The Telephonics "Fixler Effect" Headset—And Its Quadramate Simulator

The Equipment: Telephonics Model TEL-101F quadriphonic headphone with 10-foot cord terminated in dual stereo headphone plugs; Model TEL-101A Quadramate four-channel simulation control accessory, with approx. 6½-foot cord terminated in stereo headphone plug. Price: TEL-101F, $59.95; TEL-101A, $26.95. Warranty: one year parts and labor, shipping paid one way. Manufacturer: Telephonics (a division of ISC), 770 Park Ave., Huntington, N.Y. 11743.

Comment: We have been very unimpressed with the quadriphonics in most of the four-channel headsets we've tried and, frankly, approached the present model with a good deal of skepticism. Telephonics' statements implying that the TEL-101F would produce a four-channel effect closely comparable to that obtainable from loudspeakers seemed to invite faultfinding. Indeed, we found some faults; but in spite of them we're prepared to report, after testing the headset with a wide variety of quadriphonics both real and simulated, that it is the most satisfactory model we have worked with to date.

The element that seems to set the Telephonics apart is its Fixler Effect design, named after Jon Fixler (who had much to do with early breakthroughs in matrixed quadriphonics) and specifying a combination of driver placement within the earpieces and blending electronics. Each oversize earpiece contains two drivers—one toward the front and one toward the back of the shell. They are literally "front and back speakers on each side" like those of a quadriphonic speaker setup except that the headset's electronics must be relied on as a substitute for the acoustic blending that takes place in loudspeaker listening. A knob at the bottom of the left earpiece controls the degree of blend.

The Quadramate accessory is used where true quadriphonic sources are not available. It has a "perspective" slider that has much the same function as the headset's blend control plus a "focus" slider that controls relative separation in the quasi-quadriphonic output. At the left-hand position the slider reduces side-to-side separation and emphasizes front-to-back effects. As you move it to the right the left-to-right spacing opens up and even becomes somewhat exaggerated (apparently due to a phase difference introduced between channels) at the extreme right position.

The only other control on the Quadramate is a two-channel/four-channel switch. The input is, of course, stereo, and the effect remains similar to that of conventional stereo headphones with the switch in the two-channel position. When the switch is moved, the circuitry introduces front-to-back differentiation in the signals coming from the Quadramate's dual output headphone jacks.

Some of our test listeners confirmed that they heard sound that seemed to come from all around them—as in loudspeaker listening. Some found that they could hear sounds at the back but that front-centered soloists, for example, emerged toward the top of the head, rather than at the front. Others had a little difficulty with back-center sounds as well. The consensus was, however, that the imaging was superior to that from any quadriphonic headphone we have tried so far, though not always equal to that with loudspeakers. Certain sounds (in the original Chase record, for example) that are supposed to fly in a circle around the room, while fairly convincing in loudspeaker listening, proved difficult to image as a full circle via the headphones.

We have found before that subjective evaluations of headphones vary over a wider span than, perhaps, those for any other component. Some listeners seem basically to dislike the headphone experience; others prefer headphones to speakers. Our experience with the Fixler Effect phones carries this divergence of individual response into new areas, with the differences between the way various listeners heard the quadriphonic placements both striking and fascinating. Opinions about the Quadramate, too, were divergent. There seemed to be agreement that it is about on a par with other simulation devices, but opinions tended to be colored by how satisfactory each listener found the basic experience of headset quadriphonics. One dissenter says he prefers "to move around in" the four-channel image instead of having it "move with my head"—as it must with headphones. Another listener points out that headphones keep him at "optimum position" wherever he moves—which speakers don't.

The sound of the TEL-101F is good, considering the $60 price and the double driver complement, but we found it somewhat wanting in deep-bass response. With a strong bass boost (about 10 dB at 50 Hz) at the tone controls we were more satisfied with the sound; the high end, which is quite smooth, open, and extended, needed no touchup. So by contrast to comparably priced (say, about $35) stereo-only headsets we found the bass a little below average, the treble better than average. Though the TEL-101F is relatively bulky, it is light (just over 1 pound, less cord) and reasonably comfortable. The foam cushion that rests on the ears produces some earmuff effect, but none of our listeners made serious complaint of overheated ears. The four-channel effect is, however, what this model is all about; and in that respect the Fixler Effect proves the biggest winner so far.

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