

**LT Sound**  
7980 LT Parkway  
Lithonia, GA 30058  
(770)482-4836

Dear Customer:

Thank you for purchasing a Thompson Vocal Eliminator™ Model VE-4. We sincerely hope that you will receive years of enjoyment with this remarkable device.

Remember that the Vocal Eliminator™ is unlike any other stereo component you have ever owned. Take time to familiarize yourself with the operating instructions. Should you need further assistance, we have a HELP LINE which you may call as late as 7 PM (EST) most evenings Monday through Thursday and Saturday from 1 PM to 5 PM (EST). We encourage the use of this service especially on weekends when the long distance rates are lower.

HELP LINE NUMBER: (770)482-4836

*Always call with your unit connected and near the phone so that we may interactively work with you and be able to hear the results you are obtaining as we proceed.*

From time to time customers send us tapes they have prepared with their units. We look forward to receiving such tapes and will be glad to offer any hints or suggestions for obtaining the best possible results.

Sincerely,



Lacy Thompson, Jr.  
President

**Vocal Eliminator™ Test CD or Tape**  
**IMPORTANT: This is the First recording you should**  
**use on your Vocal Eliminator™.**

*It is important that you be able to obtain almost complete (90-95%) elimination of the lead vocal on this recording before moving on to other recordings. If you do not get proper results on this recording, you will **not** get proper results on any other recordings. They are not examples of the average result but some of the very best results possible. Average results will have more of a trace of the vocal in the background.*

*Use this CD or tape in the initial set-up of your Vocal Eliminator™. You should get results comparable to the first selections on the demo which you were sent prior to purchase. If you do not get comparable results, this indicates either improper hookup, inadequate or misaligned tape equipment, or possibly a combination of these faults. Call the Help Line at (770)482-4836 till 7 p.m. EST if you have problems.*

*Proper results on this recording verifies that your equipment is not introducing any problems which could limit the results. Results will still vary depending on the recording used as depicted in the demo tape.*

# VE-4 Owner's Manual

## Thompson Vocal Eliminator™



Congratulations, you have just purchased what will prove to be the most enjoyable part of your stereo system! Whether you intend to use your Vocal Eliminator™ in a professional context or simply for your own personal enjoyment, we are sure you will find it's use habit forming and that it will give you years of trouble free performance.

### **Our Goal Is To Exceed Your Expectations.**

As a general rule, we have found that our products do a remarkably consistent job of exceeding our customers expectations. This is not to say that there is not some "learning curve" where the customer's results tend to improve and their satisfaction with the product increases accordingly.

We like to hear from customers when we exceed their expectations. It is also *even more critical* that we hear from you if there are any areas where we fail to exceed or at a minimum meet your expectations. This helps insure that our engineering staff is focusing on the areas of performance most critical to our customers.

Please let us know how good of a job we are doing in this crucial area!

### **Ease of Use**

The VE4 is both the most sophisticated Vocal Eliminator™ ever made as well as the easiest to use. Don't worry about understanding everything before beginning to use your VE4. **Do however read the notes on microphone technique** as it is crucial to getting the best vocal sound and avoiding feedback.

### **Upgradeable Design**

Your VE-4 incorporates the latest developments in digital signal processing. What's even more important, is that at LT Sound, we are constantly working to

insure that we provide the very best Vocal Elimination™, vocal enhancement and key change performance possible. Your unit is the state of the art today and it is state of the art tomorrow as well.

Your VE-4 has beyond CD quality 20 bit A/D and D/A converters and 32 bit DSP processing with a SHARC DSP processor. It's advanced Auto Vocal Trac™ circuits make it capable of automatically adjusting for the best vocal elimination available on all of your stereo sources from tape, record, compact disc, FM broadcast, and videotape to name a few. Because it is a digital unit with a computer program which runs its functions, you will be able to upgrade the performance of your unit as improvements are made in our vocal elimination algorithms. Your unit is also capable of receiving additional programs for other functions which may be developed in the future to supplement your Vocal Eliminator™.

### **True Studio Quality Voice Enhancement**

Unlike consumer or even "professional" karaoke equipment, your VE-4 is equipped with a full complement of vocal processing functions including **Equalization, Echo and Reverb, Dynamic Range Limiting and Compression, Expansion, Exciter and DeEssing** functions.

Essentially anything and everything that can be done to enhance the human voice for recording and performance.

### **Does Everything Karaoke Does Better.**

Your VE-4 is also equipped to work with pre-recorded background music and has a mode selector to mix the background music as unmodified stereo or the Vocal Eliminator™ output. You can also mix pre-recorded stereo backgrounds from Karaoke sources or recordings you make with the Vocal Eliminator.™

## Studio Quality Key Transposer With More Range and Fine Tune Capability.

Your VE-4 has a total range of a full octave - one half octave up and one half octave down which allows you to place the song in any key. This is over twice the range of most karaoke key transposers. Our step increments are in quarter tone increments allowing finer adjustment of the key to your vocal range.

## Technical Support and Help Line.

The Vocal Eliminator™ goes into most systems without a single problem occurring along the way. Following this manual

in the order it is presented, will prevent most problems and confusion. If you are still unable to correct the problem, be sure to call our **HELP LINE** at (770) 482-4836.

We are able to provide technical assistance on most Monday through Thursdays as late as 7 pm EST and are available most Saturdays from 1 pm until 5 pm as well. If you don't reach a technician directly, leave a message and someone will return your call. You will find the instructions quite complete, but if a problem develops, we don't want you to get needlessly frustrated. We are capable of solving most complications over the phone in a short amount of time.

## Choosing the Proper Connection Diagram.

The first thing to do is to choose the proper connection diagram for your particular system. There are two basic ways to connect the Vocal Eliminator™ to your system.

