

# Owner's Manual



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 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.

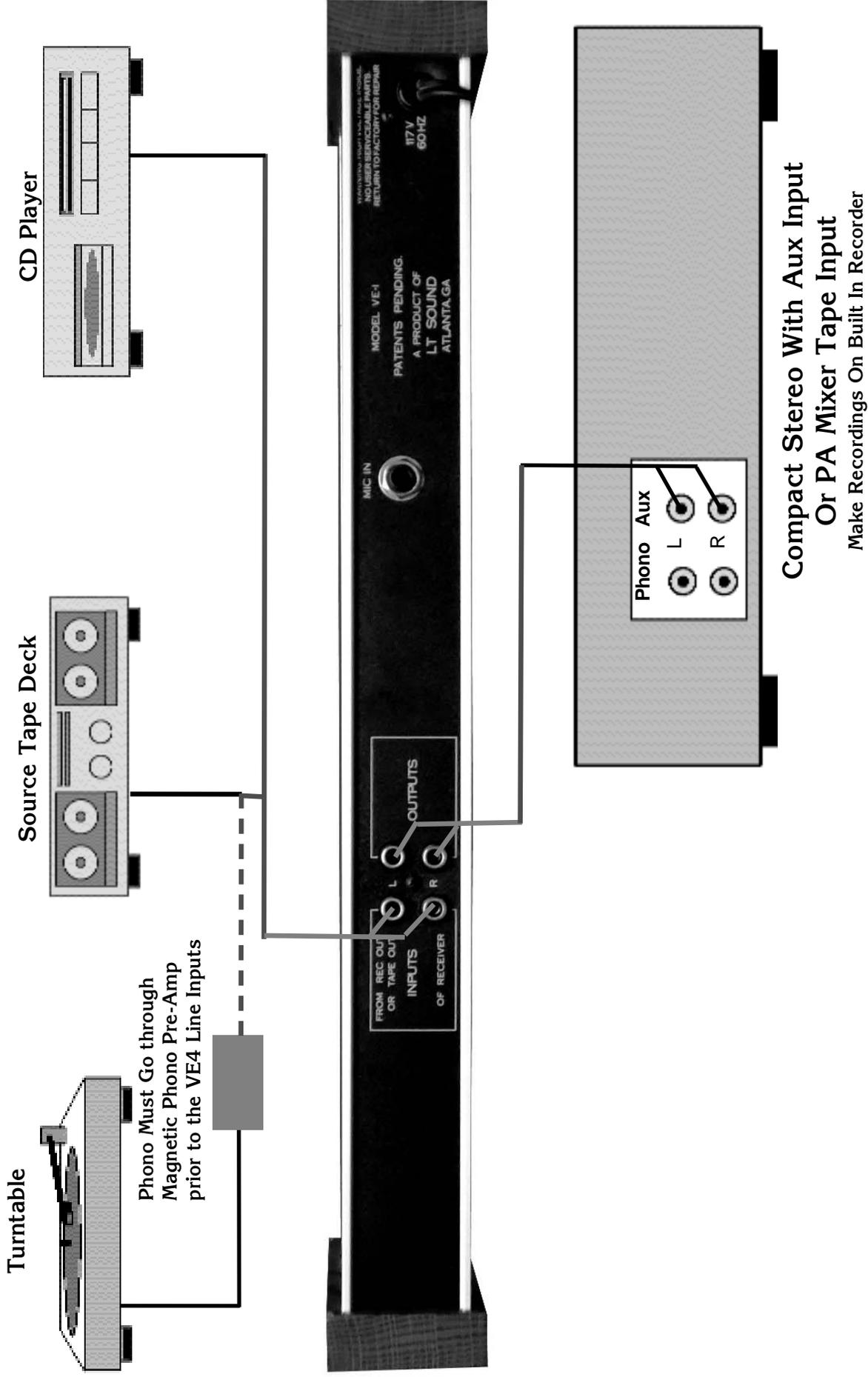
The vast majority of systems will use Connection Diagram 1. Indeed all systems can use diagram 1 even if you have the type of system described in Diagram 2

having a Tape Monitor Switch.

If you have a True Component system where the amplifier is separate from the phonograph or turntable, you may have a "tape monitor" switch. For this type of system, you use Connection Diagram 2.

