

TASCAM

TEAC Production Products

122-B

MASTER CASSETTE DECK



This booklet should be used together with the Owner's Manual of the TASCAM 122 (Manual No. 5700012100). When referring to the 122 manual for information on the 122-B, substitute the 122-B model name for the 122.

5700051900

Introduction

The guarantee of performance that we provide for the 122-B must have several restrictions. We say that the recorder will perform properly only if it is adjusted properly and the guarantee is that such adjustment is possible. However, we cannot guarantee your skill in adjustment or your technical comprehension of the manual. Therefore, calibration is not covered by the Warranty. If your attempts at adjustments such as rebias and record EQ trim are unsuccessful, we must make a service charge to correct your mistakes.

Recording is an art as well as a science. A successful recording is often judged primarily on the quality of sound as art, and we obviously cannot guarantee that. A company that makes paint and brushes for artists cannot say that the paintings made with their products will be well received critically. The art is the province of the artist. TASCAM can make no guarantee that the 122-B *by itself* will assure the quality of the recordings you make. Your skill as a technician and your abilities as an artist will be significant factors in the results you achieve.

*Dolby noise reduction and headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

This tape deck has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number _____
Serial number _____

The 122-B is a new version of the TASCAM 122 MASTER CASSETTE DECK which has enjoyed great popularity for its high performance, high 9.5 cm/sec. (3-3/4 ips) operating speed and extended headroom capabilities with Dolby* HX. Provided with an input select switch and balanced-type input/output terminals, the 122-B is connection-compatible with equipment which are equipped with these balanced-type terminals. Except for some slight changes to the rear panel, the basic functions, operations and even the smart design of the front panel are the same as the 122.

With this booklet, we intend to explain the rear panel modifications and the functions of the newly added features.

Features and Controls

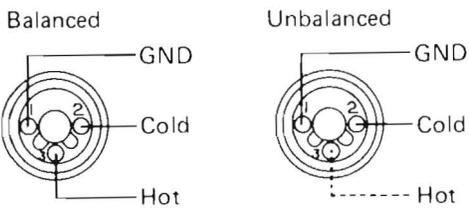
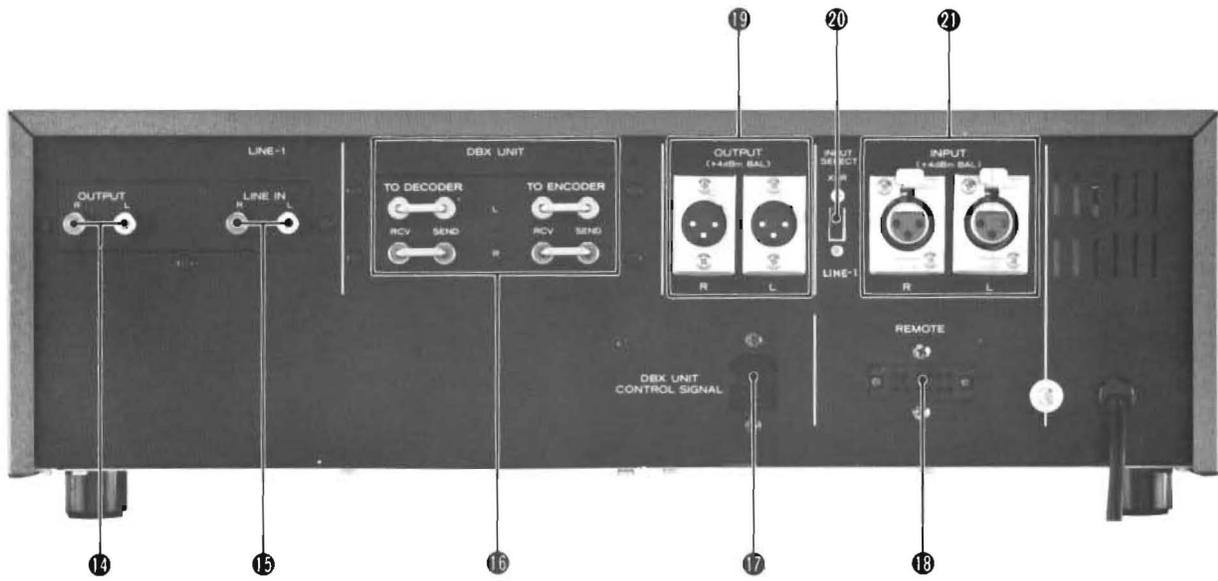
- ① OUTPUT (R, L) RCA jacks
- ② LINE (-1) IN (R, L) RCA jacks
- ③ DBX UNIT terminals
- ④ DBX UNIT CONTROL SIGNAL socket
- ⑤ REMOTE control socket

