EDEN

THE LEADER IN BASS AMPLIFICATION.

World Tour 1205
Bass Guitar Amplifier
Operation Manual

Never Compromise™

Bass Guitar Amplifier
WT1205
OPERATION MANUAL

Publishing Date 09-20-2005

FORWARD

Congratulations on the purchase of your new Eden World Tour Integrated Amplifier System. All of us at Eden are totally committed to providing you with the very best bass guitar systems in their class. Our goals are to offer you the outstanding performance quality of a top-notch, professional bass amplification system at a reasonable price point, and to make World Tour amplifiers the most musical and reliable Bass amplifiers available.

This manual will cover all domestic and international versions of the WT1205 integrated amplifier.

The WT1205 delivers 325 watts RMS output @ 8 Ohms, 500 watts @ 4 Ohms and 600 watts @ 2 Ohms with both channels driven. In Bridge Mode, it delivers 1000 Watts RMS @ 8 Ohms, and 1200 watts @ 4 Ohms. Both modes of operation have +3dB of headroom. This amplifier offers two independent channels and features a thermostatically-controlled, active cooling system with built-in thermal safeties.

You have purchased what we feel is one of the finest bass amplifiers in the world. The new pre-amplifier section, with its familiar Eden Enhance control and powerful new tone control system are coupled to a studio quality compressor. The new automatic Dynamic Booster for low and high frequencies, along with tone bypass, selectable DI and a gentle auto-compression circuit, allow you to achieve a wide array of sounds. This compact, rack mountable package houses modular circuits made with superior components and designed for years of trouble-free service.

The Eden World Tour products group is the result of our quest for ultimate bass tone and maximum reliability. Your new World Tour Amplifier was designed, engineered and manufactured equivalent to aircraft vibration standards and housed in a one-piece aluminum case with steel top to ensure maximum reliability. The modular design allows quick repair in the field should such a need arise.

The Eden line of World Tour amplifiers is the result of our research and development in combining high performance and compact size. Just as a skilled craftsman needs good quality tools that won't let him down on the job, so does a good musician. We hope you enjoy the tool we've created for you. Have fun; play low!

Please read this manual in its entirety before operating your new amplifier. Failure to do so could result in misuse or damage. We've taken the time to write it, which was a lot longer than the time it will take for you to read it. Help us help you by taking a few moments to learn how to properly use your new amp. You'll be glad you did!

CAUTION!

Your ears are your most important piece of equipment. Unfortunately, they cannot be replaced as easily as your other gear. Please take the following warning seriously.

This product, when used in combination with loudspeakers and/or additional amplification may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate at high volume levels or at a level that is uncomfortable. If you experience any discomfort or ringing in the ears or suspect hearing loss, you should consult an audiologist.

Thank you for your purchase of an Eden bass guitar product. This unit has been designed and constructed to give you years of trouble-free service.

Please take the time to review this manual and to send in your warranty registration card.

FRONT PANEL FEATURES

Input Jacks – Designed to accept a standard ¼ inch mono phone plug. For best results use a high quality shielded cable to connect your instrument to the amplifier. Both inputs are buffered and will handle standard passive, high level active, and piezo input signals. Both jacks can be used simultaneously with a single stereo instrument, or to connect two separate instruments. If using two instruments, you can select which channel is active via the front panel switch or the included foot controller.

Mute switch – Mutes all the outputs except the Tuner Out, allowing for silent tuning. Lead singers and guitarists love this feature! The indicator between the two Inputs lights up when Mute is ON.

Turbo Boost Switch – By pushing the Turbo Boost Switch IN, you engage a +6dB gain boost. This is great for solos, or when the guitarist cranks up his amp.

Single Channel Select – Use this switch to select Channel 1 or Channel 2 from the front panel.

Dual Channel Select – Engage this switch when using a stereo instrument. When engaged, this disables the Single Channel Select switch.

Gain Controls – Regulate the first gain stage of the preamplifier and controls the amount of signal available to the system.

Turbo Boost Indicators – Lights to indicate that the unit is in Turbo Boost mode.

