VE-2+ Owner's Manual

Thompson Vocal Eliminator ™

For Tapes, Records and Compact Discs

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.

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 troubleshooter 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 to provide technical assistance as late as 10 pm EST and available most weekends as well. You will find the instructions quite complete, but if a problem develops, we don't want you to get needlessly frustrated because 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. If you are theoretically inclined, there is a section at the end of the manual which deals with the theory of operation and will help you gain an appreciation of the careful design and sophistication of your Thompson Vocal Eliminator. There is also a section on our **Customer Sales Program** which allows our customers such as yourself to become involved in sales to persons they might come in contact with as they use their Eliminator.

Choosing the Proper Connection Diagram.

CONNECTION DIAGRAMS. 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 phonograph or turntable, you will also have a "tape monitor" switch. 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 the connection diagram which follows. 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. We will show you how to reconnect your tape deck in a later diagram so you do not give up any of the flexibility which you had before. For now, follow the diagram explicitly and be sure not to reverse the connections going from the receiver to the Vocal Eliminator and from the Vocal Eliminator back to the receiver.

OPERATION WITH CONNECTION DIAGRAM 1.

Before we get into learning to operate the Vocal Eliminator, it is important to be sure that our amplifier or receiver's selector switch is in PHONO position. With the receiver's tape monitor switch in the SOURCE position, we should hear the original record the way it normally sounds. Now we will turn the Vocal Eliminator on and we should see a red lite to the left of the ON switch glowing. The sound won't change, however till we push the receiver's TAPE MONITOR switch to the TAPE or "monitor" position. If you hear no sound when you push your receiver's tape monitor switch to the monitor or tape position, then consult the TROUBLESHOOTER CHECKLIST at the end of this section.

If you did hear sound as you should have, you heard one of two things, either the ORIGINAL sound if the ORIGINAL/BACKGROUND switch on the eliminator was in the out or ORIGINAL position, or you heard the BACKGROUND produced by the Eliminator. If the Eliminator's switch was in the BACKGROUND position. Note that the lite next to the BACKGROUND switch will glow when you are listening to the background music produced by the Eliminator. Don't be concerned if the dropout of the vocal is not what you would expect, we haven't gotten to the adjustments yet.

At this point you should be able to verify two things: (1) First of all that when you place the Eliminator's Editing switch to the BACKGROUND position (lite will glow), that you can hear the volume change over your speakers as you adjust the Eliminator's VOLUME volume control. (2) You should also note that as you switch from the ORIGINAL to the BACKGROUND position with the Eliminator's EDITING switch, that you hear a reduction in the level of the vocal. If this does not occur or the vocal reduces when the switch is in the out position and does not reduce with the editing switch in the BACKGROUND position, consult the TROUBLESHOOTER CHECKLIST.

If you are getting a reduction of the vocal, as you should, with the Eliminator's EDITING switch in the BACKGROUND position, we can now go on to learning how to adjust for the best elimination of the vocal with the VOCAL CANCELLATION section. If the record was recorded "perfectly", and only about one out of five are, then the vocal will cancel best at 12 o'clock or the 0 position on the MAIN and SIBILANCE cancellation controls. Most records will need to be adjusted for optimum removal of the vocal. Quite appropriately, the MAIN fine tunes the cancellation of the vocal at low frequencies and the SIBILANCE fine tunes the elimination of the vocal at high frequencies. There is no telling what setting is going to give the best elimination without adjusting.

Always start at the 12 o'clock or 0 position and adjust the MAIN control for maximum drop out of the vocal at low frequencies, rotating it back and forth till you find the place of maximum dropout. As you pass the place of maxium dropout, you will hear the vocal start to come back in.

The same basic procedure is followed with the SIBILANCE control. You always start out at the 12 o'clock position or 0 on the dial and find the place of maximum dropout for the particular song. Listen very carefully for the most dropout of the vocal's ssssss sounds as you adjust the SIBILANCE cancellation control. After you tune the SIBILANCE control to the position for best dropout at the HIGH frequencies, you may find that you can now adjust the MAIN control for better dropout of the vocal LOW frequencies.

AUTO EDITING

Your new VE-2+ is equipped with an automatic editing feature. This allows you to edit a song as you sing along without having to use the BACKGROUND/ORIGINAL SWITCH. What the AUTO EDITING feature actually does is switch automatically to the background music when you sing into the microphone, then automatically switches back to the original music when you stop singing at the end of a phrase or verse. Here's how you do it.

STEP 1: Begin by manually editing a song (switching back and forth between ORIGINAL and BACKGROUND) to get the proper background volume and equalization as described previously.

STEP 2: Plug your microphone into the MIC jack on the back of the VE-2+

STEP 3: Set the BACKGROUND/ORIGINAL SWITCH so that it is the original (out) position. The red light should be off now.

STEP 4: Sing into the microphone. Watch the red light. It should come on when you sing and go off when you stop singing. You will need to adjust the AUTO EDIT CONTROL to optimize the automatic editing sensitivity. If the AUTO EDIT CONTROL is set to high, the red light may come on when you breathe or move the microphone. If you have the AUTO EDIT CONTROL set to low, the red light may not come on at all even when you sing very loudly. Turning the knob clockwise increases the sensitivity. Turning the knob counterclockwise will decrease the sensitivity. Once you have adjusted the AUTO EDIT CONTROL, start the music and sing along. You should hear only the background music when you sing, then when you stop singing you should hear the original music.