If you have a **True Component system** where the amplifier is separate from the tape deck, you will also have a "tape monitor" switch it may not say "Tape Monitor", it may only be labeled TAPE or VCR. If you can select a source such as FM and press TAPE or VCR and the FM stays selected, you are indeed monitoring. For this type of system, you use **Connection Diagram 1**. If your **turntable or tape deck is built into your amplifier** and you do not have a "tape monitor" switch, which may also be labeled Tape-Source, then you should use **Connection Diagram 2**.

### CONNECTION DIAGRAM 1.

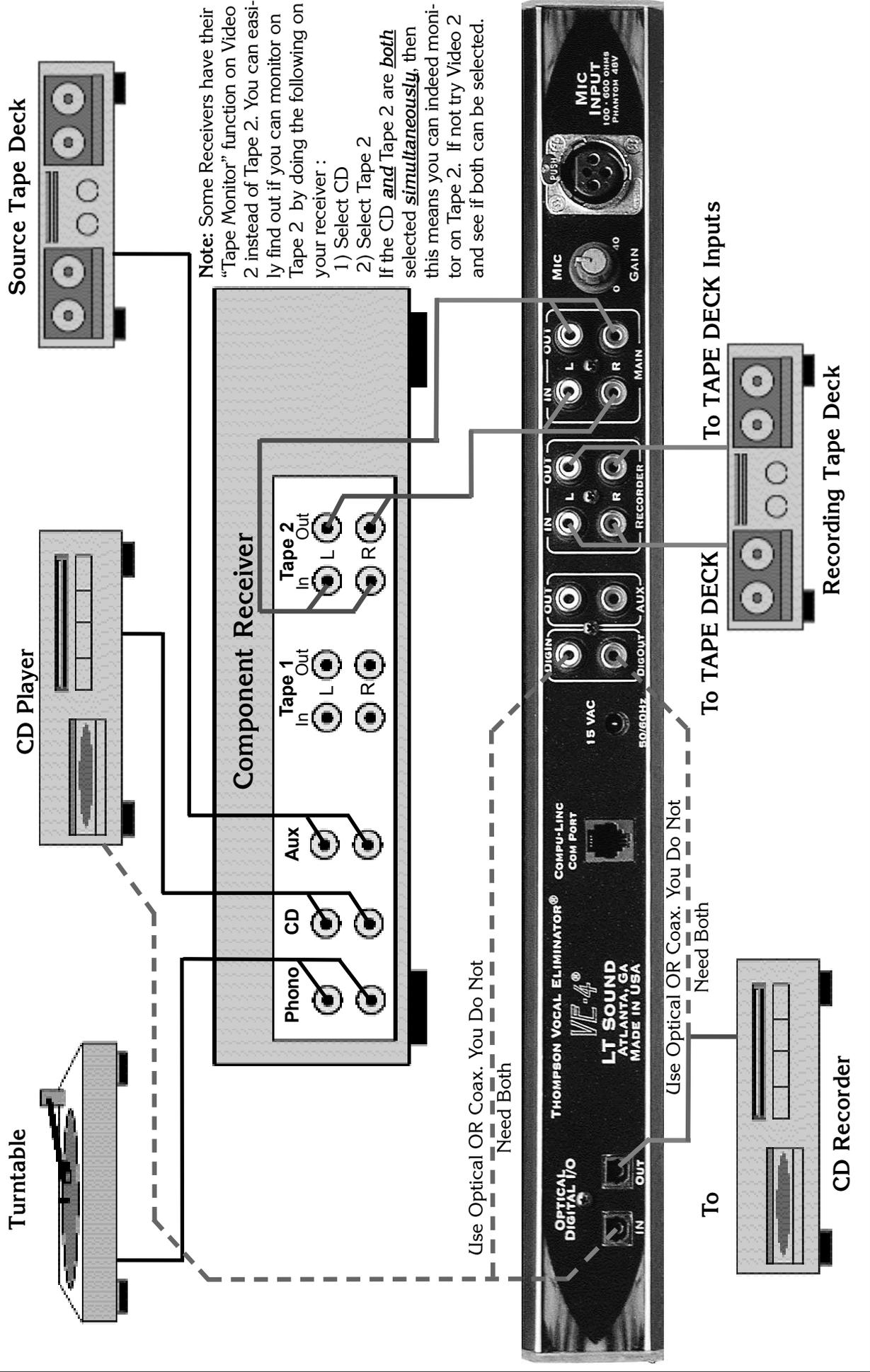
If your system has a tape monitor switch, you should use Connection Diagram 1. Be absolutely sure that you follow the diagram exactly as shown. If you have a tape deck currently connected to the RECORD OUT jacks, then you will have to disconnect it in order to connect the Vocal Eliminator to your system. For now, follow the diagram explicitly and be sure not to reverse the connections going from the Vocal Eliminator™ back to the receiver.

### CONNECTION DIAGRAM 2.

If you have a system where the tape deck is built into the amplifier, you must use connection diagram 2. You will use the recorder built into the amplifier for recording and a separate tape deck for playing the original recording if you want to work from tape.

