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## Test Report: Outlaw Audio

The Model 950 Digital Surround Preamp/Processor

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Dreaming of a preamp/processor to anchor a high-performance home theater, you'd probably imagine some pretty sophisticated hardware. It would have 6.1-channel Dolby Digital EX and DTS-ES Discrete decoding, of course, along with outputs for either one or two back surround speakers. You'd want Dolby Pro Logic II (DPL II) processing as well, for 5.1-channel playback of two- and four-channel programs, as well as wideband component-video switching for those HDTV and progressive-scan DVD upgrades you've got scheduled. There'd be a six-channel analog input for DVD-Audio and Super Audio CD playback - with correct bass management for these signals. A system remote control and multiroom facilities would round out your mental picture. Then you'd wake up to the reality of the four-figure price tag such full-featured preamp/processors inevitably seem to carry - if you can even find one that offers every one of these features.

Until now, that is. Outlaw Audio's Model 950 has everything on your wish list and more. And it does so at a category-busting suggested retail price of . . . not \$2,999! Not \$1,999! Not even \$999! No, the Model 950 costs just \$899! Of course, that immediately raises the question: what don't you get for your 900 hard-earned samoleans?



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as plain-Jane as you'll find. Also missing are the usual ambience modes like "Stadium," "Hall," and "Church" - well, some might miss them, but I don't.

Outlaw does provide an all-channels stereo mode in addition to an enhancement mode, Cirrus Extra Surround, that lets you listen to any stereo or multichannel source in 6.1-channel surround sound. And it even throws in an AM/FM tuner, making the Model 950 the equivalent of an A/V receiver except for the amp section.

The Model 950 may be plain, but its front-panel buttons and volume knob

First of all, Outlaw sells its products factory-direct via the Web only, so any product information or service you'll require won't come from a local dealer. Next, you don't get much in the way of fanciness. The Model 950's slightly dingy black sheet-metal chassis is about what you'd expect from a \$400 receiver, its buttons and knobs are strictly off the shelf, and its front-panel display and onscreen menus are about

are big and labeled with large, bright letters - I like that. Around back, it's well equipped with S-video jacks for all video connections, two wideband component-video inputs and one output, and six digital audio inputs and two outputs. There are also facilities for one audio-only remote room or zone. And alongside its six-channel analog input is a little switch labeled Analog Bass Management. The Model 950 always sends bass content below 80 Hz from any of these channels to its subwoofer output regardless of the position of the switch; flipping the switch to its off position defeats the 80-Hz high-pass filtering on the five main channels.

In terms of basic audio performance, the Outlaw 950 delivered the goods. Stereo music sounded quiet, detailed, and dynamic. On DVD, I cued up *Rush Hour 2* - a film unlikely to knock *Chinatown* off too many Top 10 lists - for my initial multichannel test. This shameless sequel has both Dolby Digital and DTS-ES 5.1-channel soundtracks, and playback was first-rate from both. The Outlaw's surround processing was more than sufficiently transparent and detailed to convey this movie's undistinguished audio production. The not-terribly-realistic effects include canned-sounding street scenes and a rather limited library of "slugs" for the innumerable fight sequences.

One of the features that most sets the Model 950 apart, aside from price, is its bass management of the analog multichannel input from a DVD-Audio or multichannel SACD player, something offered as yet by very few other preamps or receivers. Sure, many DVD-Audio and SACD recordings put most of the bass in the sixth channel, which any surround receiver or preamp will direct to the subwoofer/LFE (low-frequency-effects) output. But unlike Dolby Digital 5.1, these formats don't require producers to use an LFE channel, or even six channels. If you have small, limited-range satellite speakers - as most people do - you'll need some way to redirect low bass from the full-range channels on such discs to the subwoofer output, or else you'll be seriously short-changed on bass in playback.