Clip Indicators – Flashes to indicate clipping anywhere in the system. Clipping is a **Very Bad Thing** and will degrade the quality of your sound. Therefore, this indicator should never be lit up.

Compressor Controls – These adjust the threshold level of the compressor. The ratio is fixed at an optimum point for Bass reproduction. Each channel has its own compressor so that you can set compression individually. To disable the compressors, turn the controls fully counter-clockwise.

Compressor Active Indicators – Light to indicate that the signal has crossed the threshold of the compression circuit and that compression is taking place.

Enhance Controls – Called the "Magic Knob" by some, this complex control simultaneously boosts the very low bass, upper middle, and high frequencies while putting a dip in the lower middle frequencies. It is flat when set to its minimum level (fully counterclockwise).

Tone Control Sections - These controls allow you to boost or cut the tone at the desired frequency. All controls provide 15dB of boost or cut and are FLAT in the 12:00 position. The spacing allows the controls to interact smoothly and musically. From left to right, the controls are:

Channel One:

Bass – Centered at approx. 30Hz.

Low Midrange Control – Centered at 550Hz. portion of the sound envelope and can be critical to getting your sound right. The body of the Bass Guitar sound is in the Midrange.

High Midrange Control – Centered at 2.2KHz. Another useful control for tailoring the Midrange, which is where the body of the Bass Guitar sound is found.

Treble – Centered at 11KHz.

Channel Two:

This channel is slightly different, in that it features sweepable Midrange. The Level knob sets the amount of boost or cut; the Frequency knob adjusts the center frequency from 250Hz to 2.5KHz. We'll talk more about this later.

Dynamic Boost – Immediately to the right of the Treble controls for each channel you will find two switches labeled Bass and Treble. These engage the Dynamic Boost. This feature allows the extreme lows and highs to be adjusted to the ear's relative loudness curve (Fletcher-Munson curve). This ensures the bass will sound full and solid even at very low playing levels.

We recommend you engage these switches at low volumes so that your sound remains consistent at any volume. At higher volume levels they aren't needed but you may want to use them as a matter of taste. Because we strongly support Freedom of Choice, we've incorporated these two switches into our design. (You're welcome.) Indicator lights to the outsides of the switches let you know when the boost circuits are engaged.

AUX In – Blends the amount of Aux Input with the main inputs.

D.I. Level Control – Sets the level of the DI sends (located on the rear panel).

Balance Control – Allows the user to adjust the balance between two speakers of differing sensitivities. Always set this control to the center position (12:00) when using the amplifier in Mono Bridge mode.

Master Level Control – Adjusts overall system output and stage loudness.

D.I. Select – Allows the user to send the D.I. before (PRE position) or after (POST position) the Tone Control section. Some users like to send a signal unmodified by their tone settings to either a recording console or main PA system. We're really into the whole Freedom of Choice thing, so we thought we'd let you decide which you prefer. The indicator is lit when in the POST position.

NOTE: Our proprietary AutoMix technology automatically selects the active channel and sends that to the board. If you are operating a stereo instrument, both channels will be summed and sent to the board.

Bridge Mono Select – The WT1205 has two separate amplifiers. They can be used in Dual Mono or Stereo Mode, or can be bridged together to create one, high-power amp. To engage Bridge Mono operation, depress this switch. The indicator light will come on when in this mode.

NOTE: Choose the mode of operation while the amplifier is OFF.

Mains On/Off Switch – This switch turns the system power ON or OFF. The switch illuminates to indicate the presence of AC power present in the chassis. This switch is prior to the fuse. **The switch light can be on even if the fuse is blown.** The light in the switch may flicker depending on local voltage conditions. This is normal and nothing to be concerned about.

DC Power On Indicator – Lights to indicate that there is power throughout the entire amplifier.

Output Limit Indicators – Light to indicate activity of the power amplifier limiting circuits, which protect the speaker system(s) from severe distortion. These LEDs indicate that the amplifiers have reached their maximum output level.

