balanced signal directly to low noise studio equipment.

TUNER JACK: Allows for an external tuning device or can be used for an unbalanced Line Out signal.

PHONES JACK: Allows the use of headphones for silent practice. When using just the headphone jack for silent practice, be sure that the SPEAKER ON/OFF push button switch is in the OFF position. For best results we recommend the use of the lower impedance headphones, i.e. 16 ohms.

D — Effects Loop (Series)

EFFECTS LEVEL: Use this control to adjust the level of the signal returning from the effects chain.

SEND JACK: Connect the cord going to the effects box or pedal here.

**RETURN JACK:** Connect the cord coming from the effects box or pedal here.
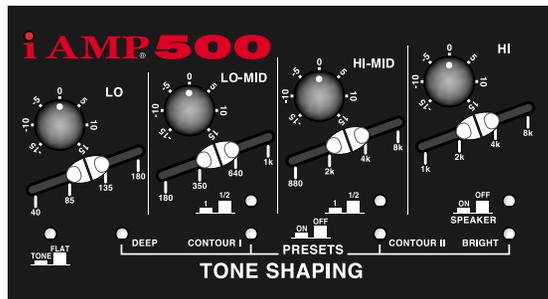
B — Tone Shaping Section

"The iAMP offers a lot of tone-shaping flexibility: Four bands of parametric EQ plus four well-voiced presets provide almost unlimited tone-tweaking potential."

· ·

THIS QUOTE FROM BASS PLAYER MAGAZINE MIGHT SAY IT ALL. If you are new to to the range and flexibility built into the EA Tone Shaping Section, we offer this primer to help get a good working knowledge of the iAMP Tone Shaping. Although many are used to calling this the EQ section we use the more accurate term, *"Tone Shaping"*.

We chose to call this the Tone Shaping section because that is exactly what it does. It allows you to custom contour your tone. The term "Equalizer" is used to boost or cut specific frequencies inherent in the listening environment itself, to "equalize the room." Instead, the iAMP®500 provides you with extremely pliant tone controls to allow you the freedom and creativity to develop a wide variety of tones from any instrument you play through it.

That being said, it is important to remember most listening environments (clubs, auditoriums, rehearsal halls, etc.) actually enhance the frequencies below 50Hz of a bass rig, adding "room resonance" to the sound emanating from the woofer. Conversely, people in the room will absorb the higher frequencies created by the midrange and tweeters. Depending upon the timbre desired, you may wish to keep that in mind, as the sound you are hearing directly in front of your rig is not the same as the sound perceived in the listening environment. When in doubt, back off the bass a little and boost the treble a bit. That way you will be felt as well as heard.
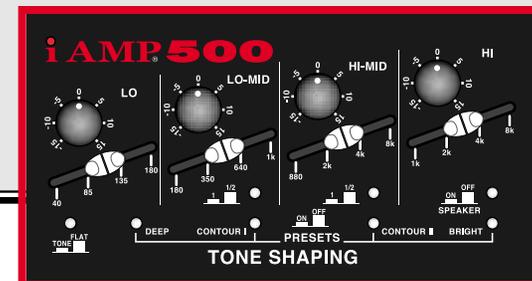
OVERVIEW *The iAMP's tone shaping section is divided into two sections that can be used independently or together. The iAMP has Presets that allow the player to quickly dial in a great sound. There is also a section that allows more detailed tone shaping options. There are 4 presets, Deep, Contour I, Contour II and Bright. Each Preset has it's own on/off switch.*

■ **DEEP: *+6dB@50Hz, 1/2-octave bandwidth.*** Use this control to fill out the bottom end that is easily lost at lower volume settings. The frequency range that this preset affects is the area perceived as the "solidity of an instrument,"" or how much strength your sound has. Caution: when engaged at loud volume settings, this preset could cause permanent loudspeaker and hearing damage.

■ **CONTOUR I: *–6dB@500Hz, 1/2-octave bandwidth.*** This preset was conceived to optimize fingerstyle playing. This EQ is based upon players' request for a "sculpted" pleasing tone—specially tailored toward an ultimate finger picking sound. It will also take the "honk" out of almost any speaker system. CONTOUR I will eliminate a portion of the lower midrange frequencies, providing wide, deep shaping. At low volume levels, you can use this preset similarly to a loudness control (which typically boost the extreme low and high frequencies).

■ **CONTOUR II: *–8dB@750Hz, 1/2-octave bandwidth.*** This preset was designed to give a great slap/pop sound. This wide filter removes the upper midrange frequencies thereby eliminating the harshness that is often present when slapping the bass. CONTOUR II makes this playing popular style of more sonically pleasing.

