AKAI CD-M88
COMPACT DISC PLAYER

Manufacturer's Specifications
Frequency Response: 5 Hz to 20 kHz, ±0.5 dB.
THD: 0.005%.
Dynamic Range: 90 dB.
S/N Ratio: 90 dB.
Number of Programming Commands: 16 (see text).
Channel Separation: 85 dB.
Line Output Level: 2.0 V.
Access Time: 2.6 S.
Power Requirements: 120 V, 60 Hz.
Dimensions: 13.8 in. W x 2.8 in. H x 10 in. D (35 cm x 7.1 cm x 25.4 cm).
Weight: 14.3 lbs. (6.5 kg).
Price: $499.

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For literature, circle No. 93
With all of the “me too” CD players currently available, it has become difficult for a company to come up with a player offering something different from the rest. Akai, however, has managed to do just that with a new, extremely easy and logical way to program via the “Unique Program Order Selector,” a main feature of their CD-M88.

The front panel of this mid-sized CD player is equipped with the usual numeric keypads for designating desired tracks and even index points within a given CD selection (if such index points have been encoded onto the disc). But, in addition, there are keys labelled “To,” “And” and “Without.” The addition of these extra buttons on the front panel makes for a simpler layout while adding versatility to the way in which programming can be done. Suppose you were playing a CD that had 20 tracks and wanted to hear tracks 1 through 5 as well as tracks 10 through 20 but omitting track 17. With most programmable players, you’d have to key in at least 15 individual numbers—assuming the deck was able to accept that many individual instructions. With the Akai CD-M88, you would press the following keys in the following order: “1,” “To,” “5,” “And,” “10,” “To,” “20,” “Without,” “17.” Reading that back as a complete sentence, it makes perfect sense, doesn’t it?

Other features of the Akai player include direct access to any given track, full-function wireless remote control, repeat play of a specified portion of a track or tracks, and repeat play of an entire disc. It is possible to have a disc repeat-play up to 99 times!

Control Layout

At the extreme left end of the front panel is the usual slide-out disc drawer. Just below are a phone jack and an unusual output-level control. Instead of being adjusted by a protruding rotary knob, this control is configured as a flush-mounted disc which has two tiny bumps on its flush surface. As your finger tip touches it, there’s enough friction between your finger and the flat, flush-mounted knob to enable you to twist the disc and thereby adjust for more or less output level.

An elaborate and informative fluorescent display, also situated below the disc drawer, shows track and index numbers, time elapsed for the current track and total elapsed time from the beginning of a disc. In addition, all programming instructions are displayed as they are entered, including the novel “To,” “And” and “Without” designations as well as “Repeat” notations when applicable. A “Display Select” button adjacent to the display area is used to choose the various track or time displays in sequence. The “Power” on/off and the disc drawer “Open/Close” switches are near the center of the front panel, while further to the right are the disc operating controls: “Play,” fast forward and reverse, and “Pause/Reset” (stop). Bridging the first three controls is an unusual acronym—“IPLS”—which took a fairly careful search in the owner’s manual to locate. On page 12 I finally discovered that it stands for “Instant Program Location System,” by which Akai means that the beginning of the previous, the current or the next selection on the disc being played can quickly be selected by pressing the play button simultaneously with either reverse or fast forward. This method of advancing or reversing

Fig. 1—Frequency response, left (top) and right channels.

Fig. 2—Frequency sweep from 0 Hz to 50 kHz shows “beat” output at 24.1 kHz to the right of 20-kHz signal.

Fig. 3—THD vs. frequency at three signal levels. (High-frequency dashed lines indicate super-audible beats; see text.)
Akai's CD-M88 uses an analog filter at the output of its D/A converter, rather than the digital filter used by most of the second- and third-generation units.

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**Fig. 4—S/N analysis, both unweighted (A) and A-weighted (B).**

**Fig. 5—Separation vs. frequency.**
The chief attractions of this player are its great programming flexibility and that a user doesn’t have to take a course to learn how to operate it.

Fig. 6—Reproduction of a 1-kHz square wave.

Fig. 7—Single-pulse test.

Fig. 8—With a 200-Hz signal on left channel and a 2-kHz signal on right (A), little or no phase shift is observed. Using 2- and 20-kHz signals, considerable time delay is noted (B).

converters, whereas most other second- and third-generation CD players have gone over to digital filtering and oversampling. As I’ve stated on several occasions, many listeners will probably be unable to tell the difference between these two approaches, but there are those who do prefer the digital filtering approach and can hear a slight improvement in sound quality when it is used. The appearance of the unit pulse in Fig. 7, as reproduced from the Philips test disc, further confirms the use of analog filtering in this player’s D/A circuitry.

As is true of most recent CD players, the Akai unit had no trouble tracking through the simulated-defects disc. The CD-M88 totally ignored the widest portion of the opaque wedge inscribed on that disc as well as the increasingly wide “dust” specks and the simulated fingerprint smudge. Resistance to mild vibration and external shock was even more gratifying, for the unit continued to play without missing a beat every time it was tapped on its top or sides. The smaller size of this player seems to make for a sturdier and more shock-resistant housing.

Use and Listening Tests
The Akai CD-M88 is a pleasure to use. Programming is easy and logical, whether performed at the front panel or by means of the wireless remote control (which duplicates all of the programming and disc-transport controls). As for sound quality, if it didn’t quite measure up to the level of more expensive CD players or those that use digital filtering and oversampling, it was certainly acceptable.

The chief attractions of this model, to my mind, are its great programming flexibility and the fact that a user doesn’t have to take a long course to learn how to operate it. At a suggested retail price of just under $500, this Akai CD player should find favor with many music lovers who aren’t as interested in technical circuit details as they are in functional integrity and good human engineering.

Leonard Feldman