REAR PANEL FEATURES

Amplifier Power Rating:

In Dual Mono or Stereo Mode, with both channels driven:
325 watts RMS @ 8 Ohms
500 watts RMS @ 4 Ohms
600 watts RMS @ 2 Ohms

In Mono Bridge Mode:
1000 Watts RMS @ 8 Ohms
1200 Watts RMS @ 4 Ohms

All modes of operation have +3dB of headroom. This means that the maximum output is twice the RMS rating.

Note: Our new D610XLT is rated at 6 Ohms and is rated at 1050 Watts RMS. When connecting this cabinet to the WT1205 in Bridge Mode, it will receive approximately 1100 Watts RMS, which is a near-perfect match.

Combination Power Cord Jack and Fuse Holder – The removable power cord is attached here. To access the fuse holder, pull the holder out of the top of the power receptacle. Your unit was shipped with a spare fuse inserted in the fuse carrier. **USE ONLY THE SAME SIZE AND TYPE FOR REPLACMENT. Using a fuse with a different rating than specified is a VERY BAD THING and can cause damage to your amplifier.**

All models come with a holder marked (FUSE) or (115/230) and are factory configured for 100/120/ 230/240 only and must be adapted by a service tech for any voltage change.

Fuse Requirements:

USA @ 120 Volts /60 HZ – 10 Amps, 5 x 20 mm GMC/T/slow blow
Europe @ 240 Volts/50 Hz - 5 Amps, 5 x 20 mm GMC/T/slow blow
Japan @ 100 Volts/60 Hz - 12 Amps, 5 x 20 mm GMC/T/slow blow

IMPORTANT NOTE: Always use slow blow or time delay type fuses. Do not use fast blow fuses.

IMPORTANT NOTE: In order to operate properly anywhere other than North America, the voltage configuration may be easily changed by moving one or two jumpers inside the amplifier, following the instructions located on the inside of the top panel. These modifications should be made by a QUALIFIED technician. Contact your local distributor for further information.

Speaker Outputs – These consist of two ¼ inch jacks and an NL-4 connector (sometimes called a Speakon) for each amplifier. The jacks are wired in parallel. The total speaker load impedance should not go below 2 ohms. On NL-4 connectors, we use +1, -1 connections.

Bridge Mono Output – The WT1205 can also be used in Bridge Mono mode. There is a separate NL-4 connector for this mode of operation.

IMPORTANT NOTE: Use ONLY the Bridge Mono Output when operating your amplifier in Mono Bridge mode. Using the individual amplifier outputs when in Mono Bridge mode may release the Magic Smoke from your amplifier and cause significant damage – both of which are VERY BAD THINGS.

Headphone Output/Slave Output – You can use this output for silent practicing – your neighbors will really appreciate this feature – or to power another amplifier. This output is controlled by the Master Volume so that you can control the entire rig with a single volume control. You're welcome.

Footswitch Jack – Connect the Footswitch here. When connected, the footswitch overrides the corresponding front panel controls.

Tuner Out Jack – This standard ¼ inch jack is designed to provide a pre-gain signal for connection to a tuner. It can also be used to provide pre-tone signal to other devices such as a direct box or console. The signal is hot enough to provide adequate signal to virtually every tuner on the market.

Stereo Aux. Inputs - These standard ¼ inch input jacks are designed to accept the signal from an external source such as a CD or cassette player, drum machine, synth. module, etc. The signal is summed (added in) prior to the tone controls and Master Volume control. These jacks can also be used to return a studio cue signal, allowing the WT1205 to provide you with your own headphone mix in the studio.

Recording Out – This fully balanced XLR output allows you to send a pre- or post-EQ signal to a recording or sound reinforcement mixing console. We use Pin 2 hot configuration. Adjusting the Master Volume control will not affect this send. This output is designed to use with phantom powered systems. However, it never hurts to turn off the phantom power at the board, if possible. (*For you propellerheads, this output is buffered for up to 100 Volts DC to protect the amplifier from phantom power supplies.*)

Ground Lift Switch – This switch lifts the ground within the balanced output system to allow you to eliminate excessive noise/ground loops when connected to external systems.

