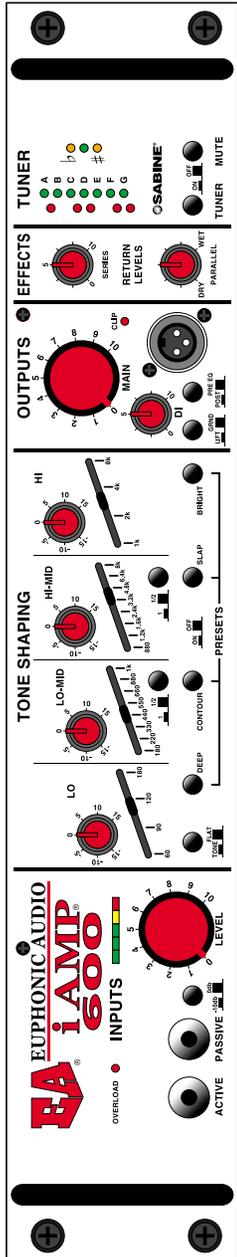




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Euphonic Audio

iAMP® 600

Operating Manual

Acknowledgements

Euphonic Audio would like to thank Richard Carpenter, Dave Freeman, David Inamine, Robert Kaye, Michael Rhodes and Kim Stone for their invaluable contributions to the development of the iAMP®600 and this manual.

A Few Words From Kim Stone

Being an electric bassist has always been a challenge. And enlightening. In creating/realizing your own musical voice, you make many necessary decisions in every step of your evolution. Finding our own sound and musical style is a process of experimentation, a journey of discovery. Basically it's a game of hit and miss until you finally find the right sound and style that appeals to your musical soul. We all want that bass guitar/contra bass guitar/acoustic bass to feel just right in our hands but I believe we all look for the same thing in a bass rig - that it reproduces what our basses "REALLY" sound like!

My search has taken me to many extremes but has left me with the knowledge of what I really want in a bass amp: a true reproduction of the sound of my instrument, with plenty of headroom. I want the amp/cabinets to respond quickly so I'm never "not heard or felt" on the gig.

Just one more thing. The size of my rig has become paramount in this ever-shrinking world. I'm a small guy and getting too old to be hauling massive quantities of gear around. My **Euphonic Audio® iAMP®600** delivers all of my prerequisites and even a few more, such as providing fantastic control of the shape of my sound. Not to mention having **EA's** compact speaker system that can deliver an awesome low fundamental and a sweet high end.

So, after decades of touring and recording, my musical evolution has brought me to the **iAMP®600**. With this discovery, my search for the ultimate amp/speaker system that brings me into this modern world has ended.

Kim Stone - Bass Guy



A Note from Euphonic Audio

Thank you for purchasing the **EUPHONIC AUDIO® iAMP®600** Integrated Bass Amplifier. We're extremely proud of our **iAMP®600** and pleased that you have chosen it. You will receive many years of satisfaction from your **iAMP®600**, 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™**.

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 criterion were 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 **iAMP®600**. At 600 watts rms into 4 ohms, 1800 watts peak and only 27 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 and metering; highly effectual and intuitive tone shaping controls; professional balanced outputs (with a Jensen transformer option for the Direct Input section); versatile parallel and series effects processing; an integrated Sabine® chromatic tuner; 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, of which the **iAMP®600** was the first. 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.

The EA Team



Gary

Larry

John

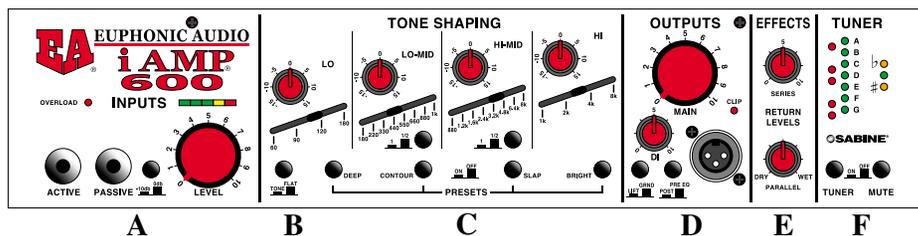
iAMP®600's Design Philosophy

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 surges, when needed), an amplifier capable of driving and extracting all the nuances from EA’s expressive line of speaker cabinets. Our design mandate included competing user interface features: to make a simple to use, yet highly accommodating, fully functional product.

