



## A Winning Amplifier from Marantz

**The Equipment:** Marantz Model 1070, an integrated stereo amplifier in wood-grained metal case. Dimensions: 14¼ by 4¾ inches (front panel); 11 inches deep plus allowance for controls and connections. Price: \$269.95. Warranty: three years parts and labor. Manufacturer: Marantz Co., Inc., P.O. Box 99, Sun Valley, Calif. 91352.

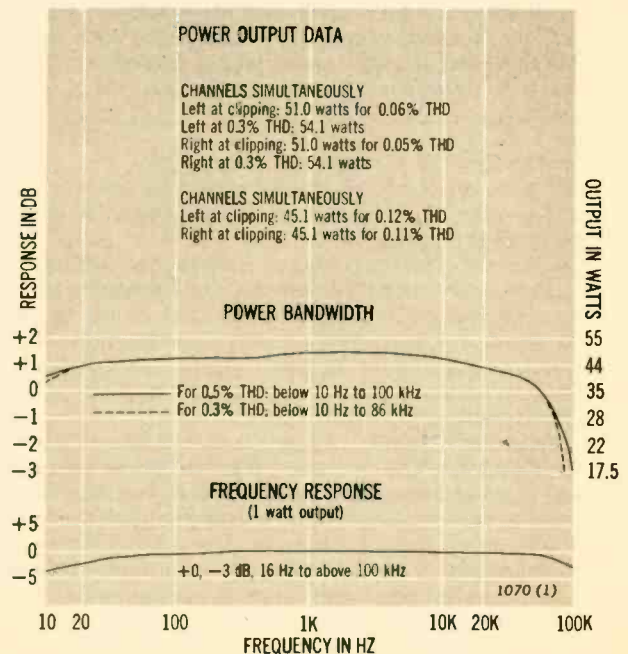
**Comment:** A real winner, this one. The Model 1070 offers features not often found in popularly priced amplifiers (such as a rear-speakers ambient enhancement option, midrange control in addition to treble and bass, circuit-interrupt connections), and it also offers clean, responsive performance in the medium power range. It is, for all this, quite compact. And at its price, on today's market, it shapes up as a genuine bargain. This amplifier is the kind of reliable audio beast to use as the control and power center of a very good stereo system, as an additional power amplifier or extra preamp (or both) to augment an existing system, or simply as a dependable standby unit to keep things going when your \$3,000 deluxe Cosmic system starts to sputter.

The control panel of the 1070 is a model of symmetry. The large knob at the left is the signal selector. To its right is a tape monitor switch with two monitor positions (it is possible, with this amplifier, to keep two tape recorders fully interconnected and to monitor each in turn at the flick of this switch). The center of the panel contains three slider controls, for bass, midrange, and treble. To their right is mode switch with positions for left channel, right channel, stereo, reverse stereo, and mono. To its right is the volume control.

Along the contrasting-color bottom section of the front you'll find a microphone input (phone jack), low filter and high filter switches, stereo headphone output jack, channel-balance slider with a center detent position, loudness contour switch, main and remote/ambience speaker switches, and power off/on switch. The headphone jack is live at all times, regardless of the settings of the speaker switches. The "main" speaker switch controls the normal (front) stereo pair of speakers; the "remote/ambience" switch controls an additional pair. When another switch at the rear of the amplifier is in "remote" position, the second pair of speakers

will duplicate whatever the main speakers are handling; with the back-panel switch in the "ambience" position, a built-in matrix circuit (similar, we'd judge, to the Dynaquad circuit) delivers an "ambient enhancement" signal to the second speaker pair, used at the back of the main listening room to heighten the sonic splendor of ordinary two-channel stereo recordings.

At the rear are press-to-connect terminals for the main and remote stereo speaker systems. There also are two stereo pairs for the circuit-interrupt feature, which (with the supplied jumper cables removed) will allow insertion of a speaker equalizer or similar outboard unit between the control-preamp and power amp sections of the 1070. DIN connectors, as well as the standard pin jacks, are provided for both sets of tape inputs and outputs. Additional inputs at the rear handle magnetic phono pickups, tuner, and auxiliary sources. Two



## Marantz Model 1070 Additional Data

|   |                                |           |
|---|--------------------------------|-----------|
| Damping factor                              | 66                             |           |
| Input characteristics (for 35 watts output) |                                |           |
|   | Sensitivity                    | S/N ratio |
| phono                                       | 1.7 mV                         | 70 dB     |
| mike  | 1.7 mV                         | 67 dB     |
| tuner                                       | 150 mV                         | 92 dB     |
| aux   | 150 mV                         | 92 dB     |
| tape 1 & 2                                  | 150 mV                         | 92 dB     |
| Total harmonic distortion                   |                                |           |
| at 35 watts                                 | L ch: <0.034%, 20 Hz to 20 kHz |           |
|   | R ch: <0.040%, 20 Hz to 20 kHz |           |
| at 17.5 watts                               | L ch: <0.029%, 20 Hz to 20 kHz |           |
|   | R ch: <0.045%, 20 Hz to 20 kHz |           |
| at 0.35 watts                               | L ch: <0.049%, 20 Hz to 20 kHz |           |
|   | R ch: <0.061%, 20 Hz to 20 kHz |           |

AC outlets are provided, one being switched by the amplifier's own power off/on control. A chassis grounding terminal, power-line fuse, and AC power cord complete the picture here.

