

MX-5050 BQ II
PROFESSIONAL RECORDER

PROFESSIONAL PRODUCTS



OTARI

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MX-5050 BQ II PROFESSIONAL RECORDER

INSTRUCTION AND MAINTENANCE MANUAL



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MAINTENANCE
INSTRUCTION

SECTION 1

GENERAL INFORMATION

The MX-5050 BQ II Recorder is a professional quality two-speed audio tape recorder/reproducer, designed for optimum performance and long life. It accommodates a 1/4-inch wide tape and two 7 1/2 ips (19.05 cm/sec.) and 15 ips (38.1 cm/sec.) tape speeds.

1-1 SYSTEM DESCRIPTION

Among the many professional features of the MX-5050 BQ II are: selective reproduction (SEL/REP), automatic motion sensing control by a proprietary microprocessor, an edit control that permits tape spilling, dynamic braking, an electronic tape timer, an adjustable cueing control for audible monitoring in fast forward and rewind, a dual frequency built-in test and cue-tone oscillator, adjustable record bias, equalization and level controls, XLR type connectors for input and output lines, separate line and microphone input level controls for each channel, a VU meter with a peak indicator for each channel, selecting switches for input and output levels, and a memory stop for automatically stopping the tape at a desired position except in record mode.

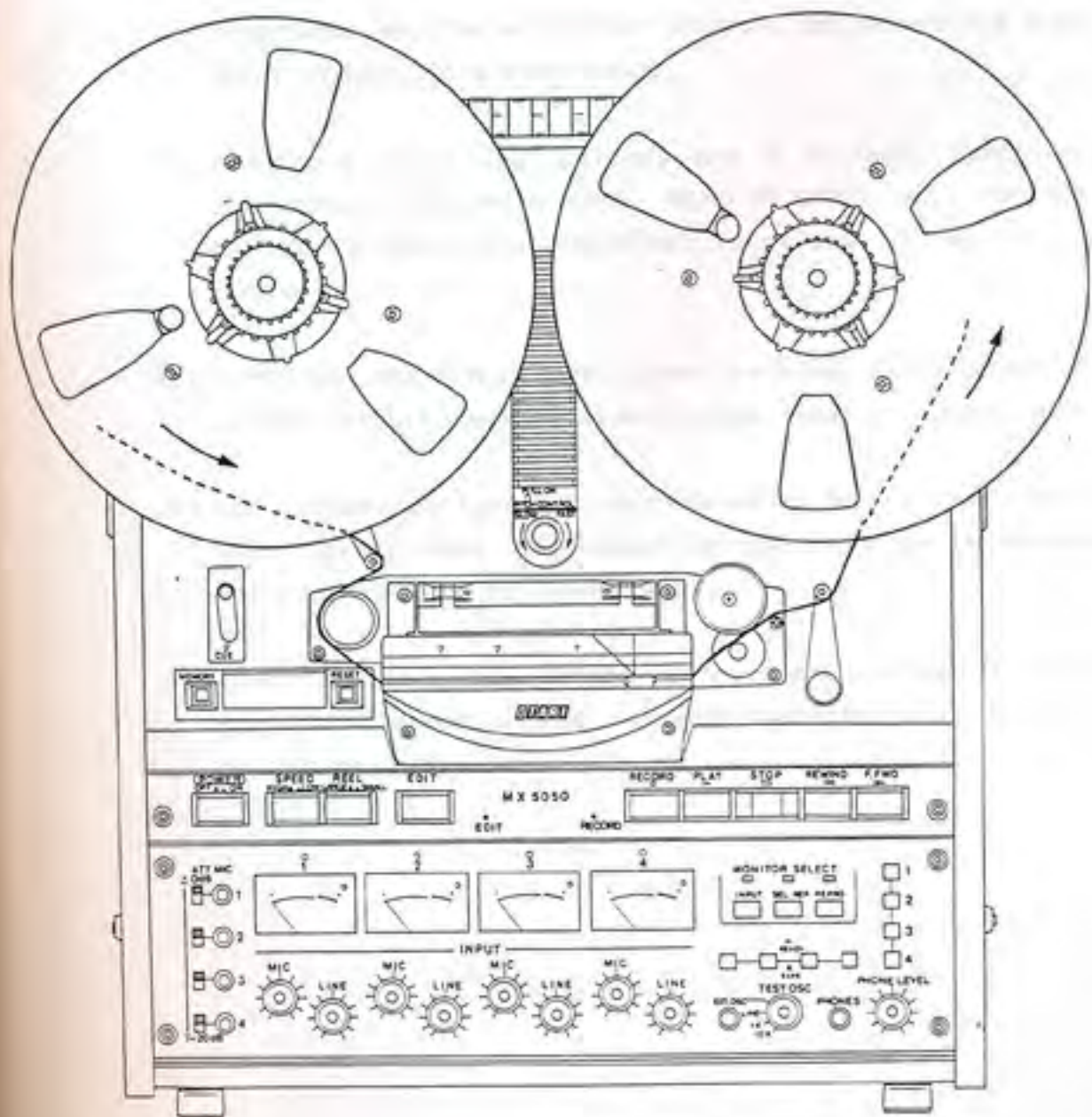


Figure 1-1 MX-5050 BQ II Major components

1-4 SPECIFICATIONS

The specifications of the MX-5050 BQII are as listed in Table 1-3.

Table 1-3 Specifications

Tape Width and Tracks:	1/4 inch (6.3 mm) tape 4 tracks (0.037 inch or 0.94 mm track width)
Tape Speeds:	7 1/2 and 15 ips (19.05 and 38.1cm/sec.) Maximum deviation: $\pm 0.2\%$ measured with 1.5 mil (0.038 mm) tape
Reel Sizes:	5, 7 or 10 1/2 inch plastic or metal, EIA or NAB.
Heads:	Four head stacks: 1/4" erase x 2 (1-3, 2-4CH) 1/4" record 1/4" reproduce
