

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

Dear Customer:

Thank you for purchasing a Thompson Vocal Eliminator™ Model VE-3. 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 9 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 direct you to the problem through step by step testing procedures.

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™ Set
Up 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.*

Use this tape in the initial set-up of your Vocal Eliminator™. You should get results comparable to the first selections on the demo tape 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 9 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 depict-

VE-3 Owner's Manual

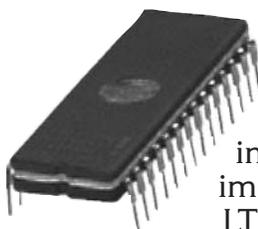
Thompson Vocal Eliminator™



ed in the demo tape.

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.

Upgradeable Design



Your VE-3 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 user upgradeable at nominal cost (\$25.00) to incorporate any improvements which will be made to its software in the future to insure that it remains state of the art. Upgrades are released roughly every 6 months and your first upgrade is free and will automatically be sent to you. You will be notified by mail of future upgrades as they are released.

Your VE-3 has full CD quality 16 bit 44.1 KHz dynamic range and frequency response. 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-3 is equipped with a recording studio quality digital delay and reverb unit which has full 20 KHz bandwidth on the effects. Your delay/reverb processor can be used separately in conjunction with a recording console or porta-studio. Inputs and output connections for a recording deck are provided on the unit for additional convenience.

Does Everything Karaoke Does Better.

Your VE-3 is also equipped to work with pre-recorded background music and has a mode selector to mix the background music as stereo, multiplex, and of course the Vocal Eliminator™ output. All sources which are unavoidably mono such as multiplex or the vocal eliminator are automatically converted to stereo with our studio quality stereo simulator.

The Vocal Eliminator™ goes into most systems without a single problem occurring along the way. If you have a snag, be sure to check the trouble shooter guide and it should lead you to the problem. 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 weekdays as late as 9 pm EST and are available most Saturdays from 1 pm until 5 pm as well. 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.

Because we are sure that you're anxious to get on with enjoying your Vocal Eliminator™, we'll go right on with the hookup procedures and operation of the unit.

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.



The very first thing to do once you have your Vocal Eliminator™ connected is to be sure we are listening to the Eliminator and not the original source. Even if we've connected the unit properly we may not be listening to the eliminator, but to the original source. Place the MODE switch on the STEREO Position. Now turn the VOLUME control next to the mode knob up and down. If you hear the volume change,

you are indeed listening to the eliminator. Skip to **Front Panel Controls**. If you do not hear the volume change you are not listening to the eliminator but the original source. If you are using Diagram 1, check to be sure you have the TAPE switch pushed to the TAPE position on your amplifier. You must also select whatever source you will be processing as well such as PHONO, CD, FM or AUX. If the



sound goes away when you press the TAPE switch on your amp, you may not have also selected one of the original sources such as PHONO, CD, FM or AUX or you may have the inputs and outputs reversed or going to the wrong places. Double check with the hookup diagram following the wires placing your hands on the wires one at a time.

Front Panel Controls

Now we familiarize you briefly with what the front panel controls are and what they do.

REC/PLAY Switch

This switch should be placed IN (light on) or in the REC position when you are making a recording and out when you are playing back a tape youTM just made through the Vocal Eliminator .

MIC

This controls the volume of the microphone and is the primary way you should achieve the proper ratio or mix between the background volume and your voice.

SPLIT MODE Switch

This control is normally out. If you hear no mic volume, be sure it is in the out position. This switch enables you to send the mic and reverb out through the tape output jacks which is useful with a mixing board or when you are using the DKT Key Changer and Harmony Processor. If you are using the VE-3 alone, it should be in the out position.

EQ

This control adjusts the brightness of the vocal sound. More highs help you “cut through” the mix as long as you don’t start to sound too thin or shrill.

IN/BYPASS Switch

When you press this switch in, the reverb is shut off. This is helpful when you are speaking to the audience between

songs. You can also shut off the reverb through the Foot switch connector in the back of the unit.

REVERB

This control adjusts the amount of reverb you are adding to your voice.

MODE



This is probably the most important knob on the whole unit. It selects which type of background you are to be adding to your voice. STEREO is for mixing pre-recorded stereo background tracks you buy or make with the Vocal EliminatorTM. MULTPLX is for multiplex background tracks which have the vocal on one side and the music on the other. AUTO-EDIT detects your singing and goes into the Vocal Eliminate mode only when you are singing and back to the original when you are not singing. You can use the Option 1 mode to kill your voice on the main outputs and still have the AUTO-EDIT function if you are making a background track using AUTO-EDIT and don’t want your voice to appear on the end result. EDIT is the original input signal which has been pre-conditioned for editing purposes so you can manually switch back and forth between the EDIT signal, and the VOCAL ELIMINATE is the position for a Vocal Eliminated background. Option 2 is a “placeholder” for future options and upgrades.

Checking Out Your VE-3

Follow These Instructions Specifically!

VOLUME

This controls the volume of the background music in all modes.

EQ

This control adjusts the brightness of the background music.

ON

This switch turns power to the unit on and off.

Now that we're connected have verified that we are indeed listening to the Vocal Eliminator, we are ready to check out it's operation. The very first thing we want to do is to connect the microphone to the mic input in the back of the unit. Adjust the volume of the mic to the 12 o'clock position. If you get feedback, you may need to turn your amplifiers main volume control down. If you don't hear your mic check to make sure the SPLIT MODE switch is in the out position and that your mic's on/off switch is in the on position (if it has one).

