

REPRESENTING THE FULL FORCE OF NAKAMICHI SOUND TECHNOLOGY: THE DRAGON

The DRAGON represents the culmination of all Nakamichi's years of experience and vast technological resources. Advanced head technology provides flat frequency response to 22 kHz \pm 3 dB. Amplifier design know-how means less than 0.005% distortion for superb signal transmission precision. The entire transport mechanism is mounted on a special vibration absorbing chassis for effective flutter prevention, and a real-time motor drive mechanism control system ensures instantaneous response to all transport commands. Further, independent left and right channel bias and rec/play level calibration in combination with the NAAC system bring out the very best in the built-in Dolby C noise reduction system. Then, for added operating convenience there's the Auto Rec Pause function: if a break of more than 10 seconds is detected in a program being recorded the transport stops and the Rec Pause mode is engaged, ready for further recording.

In a slightly different category than the 1000ZXL, the DRAGON is the peak of perfection in cassette reproduction performance.

DRAGON Features

1. NAAC (Nakamichi Auto Azimuth Correction) fully automatic playback azimuth correction system.
2. Dual-capstan double direct drive transport with quartz PLL servo controlled Super Linear Torque DD Motors.
3. World's first discrete 3 head auto-reverse transport.
4. Manual calibration of L & R channel bias and rec/play level for each tape type.
5. Real time motor drive mechanism control system controlled by three microcomputers.
6. Vibration absorbing chassis formed of resin-coated aluminum minimizes flutter.
7. One-chip Dolby B and C noise reduction processors for broad dynamic range reproduction.
8. Auto Rec Pause function.
9. Cue button for two-speed easy cueing.
10. Two-speed auto-fader.
11. Discrete 4-channel equalizer amplifier.
12. MPX and subsonic filters.
13. -40 dB to +10 dB wide-range LED peak level meters.
14. Punch-in recording capability.
15. Remote control capability.

DRAGON

Main Functions and Features

LED Tape Counter

This 4-digit LED counter features a normal display when the tape is running in the forward mode and a minus display in the reverse direction with "0000" as the reference point. For Memory Stop, Memory Repeat functions and at the beginning of bias/level calibration the counter is reset to "0000" for accurate reference to the appropriate location.

Memory Functions

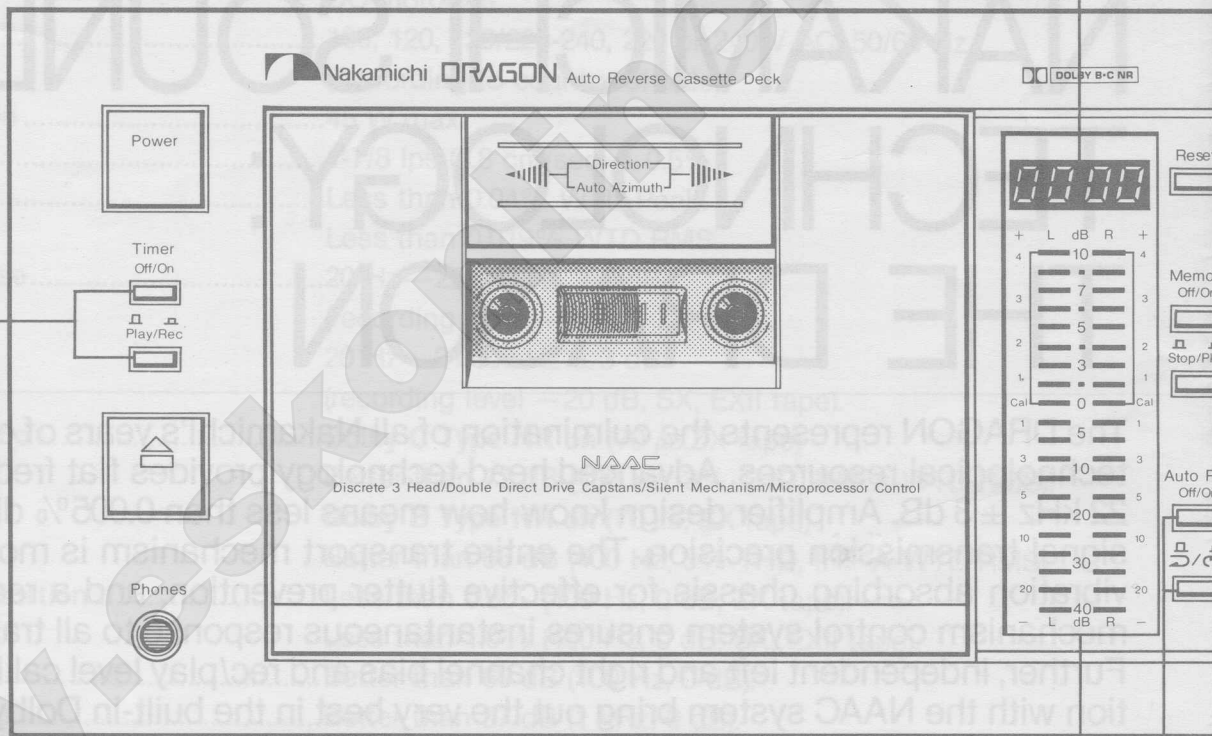
When the Memory function is ON, either Play or Stop modes can be selected. According to the mode selected, the transport either stops or begins play when the memory location ("0000") is reached during either fast forward or rewind.