Mono Effects Sends and Returns – These standard ¼ inch jacks allow you to send and receive your signal to and from external devices. Each channel has a Pre-EQ and Post-EQ loop. The Pre-EQ effects loops are positioned post (behind) the compressor and before the Enhance control and the tone section. The Post-EQ loops are positioned immediately after the tone controls. These loops are at line level; do not use instrument level effects in this loop as they tend to be overloaded by the higher signal level which can cause distortion.

Propellerhead Note: The Effects Loops are switched on the Return jacks. This allows all Effects Sends to be used as Auxiliary Sends to outboard equipment. This qualifies as a Really Neat Thing.

Cooling System – Your amplifier features a thermostatically controlled fan, which will switch on when the internal temperature reaches 130 degrees F. In low volume situations (into 8 Ohm loads) the fan may not come on at all.

The cooling system also features a high temperature thermal safety system, which will activate a standby switch if the operating temperature goes above 190 degrees F. This circuit will automatically shut down the output of the system in the event of overheating. It will automatically reset itself to normal operation as soon as the unit cools down to a safe operating temperature.

NOTE: the D.I. will continue to operate normally even when the amplifier is in thermal safety mode. Only the stage sound will be lost.

IMPORTANT NOTE: Excessive heat is a Very Bad Thing and can result in severe damage to your amplifier. DO NOT bypass or disconnect any part of your thermal safety system. Doing so will immediately void your warranty!

SECOND REALLY IMPORTANT NOTE: Do NOT remove the rubber feet from the bottom of your amp unless you are mounting it in a rack. There is a vent underneath the amp; covering this vent will decrease the effectiveness of the cooling system and may cause damage to your amplifier. Don't say we didn't warn you!

FOOTSWITCH FEATURES

The footswitch is connected via the rear panel of the amp using the supplied 7-pin DIN cable. When connected, the footswitch overrides the corresponding switches on the front panel. From left to right, the buttons on the footswitch are:

Mute – Engage this button to mute all outputs except the Tuner out. This allows silent tuning, a feature that your guitarist will very much appreciate. Unfortunately, it will not mute your guitar player, no matter how much you wish it did.

Channel Switching – Switches between Channel 1 and Channel 2. OK, that's pretty obvious, but it still needed to be said.

Dual (Stereo) Channel Operation – Engage this switch when using stereo instruments. Engaging this switch will bypass the Channel Switching.

Turbo Boost – Also known as the Solo Button, this engages a +6dB boost to put you on top of the mix. Use this for solos and such. This control is global, meaning that it affects both channels simultaneously.

Enhance Bypass – Disengages the Enhance circuits, allowing you to instantly change tone. One neat way to use this feature is to create a tone via the tone controls only, then dial in some Enhance for a second tone. Using the switch, you can flip between the two tones you've created. This control is also global, meaning that it affects both channels simultaneously.

OPERATING INSTRUCTIONS

Mechanical and Thermal Issues – During operation, your amplifier should always be placed away from sources of moisture or heat. Care should be taken not to obstruct the ventilation holes on the bottom and sides of the unit. In the event of thermal shutdown, you should eliminate the cause of the thermal problem (poor ventilation, speaker loads lower than 2 ohms) immediately. The supplied rack ears can be used to install your amplifier in a conventional equipment rack for protection during transportation.

Electrical Connection – The WT1205 requires at least 20 Amps of correctly wired alternating current for proper operation. Providing less than 20 Amps of power may result in reduced amplifier performance (power output), so it's probably not a good idea to plug all of your band's gear into a single wall outlet.

Connections – All instrument-level input connections (everything but the speakers) should be made with high quality shielded cables. The use of speaker cables for input connections will result in excess noise. Speaker connections should be made with high quality 14 gauge or heavier unshielded speaker cables. We recommend 10 or 12 gauge cables. **The use of shielded line or instrument cables for speaker connections can damage your amplifier. This is JUST PLAIN WRONG!** The speaker cable should be as short as possible.

