

The Firebird. Testing the concert hall sound throughout the world since 1978.

by Jack Renner, Chairman, Telarc International Corporation



The Firebird (CD-80039)

Every Telarc recording project begins with setting up a control room, a critical component in producing an accurate sounding master tape. It is absolutely essential to create a monitor situation in which a fair judgement can be made of the sound delivered to the master tape. At Telarc, this is an especially important process since we create a "mixed to two track" tape during the sessions which when edited

for musical integrity becomes the finished master. We prefer this method because it is musically and sonically more accurate, than the approach used by many classical record companies, using multi-track tape recorders and "fixing it in the mix" at a later date.

At Telarc we record a full orchestra, with as few as three microphones, whose placement is so sensitive that a small difference of a few inches can make a vast difference in the finished sound.

Given the difficulty of recording our way, the importance of an accurate monitor setup becomes immediately apparent. The potential trap in all of this is that if the engineer is not *totally* familiar with the sound of the monitors at the start of the session, the temptation (and unfortunately the practice with some recording engineers) is to start moving microphones around until the monitor system sounds right. This is the classic case of the tail wagging the dog!

Since we set up makeshift control rooms at every recording location, my goal is to adjust the sound of these different rooms through careful speaker placement and judicious use of acoustical materials so that the sound in all the rooms has some consistency. That is not to say that it is possible to make all the rooms sound alike. The important factor is to adjust them so that the number of anomalies in the sound is minimized. Once that point is reached, I spend whatever additional time is necessary to familiarize myself with remaining flaws, a bass boost, high-end roll-off, or whatever, so that I can mentally compensate during the recording. This minimizes the "surprises" when we return to our home studio and evaluate the master tapes.

To achieve as much consistency as possible, from one location to another, I use the same recording — CD-80039, *The Firebird*. It has the required characteristics to quickly show me where the problems are: deep bass, extended highs, fine detail, excellent focus, a sense of "air" around the sound, good left-right and front-to-back imaging, and *wide* dynamic range. Although I find the entire recording useful, the following spots are especially valuable:

Opening Very deep bass produced by string basses playing in their lowest register, accompanied by a deep bass drum roll. You should *feel* the weight but be able to clearly hear the bass line. You have a definite sense of string basses on the right which is helped by the "creaking" of the low C extension on some instruments.

00:29 Trombones enter, located at approximately two o'clock.

00:45 Several things begin to happen: bassoons enter slightly right of center, violins start to emerge between left and left-center, clarinets in center, harp left-center and behind violins and muted trumpets right.

01:37 Flute enters slightly left of center and about halfway back in soundstage.

01:45 Oboe enters center, in same perspective as flutes.

02:02 Repeated figure in violas, slightly right of center. It is common in many listening rooms that have a standing wave between 100-200 Hz for this passage to have a plummy or bloated quality. If so, it is necessary to reduce this frequency buildup in the listening room.

02:17 Clarinet-bassoon passage. Same comments about bloated sound as previous spot.

02:25 Soft bass drum strokes. You should feel the weight, size, depth and *slight* attack of the beater.

02:36 First entrance of piano. Should be to left and rear of soundstage, farther back than harp.

02:46 - 03:00 This section tells a great deal about the left-right spread and the quality of the string sound. Violas enter first right of center, then violins left and left-center, then cello right. There should be a very natural spread with no bunching in the center, plenty of air around the sound with a nice mix of presence in order to hear the detail of all the lines of each section.

03:00 - 04:23 Should be good detail from all sections, with a great sense of placement as mentioned in previous examples. This is a good passage to let things settle in and for the feeling of the orchestra to emerge.

06:38 Bass pizzicatos on right — the first note should have plenty of depth and pitch. A good test of bass response.

07:45 - 07:55 Full strings — violins should have a nice "sheen," with no stridence. Entire passage should have nice sense of air around the sound.

08:40 Horn solo against sustained strings and winds. Horn should not have bloated character.

09:06 The first real power-handling test. This sudden loud attack should be handled with ease with a balanced sound from the bass drum to the piccolo.

09:08 Horns and tuba should have great clarity and pitch center with no bloated quality, especially the tuba.

09:37 Xylophone at left rear should have sharp transients on attack and sound should have great sense of space around it.

09:37 - 10:50 Great check for detail from all sections of orchestra. Pizzicato strings should be pointed with sense of section, not just individual strings; xylophone should be crisp with sharp transients and plenty of air around the sound; all the interplay between various sections should be well defined.

12:34 - 12:48 Another great section to test low bass response and power handling. The deep bass drum strokes should "move a lot of air" in the listening room. You should hear each attack clearly and still easily hear the "frantic" moving lines over the bass drum.

13:10 - 13:12 This crescendo is a real power eater and a good test of the listening room's (lack of) ringing. The sustained woodwinds that emerge out of this crescendo should have no hint of being covered by any blurring from the end of the crescendo.

13:16 - 13:18 Good front-to-back perspective test. Harp should be slightly in back of strings, piano should sound farther back than harp.

13:53 One of the most useful spots. The bassoon solo should sound even in all registers with no sense of bloating.

17:25 Another great section to check low frequency buildup. Horn solo should not sound bloated in any register.

19:36 - end Big bass drum whacks will *really* tax power handling and frequency response, especially the last one at 20:30 which includes a mighty cymbal crash as well. This should be very tight and have the feeling of great power, depth, and sharp transients.

I hope this information will be helpful and enable you to become more familiar with *your* playback system.