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** to the **OUTPUT SECTION** — you adjust the parameters at each stage, corresponding to actual the signal path within the **iAMP®600** itself.

Please read *all* instructions before using this product!

Front Panel Functions



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.

-10dB/0dB PAD: When engaged, this pad decreases the input level by 10dB; to be used if the **FIRST STAGE OVERLOAD INDICATOR** warning light illuminates (see below). (Additionally, you may choose to turn down the volume control of your bass or, if you are running a special effects unit directly into one of the two inputs, decrease its output signal going into the **iAMP®600's INPUT SECTION.**)

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®600**. If this happens, engage the **-10dB/0dB PAD** (see above).

INPUT LEVEL INDICATOR: Used in conjunction with the rotary **LEVEL CONTROL** (see below), this multi-colored, 5 LED bargraph helps you achieve optimal input level into the **TONE SHAPING** section. Short, occasional peaks are okay, but avoid a perpetuated level into the red LED.

LEVEL CONTROL: Provides appropriate input level to the pre-amp’s **TONE SHAPING** section. Set this control for maximum deflection of the **INPUT LEVEL INDICATOR**’s multi-colored LED’s (see above), without prolonged illumination of the red LED. This will attain the best signal-to-noise ratio and sufficient input for the **TONE SHAPING** section. Use this control similarly to the input level controls of a recording or mixing device; in other words, you should avoid sustained peaks into the “red zone.”

B) TONE SHAPING SECTION:

The name says it all. We chose to call this the **TONE SHAPING SECTION** because that is exactly what it does. It allows you to custom contour your sound. Many manufacturers incorrectly use the term “Equalizer” to this section of a preamplifier. In truth, an equalizer is used to boost or cut specific frequencies inherent in the listening environment itself. To equalize the room. This is usually achieved with a spectrum analyzer that uses pink noise in the audio environment. Instead, the **iAMP®600** provides you with extremely pliant tone controls for creating a wide variety of timbres from your bass instrument(s).

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.

*Note: The diagonal direction of the sliding tone controls and the appearance of the **iAMP®600** are a proprietary interest of Euphonic Audio, Inc., 2000.*

All rights reserved.

LO CONTROL: ±18dB gain control, cut or boost, 60-180 Hz

LO-MID CONTROL: ±18dB gain control, 180-1KHz; switched bandwidth preset, 1 or 1/2 OCTAVE WIDTH PAD (see below)*

HI-MID CONTROL: ±18dB gain control, 800-8KHz; switched bandwidth preset, 1 or 1/2 OCTAVE WIDTH PAD (see below)*

HI CONTROL: ±18dB shelving gain control, cut or boost, 1-8KHz

*Similar to a parametric equalizer, these two switches allow you to vary the Q (often referred to as the “slope” or “bandwidth”) of the critical midrange frequencies selected on the proprietary diagonal **LO-MID** and **HI-MID** slider controls. For example, if you choose to boost a midrange frequency of 660Hz by 3dB, you can create a wide slope using the 1 - OCTAVE position, which will effect frequencies between 330-1.32KHz. Or, using the 1/2 - OCTAVE position, create a narrower slope, effecting frequencies from 495-825KHz.

These 1-1/2 OCTAVE PADS are provided in the LO-MID and HI-MID sections because this is the range of the audio spectrum where human hearing is most sensitive. And for a good reason. The human voice, our primary form of communication, produces sound predominately in this critical midrange area. Our ability to discern frequency and phase variations in this range of the audio spectrum – which also help define a bass instrument's overall timbre — is much more acute.

C) PRESETS

The **iAMP®600**'s four **PRESETS** provide you with quick and desirable tone settings. Use them in conjunction with or without the other **TONE SHAPING** controls. Each **PRESET** has been carefully designed to provide the most sought after timbres, some of which can be illusive to even the most experienced players.

TONE/FLAT: Engages/defeats **TONE SHAPING** parameters (see above) **but not PRESETS 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: -6dB@500Hz, 1/2 octave bandwidth. This present 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. As its name implies, **CONTOUR** 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).

SLAP: -8dB@750Hz, 1/2 octave bandwidth. This preset was designed to eliminate the harshness that is often present when slapping a bass, making this popular style of playing more sonically pleasing (without taking away that “oomph” like a compressor sometimes can). This wide filter removes the upper midrange frequencies to give you a great slap/pop sound.