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For example, the DVD-Audio disc of André Previn conducting the London Symphony in Holst's *The Planets* (EMI) is a 4.0-channel recording with left/right front and surround channels but no center front or LFE channels.

Without bass management, the only bass you'd hear would be whatever your L/R front and surround speakers could reproduce. If you have full-range towers all around, fine. But if you have L/R satellites with, say, 4-inch woofers, the imposing opening march of the "Jupiter" movement will sound pathetic - more suited to a marble-size asteroid than to the largest planet. The Model 950 avoids that by summing all four input channels' deep bass, sending it to the subwoofer output, and filtering all five output channels appropriately to avoid boom and bloat in the midbass as well as distortion.

Bass management is still important, though in subtler ways, for six-channel DVD-Audio and SACD recordings that mix at least some of the bass to one channel. An example of this is Simon Rattle's superb DVD-Audio disc of Mahler's 10th Symphony with the Berlin Philharmonic, also on EMI. The difference wasn't dramatic, but I heard distinct improvements in low-frequency definition, timbral clarity, and (for lack of a better term) envelopment when I played this disc through the Outlaw compared with playback through another processor lacking DVD-Audio bass management. In fact, this gloriously natural recording sounded so good through the Outlaw 950 that I listened to the entire symphony - which I've heard live twice and on countless recordings. I even went back and listened again to

numerous passages.

The other notable feature of the Model 950 is Cirrus Extra Surround, named for the maker of the Outlaw's DSP engine, Cirrus Logic. This postprocessing, in either Music or Cinema flavors, "spreads" the surround sound field from Dolby Surround-encoded or Dolby Digital 5.1 material, synthesizing a back surround channel that you can play over one or two speakers. Outlaw claims that Cirrus Extra Surround can provide simulated 6.1-channel playback from plain stereo and 4- or 5.1-channel programs without risking a "collapse" of the surround sound field into the back surround speaker(s) - as can happen to many non-6.1-encoded programs when they're processed with Dolby Digital EX decoding. In my tests, Cirrus Extra did seem to work well on Dolby Digital 5.1 recordings. For example, when I compared selections from Delos's invaluable Music Spectacular DVD sampler played back via Dolby Digital EX and Cirrus Extra/Music, I had a better sense of hall width and spatial cohesion with Cirrus Extra - a subtle but useful enhancement.



Strictly in terms of audio performance and features per dollar, the Outlaw 950 is a natural-born killer. It's pretty hard to fault ergonomically, too. The remote control is essentially the same one I've found packed with receivers and preamps from B&K, Sherwood, and other manufacturers. It's a good one with a sensible layout, good button spacing and graphics, and full backlighting. The handset is preprogrammed with control codes for popular brands and models, but it can also learn commands from other remotes. It has four macro keys that can each store a command sequence of up to ten steps, and it can also be set to "punch

through" the master volume keys regardless of which component the other keys are set to control. In other words, you don't have to constantly switch back and forth between, say, the Audio and DVD modes just to adjust or mute the volume while watching a DVD (and controlling the player).

So what didn't I like? In truth, not much. The Outlaw's FM tuner was decidedly mediocre on weak signals but worked quite well on strong ones, though it sounded a shade rolled off in the top octave. AM reception was lousy - but no lousier than anything else these days. There's only one memory for relative channel levels, so if you adjust, say, the center-channel level when watching a DVD, you'll need to remember (or write down) the previous calibrated numeric value so you can return to it. There's no convenient front/rear (or four-way) balance control as I've enjoyed on some processors. Instead, you have to step through all channels via the remote's Trim key to reach the one you want to adjust. There are no front-panel A/V jacks, nor even a headphone output. There's no computer serial port in back, either, so integration with your \$10,000 touchscreen system is out of the question. And there's no way to upgrade the processor for some future 10.2-channel format.

As I said, there's a lot to like. The solid performance, attractive simplicity, and \$900 price tag of the Outlaw Model 950 makes it a clear-cut winner.