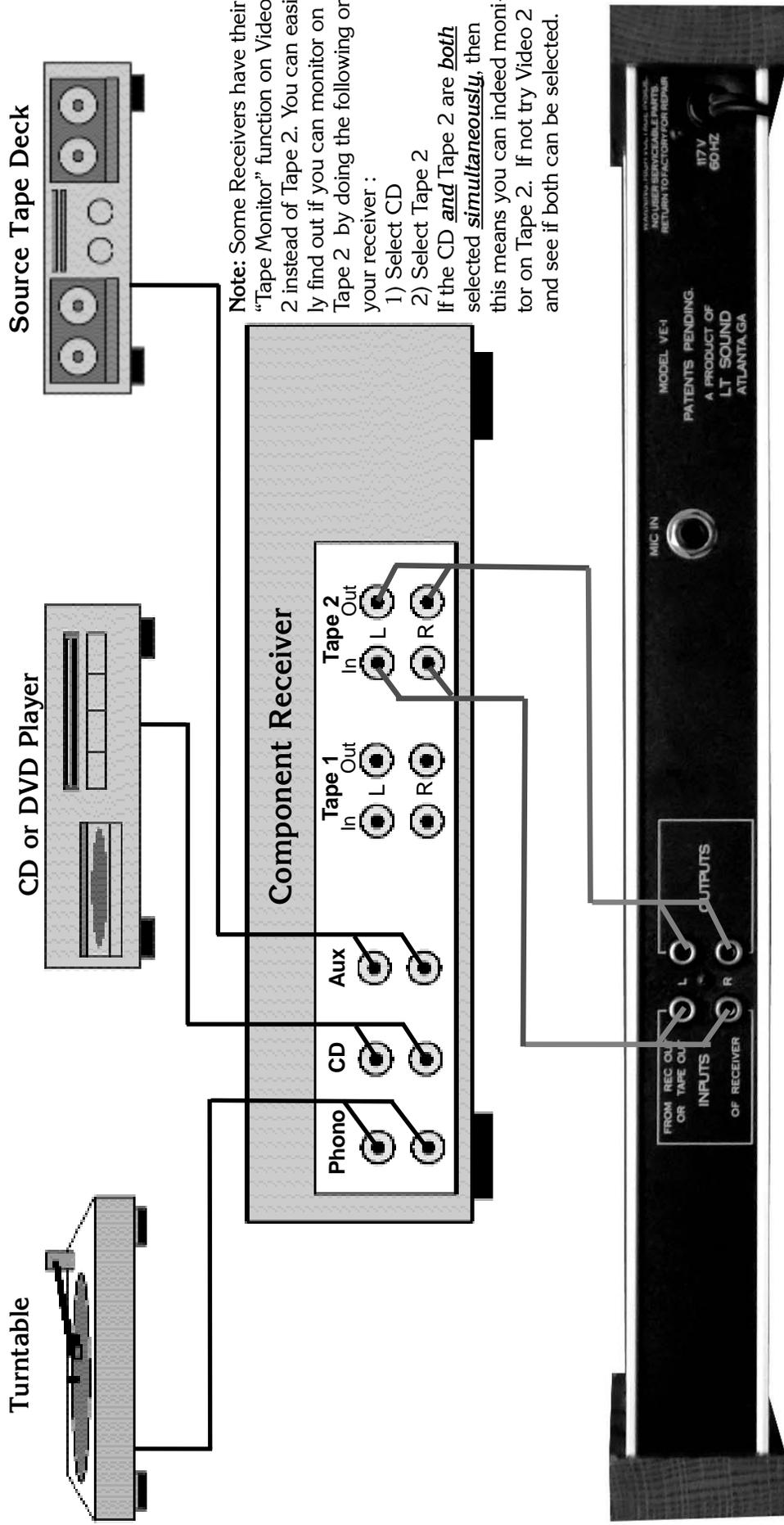
# Hookup Diagram 1

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



# Hookup Diagram 2

## Connection Diagram for System Having a Tape Monitor Switch



**Note:** Some Receivers have their "Tape Monitor" function on Video 2 instead of Tape 2. You can easily find out if you can monitor on Tape 2 by doing the following on your receiver :

- 1) Select CD
- 2) Select Tape 2

If the CD and Tape 2 are both selected simultaneously, then this means you can indeed monitor on Tape 2. If not try Video 2 and see if both can be selected.

CONNECTION DIAGRAM 2. 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 RECOORD 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 2. 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 pro-

duced 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 LEVEL MATCH 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 LOWS and HIGHS cancellation controls. Most records will need to be adjusted for optimum removal of the vocal. Quite appropriately, the LOWS fine tunes the cancellation of the vocal at low frequencies and the HIGHS 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 LOWS control for maximum drop out of the vocal at low frequencies, rotating it back and forth till you find the place of maximum

dropout, you will hear the vocal start to come back in.

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

So the general procedure is to start with both controls at 12 o'clock or 0 and adjust the LOWS control to the point where the maximum dropout of the vocal's low frequencies occurs and then adjust the HIGHS 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 best 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 step is to adjust the LEVEL MATCH 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 LEVEL MATCH 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 LEVEL MATCH 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 background music so that there is the same amount of BASS and TREBLE in the background as was present in the 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 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 EDITING switch. If we have properly adjusted the LEVEL MATCH 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.

## Front Panel Controls and Adjustment Procedures.



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 CANCELLATION 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 HIGHS 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 LEVEL MATCH 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 BACKGROUND EQUALIZATION 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 desirable to perform an "edit" during intros and sometimes at the end of songs.

## **LT Sound Warranty**

### **One Year Parts and Labor**

Your reconditioned LT Sound product is warranted for One Year 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.