

Model 5050 Two, Four and Eight-Channel Recorders

The Otari MX-5050 Series allows the audio professional to select exactly the right machine for his or her application from a complete range of compact audio recorders. (Please see chart on specifications page.)

All machines feature an optimized three-head design and transformerless balanced inputs and outputs to provide superior frequency response, distortion and signal-to-noise performance under professional studio conditions. They are compatible with all dbx* noise reduction products. Record setup adjustments can be made from the front panel, and a convenient built-in oscillator provides test tones for calibration/maintenance.

Gapless, seamless, punch-in, punch-out (GSPIPO™) is available on the BQ-III, Mark IV-4, and Mark IV-8 models. This system produces inaudible record inserts by using carefully controlled bias ramping to eliminate the "thump" in the recording.

A direct-drive capstan motor is servo controlled, and an integral microprocessor governs tape handling, including dynamic braking, motion sensing and transport logic. A built-in mini-autolocator provides four one-touch cue-point memories, search zero, and a repeat function. The tape timer display shows tape time in Hrs/Mins/Sec., as well as tape speed in inches per second and percentage of tape speed. Capstan speed can be varied by

±20% in 0.01% steps using the built-in "pitch" control.

Time-code editing using a synchronizer is accomplished via the 37 pin Otari standard parallel interface.

The extremely rugged mechanical construction includes a 1/8" deckplate with cast aluminum side panels and steel support members. All circuit boards are designed to swing out or unplug for full service access.

Several transport remote controls are available as options, as well as a roll-around floor stand.

* Trademark dbx, Incorporated



Standard Features:

- ☐ Built-in mini-autolocator with four one-touch cue-point memories, search zero and repeat functions
- ☐ The tape timer reads HRS/MINS/SECS as well as tape speed in inches per second and percentage of tape speed
- ☐ Positive-action transport controls with microprocessor governed logic, motion sensing, and dynamic braking
- ☐ 37 pin Otari standard parallel interface for external machine control via SMPTE/EBU time-code-based synchronizers and editors
- ☐ DC capstan, Quartz PLL servo-controlled
- ☐ Automatic monitor switching¹
- ☐ Plug-in, single card per channel electronics
- ☐ Gapless, seamless, punch-in, punch-out¹
- ☐ Rehearse function²
- ☐ Built-in test oscillator and external oscillator input
- ☐ Independently switchable +4 dBu or -16 dBu input and output reference level on each channel (MKIV-4, 8, BQIII).

- ☐ Active Balanced Transformerless XL type input and output connectors
- ☐ Headphone monitoring of any selected channel combination
- ☐ Plug-in three head design with easy access, hinged head cover
- ☐ Lighted VU Meters with peak-reading indicators
- ☐ Front panel record setup adjustments
- ☐ 3 speeds switch selectable in 15/7.5 ips or 7.5/3.75 ips speed pairs³
- ☐ Fourth head switch selectable for 1/4" track stereo playback (B-IIIIF only)
- ☐ Record reference level is switch selectable (see specifications)
- ☐ Equalization switch selectable (NAB/IEC)
- ☐ Variable speed control ($\pm 20\%$) usable in record and play
- ☐ Dump Edit and Cue (lifter defeat) modes
- ☐ Reel Size switches selectable for take-up and supply reels (5" - 7", 10.5") EIA or NAB
- ☐ Microphone and line mixing on each channel

Standard Accessories:

Power cord
Operation manual
Reel hold down knobs
Capstan lubricating oil
Fuses

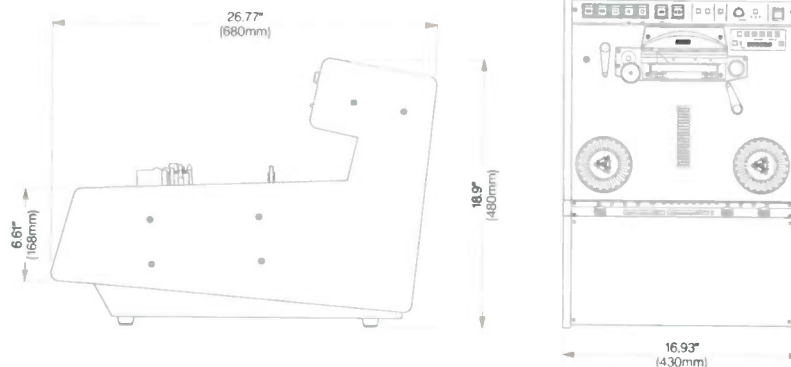
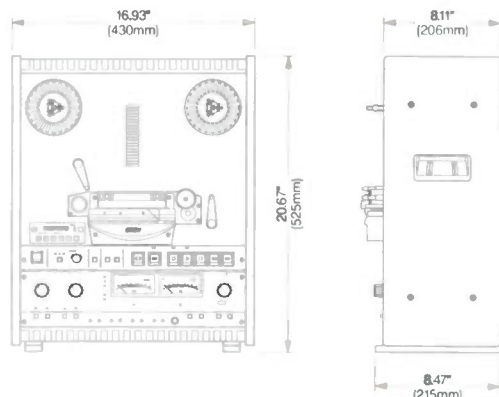
Options:

CB-119 Autolocator
CB-120 Autolocator
CB-127 Remote controller
CB-144 Remote controller (MKIV-8)
EC-102 Synchronizer
CB-131 Remote for EC-102
EC-401 Resolver
ZA-53T Input transformer (B-IIIIF, 2, 2E, MKIV-2, 2E)
ZA-53S Output transformer (B-IIIIF, 2, 2E, MKIV-2, 2E)
ZA-52L Roll-around stand
RK-2B Rack mount kit (B-IIIIF, 2, 2E, BQ-III)
KH-44KB Full track kit
PB-7WXA Extension PCB (MKIV-4, 8, BQ-III)
PB-7OQA Extension PCB (MKIV-4, BQ-III)

¹ BQ-III, MARK IV-4 & 8 only

² MARK IV-4 & 8 only

³ 7.5/3.75 ips optional on BQ-III, MARK IV-4 & 8



Model	MKIV-2 Desk Top	MKIV-2E Desk Top	MKIV-4 Desk Top	MKIV-8 Desk Top	BOIII Upright	BOIII-F Upright	BOII-2 Upright	BOII-2E Upright
Tape Width	¼"	¼"	½"	½"	¼"	¼"	¼"	¼"
Track Configurations	2T NAB	2T DIN	4T	8T	4T	Mono	2T NAB	2T DIN

	MKIV-2 Desk Top	MKIV-2E Desk Top	MKIV-4 Desk Top	MKIV-8 Desk Top	BOIII Upright	BIII-F Upright	BIII-2 Upright	BIII-2E Upright						
TRANSPORT														
Head Configurations:	Mono Version; Reproduce, Erase, Record, Reproduce 2CH NAB version (2mm track width); Reproduce, Erase, Record, Reproduce 4CH version (1mm track width); Erase, Record, Reproduce		4CH version (1.8mm track width); Erase, Record, Reproduce; 8CH version (1mm track width); Erase, Record, Reproduce		Mono Version; Reproduce, Erase, Record, Reproduce 2CH NAB version (2mm track width); Reproduce, Erase, Record, Reproduce 4CH version (1mm track width); Erase, Record, Reproduce									
Motors:	D.C. brushless type quartz PLL servo-controlled capstan motor, two induction reel motors													
Reel Size:	NAB 10.5" maximum													
Tape Speed:	15 ips/7.5 ips & 7.5 ips/3.75 ips				Accuracy $\pm 0.2\%$ Max deviation: 0.2%									
Variable Speed Range:	Variable by $\pm 20\%$ of nominal speed (Resolution 0.01%)													
Wow & Flutter: (Peak WTD DIN 45507)	15 ips Max. $\pm 0.06\%$ 7.5 ips Max. $\pm 0.08\%$ 3.75 ips Max. $\pm 0.12\%$													
Start Time:	Time required to reach the speed at which wow & flutter value is two times of the specified value.													
	15 ips Max. 0.5 sec. 7.5 ips Max. 0.4 sec. 3.75 ips Max. 0.3 sec.		15 ips Max. 0.7 sec. 7.5 ips Max. 0.5 sec. 3.75 ips Max. 0.4 sec.		15 ips Max. 0.5 sec. 7.5 ips Max. 0.4 sec. 3.75 ips Max. 0.3 sec.									
Stop Time:	Time required to stop from Play mode													
	15 ips Max. 0.5 sec. 7.5 ips Max. 0.3 sec. 3.75 ips Max. 0.3 sec.		15 ips Max. 0.7 sec. 7.5 ips Max. 0.5 sec. 3.75 ips Max. 0.4 sec.		15 ips Max. 0.5 sec. 7.5 ips Max. 0.3 sec. 3.75 ips Max. 0.3 sec.									
Fast Winding Time: (with 2 500 ft tape)	Max. 110 sec. for 50 Hz AC Line frequency Max. 90 sec. for 60 Hz AC Line frequency													
ELECTRONICS														
Inputs:														
Line:	Transformerless active balanced (transformer option), 10 kOhm, 20 Hz to 20 kHz													
Nominal Level:	+4 dBu		+4 dBu/-16 dBu Switchable			+4 dBu								
Max. Level:	+30 dBu													
Mic:	Transformerless active balanced 10 kOhm Min. Level: -70 dBu/-50 dBu/Off Switchable		Unbalanced, 5 kOhm Min. level: -70 dBu/ -50 dBu Switchable	No Mic. input	Unbalanced, 5 kOhm Min. level: -70 dBu/ -50 dBu Switchable	Transformerless active balanced 10 kOhm Min. Level: -70 dBu/-50 dBu/Off Switchable								
Outputs:														
Line:	Transformerless active balanced, 5 Ohm (20 Hz to 20 kHz)													
Load Impedance:	Min. 200 Ohm		Min. 600 Ohm			Min. 200 Ohm								
Nominal Level:	+4 dBu/-16 dBu Switchable													
Max. Level:	+26 dBu for 200 Ohm load		+26 dBu for 600 Ohm load			+26 dBu for 200 Ohm load								
With the optional output transformer														
Output Impedance:	Max. 5 Ohm (20 Hz to 20 kHz)					Max. 50 Ohm (20 Hz to 20 kHz)								
Load Impedance:	Min. 200 Ohm		Min. 600 Ohm	Min. 600 Ohm	Min. 600 Ohm	Min. 200 Ohm								
Phone Output:	Connector: ¼" standard stereo phone jack load impedance 8 Ohm													
E.O. Standards:	NAB/IEC selectable		NAB fixed (IEC version option)	IEC fixed (NAB version option)	NAB fixed (IEC version option)	NAB/IEC selectable								
Frequency Response:														
REC/REP:	15 ips (0 VU) 30 -20 kHz, ± 2 dB		15 ips (0 VU) 40 -20 kHz, +2/-3dB			15 ips (0 VU) 30 -20 kHz, ± 2 dB								
	7.5 ips (-1 0 VU) 30 -18 kHz, ± 2 dB		7.5 ips (-1 0 VU) 20 -18 kHz, +2/-3dB			7.5 ips (-1 0 VU) 30 -18 kHz, ± 2 dB								
	3													