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 can not. The tremendous amount of boost also compensates for speaker systems that don't reproduce a good upper end response. It can also add sparkle to a lackluster or old set of strings.

D) OUTPUTS SECTION

MAIN CONTROL: Adjusts the level going into the power amplifier section. Unlike several integrated amps that provide volume/master volume controls, the **iAMP®600** was not created to produce an overdriven, “Jack Bruce-like” sound. It 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 either the **PARALLEL** or **SERIES EFFECTS** loops (see below).

OUTPUT CLIP LED: Indicates when the amplifier output stage is receiving an excessive signal that will induce clipping in the power amplifier. Occasional flickering of LED is okay, sustained illumination is not.

DI OUTPUT LEVEL: Adjusts the level of the **DI**, for finer control of levels going to an external mixing board or recording device.

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.

LIFT/GROUND: In/out ground of the **DI**; to minimize hum.

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

E) EFFECTS SECTION

SERIES EFFECTS LEVEL: Adjusts series effects level; use this to control how much “color” you want for your **entire** signal — as when using a compressor or other device that will effect the total bass sound.

PARALLEL EFFECTS LEVEL: Adjusts parallel effects level; use this to create the “blend” between a processed signal and non-processed signal, as when using a distortion, wah-wah, or other special effects device. **DRY** is your clean signal; **WET** is your processed signal.

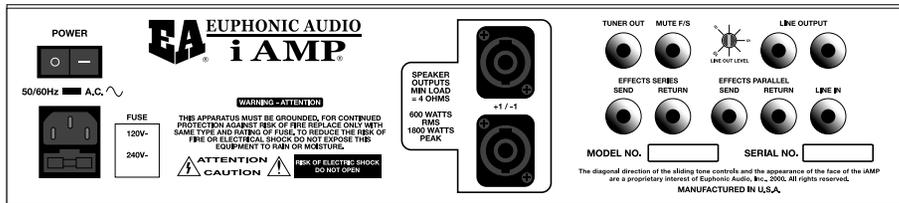
F) TUNER SECTION

CHROMATIC TUNER: **Sabine®** designed tuner. You may tune to any chromatic pitch, if desired. The red LED's arrayed vertically on the left refer to accidentals (A#/Bb, C#/Db, etc.); the green vertical LED's refer to natural notes, as indicated. As the instrument's pitch gets closer to being in the tune, the yellow **b FLAT** or **# SHARP** LED's on the far right will blink more slowly (just as “beats” would if tuning by harmonics). If the tuner is not syncing up, and you're not getting a proper indication of the center “in tune” green light at far right, pluck the string more frequently — but not with more energy — to achieve optimal results.

ON/OFF PAD: Turns tuner on or off. You may wish to keep the tuner on continuously, which will be indicated by a pulsing of the green “in tune” light about every 5 seconds. If left on, you could use the tuner as an intonation guide for fretless instruments, in which case, the pitch indication and flat/sharp/in-tune indicators will blink continuously.

MUTE PAD: Mutes the output of the amp for silent tuning, when switching instruments, etc. Can be used in conjunction with **MUTE F/S** input (see below). *Note:* This pad may cause a slight electronic noise when depressed, this is within normal operating functions.

Rear Panel Functions



G

G) REAR PANEL

POWER SWITCH: Turns unit on/off.

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

FUSES: 120 volts, use GMA 6.3A Slo Blo; 240 volts use GMA 3.15A Slo Blo.

SPEAKER OUTPUTS: 2 Speakon® (Signal 1+/1-)

Speakon® connectors provide high current capabilities not available from 1/4 inch jacks, allowing an optimal input signal into EA's cabinets. The iAMP®600 is capable of delivering an impressive 23 amps peak, which provides a very strong signal to the crossover in the speaker enclosures. EA recommends using 14-gauge or thicker (i.e., 12-gauge) cables with the Speakon® connectors.

TUNER OUT: 1/4 inch jack for external tuner.

MUTE F/S: An accessory foot switch can be used to mute the amp.

EFFECTS SERIES SEND/RETURN: 1/4 inch jacks for series effects input/output.

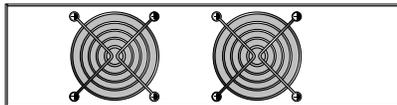
PARALLEL SEND/RETURN: 1/4 inch jacks for parallel effects input/output.

LINE OUT LEVEL: Sets level for the two line outputs, for sending a signal to a second amplifier or P.A.

