



The Shape of Today's Cassette Deck: Pioneer's CT-F6161

The Equipment: Pioneer Model CT-F6161, a stereo cassette deck with Dolby noise reduction in wood case. Dimensions: 17 3/8 by 5 1/2 inches (front panel); 12 inches deep plus allowance for controls and connections. Price: \$299.95. Warranty: one year, shipping paid one way. Manufacturer: Pioneer Electronics, Japan; U.S. distributor: U.S. Pioneer Electronics Corp. (Pioneer High Fidelity), 75 Oxford Dr., Moonachie, N.J. 07074.

Comment: This deck strikes us as, above all, typical of the "good" home cassette-deck designs currently on the market. It offers a representative cross section of today's more sought-after features (bias and equalization switches, Dolby noise reduction, output level control, front loading, etc.) without demanding a premium price.

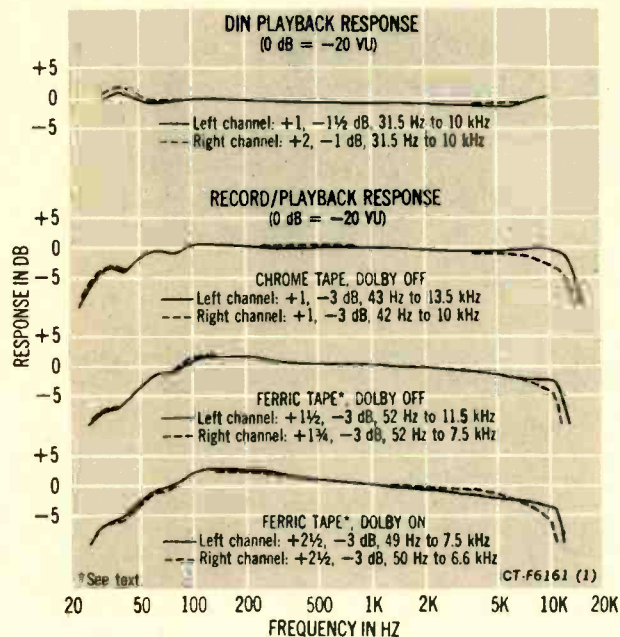
A plastic door covers the cassette well (which, in a front-loading design, might better be called a "cave"). When you push against the door, it swings up and latches out of the way; a small button near the transport controls releases the latch to close the door. As we have said about competing designs in the past, front loading solves the problem of mounting equipment on shelves at eye level (which can prove awkward with top-loaders), but at a price. The Pioneer design uses an angled transport (to increase visibility

of the cassette in use) that is not unduly complex (some front-loaders are), but it permits full viewing of the cassette and the tape counter (just inside the well opening) only from a relatively restricted range of vertical angles. If the deck is exactly at eye level, the counter is invisible; if the deck is low enough that the vertical viewing angle is at least 30 degrees, the tape-viewing window in the cassette is out of sight. This is not as big a deal as the foregoing description makes it sound, but before you purchase a front-loader you should be aware that its flexibility of placement for convenient use may be somewhat restricted by contrast to the traditional top-loaders.

The transport controls below the well are pretty straightforward and allow switching directly from one transport mode to another without pressing STOP. There is positive automatic shutoff at the end of the tape in any transport mode. The one unusual feature here (at least for a home deck, though not in dictation equipment) is a spring-loaded SKIP button that approximately doubles transport speed in playback for fast location of a precise spot on the tape. There are two TAPE buttons near the transport controls—one for BIAS, one for EQ—each with NORMAL and CHROME positions. The only Dolby control is an on/off pushbutton with its own pilot lamp. There is a dual friction-



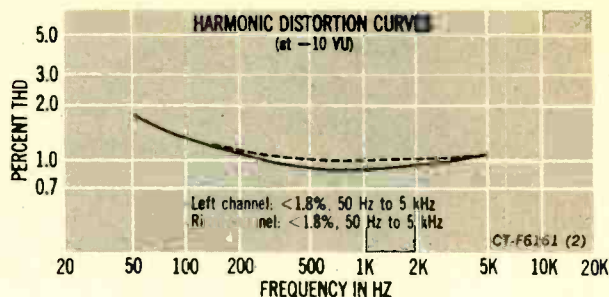
Unusual feature is SKIP button, which approximately doubles playback speed as an aid in searching for desired passage. Feature is inoperative in recording.



