

MARANTZ DP870

Product Review - Marantz DP-870 Digital Processor - November, 1996

By Daniel Long

The Marantz DP-870 Digital Processor:

Output Level/Output Impedance (MAIN L/R, CENTER, SURROUND L/R, 1 kHz, 0 dB INPUT) 0~3.5 V/500 W, (SUB WOOFER, 50 Hz, 0 dB INPUT) 0~9.0 V/500 W; Input Impedance (RF, COAXIAL) 75 Ohms; Frequency Response (MAIN L/R, CENTER, SURROUND L/R-LARGE SETTING-20 Hz - 20 kHz) plus or minus 0.1 dB; Filter Characteristics (MAIN L/R, CENTER, SURROUND L/R-SMALL SETTING-H.P.F.) $f_c=100$ Hz, 12 dB/oct., (SUB WOOFER L.P.F.) $f_c=100$ Hz, 24 dB/oct.; Total Harmonic Distortion (MAIN L/R, CENTER, SURROUND L/R-1 kHz-) 0.01% or less, (SUB WOOFER) 0.1% or less; Signal to Noise Ratio (IHF - A) 98 dB; Channel Separation (1 kHz) 80 dB; Power Supply AC 120 V/230 V, 50/60 Hz; Power Consumption 30 W; AC OUTLET UNSWITCHED 200 W max.; Dimensions 439mm (W) x 86mm (H) x 301mm (D); weight 4.8 kg. S\$999 (\$700 U.S.A.).

The first Dolby AC-3 Digital LD I ever bought was the Jack Ryan flick "Clear and Present Danger". Since then I've acquired "True Lies", "Congo", "Crimson Tide" and of late, "Twister" (now AC-3 is called Dolby Digital). When the first Dolby Digital processors came onto the market, I knew I would have to wait; no way would I be able to fork out that kind of money for a piece of equipment (my heart wanted to but the wife said "no"). I reviewed the Lexicon DC-1 earlier this year, and I knew it would eventually be upgradable to full Dolby Digital glory, but it wasn't ready then (and it isn't ready now; last I heard Lexicon may be incorporating both Dolby Digital and DTS on one add-on card, with the RF-Demodulator for laserdiscs sold separately), so I could only wait.

Then after some products from Angstrom, EAD, and other high-enders, Marantz finally came to my rescue with the DP-870 Digital Processor, for S\$999 (S\$920 at some shops here in Singapore). The DP-870 is basically an add-on processor ("outboard") that is inserted between the Dolby Pro Logic processor with line-level outputs and the power amps, or, if the Pro Logic Processor has a set of discrete 5.1 inputs, the DP-870 is connected there. The AC-3 RF output from a laserdisc player is connected to the DP-870. All-in-one regular Integrated AV Amps/Receivers cannot be Dolby Digital upgraded with the DP-870 (or with any other Dolby Digital Outboard Processor for that matter) if they do not have 5.1 discrete line-level inputs. If you have one of Marantz's own SR-870 or SR-96 Receivers, however, you can; in fact, connecting the DP-870 to one of its Dolby Pro Logic cousins is easy (explanation in a minute).

Take it home and Hook it up

The DP-870 is medium sized as components go. I took the line-level outputs of my Dolby Pro Logic Yamaha E-1000 and ran them into the DP-870 with another interconnect set from the DP-870 into my power amps. When I watch a Dolby Pro Logic movie, the DP-870 becomes just a buffer (passive throughput). No problems here except I effectively double the number of interconnects I normally use! OK, OK, I guess that is sort of a problem.

With Marantz's own SR870 or SR-96, all you need is to run the DP-870's 5.1 channel output into their discrete 5.1 channel input and select that during use when playing a Dolby Digital laserdisc. Also (and more importantly), you can use the remotes that come with the SR870 or SR-96 and control volume. The DP-870 does not include a remote-control. An optional RC2000 (US\$250) is required if you are using a remote-"unsupported" configuration. Drats!

Fire up and Configure

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What do you need to do?

Well, first you have to take a look at the chart on page 9 of the brief but sufficient manual. It tells you about the four three-position switches on the back of the DP-870. These are the speaker-size selection switches, letting you select small, large or none (Mains, Center, Surrounds) or on/off (subwoofer). The chart on page 9 tells you what happens when you do several things. For example, setting a "small" centre routes all sub-100 Hz center signals to the subwoofer channel if that is set "on", otherwise it routes them to the mains (which in this case should be set "large", otherwise no-bass!).

What did I do?