Motors: Capstan:	DC servo controlled motor (Pitch control range $\pm 7\%$)
Reels:	Two torque motors
Rewind Time:	Approximately 90 seconds for 2,500 ft (760 m) NAB reel
Operating Position:	Vertical or at angle
Power Requirements:	100, 117, 220, 240 volts, 50 or 60 Hz, single phase AC.
Power Consumption	100 watts

Operating Environment:	40° to 104°F (5° to 40°C) 20% to 80% Relative Humidity
Storage Environment:	-5° to 113°F (-20° to 45°C)
Dimensions and Weight:	Dimensions: 438 mm width, 269 mm depth, 527 mm height. 17.3 " width, 10.6" depth, 20.8" height Weight: 27 kg, 60 lbs.
Mounting	Dark leatherette-finished cabinet.
Remote Control Unit:	An optional remote control unit is used to control the record, play, stop, rewind, and fast forward modes. (CB-102)
Connectors:	LINE INPUT, LINE OUTPUT: standard three-pin XLR. MICROPHONE, EXT OSC: standard single-conductor phone jack PHONES: standard two-conductor phone jack
Inputs: LINE:	Minimum -6 or -18 dBm switchable, unbalanced 50 kohm.
MICROPHONE:	Minimum -70 dBm, unbalanced. Applicable microphone impedance: 150 ohm to 1 kohm. The microphone attenuator switch may be set to the 0 or -20 dB position depending on the circumstances.
EXT OSC:	Minimum -18 dBm, unbalanced 10 kohm.

Outputs: LINE: +4 or -8 dBm switchable, unbalanced.
 Load impedance: more than 600 ohm.
 Maximum line output level:
 +21 dBm with 600 ohm load

Headphone Jack: -19 dBm with an 8 ohm load
 Load impedance: 8 ohm or greater

Equalization: NAB or IEC for 7 1/2 and 15 ips.

Frequency Response: REC/PLAY
 15 ips: 30Hz to 20kHz +2, -3dB
 7 1/2 ips: 20Hz to 18 kHz +2, -3dB
 SEL/REP
 15 ips: 50Hz to 15 kHz +3 dB
 7 1/2 ips: 50Hz to 12 kHz +3 dB
 Specifications refer to a 1 kHz
 reference when recorded on 3M #226.

Signal to noise ratio:

Tape speed\EQ.	NAB	IEC
15 ips	53dB	54dB
7 1/2 ips	53dB	54dB