

# A Wide Range Of Features Make The CR-7/CR-5 Exceptionally Easy To Use

## Real-Time Counter (CR-7) 4-Digit Tape Counter With Memory Stop & Auto Repeat (CR-7/CR-5)

The CR-7 real-time counter uses a new microprocessor that operates quite differently from a stopwatch. It indicates elapsed or remaining time, anywhere in the tape pack, *even if you haven't begun counting from the start of tape* and it maintains time during fast winding.



Figure 14 Real-Time Counter Operation

There's no need to wind to the end to "calibrate" the counter. Press TAPE LENGTH until the proper legend (C-46, C-60 or C-90) appears and, when a tape is mounted and run for 8 seconds, the system will indicate either elapsed or remaining time. You choose which by pressing COUNTER MODE to change the display from a conventional tape counter, to the elapsed-time mode, to the remaining-time mode and back. In both time modes, the word "Time" and minute/second indicators appear; in the remaining-time mode, "Remaining" also appears.



CR-7 Tape Counter Display

The CR-7/CR-5 4-digit tape counter produces a reading more proportional to the length of tape than is the case with ordinary tape counters. In these decks, the angular speeds of *both* the takeup *and* the supply hubs are measured and fed to a microprocessor that computes the length of tape that has passed.

Both decks feature Memory Stop and Auto

Repeat. With Auto Repeat, the decks rewind the tape at the end (in either RECORD or PLAY) and reinitiate playback. Memory Stop causes the tape to stop at counter "0000" during FAST FORWARD and REWIND.

## Auto Fade (CR-7)

The Nakamichi Auto Fade system featured on the CR-7 eliminates abrupt breaks in the program by automatically fading out the recording shortly before the tape runs out. Pressing AUTO FADE activates the system. Although Auto Fade monitors remaining time via the CR-7's real-time counter, it functions correctly no matter which counter mode you've chosen.

## Auto/Manual Tape/EQ Selection

The CR-7 and CR-5 automatically sense tape type via the keyways molded into modern Type-I, -II, and -IV cassette housings and set standard bias and equalization accordingly. However, unlike other "auto-setting" decks, the CR-7 and CR-5 give you a *choice*.

Pressing MANUAL TAPE EQ, overrides the automatic system so you can choose bias and equalization for yourself. Not only does this permit you to use older cassettes that lack keyways, it gives you the opportunity to use 120- $\mu$ s (Type-I) equalization with a Type-II or -IV tape (to increase high-frequency headroom) or 70- $\mu$ s equalization with a Type-I tape (to reduce background noise). In either case, the tape and EQ settings in actual use are indicated in the Central Panel. You have the best of both worlds: the convenience of automatic setting, the flexibility of optimizing equalization for special recording situations!

If automatic tape selection is in use, the CR-7 uses the data accumulated by its Auto Calibration system and stored in its memory bank for that tape type; the CR-5 uses standard



values modified by the setting of its Bias Tune control.

## Bias Tune (CR-5)

Although the CR-5 does not have the CR-7's Auto-Calibration system, it does give you a convenient means of adjusting bias to optimize recordings via its front-panel BIAS TUNE control. Since the CR-5 features off-tape monitoring, you can adjust bias quite accurately by comparing the sound quality of the recording while switching between SOURCE and TAPE. Figure 15 depicts the response range that can be achieved with SX tape.

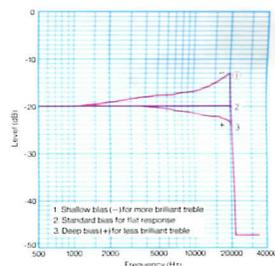


Figure 15 Frequency Response With Bias Fine Tuning  
Deck: CR-5/Level: -20dB Eq: 70 $\mu$ s/Tape: SX

## FL Central Display

The CR-7/CR-5 FL Central Display keeps you advised of every important setting. Of course, there are wide-range (50-dB) peak-responding level meters—with a 2-second "peak-hold" on the CR-7. The CR-7 meter also converts to a "relative azimuth" indicator whenever you're adjusting azimuth. AZIMUTH/LEVEL/BIAS/READY legends monitor progress during Auto Calibration and blink if Auto Calibration cannot be achieved.

Both displays indicate the MONITOR (Source/Tape), DOLBY (B/C or nothing), TAPE (EX/SX/ZX) and EQUALIZATION (120/70) settings. And both decks show the "MPX Filter" legend when the multiplex filter is engaged. The CR-7 also indicates when its "Subsonic Filter" is active, when "Auto Fade" is on and when the level meters are in the "Peak Hold" mode.



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**CR-5**  
Discrete Head Cassette Deck