Speaker Connections – If you are using the amplifiers separately, connect a speaker to each amp. **DO NOT use the Bridge Mono speaker connection and make sure the Bridge Mono switch on the front panel is disengaged.** If desired, you may use a single amplifier to run a single speaker.

If you are using Bridge Mono, **DO NOT use the individual amplifier outputs and make sure the Bridge Mono switch on the front panel is engaged.** You can tell you are in Bridge Mono mode because the indicator light will be lit. In Bridge Mono, **make sure you have connected your speaker(s) to the Bridge Mode output.**

VERY IMPORTANT NOTE: It is very important to make certain you have set the Bridge Mono switch to the appropriate position and that you have connected your speakers to the correct outputs. Failure to do so may result in damage to your amplifier.

EXTREMELY IMPORTANT NOTE: Never, NEVER, *NEVER* connect the outputs of the two individual amplifiers to the same speaker cabinet. This is NOT a clever, inventive thing to do. If you do this, you may possibly damage your amplifier and/or speaker. Don't say you weren't warned, because you were.

INITIAL SET UP

As bassists, each of us has in our head a concept of our perfect sound. Eden amplifiers are designed to help you easily achieve the sound you hear inside you. However, it's a multi-step process as explained below.

In order to ensure the ultimate in tone, it's important to follow the procedure outlined below. Don't skip steps; don't jump around. Yes, this may take a minute or two, but the work is well worth it. Once they've done it a few times, most users can do it time and again in about a minute.

IMPORTANT NOTE: Before you plug in your unit for the first time, please do the following things**.** First, turn the power switch to the OFF position. Check the back of your unit for the correct voltage notation for your county of operation. Ensure that all speakers are connected to the correct outputs for your selected mode of operation.

Once you've ensured correct voltage and speaker connection, set the Master Volume control to minimum (fully counter-clockwise). Set the tone controls to the center position (12:00 or 0). Turn the Enhance controls to the minimum position. Set the Input Gain controls to the minimum (fully counter-clockwise). Set the Compressor to the OFF position (fully counter-clockwise). Make sure the Dynamic Boost switches are OFF. This will set your amplifier up flat and with the Compressors disengaged. Next, plug in the power cord to the AC inlet on the back of the unit. Use only a safe grounded receptacle for proper operation at the correct voltage for your country. Double check to make certain your amplifier is set for the correct voltage in your country and that your speakers are connected properly.

A Note on Channel Switching – The WT1205 features two separate channels, both with full control sets. You can plug a different bass into each channel or use a single bass and switch between channels to get two different tones. To do this, plug your bass into channel two (Master Channel) and use the front panel switch or footswitch to select the proper channel.

Turn On – Once you've completed the steps above, you can plug in your bass and turn on the unit (plug it in first, ok?) and let's get started. We recommend turning your system on with the Master Volume control set to its minimum position. This will prevent any unexpected signal from being sent to your speakers.

Setting Your Level – Remember, begin with the Input Gain, Enhance, Compressor and Master Volume completely OFF – fully counter-clockwise. All EQ should be set flat, that is, at 12:00 – straight up.

While playing your lowest note (or loudest), slowly turn the Input Gain up until the Clip light begins to blink with regularity. If you have disengaged the Compressor as we suggested, the Clip light will barely blink on your loudest notes when you reach clipping in the Input stage. We recommend you decrease gain one or two clicks to ensure there is no clipping in the system. The Clip light should never come on while playing. By the way, this is David's favorite way to set level, even if you intend to use compression.

Once you have properly set your Input Gain, turn the Master Volume up to a comfortable listening level and proceed with the rest of the setup process.

Setting the Compressor – If you want to use compression, engage it now by turning up the Compressor Threshold control. The compressor light will blink when your gain goes above the compression threshold. This will generally show up more on the lower notes, or when you employ Slapping. (A properly compressed Slap sound is very cool, indeed.) If you only want to compress your loudest notes, set this control to occasionally blink when you really dig in. If you prefer to have a more compressed sound, you can dial in more effect. If you've never used compression, we strongly suggest you spend some time experimenting with this control.