SPECIFICATIONS (continued)

Model		MKIV-2 Desk Top		MKIV-2E Desk Top		MKIV-4 Desk Top		MKIV-8 Desk Top		BQIII Upright		BIII-F Upright		BIII-2 Upright		BIII-2E Upright	
Signal-To-Noise Ratio:		Measured with respect to a recording level of 1,040 n Wb/m for 15, 7.5 ips and 740 n Wb/m for 3.75 ips															
		Unwtd: Using a 30 Hz to 18 kHz RC filter Wtd: Using a NAB or ANSI "A" weighting filter and a 1 kHz reference.															
		Unwtd 2mm	Wtd 2mm	Unwtd 2.75mm	Wtd 2.75mm	Unwtd	Wtd	Unwtd	Wtd	Unwtd	Wtd	Unwtd	Wtd	Unwtd 2mm	Wtd 2mm	Unwtd 2.75mm	Wtd 2.75mm
15 ips	IEC	71	74	72	75	69	72	66	69	66	69	75	78	71	74	72	75
	NAB	69	72	70	73	67	70	64	67	64	67	73	76	69	72	70	73
7.5 ips	IEC	68	71	69	72	66	69	63	66	63	66	72	75	68	71	69	72
	NAB	71	73	72	74	69	71	66	68	66	68	75	77	71	73	72	74
3.75 ips	IEC	64	67	65	68	62	65	59	62	59	62	68	71	64	67	65	68
	NAB	64	67	65	68	62	65	59	62	59	62	68	71	64	67	65	68
Distortion:		15 ips, 1 kHz, 250 n Wb/m															
		Max. 0.3%				Max. 0.5%						Max. 0.3%					
Crosstalk:		Between adjacent audio tracks, Recording Signal: 1 kHz															
(REC/REP)		Min. 55 dB		Min. 48 dB		Min. 65 dB		Min. 55 dB				Min. 55 dB				Min. 48 dB	
Depth of Erasure:		1 kHz, 1040 n Wb/m, 15 ips															
		Min. 75 dB		Min. 70 dB		Min. 70 dB				Min. 72 dB		Min. 75 dB		Min. 75 dB		Min. 70 dB	
Test Oscillator Frequency:		1 kHz/10 kHz Sine Wave				100/1 kHz/10 kHz Sine Wave						1 kHz/10 kHz Sine Wave					
Blas, Erase Frequency:		133 kHz				192 kHz						133 kHz					
Power Requirements:		100, 117, 200, 240 V $\pm$ 10% 50/60 Hz Single Phase AC															
		100 VA				150 VA		100 VA									
Environmental Condition:		Operation: 5° to 40°C (41° to 104°F) Storage: -20° to 45°C (-4° to 113°F)															
Dimension:		480mm x 430 mm x 680 mm (Height x Width x Depth)															
Weight:		30 Kg				32 Kg		35 Kg		27 Kg		24 Kg					

NOTE 1: B-III & MARK IV-2 models offer 3 speeds switch selectable from 15/7.5 ips or 7.5/3.75 ips speed pairs. The 7.5/3.75 ips pair is optional on BQ-III & MARK IV-4 & 8 models.

Manufactured in Japan by Otari, Inc.
Otari reserves the right to change specifications without notice or obligation.



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