I usually run my sub as an active L.P./H.P, with my mains at 91 Hz, so my old-yet-musical Audiolab integrated doesn't run out of steam driving my Mirages' at high volumes (for movies). So for the first portion of my audition, I drove the sub with the processor's line-level output and used the Marantz's H.P.F. to relieve my mains. Then later on I went back and used the sub's crossover on my mains. I found I preferred this. No particular reason, except that . . . hey . . . it just sounded better! But the difference was minor (on movies, of course; I don't usually listen to any music through the Yamaha, despite the two thousand different DSP modes it gives me).

Push the "Test" button on the DP-870's front panel, sit down and listen, then run back to the DP-870 and adjust the level of whichever channel, go back to the sofa, listen a coupla' seconds, run back to the DP-870 . . . , well, you get the idea. No remote. By the way, I call this part "Calibrating Levels". When you are really done, fire up the disc sitting in the player with the remote (all laserdisc players come with a remote don't they?) and Enjoy.

Enjoying

Ahhhhhhhhh . . . "Twister". Took me a while to get used to what Dolby Digital is capable of. Not all of it good, I'm afraid. First of all, if you have been using a Proceed PAV or Lexicon DC-1 type Dolby Pro Logic processor, you will lose some of that forget-everything-but-the-movie ambience that the very best Dolby Pro Logic equipment can give you. You will initially alternate between feeling distracted and amazed. That was how it was for me. On "Twister", I thought I had the delay set wrong (take the delay setting for Dolby Pro Logic and subtract 15 ms for Dolby Digital delay setting), when things started getting thrown around all over me, and I kept looking back at the rear channel in question. But nope, on other scenes like the dark-before-the-storm scenes, the envelopment offered by Dolby Digital was markedly superior to Dolby Pro Logic, with distant thunder about as real as it can get (good subwoofer is required here).

I also used "True Lies" for the missile-from-the-bridge scene; it was good but not great. Wondering why, I took a second look at the four rear-channel delay settings. Aha!! You can set the rear-channel delay only in 5 ms increments/decrements, which is much too coarse unless your listening position is just right. So without changing anything on the DP-870, I moved my chair forward about half a meter. Click (as in "everything snapped into place").

ENJOYING

Now it's time to update everything I said in the previous paragraph about the DP-870 (except the too-coarse rear-channel delay settings; that stands). The improvement over my very, very decent Dolby Pro Logic Yamaha cannot be easily described (but I will attempt it).

First, steering (Dolby Digital). This cannot be perfect due to the fact that it takes a very keen ear on the part of whoever-does-the-sound-thing-on-AC-3-encoded laserdisc's to create a seamless soundfield all around the listener and to ensure that sounds traverse the various channels in a manner that is both undistracting, yet there.

However, it was very good, to almost excellent (I'll take Hi-Fi Science for \$200,

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Alex.) Sounds were naturally placed when static, and they moved smoothly when necessary. That missile scene from "True Lies" was the best I've ever heard it, even better than when I heard the same track on the very expensive EAD TheaterMaster demo'ed here in Singapore some 18 months back with ProAC Response 3's all round and no sub. On "Clear and Present Danger", another missile scene stole the show and rather than distracting me as I described earlier, this time I felt I was alongside it as it streaked down towards earth (bye, bye Cali Cartel). "Batman Forever" was unmemorable (Dolby Digital-wise) except for the quantity of bass and a scene towards the end when Batman went down in that deep tunnel or whatever it was, after Chase Meridian and Robin. Again, you feel "there" in that tunnel-thing. I remember this last scene because I was asleep for most of (the other parts of) the movie.

DA-BASS

. . . was magnificent! No matter how I ran the sub (a very distinguished HSU HRSW12V), it was wonderful. When there was bass, there was BASS. And not the tubby, sloppy kind either! It was refined yet powerful; it ate my room for lunch and there were no leftovers. There were too many examples for me to list here but here's a couple. Forget "Twister". Bass on that movie was too much bass. Try (again) the "Here's my invitation" ka-boom from "True Lies" and the tank-romp in "GoldenEye", to name a couple of the best.

What's Wrong?

Is there anything wrong with Dolby Digital on the DP-870? Listen to Tina Turner on GoldenEye's opening titles and you get an idea what may be the only area Dolby Pro Logic enjoys an advantage over Dolby Digital. Tina doesn't sound as full as I know she can. But it is fun to have all three of the front channels play different music at the same time (closing credits on "Twister")! I suspect the Tina Turner phenomenon with Dolby Digital is just a peculiarity of the new format, rather than this particular processor. Time will tell.

Conclusions

I am saving up some money to buy another two or three subwoofers and a better multi-channel amp., and a bigger house. Oh, and a new Honda as well. But the DP-870 . . . it's never going to leave my possession, because I just plunked down my credit card!

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