SETTING YOUR EQ

The frequencies that you'll need to boost or cut are dependent upon your instrument, playing style, speaker cabinets, and venue. Extreme settings of boost or cut are unlikely to be necessary or helpful. We are frequently asked to provide suggested settings for various styles of play. We have discovered though, that most of our endorsers tend to set their EQ generally flat, using varying amounts of the Enhance Control to achieve their sound. In fact, a number of our recording artists tell us that their standard recording set-up is to have the Enhance set at approximately 9 or 10 O'clock and the tone controls set flat. They then send a post-EQ D.I. to the board.

We encourage you to experiment with different settings to obtain the sound you desire. On our website (www.eden-electronics.com), you can download a "Favorite Settings" chart to record, well, your favorite settings. It's on the Manuals page.

Enhance – Once you've set your gain, you can move on to setting your EQ, beginning with the Enhance control, or Magic Knob, as some call it. The Enhance circuitry adds very low bass, upper mids and highs while scooping out a bit of low middle. The more Enhance effect you dial in, the greater the boost (and cut). As with all of our EQ controls, a little goes a long way.

Slowly bring the Enhance control up while playing. If you turn it up close to maximum on the dial and still don't have your sound, stop there. Return the Enhance to OFF or leave it at no more than 12:00 and work with the EQ section.

Using the EQ Controls – Before you begin to twiddle knobs, let's talk about a few things. Excessive boosting of one or more EQ frequencies may cause an overload in the EQ section. If this happens, the Clip light will engage. This is a **Very Bad Thing** and needs to be corrected immediately.

If EQ clipping occurs, you can either decrease the boost or decrease the Input Gain. Remember, too, that our EQ controls are active, and are meant to turn both ways – not just UP! This means that you can enhance a certain frequency spectrum either by boosting that frequency or by cutting the adjacent frequencies. This latter method has the advantage of maximizing potential headroom.

If possible, step well forward of your rig to get a better idea of how you will sound in the room. You may be surprised at how different you sound once you step away from the speakers.

NOTE: Many players rely on the Enhance Control (and perhaps a little Midrange Massage) to get their sound. This method leaves the Bass and Treble controls available to dial in to a particularly difficult room. Just something to keep in mind, ok?

Setting Bass and Treble – OK, now it's time to set the EQ, beginning with the Bass and Treble controls. These controls cover a fairly broad frequency spectrum and a little goes a long way. Adjust these controls up or down as needed. We suggest playing a few notes in various areas of the neck so you can hear what your adjustments have done across the fretboard.

Setting the Midrange – Adjusting the Midrange controls will bring you either more up-front in the mix or more in the background. As mentioned earlier, channel one features two Midrange controls centered on 550Hz and 2.2KHz. The low position (550Hz) is good for general playing and recording. It's also good for dialing in a good Fretless Bass tone. The high position (2.2KHz) is good for getting a more aggressive Rock tone.

Channel Two features a single Midrange control, but allows the user to set the center frequency. This is especially useful for Acoustic/Electric Bass Guitars and Upright Basses, which may have a resonant peak that cause unwanted feedback. By finding the resonant frequency and cutting the Midrange, you can eliminate this pesky problem.

We suggest you do some experimenting with the Midrange controls to better understand how they can affect your tone. While playing, boost and cut the Low Midrange so you can hear how it affects your tone. Remember to play in all ranges, not just on the first few frets. Once you have an idea of the tonal possibilities, return this control to FLAT and repeat the procedure with the High Midrange control.

For Channel Two, turn the Frequency control fully counter-clockwise. Boost the Level control. Again, play all over the neck. Then adjust the frequency a little at a time to hear the difference. Continue until you've reached the top of the Frequency adjustment. Then repeat the process while cutting the level.

This experiment will give you a better idea of what these controls can do for your sound. Once you understand how much they can affect your sound, you can dial in what you want more effectively.

NOTE: Don't forget that you can disengage the entire tone control system by pushing the EQ Bypass switch. This is **Really Neat Thing** that many users like to use when recording.