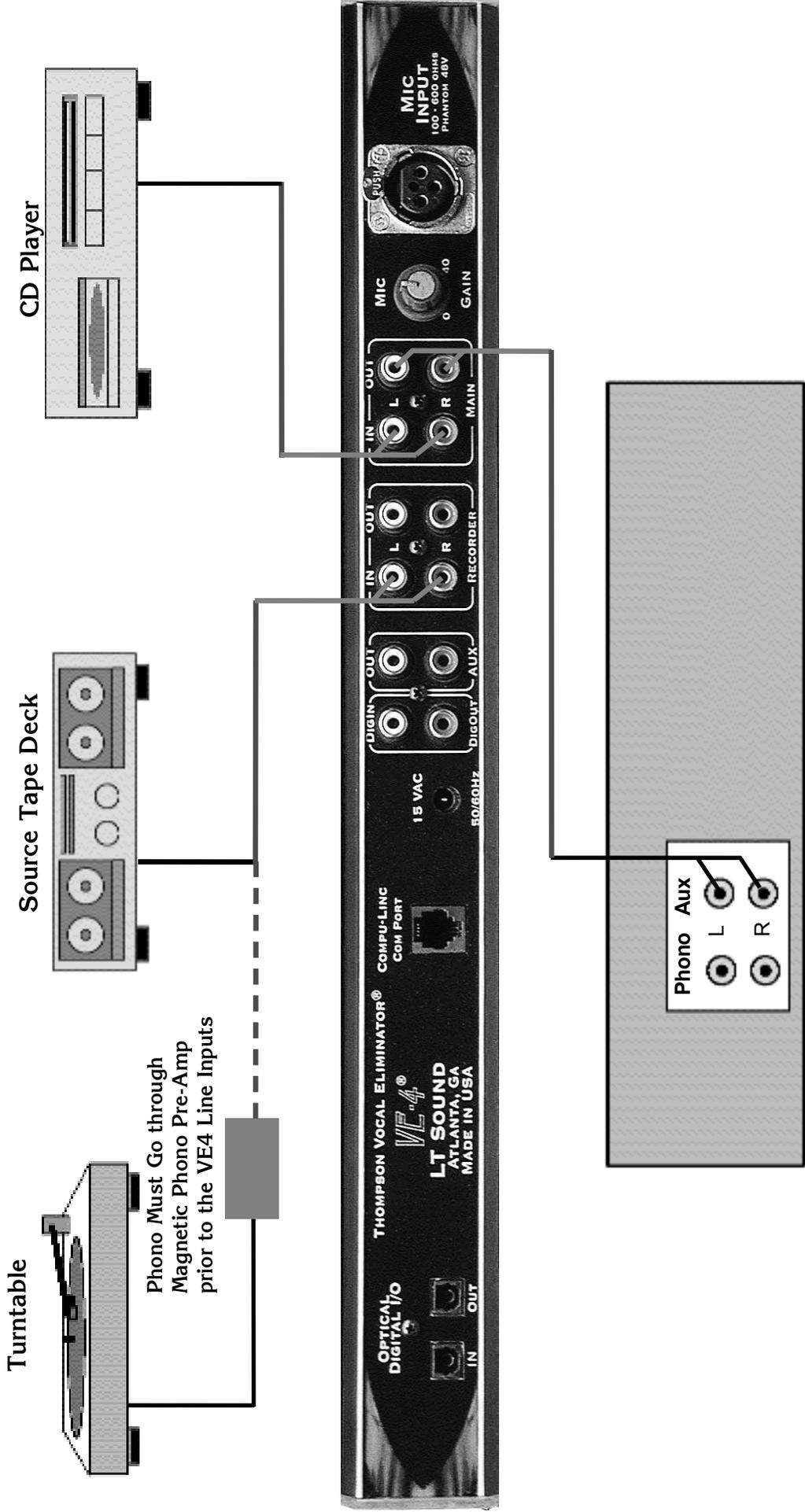
# Hookup Diagram 1

## Connection Diagram for System Having a Tape Monitor Switch



# Hookup Diagram 2

## Connection Diagram for Compact Stereo Without a Tape Monitor Switch or PA Mixer



Compact Stereo With Aux Input  
 Or PA Mixer Tape Input  
 Make Recordings On Built In Recorder

## Proper Microphone Technique For The Vocal Eliminator™

### The VE4 is Designed For *Very* Close Microphone Technique.

We have a whole philosophy behind the VE4 and getting the best results are dependent upon understanding and following these techniques.

If a microphone is held as shown in the picture below *actually touching the corner of the singer's mouth*, there are Numerous and Significant benefits to be achieved



1) No “Breath Noises” Absolutely no “P” or “T” breath noises are picked up.

2) Singer Is More “Visible” In performance, the singer's face and mouth are obstructed from view only minimally.

3) Freedom From Feedback. Significantly less mic gain is required resulting in a greatly reduced risk of mic squeal or feedback.

4) Improved Signal To Noise Ratio. For recording, the improvements are twofold. 1) Higher Signal Level means a higher signal relative to any electronic noise. 2) More significantly, even “quiet” rooms for recording aren't all that quiet. Crank up the mic gain and you will be astonished to hear that what dominates the noise floor is not electronic noise, but the fans in electronic equipment, and room air conditioner noises. This greatly decreases the pickup of extraneous room noises.

Normally a microphone held this close produces far too much bass sound. However, the excess bass can be totally eliminated if the mic pre-amps are designed taking into account the increased bass. This has been done on the VE-4. Indeed if you do not use the very close mic technique the system is designed for the sound will be excessively “bright” and “thin” sounding.

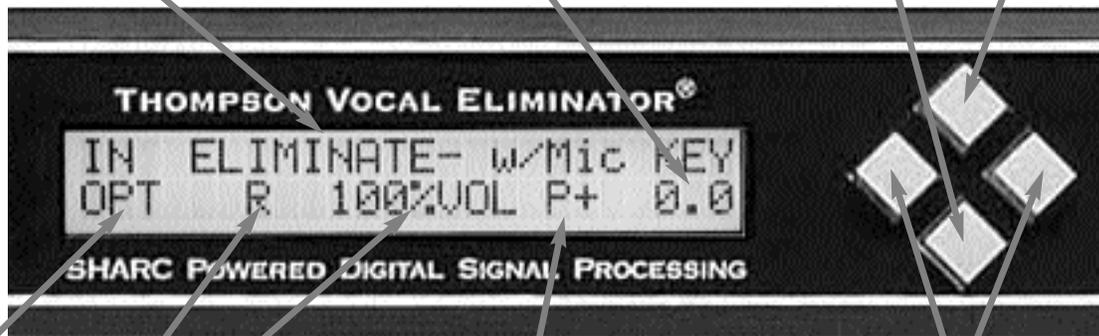
This is the key to getting true state of the art sounding vocals both in performance and in your recordings.