■ **BRIGHT: *+8dB@7.5kHz, 1/2-octave bandwidth.*** This preset emulates the high-end response of a vintage Fender® Jazz Bass pickup. It gives you a top end "snap" that dull-sounding pickup systems cannot. The tremendous amount of boost also compensates for speaker systems that do not deliver a good upper end response. It can also add sparkle to a lackluster or old set of strings.

For more detailed Tone Shaping options the player can boost or cut specific frequencies as desired. The unique design of the iAMP Tone Shaping section presents a visual representation of the effect on your sound. There are four adjustable frequency ranges:

■ **LO CONTROL:** +/–18dB shelving gain control, cut or boost, 40–180 Hz

■ **LO-MID CONTROL:** +/–18dB gain control, 180–1kHz; 1 or 1/2-octave bandwidth or "Q" switch

■ **HI-MID CONTROL:** +/–18dB gain control, 800-8kHz; 1 or 1/2-octave bandwidth or "Q" switch

■ **HI CONTROL:** +/–18dB shelving gain control, cut or boost, 1–8kHz

Each frequency range has a diagonal slider that centers the frequency to be adjusted and a rotary boost/cut control knob. Additionally, the Lo-Mid and Hi-Mid have a switch to set the bandwidth or "Q" to either 1 or 1/2-octave. ***PLEASE NOTE THAT THE TONE/FLAT SWITCH HAS NO EFFECT ON THE PRESETS.***
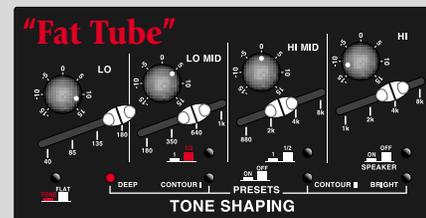
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USING THE iAMP'S TONE SHAPING SECTION

The iAMP is designed so that either the presets or the more detailed tone shaping option of the iAMP can be used individually or together. We suggest that if both are to be used in conjunction that first you should dial in your desired tone with the sliders and THEN enhance the sound by kicking on the presets.

Each slider, from left to right, affects a higher frequency range; stepping up like a ladder. Here is a step-by-step introduction to the infinite possibilities presented by the iAMP Tone Shaping Section. First, engage each preset button, one at a time to see if you get the tone you are looking for. If you still want something different DISENGAGE all Presets. Find the frequency you want to enhance (or diminish). To do this, estimate the frequency range that you want to adjust (Lo, Lo-Mid, Hi-Mid or Hi). Boost the Rotary control for that slider by 5–10dB. Play a note and slowly move the slider until the desired characteristic "blooms". Now that you have isolated the frequency you can use the rotary control to enhance or diminish it. You might want to add some bottom to fill out the sound on a low volume gig. Adding midrange will help you cut through the mix. You might also want to remove some fret noise or string squeak.

Now that you've added or removed certain specific frequency ranges, you can engage different presets to affect the overall sound. Be cautious as each of these are additive. If you've boosted the bass by 15dB and then turn on the Deep button, you have boosted the bass by 21dB. This can cause serious damage to many speaker systems as well as your hearing!

For a long time it has been mistaken that a solid state amp could not have that big, warm tube sound. The flexibility of the iAMP design allows that and many other sounds. Try this setting to get that fat tube amp sound.

Here is another example for all of you "Jacophiles" out there! This setting will give you that great midrange growl and beautiful ringing harmonics that became the signature of the Jaco Pastorius bass sound.

SETTINGS: Lo: +12dB @ 180Hz
Lo-Mid: +5dB@640Hz (1/2 octave Q)
Hi-Mid: N/A
Hi: –12dB@4kHz
Deep Preset Engaged
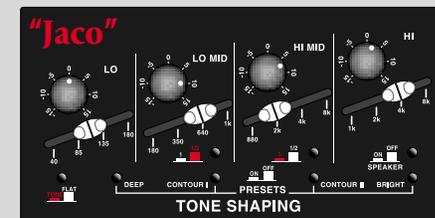
SETTINGS: Lo: N/A
Lo-Mid: +10dB@640Hz (1/2 octave Q)
Hi-Mid: +7dB@2kHz (1 octave Q)
Hi: +2dB@4kHz
All Presets Off

This is only a guide. Determine your personal settings based on your instrument and your playing style.

Finally, one more quote from Bass Player Magazine: *"The deep button's moderate bass boost, combined with contour 2's upper midrange dip, produced a full and clear sound that worked especially well with 4-string basses. These two presets are so well voiced I never needed to use the iAMP's powerful parametric EQ during my gig tests. To enhance the EQ section's intuitive feel, EA angles the frequency-selecting sliders to give a better graphic representation of their function. It's easy to find EQ sweet spots by slowly adjusting the sliders."*

CONCLUSION *The EA Tone Shaping Section is extremely powerful and versatile. Use the Tone Shaping section judiciously. Add a little bit at a time.*

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