Punch-In Recording

The record mode can be initiated by simultaneously pressing the Play and Record buttons while the transport is running in the Play mode (forward direction only).

Easy Cueing

By pressing the C during fast forward transport speed is 1/3 for easy aural either the Fast Forward wind buttons are while holding the transport speed s for critical cueing



Timer Switch

Permits timer-activated recording or playback when an external timer unit is used.

Wide Range Peak Level Meters

These LED meters feature 20 segments per channel covering a broad -40 to +10 dB display range for precise record and playback level indication. These meters also aid in precise calibration of the DRAGON's rec/play level and bias parameters.

Auto Reverse Function

When the Auto Reverse switch is ON, either auto reverse playback of both sides of a tape or continuous repeat playback of the entire tape can be selected. If Auto Reverse is OFF, the tape stops at the end of each side. Recording can be carried out in the forward direction only, regardless of the setting of the Auto Reverse switch.

Rec Mute

The record amplifiers are muted for the duration that this button is held, causing a blank section to be recorded on the tape.

Two-Speed A

This function can create smooth fade-out passage record balance level have been ing the independ right channel Retrols and Master Press and releas UP or DOWN bu 6-second fade, appropriate butt ously for a 2-sec

Remote Control

An optional remote control unit (RM-20) can be connected to the DRAGON for convenient remote control of all transport functions including Rec Mute and Cue. Pressing the Rec button while recording activates the Rec Mute function, and pressing the Pause button during fast forward or rewind activates the Cue function.

Manual Calibration Functions

Left and right channel record/playback level adjustment.

Left and right channel bias level adjustment.

Reset Button

After calibrating rec/play level and bias, pressing this button automatically rewinds the tape to the point at which the calibration process began.

Tape Selectors

Independent selectors for EX (Normal), SX (Chrome) and ZX (Metal) tape formulations.

L & R Channel Rec Level and Master Rec Level

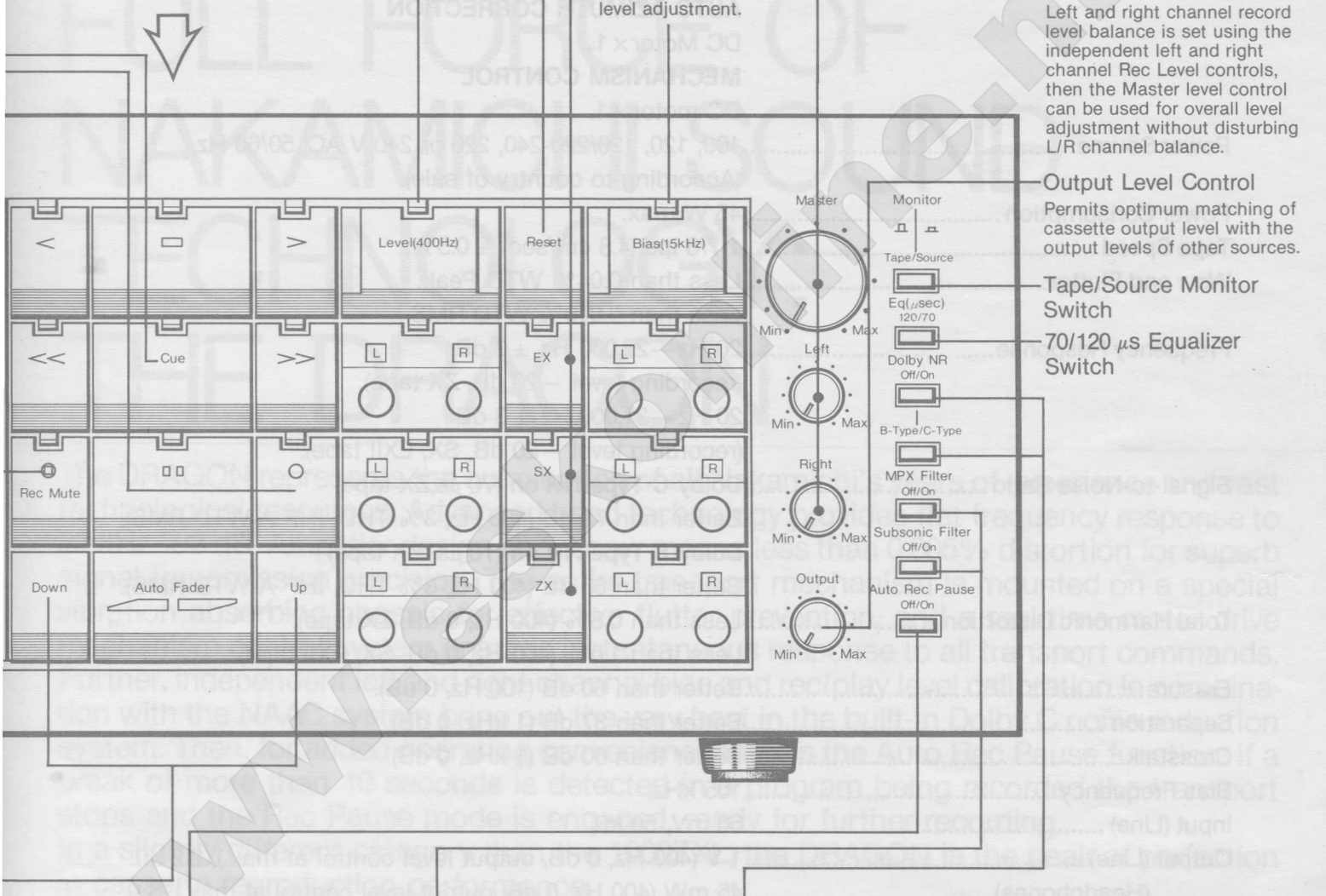
Left and right channel record level balance is set using the independent left and right channel Rec Level controls, then the Master level control can be used for overall level adjustment without disturbing L/R channel balance.