# Main Screen

**You MUST Understand This Screen. The Display Automatically Returns To the Main Screen After a Few Seconds If No Buttons Are Pressed**

The Middle of the Top Line Tells You if You are In the Elimination Mode or Listening to The Original Version

Amount of Key Change  
 VALUE - UP / DOWN Buttons In Main Window Sets the Depth of Vocal Elimination



INPUT Selected: MAIN, Tape, OPTical, or DIGital

Volume Level  
 100% Is Normal Level

P+ Indicates Phantom Power On  
 P- Indicates Phantom Power Off  
 (Accessed through Setup Menu)

MENU Change - In Main Window Changes the Type of Elimination Chosen or the "Algorithm"

R - Indicates Reverb Always On

A - Indicates Auto-Effects - Reverb When Music Present.

Blank - Indicates Reverb Always Off

## Quick and Easy VE4 Operation Primer

### 2 Select VE - Vocal Eliminate

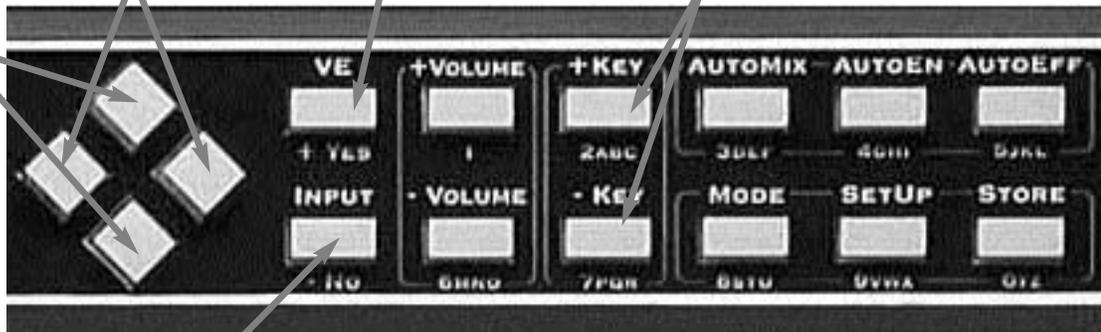
Pushing The VE Button Toggles Between Vocal Eliminate and Original Music.

Left / Right Buttons Select Vocal Eliminate With or Without Mic on Output

### 3 Adjust KEY

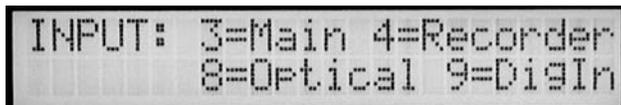
KEY+ Raises The Key, KEY- Lowers the Key

UP Button Increases Amount of Elimination, Down Button Decreases Elimination - may Improve Instruments.



### 1 Select Input

INPUT MENU - Allows Selection Of Main, Tape, Optical or Dig-IN CoAxial Inputs - Simply Press appropriate Number Button of The Input You Wish To Select



### 4 Sing!

**NOTE:** Like many other pieces of High Tech equipment, the VE-4 does not have an actual "Off" switch. Rather it automatically goes into a standby or "Sleep Mode" if no buttons are pressed and the microphone is inactive for a period of time which you can set as anything from 5 minutes to an hour or on all the time. The VE-4 automatically "Wakes Up" if you sing into the mic or touch the buttons.

# VE4 Menus and Functions

The key point to remember is that 99% of the time you are not having to modify any of the VE4's automatic settings. Normal operation is as simple and intuitive as 1) Select your input source. 2) Hit the VE Button, 3) Adjust the Key, and 4) Sing!

Use the VE4 this way first, then if you, for example, want more or less reverb than the defaults, use this sheet to access the parameter you need to adjust.

Don't think you need to understand this before using the VE-4! You don't!

**AutoEnhance Menu** - Pulls Up The Following Menus

- MIC EQ Lo 220 Boost / Cut
- MIC EQ Lo Mid 700 Boost / Cut
- MIC EQ Mid 1.6K Boost / Cut
- MIC EQ Hi Mid 3.5K Boost / Cut
- MIC EQ Hi Shelf Boost / Cut
- DeEss Level
- Comp Level
- Comp Ratio
- Expand Threshold

**AutoMix Menu** - Pulls Up The Following Menus

- MIC / BACKGROUND Balance

Toggles **Vocal Elimination** ON or OFF

**VE Menu** - Pressing and Holding Pulls Up The Following Menus

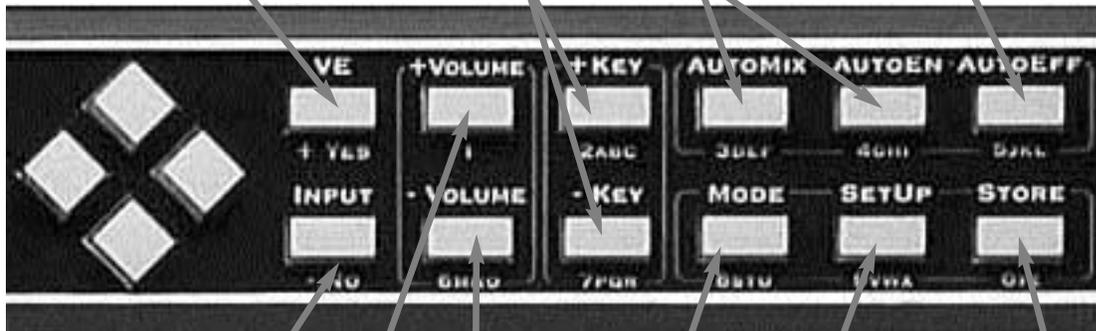
- AUTO-EDIT Threshold Sets Sensitivity of Mic for Auto-Editing
- BACKGROUND REVERB For adjustment of the level of reverb added to the background music

Raise or Lower **Key** of Music

Toggles **REVERB** between three modes indicated on Main Display above R, Blank-Off, A Auto

**AutoEff Menu** - Pressing and Holding Pulls Up The Following Menus

- REVERB LEVEL for Vocal Reverb
- REVERB DECAY LOW - How Long Lows Last
- REVERB DECAY HI How Long Highs Last.



