7.2 ELECTRONICS

NOTE: All specifications are measured with AMPEX 456.

LINE INPUT : Active balanced (transformerless),

10k ohm impedance, Input level +4/-8 dBm switchable, maximum

+30 dBm

Active balanced, BAL/UNBAL switch-LINE OUTPUT :

able, Less than 5 ohm source

impedance, +4 dBm output for 0 VU,

maximum +28 dBm

LINE OUTPUT (THROUGH : BAL/UNBAL switchable FRONT PANEL JACK)

1k ohm source impedance

EQUALIZATION: 30 ips ... AES

15 ips ... IEC or NAB switchable

7.5ips ... IEC or NAB switchable

BIAS FREQUENCY: 192 kHz

ERASE FREQUENCY : 192 kHz

CALIBRATION LEVELS: Switchable, 320 nWb/m or 250 nWb/m

PEAK INDICATOR LEVEL: 1040 nWb/m adjustable

FREQUENCY RESPONSE: Overall (24ch)

30 ips $50 - 22kHz \pm 2dB$ 15 ips 30 - 20kHz + 2dB7.5ips 20 - 18kHz ±2dB

Overall (32ch)

30 ips $60 - 22kHz \pm 2dB$ 35 - 20kHz +2dB 15 ips 25 - 18kHz + 2dB7.5ips

Rec/Sel-Rep (24/32ch)

30 ips 60 - 22kHz + 2dB15 ips $35 - 20kHz \pm 2dB$ 7.5ips 25 - 18kHz +2dB

DISTORTION: Less than 0.3% at 1 kHz 320 nWb/m

CROSSTALK : More than 52 dB at 1 kHz (32ch)

More than 55 dB at 1 kHz (24ch)

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DEPTH OF ERASURE: More than 75dB

SIGNAL-TO-NOISE RATIO : Unweighted with audio filter

(30 Hz - 18 kHz) at 320 nWb/m

		32ch			24ch			
	IF	C	AI	ES	I)	EC	Al	ES
30 ips		-	56	dB		me vous	57	dB
15 ips	56	dB	54	dB	57	dB	55	đВ
7.5ips	54	dB	56	dB	55	dВ	57	dB

7.3 PHYSICAL

A

POWER REQUIREMENTS: 100, 117, 200 or 240 volts

Single phase AC, 50 or 60 Hz

550 VA (24ch) 700 VA (32ch)

OPERATING ENVIRONMENT: 40° to 104°F (5° to 40°C),

20 - 80% RH

-5° to 113°F (-20° to 45°C), STORAGE ENVIRONMENT:

20 - 80% RH

MOUNTING: All models are in floor console.

135 kg (32ch) WEIGHT:

3 kg (Remote)

DIMENSIONS (W x D x H): 640 x 658 x 1080

7.4 ACCESSORIES

Remote Control Unit with cable ass'y STANDARD:

(CB-123 or CB-124), Operating

Manual, Fuses, Power Cable, Lamps

OPTIONAL: PB-7JEA

OTARI reserves the right to change the specifications without notice or obligation.

4.2 ROUTINE AUDIO ALIGNMENT

B

4.2.1 Tools, Materials, and Test Equipment Required

Spec	ed	EQ	Ref. Flux	MRL Cat. No.
30	ips	AES	250 nWb/m	51L214
15	ips	NAB	250 nWb/m	51J213
7.5	ips	NAB	250 nWb/m	51T212
15	ips	IEC	320 nWb/m	51J323
15	ips	IEC	250 nWb/m	51J223
7.5	ips	IEC	320 nWb/m	51T322
7.5	ips	IEC	250 nWb/m	51T222

NOTE: Standard equalization for 2" 24 track machines at 15 and 7.5 ips is NAB. Standard equalization for 2" 32 track machines at 15 and 7.5 ips is IEC. Standard equalization at 30 ips is AES for all track formats.

4.2.2 Demagnetizing the Heads and Tape Path

Demagnetizing (sometimes called degaussing, although that term is more often applied to bulk tape erasure) is a necessary procedure, and should be performed prior to every alignment and before every recording session. Demagnetizing should always be done with extreme caution:

DEMAGNETIZING CAUTION:

To avoid damage to the MX-80, always make sure the POWER switch is Off before proceeding. Make sure that all recording tapes, especially alignment tapes, are removed from the vicinity of the MX-80. The AC field created by the demagnetizer is extremely powerful and could seriously damage the electronics if they are On.

Never turn On or Off the power to the demagnetizer unless it is at least 3 feet (1 meter) away from the MX-80. This would cause an extremely strong moving magnetic field which could possibly place a permanent magnetic charge on parts of the machine. The demagnetizer would not be powerful enough to remove these charges under normal circumstances, and the parts might have to be removed and discarded. USE ONLY A

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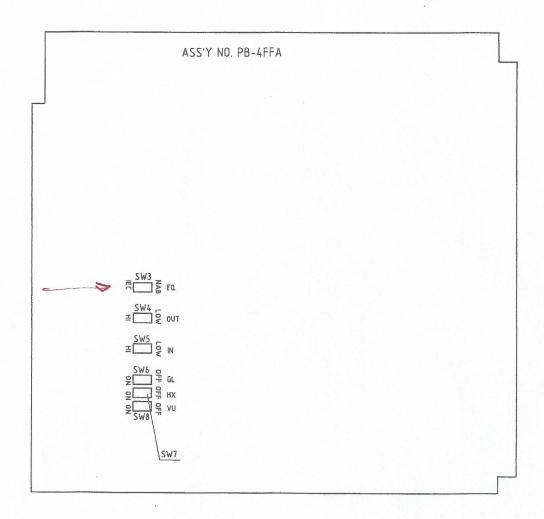


Figure 6-1 Location of Switches on Audio Control PCB



[1] SW3 EQ IEC/NAB switch

It should be set to the EQ position required for the type of machine you ordered.

[2] SW4 OUTPUT LEVEL +4dBm/-8dBm switch

It is set to +4 dBm at the time of shipment from the factory.

[3] SW5 INPUT LEVEL +4dBm/-8dBm switch

It is set to +4 dBm at the time of shipment from the factory.

[4] SW6 GAPLESS RECORD ON/OFF switch

It is set to the "ON" position at the time of shipment from the factory.

[5] SW7 DOLBY HX PRO ON/OFF switch

It is set to the "ON" position at the time of shipment from the factory.

[6] SW8 VU +10dB ON/OFF switch

It is set to the "OFF" position at the time of shipment from the factory.

6.2.2 Audio Amplifier PCBs

Grasp the intermost edge of the white extractor tab at the top of the Channel l Audio Amplifier PCB and pull outward to extract the board. Refer to Figure 6-2 for the location of the various controls on the Audio Amplifier PCB. Check the following switches on the PCB:

- (1) SW1: BAL/UNBAL switch Set to BAL at the factory.
- (2) SW2: Gapless Punch-In switch
 - A. Erase/Record Head Distance Compensation SW2-1 on, SW2-2 on
 - B. Punch-Out Timing SW2-3 on, SW2-4 on, SW2-5 off
 - C. Punch-In Timing SW2-6 on, SW2-7 on, SW2-8 off