LINE OUTPUT: 2 x 1/4 Jack outputs with level control (see above).

LINE INPUT: An external line input has been provided with a nominal level of 0dB and an input impedance of 47K ohms, for example when you just want use the iAMP®600 as a "slave" power unit.

H



H) Left/Right Side Panels

FAN COOLING: Two fans have been used to provide adequate cooling with a minimum of noise. To allow proper ventilation, it is imperative there remains adequate space on both sides of the unit, especially if your iAMP®600 is to be fitted into a rack mount or road case.

Quality Control Procedures

To ensure your iAMP®600 meets its rigid design specifications:

- Every board is pre-tested before it is installed into the amp.
- Post assembly, each iAMP®600 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 reliability. These extensive and time-consuming procedures guarantee that Euphonic Audio's production units are of a consistently high quality. Careful packaging ensures safe transport to the customer. Note: the unit is shipped with its front handles unattached, which must be screwed in after shipping.

Warranty Service Information

Please follow these steps if your Euphonic Audio iAMP®600 requires repair:

1. Locate your original Bill of Sale, which should include date and place of purchase.
2. Call, FAX, E-Mail 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 732.240.3715. (See registration for E-Mail, 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 E-Mail, the unit's serial number and a COPY of the Bill of Sale. Write the RA number on the carton and ship it *prepaid* to the factory (see our address on front cover). 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.

Important Safety Precautions

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

1. Read *all* instructions before using this product.
2. 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.
3. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
4. This product should be located so that its position or location does not interfere with its proper ventilation. It is important both sides of the unit are allowed “to breathe.”
5. The **iAMP®600** 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.
6. The product should be serviced by qualified personnel when:
 - a. The power supply cord or the plug has been damaged;
 - b. Objects have fallen, or liquid has been spilled into the product; or
 - c. The product has been exposed to rain or moisture; or
 - d. The product does not appear to operate normally or exhibits a marked change in performance; or
 - e. The product has been dropped, or the enclosure damaged.
7. The product should be connected to a power supply of the type described in the operating instructions or as marked.
8. If you live in area prone to frequent lightning strikes (i.e., Florida), as a precautionary measure, unplug the **iAMP®600** from the AC power source, especially during severe thunderstorms.
9. Do not attempt to service the product yourself. All servicing should be referred to qualified service personnel at **Euphonic Audio, Inc.**
10. For continued protection against the risk of fire, replace fuses only with those of the same type and rating as indicated on the back of the product. (120 volts, use GMA 6.3A Slo Blo; 240 volts, use GMA 3.15A Slo Blo)
11. The **iAMP®600** 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.

WARNINGS USED ON THE EQUIPMENT

WARNING - ATTENTION

THIS APPARATUS MUST BE GROUNDED FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE AND RATING OF FUSES (see above for proper fuse types).

WARNING - TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.



The lightning flash with the arrow head symbol within an equilateral triangle 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 within an equilateral triangle 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 breakdown, 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 the local codes and ordinances.

DANGER

Improper connection 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.

Specifications

Model: iAMP®600

Type: Solid State, Integrated Bass Amplifier

Power: 600 watts rms @ 4 ohms, 1800 watts peak

Weight: 27 pounds

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.

Limited Warranty

The warranty period for **Euphonic Audio iAMP®600** is ONE YEAR from the date of purchase. This covers defects in material and workmanship.

The warranty is void under the following conditions:

1. If the unit has been damaged due to an accident, improper handling, installation or operation;
2. If the unit has been damaged in shipping;
3. Abuse or misuse;
4. Unauthorized repair or attempted repair;
5. 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.

Product Information

Date of Purchase: _____

Place of Purchase: _____

Serial Number: _____

Warranty and Registration

Complete this form and photocopy it

Mail : 1) a copy of this form and
2) copy of Bill of Sale to:

Euphonic Audio, Inc.
11 Revere Court
Princeton Junction, NJ 08550

Name: _____

Address: _____

Telephone Number(s): _____

E Mail: _____

Purchased at: _____

Date of Purchase: _____

Model: _____

Serial Number: _____

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

Again, thank you for purchasing **Euphonic Audio's iAMP®600!** We appreciate your questions and comments. Contact us:

Phone: 732.240.3715

Fax: 732.736.1400

E Mail: info@euphonicaudio.com

Address: **Euphonic Audio, Inc.**, 11 Revere Court, Princeton Junction, NJ 08550