Raise or Lower Overall Volume Level

STORE Current Settings

**INPUT MENU** - Allows Selection Of Main, Tape, Optical or DigIn-coaxial Inputs - Simply Press appropriate Number of The Input You Wish To Select

INPUT: 3=Main 4=Recorder  
8=Optical 9=DigIn

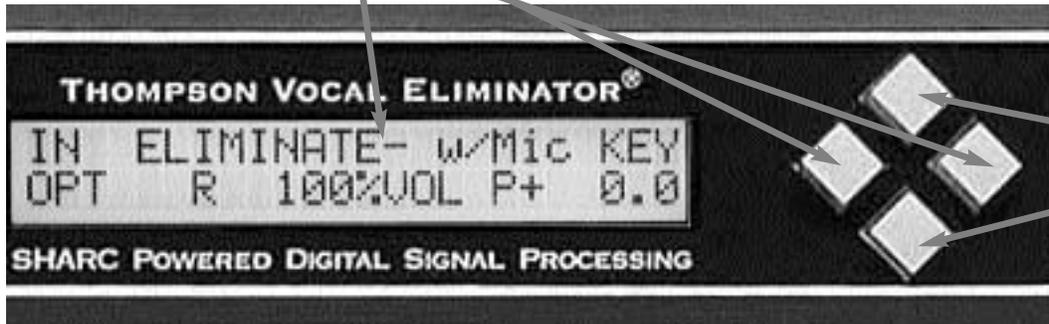
**SetUp Menu** - Pulls Up The Following Menus

- MIC LEVEL INDICATOR For adjustment of Gain Knob on The Back of The VE4
- PHANTOM POWER - On or Off
- AUTOCLIP DISPLAY - On or Off
- SLEEP TIMER
- BACKLIGHT LEVEL

**MODE Menu** - Allows you to recall your stored settings for six Distinct Environments **Performance, Practice, Recording, Karaoke (NoVocal Elimination), Guide Vocal, and Vocal Capture for Digital Vocal Only Output.**

# Vocal Elimination Depth

**Vocal Elimination** With or Without Your Mic Being Added Selected by adjusting the LEFT / RIGHT Buttons. This allows you to sing while you make a background tape without your voice appearing on the tape. Your singing engages the deepest form of vocal elimination only when you are actually singing.



Vocal Elimination Depth - UP / DOWN Buttons In Main Window Sets the Depth of Vocal Elimination

## UP/DOWN Buttons

In the Main Menu (which the VE4 automatically returns to) the UP/DOWN buttons adjust the sensitivity of the VE-4's automatic detection of the presence of the original vocal which in turn varies the depth of vocal elimination. UP adjusts the sensitivity detecting the vocal and DOWN decreases the sensitivity, which can result in even less impact upon the background instruments and many times at little or no cost to the vocal elimination.

## Singing Live or Making a Background Tape - Auto Edit No Vocal.

In the Main Menu Screen the Left / Right buttons select between Vocal Eliminate With Mic and Vocal Eliminate Without Mic or what we refer to as the "Auto-Edit" mode. To have the least impact possible on the background music, use the down arrows to get less vocal elimination. When you sing, your voice will be picked up and trigger the maximum vocal elimination, but only in the parts where you are singing. This allows the best of both worlds, the least impact possible on the background and the deepest elimination during the vocal parts.

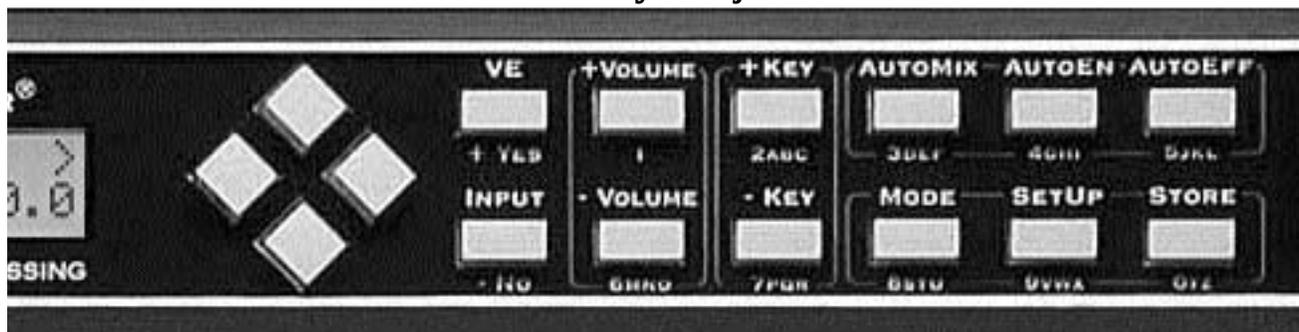
As long as you are singing *anything*, your voice should engage the deepest elimination. Be a bit early if you have to insure pickup at the beginning and a bit late to insure the elimination stays engaged. It won't matter whether you sing or hum, are on key or off key. The volume of your voice is what engages the deeper elimination.

Be careful to evaluate your results only *when you are actually singing* over the backgrounds. Though you can tell a big difference between those that eliminate almost completely and those that eliminate an average amount (85% of original vocal eliminated) *without* someone singing a new vocal part, you usually can tell *no* difference whatsoever once a new vocal is added. You should completely cover the old voice. Here is the amount of elimination you should expect based upon the sales brochure:

Normally you can use the better half of your material in a professional context. By the same token, you should expect that the other half will come out not to be good enough to use in a professional context, though it may be adequate for practice.