In tests at CBS Labs, the Model 1070 met or exceeded by very healthy margins its published specifications. At the 35-watt output level, and indeed at all levels tested, distortion remains well below rated values across the audio band. The data suggest, in fact, that the test sample conceivably could have been rated at 45 watts per channel without exceeding the distortion rating. Frequency response is within the 2-dB variation specified across the band from 20 Hz to 20 kHz; phono (RIAA) equalization is very flat; square-wave response looks very good for this class of equipment; input sensitivities and signal-to-noise characteristics are better than one might expect.

Installing the Marantz 1070 is no great chore, and using it is a delight. It drives a pair of low-efficiency speakers to more than room-filling (and clean) volume, and its controls all work smoothly and responsibly. You can't help liking this amplifier, especially at that price.

CIRCLE 144 ON READER-SERVICE CARD

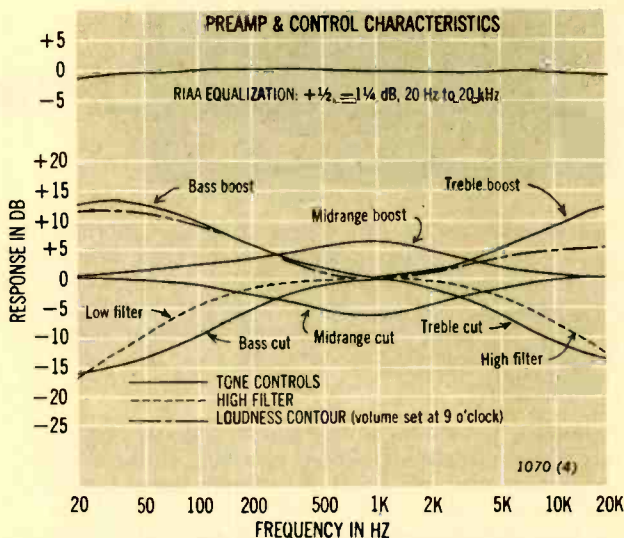
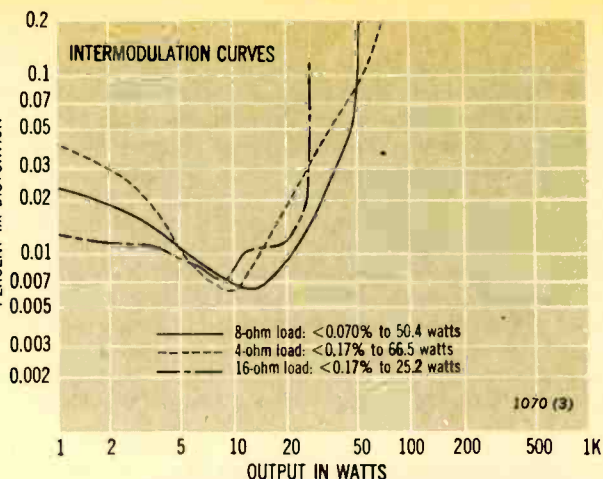
## Yamaha CT-7000 *Continued from page 38*

tical and horizontal) for special testing via an external oscilloscope. There's also an IF output jack for additional special applications.

Either 300-ohm (twinlead) or 75-ohm (coaxial) cable may be connected to the antenna terminals at the rear. If the latter is used, it may be connected directly or via the ring-connector common to coaxial cable; either way no balun transformer is required. The rear also contains a system grounding terminal, an unswitched AC outlet, a fuse, and the set's power cord.

CBS Labs ran most of its tests on the tuner with the IF mode switch set to "normal" position. Some specific tests were also made at "wide" position. The latter was found to reduce sensitivity by a very small amount, selectivity by an appreciable amount, and distortion by a small amount. In general, then, the results confirm the instructions furnished with the set to use the "wide" position only under the best reception conditions.

Sensitivity measurements show excellent quieting ac-



Square-wave response

tion with normal signal strength levels, such as 60 dB of quieting for 50 microvolts of input signal and 61 dB for 50,000 microvolts. Ultimate S/N ratio is 73 dB. Stereo sensitivity tests show 50½ dB of quieting for 50 microvolts of input and 58 dB of quieting for 50,000 microvolts—again, exceptionally good performance. Other measured characteristics are all consistently excellent, including the very low distortion measured in both mono and stereo operation. Audio response is virtually a ruler-flat line across the band; channel separation on stereo exceeds the nominal 30-dB mark right up to FM's 15,000-Hz limit.

Plainly, here is a basic tuner that offers performance and features not likely to be found in the tuner portion of most (any?) receivers. Whether this makes FM programs sound better, or whether it is worth \$1,200, is something we cannot say. Certainly, the all-out perfectionist with means owes it to himself to consider and audition this interesting unit.

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