Engage the Dynamic Boost – As mentioned earlier, this effect is based on the Fletcher-Munson curve and ensures that the bass is full and the highs are crisp, even at the lowest volume settings. As volume increases, the effect is reduced, resulting in very consistent tone regardless of volume level. We suggest you spend some time experimenting with this **Really Neat Feature**. We believe that you'll think it's **Really Neat**, too.

NOTE: Be especially careful using the Dynamic Boost when operating in Mono Bridge mode. You can quickly overdrive the amplifiers at high levels when using this feature. Remember, this is a VERY BIG amplifier when in Mono Bridge mode.

Final Settings –Engaging the Dynamic Boost may require adjustments to the EQ section, so be prepared to do a little fine tuning. Boosting or cutting the various tone controls may change how much compression you want to dial in, so be prepared to make adjustments there as well.

NOTE: Don't forget to go through the set-up procedure for both channels. There's nothing worse (well, almost nothing) than switching channels for your big bass solo only to find you forgot to set up your second channel.

A FEW TECHNICAL THINGS TO REMEMBER

Clipping = Bad – Keep an eye on the EQ Clip light. If it blinks, either reduce Input Gain or cut back on one or more EQ ranges. As we said earlier, Clipping in the preamp section is a **Very Bad Thing** and is to be avoided at all times. If you find yourself running out of amplifier headroom, cut a little in the lower frequencies, which require the most power from your amp. You'll know this is happening if you see the Limit light flashing. As long as the light is just blinking, you're fine. But, if it's on more than it's off, you might want to back off a bit.

Frequency Oddities – Two areas are a frequent source of frustration for bassists trying to achieve their sound: frequency masking and frequency enhancement. Frequency masking occurs when other instruments (particularly cymbals and electric guitars) obscure the important upper harmonic content of your sound. As a result, you find that the EQ settings that were so perfect at home lack definition in a live setting. On the other hand, the stage settings that worked so well sound harsh and/or thin in the absence of other instruments.

Frequency enhancement results from cabinet placement and room acoustics. A cabinet placed on the floor will have the lower frequencies boosted by about 3 db. Placement against a wall adds another 3 db. A corner adds 3 db more. Consequently you may find a surprising boominess to your sound. Certain qualities in the room itself can also enhance the lower frequencies, further contributing to this problem. Frequently this effect is more noticeable in the audience than it is on stage. Compensating for it may result in a stage sound that may seem a little thin. However the sound is actually quite full out in front.

NOTE; Remember, you can't equalize out major physical room anomalies. If things sound really weird where you are, try moving you rig a few feet and see if that helps. This may be particularly helpful on saggy stages that bounce like a drum head. (*The propellerhead term for this is "diaphragmatic." So says David. – LB*)

YOU'RE DONE. GO PLAY.

There you have it: a quick and easy process to help you get the perfect tone from your Eden amplifier. As previously mentioned, it make take a few extra minutes the first few times you go through this, especially if you take the time to experiment with all the knobs and switches, which we highly recommend.

We are confident that the time you spend getting to know your new friend is an important investment, one that will pay off immeasurably in **Great Bass Tone**. And, after all, that's why you bought an Eden, right?

OTHER CONSIDERATIONS

Suggested Speaker Systems – Your speaker system should be chosen to accommodate the characteristics of your amplifier and your predominant application. If you will only be using one cabinet, a 4 Ohm model will draw the most current from your amplifier. If you will generally be using two cabinets, they should both be 8 Ohm models so their combined impedance will be 4 ohms. If you are uncertain about your future needs, always go with the 8 Ohm speaker option so that you can add another speaker later if you need to. In general, adding more speakers will give you a greater volume increase than adding a few more watts.

We have designed our amplifiers to operate safely at 2 Ohms only because everyone else is doing it and some users expect it. However, we much prefer operating at 8 or 4 Ohms because of the markedly improved quality of tone and dynamic response. But if you really want to, you can operate your WT1205 at 2 Ohms without worry.