# VE-4 Buttons, Menus and Functions

**Note: As a Matter of General Philosophy The Average Use Setting is Right In The Middle of the Control Range. Exceptions are The Volume Which is Normally at 100% These Controls Allow You To Fine Tune Your VE-4. It is Not Necessary To Adjust Them In Order To Use Your Unit.**



**VE** Toggles between Vocal Eliminate and Original Signals.

**VE-SubMenu** Holding the VE button pulls up the VE Menu with the following sub-menus  
**Auto-Edit Threshold** Adjusts the mic microphone detection level that causes the VE4 to go into the eliminate mode when using the Auto-Edit Vocal Eliminator Algorithms.

**Background Reverb** We have found that most recordings sound best when a small amount of additional reverb is added to the vocal eliminated backgrounds. This actually makes any traces of the original vocal which might remain less noticeable. You can adjust the amount that is added with this control.

## AutoMix Menu

**AutoMix** This control alters the mixing targets for the Mic and Background. Centered is typical. If you favor a stronger vocal mix then move the setting to the left. For more background music relative to the voice move to the right. The automix function is working all the time, you are just altering the targets.

## AutoEn Menu (AutoEnhancement)

### Microphone Equaliation

**MIC Lo 220** This controls the very lowest frequencies of the vocal range centered at 220 Hz.

**MIC Lo Mid 700** This controls the very low midrange frequencies of the vocal range centered at 700 Hertz.

**MIC Mid 1.6K** This controls the center midrange frequencies of the vocal range centered at 1,600 Hertz.

**MIC Hi Mid 3.5K** This controls the high midrange frequencies of the vocal range centered at 3.5 KHz.

**MIC Hi EQ Shelf** This controls the very-highest frequencies of the vocal range above 5KHz.

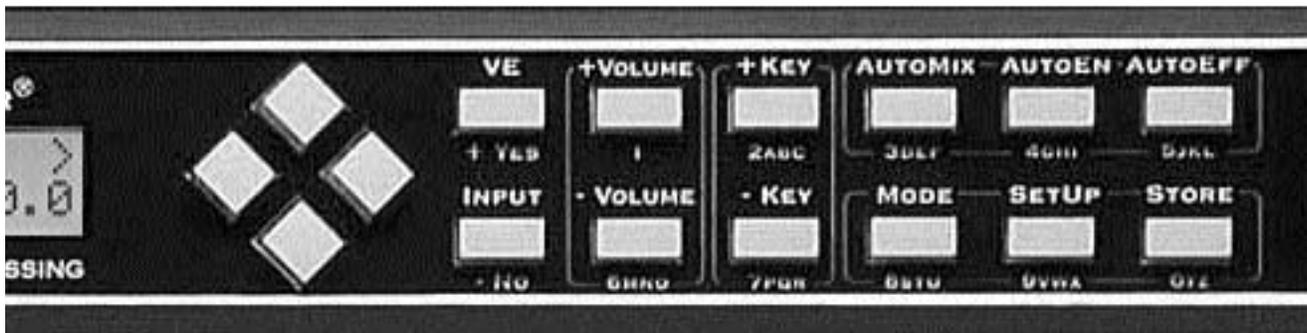
**De-Ess** This reduces the high frequency portions of the voice when Ssss frequencies are present.

**COMP LEVEL** This controls the maximum compression on the voice. A compressor raises the volume of softer vocal sounds and keeps the louder vocal sounds from getting too loud. This control is typically left near the center of the range. When you are recording using headphones (to avoid speaker leakage and feedback) you may want to increase it to +2 or +3. (the factory default is +2) In performance you may want to back off a bit (factory default is -1 for Performance Mode) particularly if you encounter feedback.

**COMP Ratio** 1.0 means there is NO compression. Higher numbers indicate higher amounts of compression. For Example a 2.0 ratio which is the factor default means that if you are 10 db below the Peak Volume level going in, the gain will be increased by 5dB.

**Expand Thresh** The expander decreases the volume of the mic when there is no signal present. This gives you a quieter noise floor for recording and gives you some improvement in freedom from feedback. Typical factor default is 0 in all modes. Adjusting the control to the right cuts out louder sounds, to the left lets softer sounds through the expander.

# VE-4 Menus and Functions



## AutoEff Menu

**Reverb Mode** This control has three choices selectable with the up/down buttons; 1) **R** Always ON, 2) **A** Auto-Effects - Reverb is on when music is playing, off when music is not present 3) **Reverb OFF** Main Screen shows neither A nor R but is blank in that location. When you are singing in performance, you typically will place the unit in AutoEffects so you can speak between songs and not have reverb on your voice.

**Reverb Level** This control adjusts the level of the reverb on your vocal. It does not affect the reverb level on the background music. That is controlled in the VE Menu.

**Reverb Low Decay** This control determines the apparent size of the room. To the right produces much longer decays and to the left produces shorter decay times. Do not use this to adjust the amount of the reverb. The amount should be adjusted with the Reverb Level Control.

**Reverb High Decay** This control adjusts the brightness of the reverb by altering how fast the high frequencies die away

**MODE** This control allows you to select between six presets; Performance, Practice, Recording, Karaoke (*for using Karaoke Backgrounds you already own with a video screen*), Guide Vocal, and Vocal Capture - Digital Voice Only capture when doing multi-track recording.

## Differences Between Modes

The factory presets are a good starting point. You can feel free to alter them to suit your individual preferences. Independent

setting for EQ, Compression, Expansion, De-Essing, Reverb Levels, Reverb Decay Times and AutoMix Levels are stored for each mode setting (Provided you Store them by hitting the "Store" key and confirming with the "UP" arrow). In addition "Global" settings which are the same regardless of the Mode are also stored. The Global settings are for VOLUME LEVEL, INPUT SELECTION, PHANTOM-ON/OFF, BACKLIGHT LEVEL, SLEEP TIMER.