STEP 5: Now turn up the MIC CONTROL. Now when you sing you should hear your voice over the speakers. Now when you sing with the music playing, your vocal will replace the vocal which was present on the original music. For recording purposes if you are trying to produce a background tape without your vocal on the tape, simply turn up the control until it blends well with the music.

STERO SIMULATED OUTPUT

Your new VE-2+ is equipped with a high quality State-of-the Art Stero Simulator. Because of the way the Vocal Eliminator works, the stero signal is converted to monaural. ou can however, simulate a stero effect by turning up the STERO SIMULATOR CONTROL. With the control turned fully counterclockwise, the output remains in mono. As you turn the control clockwise you increase the depth or amount of stero simulation. We did exstensive research in the area of stero simulation and have incorporated the best sounding stero simulator circuity into our design of the Vocal Eliminator.

DNR*

We have also incorporated a Dynamic Noise Reduction System (DNR*) into the model VE-2+. It is a single ended noise reduction system capable of 10 db of noise reduction of tape hiss and record surface noise. It can also be effective in reducing high frequency bleed thru of the original vocal part which may be left over after the elimination process of the vocal. With the DNR* CONTROL fully conunterclockwise, there will not be any effective noise reduction. As you turn the knob clockwise, the effect will increase. If the control is turned fully clockwise you may adversely affect the high frequency sound as if someone turned the treble control all the way down. Adjust the control until the noise is reduced in the soft passages of the song but not so much that the music quality is affected.

**DNR is a trademark of National Semiconductor.*

Once you've mastered the operation and fell confident that you are getting the proper results, you can then begin trying out your own recordings. If for some reason you can't get the proper results from the test record, then something is wrong and therfore you will bot be able to get the proper results with your recordings either. It is critical that you first achieve the proper results on the test record before you begin to process other records!

Front Panel Controls and Adjustment

1. Start by placing the EDITING switch in the BACKGROUND or in position. The lite will glow and you should hear some reduction of the vocal.

2. Now start with the VOCAL ELIMINATION controls. Beginning with both controls at 12 o'clock or 0, adjust the MAIN control to the position which produces the greatest amount of vocal dropout at the low frequencies.

3. Now adjust the SIBILANCE control to the position which produces the greatest amount of elimination of the vocal's high frequencies or sssss sounds. You should go back and forth between the controls till you find the position of maximum cancellation. THIS ADJUSTMENT MUST BE DONE ON EVERY SONG INDIVIDUALLY, EVEN WITHIN THE SAME ALBUM!

4. Now adjust the VOLUME control which affects only the background volume so that you have the same volume level as you switch between the BACKGROUND and the ORIGINAL with the EDITING switch.

5. Now adjust the BASS and TREBLE controls so that you have the same amount of BASS and TREBLE response on the BACKGROUND signal as you have on the ORIGINAL record. These controls affect only the BACKGROUND music and enable you to match the timbre of the background music to the original to perform a better "edit" as you switch back to the original signal during instrumental passages.

6. Now we are ready to either prepare a background tape or to sing with the background music prepared by the vocal eliminator. To make the very best background tapes, you will want to switch back to the original during solo instrumental passages to keep the solo parts from being eliminated. You may also find it sesireable to perform an "edit" during intros and sometimes at the end of songs.

7. This completes the basic tuning adjustments, however, you will want to further enhance the background with the AUTO-EDIT, STERO and DNR* controls of the VE-2+ which are described in the Owner's Manual.

So the general procedure is to start with both controls at 12 o'clock or 0 amd adjust the MAIN control to the point where the maximum dropout of the vocal's low frequencies occurs and then adjust the SIBILANCE cancellation control for the best dropout of the vocal's high frequency or ssssss sounds. Usually you have to go back and forth a couple of times between the controls to get the bes cancellation on that particular song. EACH SONG MUST BE ADJUSTED INDIVIDUALLY EVEN ON THE SAME ALBUM! The optimum adjustment does not vary within the same song but it usually does vary from song to song within the same record album. It is best to adjust the VOCAL CANCELLATION controls at the very beginning of the vocal part on the song where the instruments are softer and you can hear the vocal more clearly.

After the vocal is at the point of maximum elimination, the next stage is to adjust the VOLUME control so that the volume of the original record and the background music produced by the Vocal Eliminator are identical. The volume of the original signal is fixed, and the VOLUME controls the volume of the background only. Switch back and forth between the background and the original with the editing switch as you adjust the VOLUME control so that there is no apparent change in loudness between the two. Listen carefully for the loudness level of the instruments when the vocal is not present.

Now we adjust the BACKGROUND EQUALIZATION controls which again affect only the backgournd music so that there is the same amount of BASS and TREBLE in the background as was present i nthe original signal.

EDITING FOR A BETTER BACKGROUND.

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 rimoved just as the vocal is. This is not desireable if we are to get the best results from the Vocal Eliminator. To preserve the original insturmental solo in its normal state, we simply perform an "EDIT" back to the original with the EWDITING switch. If we have properly adjusted the VOLUME and BACKGROUND EQUALIZATION controls, we should have a very smooth transition back to the original recording. The Eliminator's EDITING switch 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.