Headphone Jack as a Line Driver – On some occasions (such as high-volume or outdoor situations) it may be desirable to use the WT1205 along with an additional power amplifier and added cabinets. A standard shielded instrument cable may be used to connect from the headphone jack of the unit to an unbalanced input of a standard power amplifier. This will provide a signal that is post-EQ and after the Master Volume control, allowing the entire system to be controlled from the WT1205. This way, you only have to adjust one set of knobs. This is a **Really Neat Thing**, huh?

Using the WT1205 Without Speakers -This amplifier is designed to be used safely with headphones only, without the loud speaker plugged in. No harm will result from using the amplifier in this fashion. This allows the use of the unit for practice with headphones and as a preamplifier with other amplifiers. Like we said earlier, neighbors and room mates really love this, which qualifies it as another **Really Neat Thing**.

MAINTENANCE

Your Eden amplifier has been designed to require minimal routine maintenance. Attention to the following areas will ensure optimum performance of your amplifier. We're serious. Don't blow this off, OK?

Contact Point Cleaning – One of the weakest links in most bass amplification systems are the solderless connection points where instruments, speaker cabinets, effects, and other devices are connected to the amplifier. (The most vulnerable of these types of connection is the jack on your instrument). In addition to contamination from airborne pollutants, these points are frequently assaulted by connectors that have picked up debris from dirty stages, cases, etc.

This contamination can result in poor contact as well as poor tone, and we all know that bad tone is a **Very Bad Thing**. These points should be cleaned regularly with a cotton swab soaked in denatured alcohol or a commercially available de-oxidant. Frequent cleaning of the plugs on your cords is also recommended.

Dust Removal – You should periodically inspect the ventilation openings on the top and sides of the unit to ensure that they have not become blocked by accumulated dust. Vacuum the openings to remove any dust buildup. Dust bunnies are definitely not cool.

The Magic Smoke – Few people realize just how much magic goes into creating Great Bass Tone. It isn't something you normally need worry about. Just have fun and leave all that to us. However – *and this is very important* – if you ever release the Magic Smoke from your amplifier this is indeed a **Very Bad Thing**, perhaps the worst thing you can do. If you see any smoke (Magic or otherwise) coming out of your amplifier, immediately turn it off and seek the services of a qualified magician…uhm, we mean…technician. **DO NOT continue to use the amplifier in this condition**.

Learn More – If you'd like to learn more about your amplifier (or about our company and its activities), we invite you to visit our website – www.eden-electronics.com. There you'll find articles to help you better understand our products and the technical stuff some people find so interesting. You'll also find our FAQ (Frequently Asked Questions) file, which is updated regularly.

While you're there, check out our on-line forum. There you can meet hundreds of other Edenites who'll be glad to help you with any questions you may have about our gear. Not to brag too much, but we think our forum is a **Really Neat Thing**, filled with **Really Neat People**. We're pretty sure you'll think so, too.

Service – In the event of amplifier malfunction, or questions about your unit's operating features that aren't answered in this manual or on our website, you should contact your Dealer. Once you and your dealer have determined it's definitely a malfunction (and not an operator error) you must call our Customer Service Department and **obtain a Return Merchandise Authorization (RMA)**. We WILL NOT accept any gear sent without an RMA, so save the time and money by calling first, ok?

If you have problems, please call the USM Customer Service Dept. at:

1-800-USSOUND (1-800-877-6863)
When you hear the voice prompt, Press 1 on your phone's keypad.

Please ship Authorized Returns for service to:
Eden Electronics
P.O. Box 338
115 2nd Street
Montrose, Minnesota 55363

Email
eden@eden-electronics.com

Website
http://www.eden-electronics.com

Eden Electronics
C/O U.S. Music Corp.
444 E. Courtland Rd.
Mundelein, IL 60060

(847) 949-0444
(847) 949-8444(fax)

Eden Never Compromise™

Note for those who care: This manual was written by David (Eden) Nordschow, Eden's Chief Propellerhead & Master of All Things Technical, and Lane Baldwin, Eden's Special Projects Coordinator (Many Other Functions). Any grammar errors are David and Lane's fault, as are the attempts at humor. Please don't blame anyone else for any weirdness, as we were warned several times. Really.