**Performance Mode** has a reasonable amount of compression to help you keep your volume mixed properly as well as reverb. In a performance setting there are tradeoffs between susceptibility to feedback that limit how much compression you can add.

**Practice Mode** pulls back a bit on the reverb so you can more carefully scrutinize your vocal performance. Otherwise it is quite similar to the Performance setting.

**Recording Mode** - In general when you are recording, you should monitor with headphones and have your speakers turned off. This allows you to use much more Compression and Higher Compression Ratios. If your speakers were turned on, you would most likely get a squeal or feedback.

**Karaoke Mode** is when you are using karaoke backgrounds and want to monitor the words on a screen. In the other modes there is a slight time difference between when the words appear and the sound. This mode insures that both are in sync.

**Guide Vocal Mode** is the newest addition to the modes. When you are in this mode the Main Output mix has the original singer even if the elimination engaged. This allows

you to hear both your voice and the original singer's voice when you are performing or practicing. If the Eliminator is engaged, all the other mixes at the Record Out, Aux Out, Optical Out and Dig-Out or Coax outputs have the Eliminate version along with your vocal. This allows you to send one of these to your recorder or performance PA while your mix from the Main Outputs always has the original singer present.

**Vocal Capture Mode** is primarily intended for using the digital outputs into a sound card with a digital input or a digital MultiTrack recorder. The digital outputs contain ONLY the EQ'd, Compressed, Expanded signal without any reverb and at the Maximum output recording level. If you do not need this mode you can use it as an extra storage space for whatever you wish.

### **SetUp Menu**

**MIC LEVEL** This displays the peak level of the microphone signal so you can make adjustments to the GAIN control on the back of the VE4. Typically you will be -9 to -6 on moderately loud passages.

**AutoCLIP DISPLAY** If ON this displays the level whenever the mic clips regardless of what menu you may be in. This insures

that any improperly loud mic setting will not likely go un-noticed. You can turn this OFF if you do not want to be prompted automatically if the mic level clips. This is a very sensitive monitor and any clipping however brief will be detected.

**SLEEP TIMER** The VE4 does not have an OFF switch. Instead it automatically goes into a "Standby" mode if no buttons are pressed or the microphone is not used for a preset period. The unit automatically "Wakes Up" if the microphone is used or its buttons are pressed. You can set the time anywhere from 5, 10, 20, 40 minutes, 1 Hour or "Always On". In the Store Menu you can configure the VE4 to always save your current settings before going to "sleep" if you so desire.

**BackLight Level** This allows you to adjust the level of the backlight on the VE-4's LCD display.

**STORE Menu** This control allows you to save or recall settings.

**STORE Config** This control allows you to Save "Manually" which means only when you tell the VE-4 to save or when you answer yes to a store prompt. You can also tell the VE-4 to save "Automatically" when it enters sleep mode in addition.

# Answers to Typical Questions

## How Do I Hear My Microphone?

First of all adjust your volume playing music so it is at a good volume level and engage the VE Vocal Eliminate function to be sure you hear the vocal elimination over your speakers. Without changing any volume settings, stop the music.

1) Be sure the microphone is plugged into the VE4. 2) Press the VE button-If it says "ELIMINATE-NoMic" press the LEFT arrow and it should change to "ELIMINATE- w/Mic".

3) Be Sure you have the VE4's Mic Gain control on the back panel turned up. If in doubt put it all the way to 40 dB gain 4) If your microphone has an on/off switch-Be sure it is ON. 5) If you are using a wireless microphone, be sure that it has good batteries and that it is switched on.

## How Do I Get More Vocal Elimination?

The Up/Down arrows in the main menu produce deeper vocal elimination when adjusted to higher numbers. 0 is the default producing the best overall result for most material. Decreasing below 0 allows you to preserve more of the background music frequently with almost no reduction in vocal elimination.

## How Do I Minimize Loss of Instruments In The Background?

The Down Arrow minimizes the impact on the background instruments. There may be a small amount of reduction in the vocal elimination.

In addition you can reduce the elimination to -10 which means there will be NO Vocal Elimination except when you sing into the mic. To make a background without your voice and still using this feature, you simply press the Right Arrow and it will kill the microphone from the mix, yet still pick it up and trigger the vocal elimination when you sing.

## How Do I Avoid Mic Squeal or Feedback?

Feedback occurs when the gain on the mic is too high for the speaker volume. The very best way to avoid feedback is to be sure you are holding the microphone so close it actually touches the corner of your mouth.

If you still are having difficulty, you may want to back off on the COMP Level settings in the AutoEn Menu, as well as the MIC EQ Level.

## How Do I Turn Off the Reverb On My Voice?

There are three modes for the reverb. 1) R=Always On 2) A=AutoEffects which is automatically ON when music is present and OFF

when music is not present and 3) Always Off or Blank on the main menu. You can set this control different with the Presets for Performance, Recording, and Practice and they will automatically be recalled when you change modes.

## How Do I Change the Amount of Reverb on My Voice?

This is done with the Reverb Level control in the AutoEff Menu. Lower settings produce less reverb and higher settings produce more reverb. Be sure to store the settings once you are happy with the levels.

## How Do I Alter the Proportion of Voice to Music?

This is accomplished in the AutoMix Menu. Moving the setting to the left increases the voice and decreases the background, moving it to the right gives you more music and less voice. You are actually altering the Automix Targets that the VE-4 is automatically mixing to.

## How Do I Make My Voice Less Bright Sounding or More Bright?

This is accomplished with the MIC EQ settings in the AutoEn Menu. You have control over the voice equalization in five frequency areas. The plus setting increase or boost the volume in the frequency range and the - or cut settings decrease the volume.