Output Level Control

Permits optimum matching of cassette output level with the output levels of other sources.

Tape/Source Monitor Switch

70/120 μ s Equalizer Switch



Auto-Fader

Can be used to fade-in and fade-out after the overall level has been adjusted using the left and right channel Rec Level control. Press either the Rec button for a fade-in or the Pause button to press the Auto-Fader button to continue the fade.

Auto Rec Pause

When this switch is ON, the transport stops and the Rec Pause mode is initiated if a break of more than 10 seconds is detected in a program being recorded.

MPX and Subsonic Filters

With the DRAGON's broad 20 to 22,000 Hz frequency response, it is frequently necessary to eliminate unwanted signals falling within this range when recording. FM stereo broadcasts, for example, contain a 19 kHz pilot signal that will interfere with reproduction quality unless eliminated with the MPX filter. Subsonic interference frequencies caused by warped records, turntable rumble and other low-frequency sources can cause intermodulation noise if not cut off using the subsonic filter switch.

Dolby B and C Type Noise Reduction Selectors

Main Functions and Features

DRAGON Specifications

Track Configuration.....	4 tracks/2-channel stereo (Playback auto reverse).
Heads.....	3 (erase head × 1, record head × 1, 4-track 4-channel playback head × 1).
Motors.....	TRANSPORT Quartz PLL DC brushless, slotless, coreless Super Linear Torque DD motor (capstan drive) × 2. DC motor (reel drive) × 1. AUTO AZIMUTH CORRECTION DC Motor × 1. MECHANISM CONTROL DC motor × 1.
Power Source.....	100, 120, 120/220-240, 220 or 240 V AC; 50/60 Hz (According to country of sale).
Power Consumption.....	45 W max.
Tape Speed.....	1-7/8 ips (4.8 cm/sec) ± 0.5%.
Wow and Flutter.....	Less than 0.04% WTD Peak. Less than 0.019% WTD RMS.
Frequency Response.....	20 Hz—22,000 Hz ± 3 dB (recording level - 20 dB, ZX tape). 20 Hz—21,000 Hz ± 3 dB (recording level - 20 dB, SX, EXII tape).
Signal-to-Noise Ratio.....	Dolby C Type NR on (70 μs, ZX tape) Better than 72 dB (400 Hz, 3% THD, IHF A-WTD RMS). Dolby B Type NR on (70 μs, ZX tape) Better than 66 dB (400 Hz, 3% THD, IHF A-WTD RMS).
Total Harmonic Distortion.....	Less than 0.8% (400 Hz, 0 dB, ZX tape). Less than 1.0% (400 Hz, 0 dB, SX, EXII tape).
Erase.....	Better than 60 dB (100 Hz, 0 dB).
Separation.....	Better than 37 dB (1 kHz, 0 dB).
Crosstalk.....	Better than 60 dB (1 kHz, 0 dB).
Bias Frequency.....	105 kHz.
Input (Line).....	50 mV, 50 kΩ.
Output (Line).....	1 V (400 Hz, 0 dB, output level control at max.), 2.2 kΩ.
(Headphones).....	45 mW (400 Hz, 0 dB, output level control at max.), 8 Ω.
BlackBox Series DC Output.....	± 10 V, 125 mA max.
Dimensions.....	450(W) × 135(H) × 300(D) millimeters. 17-3/4(W) × 5-5/16(H) × 11-13/16(D) inches.
Approximate Weight.....	9.5 kg 21 lbs.