Be sure the BYPASS switch is in the out or non-bypassed position so you will hear reverb on your voice. Adjust the REVERB to about 11 o'clock and you should hear your voice sound better than you've ever heard it sound before. Adjust the mic section EQ till you sound crisp and clear but not shrill or strident.

Now we're ready to try out the background elimination. We can eliminate the vocal from either the recording cassette or the source cassette. If you have only one cassette deck, it should be hooked to the 4 phono jacks on the back of the eliminator for the tape deck. Place the REC/PLAY switch in the out or PLAY position and place the TEST TAPE which was sent with your eliminator in either cassette deck. Turn your

tape decks Dolby™ noise reduction off. You will get a little better elimination on a tape if you turn the noise reduction off.

You should hear the music when you play the cassette. Now move the MODE knob to the EDIT position. Move the knob back and forth between the EDIT and VOCAL ELIMINATE positions. You should hear the voice drop to 10% or less of the original level. It should be down so low that is is obvious that when a new vocal is present, no traces of the original vocal will be audible at all.

Locking In On The Vocal

During the first few seconds when the voice starts, your VE-3 is busy adjusting itself for the maximum amount of elimination that particular recording will allow. If you are making a background tape, simply play the first few seconds of the vocal part and after it sounds like the VE-3 has settled down to a steady level of elimination, just back the song up to the start and tape the song from the beginning. Your VE-3 remembers the adjustment and will start off in the proper place and continue to fine tune the elimination during the song. Normally most people make background tracks with the vocal eliminated and perform live with the VE-3 serving as the mixer in the STEREO MODE.

If you need to work live with the VE-3 the lock time is so quick that it is barely noticeable with a live vocalist singing. It is however best to acquire the lock and start from the start if you are taping.

The EQ works only on the background music in the VOCAL ELIMINATE mode. This allows you to match the sound of the EDIT source to the VOCAL ELIMI-



NATE signal for a smoother transition between the two sources. Adjust this control (if it needs it) so that when you move from EDIT to the VOCAL ELIMINATE mode, the music sounds the same or as close as it is possible. Don't be confused by the drop in volume produced by the elimination of the lead vocal, focus on the background music.

EDITING FOR A BETTER BACKGROUND.

You can edit on your VE-3 manually or automatically. In the manual mode, you simply move the MODE knob back and forth between the EDIT and the VOCAL ELIMINATE positions. The Vocal Eliminator usually removes any solo part with little affect on the accompaniment. During instrumental solos between the vocal parts the solo instrument will usually be removed just as the vocal is. This is not desirable if we are to get the best results from the Vocal Eliminator™. To preserve the original instrumental solo in its normal state, we simply perform an "EDIT" back to the original with the EDIT position. We should have a very smooth transition back to the original recording. The Eliminator's EDITING MODE is totally "clickless" and we should hear no ticks on the background if we are preparing a tape. When the vocal part is about to come back in, we simply switch back to the background.

Instrumental solos are the main parts that need to be edited into the final result when you are preparing the best possible background tapes. There may also be occasions during intros or at the end of songs where you wish to edit back to the original. If you have a really fast finger, you may even want to edit some songs between the vocal phrases. In most cases the loss of instruments is so mild that these efforts are not necessary, but if you are trying to make a difficult song work, your editing skills will prove helpful.

AUTO-EDITING

Your VE-3 can also perform an "Auto-Edit" where your voice causes the unit to go to the eliminated background. When you stop singing, the unit returns to the original

"EDIT" signal. Your mic volume and how loud and close you are to the mic determine the threshold point. You can easily see the unit switch back and forth between the two modes by looking at the VOCAL ELIMINATE light. If you want a background which is auto-edited and without your voice present on the tape. Place the MODE control in the Option 1 position. This will cause your mic signal not to be present at the final outputs.

Getting The Best Results.

Be careful to evaluate your results while singing with your new vocal. Though you can tell a big difference between those that eliminate almost completely (95%+) and those that eliminate an average amount (80-85%) *without* someone singing a new vocal part, you usually can tell *no* difference at all once a new vocal is added. You should completely cover the old voice. Here is the amount of elimination you should expect from the sales brochure:

Normally you can use the better half of your material in a professional context. By the

25% Vocal will be virtually inaudible through most of the recording even without a second vocal.

25% Vocal will be barely audible without a second vocal being added, and completely inaudible with the addition of a second vocal.

25% Vocal will be audible but at a substantially reduced volume. Complete masking of the original vocal is possible, but requires high quality second vocal with equalization and echo or reverb.

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.

You can improve your results by being sure you are doing the following:

1) Be sure to mix your vocal loud enough. Make a tape and be sure you are placing you vocal as loud as the original.

3) Use EQ on your mic. Most mics produce an un-natural bass boost due to the directional nature of the microphone. By turning up the mic EQ in the clockwise direction, you can counteract this effect. Don't go so much you sound overly thin or shrill, but use as much as it takes to make you sound your best. Try making a recording letting the original artist do a few lines in the AUTO-EDIT position, then you do a few lines. Back up the tape and see if you need to make adjustments in your MIC volume, EQ or REVERB settings.

4) Don't Lag. People just starting to sing with background accompaniment tend to come in late. Avoid this. You don't have to phrase just like the original singer, but you must be doing *something* whenever he or she is present.

If You Are Getting Absolutely No Vocal Elimination.

If you are getting no vocal elimination at all you need to check out several possible causes. The first thing to do is to be sure you can change the

volume of the music with the VOLUME control. 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, then place the MODE switch to STEREO and 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 carefully. 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.

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 9 p.m. EST, Weekdays that is 6 p.m. California time. Help line assistance also available 1pm-5pm most non-holiday weekend Saturdays.

Help Line Number (770)482-4836

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.