## How Do I Know The Mic Gain Control On the Back of the VE-4 Is Set Correctly?

Sing into the microphone at the loudest volume you normally sing while you turn up the GAIN Knob on the back of the VE-4. At some point the display should pop up with the screen "CLIP" and then "Adjust Mic Gain" should display the incoming mic level for about the next 20 seconds or so to enable you to make adjustments to the pot. Back off just a bit from the point at which it clips on the loudest sections when you sing. Typically during most of the song it will be down around -9 to -6. Don't worry too much if you are have the gain set properly and you occasionally get a CLIP indication. The VE4 has a very benign soft clipping characteristic which will not be audible until the CLIP is being triggered 20% of the time or more.

If you want to turn off the feature of automatically displaying clipping, you can do so in the Setup Menu.

# Troubleshooter Checklist

First of all, use either the Test Tape or the Test CD which came with your VE4 to go through the following checklist. As long as the Test Tape and the Test CD produce 90% or better vocal elimination, then any variances would be due to the material used.

## **If You Are Getting Absolutely No Vocal Elimination Whatsoever.**

### **1) Determine If You Are Actually Listening To the Vocal Eliminator Or To The Original Signal.**

The first thing to do is to be sure you can change the volume of the music with the VOLUME control *on the Vocal Eliminator*. If you can't, you are *not* listening to the Vocal Eliminator™ but to the original signal. Be sure you are connected to the TAPE jacks on your receiver (TAPE 2 or VCR if you have a TAPE 1 and 2) and that you have the TAPE button IN or are in the "monitor" position. If you do hear the volume change, but are getting no elimination whatsoever on the TEST TAPE listen to your left and right speakers individually to see if you indeed have two inputs going into the eliminator. If one of the speakers is dead, you have a bad cable either at one of the sources or the input to the Vocal Eliminator or one of the wires is connected to the wrong place. Check the diagrams careful-

ly. Switch cables with a new good cable until you get sound out of both speakers in the STEREO mode. You must be in the STEREO mode for this test to work and when you fix the bad or misconnected cable, you should have elimination. If you are still having problems, call the HELP LINE and we will be glad to assist you in locating the problem.

### **2) If You Can Change The Volume On The Vocal Eliminator, But are Getting No Vocal Elimination At All.**

Be sure the VE button is engaged and lit and the display should say "Primary VE".

1) Hit the up arrow to be sure the vocal elimination depth is not too low. The middle position of "0" or "+1" should be fine.

2) Do a "Forced Tune" by Pressing and Holding the INPUT button. If you do not hear the vocal drop within a three or four seconds, then this is not the problem.

## **If You Are Getting Some Vocal Elimination**

### **Use the Test CD or Test Tape See If You Can Produce 90% or Better Elimination.**

If the Test Tape or Test CD do not produce almost total elimination, then none of your other recordings will work properly. If you do produce the proper amount of elimination, then this verifies the VE4 is connected properly and the elimination differences are due to the source material.

The Test CD and Test Tape are not examples of what you should expect on average. They are examples which are among the best results that enable us to verify that the unit is connected properly and that the components used are of sufficient quality to produce the proper results.

The pre-sales demo shows a range of results best, average, and less than average. On the average result you will hear a trace of the vocal in the background which should be completely inaudible when you sing, which is the only way anyone else will ever hear it. Be sure you are judging the result with your new

vocal added at the proper volume level.

### **Adjust the Vocal Elimination Depth.**

Use the UP/DOWN arrows to adjust the depth of elimination. 0 is the default. Higher numbers will produce more Vocal Elimination at some cost to background music quality so be careful!

The reality is that once about 75-80% elimination is achieved, you should hear absolutely no vocal when your voice is added to the mix. This is the Only Way anyone else is going to hear the end result. As such make your judgments on how deep to engage the elimination depth only with your new vocal added.

After you have used the VE4 more, you will likely back off a bit on the VE Depth to capture the background with the least amount of instrumental loss possible.

Average elimination is 85% which means that 15% of the voice will still be audible on the background. You should hear absolutely none of the original singer when your voice is added during recording or performance.

## **LT Sound Warranty**

### **Five Years Parts and Labor**

Your LT Sound product is warranted for Five Full Years from the date of purchase. Problems with our products are extremely rare. Many things that appear to be unit malfunctions, are in reality related to a change in hookup or sometimes a customer simply changes some buttons on the receiver and apparently the unit no longer works. Since over 90% of these types of "unit malfunctions" are not really the unit at all, we insist that a Repair Authorization be given by one of our technicians on all products which are accepted back for repair, . This solves most problems in the quickest manner over the phone and prevents customers and ourselves from unnecessary shipping expenses and down time. If you feel you have a problem, please call our help line and if the symptoms do indeed point to a problem within the unit, we will promptly give you a Repair Authorization and will rectify the problem as quickly as possible. ***Sorry, But Any Unauthorized Returns Will Be Refused.*** We believe experience has shown this to work in the best interests of both you, our customer, and ourselves.

### ***When Calling the Help-line Line.....***

*1. Be sure you are at a phone which will reach the equipment. We need to be able to hear the results you are getting and ask you questions about your stereo system. This is very difficult if you cannot be directly at the equipment while we are talking.*

*2. Be sure you have the TEST TAPE on so we can work with material which we know should produce extremely good elimination.*

*Help Line hours are till 7 p.m. EST, Monday - Wednesday that is 4 p.m. California time. Help line assistance also available 1pm-5pm most non-holiday weekend Saturdays.*

***Help Line Number (770)482-4836***

# Caution !

*Never* Connect Both the Digital IN and Digital Output of THE SAME Device to the VE-4 *at the Same Time!* Doing So Can Damage Your VE4 and It Will Have To Be Returned to the Factory for Repair! Connect One or the Other at a Time *Never Both at the Same Time!*

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**230 Volt Customers !**  
*Use Both the 230/115 Volt  
Converter and the LT Sound  
Power Pack when Connecting  
To 230 Volts*

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