

A Very Different Stereo Receiver From Advent



The new Advent Model 300 is a unique stereo receiver that, within its power capabilities, is designed to sound as good as the best combinations of separate-chassis pre-amps, tuners, and power amplifiers.

At a suggested price of \$269.95, the Model 300 receiver is designed for people who can appreciate but generally not afford the level of sound quality produced by the finest audio components. We think there are a lot of people in that category.

The Holman Circuit.

A major reason why the Advent Model 300 sounds the way it does is an entirely new phono preamp section that is audibly equal or superior to any separate preamp at any price. Designed by Advent's Chief Electrical Engineer, Tom Holman, the new circuit is the product of exhaustive listening, testing, and rethinking.

It came about largely because our checking of preamps of all kinds and prices kept turning up no reliable correlation between test measurements and audible quality. That turned out to be because standard measurements for preamps weren't checking their performance *under actual conditions of use* - a fact that became the center for our own development effort.

We found, for instance, that frequency response measurements weren't being made with signals from phono cartridges, but simply with the use of test generators. This meant that important impedance interactions between preamps and various cartridges of different design-causing very audible differences in actual high-frequency performance-weren't showing up in standard tests. Phono noise measurements also didn't cover the effects of cartridges.

And asymmetrical waveforms representative of music weren't being employed to check overall performance under in-use conditions.

If you would like a full technical description of how the Holman Circuit came about as a result of findings like these, we will be happy to send you a reprint of a paper prepared by Tom Holman for the Audio Engineering Society. (please see our coupon.)

The main facts about the new preamp, however, are these:

- It provides the full performance potential of any cartridge used with it.
- Its effective noise is as low as any preamp's.
- It handles actual asymmetrical musical signals flawlessly.
- It incorporates a unique subsonic filter that eliminates the often severe performance problems (such as acoustic feedback, amplifier instability, added IM distortion in power amps and speakers, and loudspeaker damage) caused by ultra-low-frequency pulses generated by warped and eccentric records and by subsonic turntable rumble. This unique filter is far more effective than a rumble filter, with absolutely no audible effect on wanted low frequencies. And the preamp sounds, as you will hear, the way we say it does.

The Tuner.

Like the Model 300's preamp, its FM stereo tuner is designed for optimum performance under real conditions of use.

That means it is deliberately not designed for the highest possible sensitivity rating. Our tests of receivers and separate tuners (and subsequent checks of in-use perform-

ance) indicated to us that the race for on-paper sensitivity was causing audible problems for many people in the typical urban and suburban reception areas across the country. The straining for impressive sensitivity specs tended to result in severe overload problems in many cases -causing strong stations to show up at several points along the dial and interfere with (or entirely blot out) other stations. The loss of effective reception quality for listeners is very real and important.

The Model 300 is consequently designed for the best combination we can manage of sensitivity, selectivity, and overload margin. It shows up virtually one-to-one in this crucial combination in direct comparison with most separate tuners costing far more.

The tuner section also offers Phase-Locked-Loop multiplex circuitry that provides excellent stereo separation and unusually effective suppression of the very common "birdie" interference from stations that broadcast background music and other subsidiary SCA signals along with their regular stereo transmissions.

And the Model 300's unique vernier tuning system and LED tuning indicator make for consistently easy, precise tuning year after year, with no chance for dial-cord slippage and apparent changes in station location on the dial. Perfect tuning is indicated when the two LED's light with equal intensity.

The Amplifier.

The Model 300's amplifier will provide ample acoustic output levels with virtually any speaker we know of (including all Advents) under the usual home listening conditions - with no sense of strain or constriction. Yet it's rated very conservatively at a minimum of 15 watts per channel into 8 ohms, 40-20,000 Hz, with less than 0.5% THD. The facts here are well worth going into.

Because of the emphasis on power output in audio advertising, manufacturers in the highly competitive receiver market are under pressure to offer the highest rated power per dollar. To do so, the usual design approach operates output transistors at or near their limits and then protects them with voltage/current limiting circuitry.

A receiver designed that way will deliver its rated power into the usual test load (a resistor connected across the output terminals) without difficulty. But a speaker presents a more complex load than a simple resistor, and when a receiver of such design operates into a loudspeaker, the protective circuitry usually triggers at well under rated power. The result is that a receiver of that kind just isn't as powerful, in real use with a speaker, as its rating indicates. The Model 300 approaches things differently. It uses output transistors of the type usually found in units of twice the rated power. It doesn't operate them near their limits, and so doesn't require the usual protection. It will deliver its full rated power into a speaker load, and the actual loudness it can achieve before clipping is more than ample for driving speakers under home conditions.

We realize it may be hard to believe that a receiver rated at 15 watts per channel can do the full job with a pair of speakers. But this one will- and we say this as a speaker manufacturer with a good knowledge of what's needed for

satisfying overall sound. It does so well, in fact, that when we introduced the Model 300 to audio salesmen and asked them how powerful they thought it was after hearing it, they averaged a guess of twice its rated power, and some guessed it at four times the reality.

Equally important, the output design of the Model 300 insures that there will be no audible side effects during clipping at maximum output. The protective circuits in many receivers can and often do cause disturbingly audible side effects during clipping, and some of them generate high-frequency pulses that can damage loudspeakers. The Model 300 doesn't.

The Model 300 As A Tuner-Preamp.

If there ever comes a time when a Model 300 user wants higher power output (for super-loud listening in a very big space), the logical direction to go is toward one of the high-power separate amplifiers rated at upwards of 60 watts. (A 30 or 40 watt receiver just doesn't offer that much more actual acoustic output than the Model 300.)

In that case, and in lots of others, the Model 300 can serve as a separate tuner-preamp of superb quality- fully as good as separate-chassis units in audible performance, at a fraction of the cost. It won't offer quite as much flexibility as the separate units, but the sound will be every bit as good.

Not only does the Model 300 offer a tuner-preamp output jack for this use, but it also has an input jack to its power amplifier, so that it too can be used separately-with other speakers, or with one of the new generation of time-delay devices now starting to appear.

The Mobile Model 300.

In addition to the standard Model 300, we are also manufacturing a special version, the Model 300/12, with a switching-mode power supply for use on a 12-volt electrical system in a van or boat or where-have-you away from home. The unique power supply of the Model 300/12 allows it to provide full rated power in portable use, so that you can enjoy the same level of sound quality away from home as in your living room.

If you would like more information before going to hear the Model 300, please send us the coupon.

Thank you.

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Please send :

Your literature on the Model 300.

A copy of Tom Holman's paper on the
300 for the Audio Engineering Society.

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