clutched level control for INPUT (recording) and another for OUTPUT. Phone jacks for microphones and a stereo headset are at the right end of the unit. The meters are of the averaging type, calibrated for a 0 VU more than 6 dB below DIN standard (to allow headroom for short-duration peaks). The back panel has both pin-jack pairs for line input and output connections and a DIN input/output jack, plus a grounding post.

The drive system uses a servo-controlled DC motor that CBS Labs found to be quite independent of line voltage (the 0.1% difference measured at 105 VAC is negligible) and, at about 0.5% fast, of acceptable accuracy. Wow and flutter is respectable (and exactly on Pioneer's spec) at 0.12% in playback—and only a hair poorer in record/play.

The owner's manual includes long lists of tape appropriate for use with the CT-F6161: ferrics (with both BIAS and EQ switched to NORMAL), chromium dioxides (with both at CHROME), and Sony and Scotch ferrichromes (with BIAS at NORMAL, EQ at CHROME). The list is so long and the tapes so varied that the user (and the tester) is left in doubt about which would be the best match to the deck. Since Memorex is the first brand listed, CBS Labs ran its first tests with that company's ferric and chrome tapes. The results with chrome were respectable (and are shown in the record/play response curves), those with the ferric were poor. The lab then tried BASF LH as an approximate median of the listed tapes. LH is, in fact, the tape on which Pioneer bases its spec: ± 3 dB, 40 Hz to 11 kHz, with ferric tape—rather less boastful than we're used to seeing for a \$300 cassette deck. The unit exceeds that specification in the left channel, fails to meet it only by a very slight margin in the right. (And the lab measurements were made at -20 VU, while specs generally are written for performance at -30 VU, where saturation impinges less on high-frequency performance.) Therefore we approach this spec on the presumption that it documents the ability of the deck to give fair response with good-average tapes but that the deck actually can yield better than fair response with premium tapes.



Pioneer CT-F6161 Additional Data

Speed accuracy	0.5% fast at 105 VAC 0.4% fast at 120 VAC 0.4% fast at 127 VAC
Wow and flutter	playback: 0.12% record/play: 0.13%
Rewind time (C-60 cassette)	79 sec.
Fast-forward time (same cassette)	79 sec.
S/N ratio (re 0 VU, Dolby off)	
playback	L ch: 53 dB R ch: 54½ dB
record/play	L ch: 50 dB R ch: 51½ dB
Erase (333 Hz at normal level)	68 dB
Crosstalk (at 333 Hz)	
record left, play right	-43 dB
record right, play left	-45 dB
Sensitivity (re DIN 0 VU)	
line input	L ch: 97 mV R ch: 105 mV
mike input	L ch: 0.36 mV R ch: 0.40 mV
Meter action (re DIN 0 VU)	
	L ch: +6½ dB R ch: +8 dB
IM distortion (record/play, -10 VU)	7.0%
Maximum output (re DIN 0 VU)	
	L ch: 0.80 V R ch: 0.86 V

Listening tests confirm these presumptions. Note that the drooping response of the LH record/play curves is emphasized when the Dolby circuit is switched in. In the past we have complained about manufacturers' want of specificity (to borrow a word from Washington) on tape matching; fortunately the unit itself, in our opinion, presents no drawback as serious from the user's point of view as that caused by the manual's shotgun approach to the subject of appropriate tapes.

Noise measurements are better than average for the price class, as are harmonic distortion figures. While intermodulation is on the high side, it is not as high as in some competing models. (Measured IM runs much higher—and is much more difficult to hear—in tape equipment than in electronics.)

Given the advantages and disadvantages of front loading, we like the way the CT-F6161 operates and the complement of features that are built into it. For most common home applications it will do the job nicely as long as you feed it a diet of the "better" tapes and save the less expensive ones for situations where budget is more important than ultimate sonic quality.

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