Refer to the 122 manual.

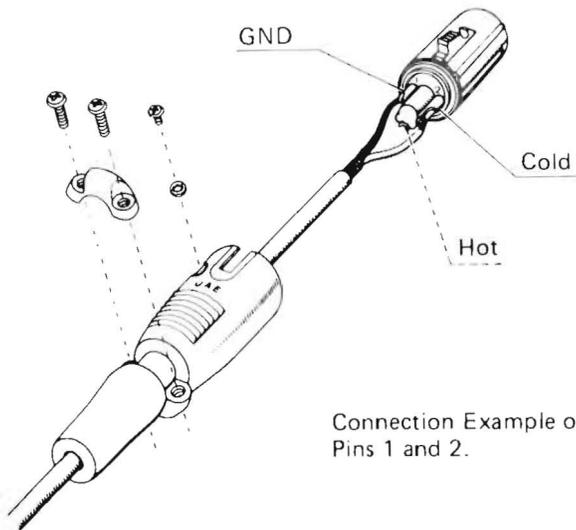
⑥ OUTPUT (R, L) XLR-type connectors (+4 dBm BAL)

Use these OUTPUT connectors to feed the signals from the 122-B to your balance-type equipment (audio mixer, etc.). Nominal output is +4 dBm (1.23 V) and nominal load impedance is 600 Ω (balanced). Maximum output level before clipping is +6.5 dBm (1.64 V).

Caution: Be sure not to use both pin 3 (Hot) and pin 2 (Cold) when making your own balanced-unbalanced conversion cable. Always use pin 1 (GND) and *either* of the other pins. (Never short-circuit pin 1 (GND) to pin 2 or 3). Also note that in such a case, the unbalanced output signals are about 6 dB lower than the nominal balanced output level.



Input Connector Wiring



Connection Example of Pins 1 and 2.

⑳ INPUT SELECT switch (XLR/LINE-1)

This two position switch selects either the balanced line inputs connected to the INPUT connectors (XLR position) or the unbalanced inputs connected to the LINE IN jacks (LINE-1 position).

Signals which are input by selecting this switch are fed to the record/reproduce amplifier section via the INPUT switch on the front panel. Be sure to set it to the LINE 1 position (center) when XLR INPUT or RCA LINE IN input signals are used.

㉑ INPUT (R, L) XLR-type connectors (+4 dBm BAL)

The signals from other balanced-type equipment (your audio mixer, etc.) enter the 122-B through these connectors.

Nominal input level is +4 dBm. Input impedance is 600 Ω (balanced).

Note: Signals which are input through the XLR-type connectors are fed to the record/reproduce amplifier section via the INPUT SELECT switch (㉑) and the INPUT switch on the front panel. Therefore, be sure to set the INPUT SELECT switch to the XLR position and the INPUT switch to the LINE 1 position when the XLR-type connectors are used.

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122-B

TEAC CORPORATION

3-7-3 NAKA-CHO MUSASHINO TOKYO PHONE (0422) 53-1111

TEAC CORPORATION OF AMERICA

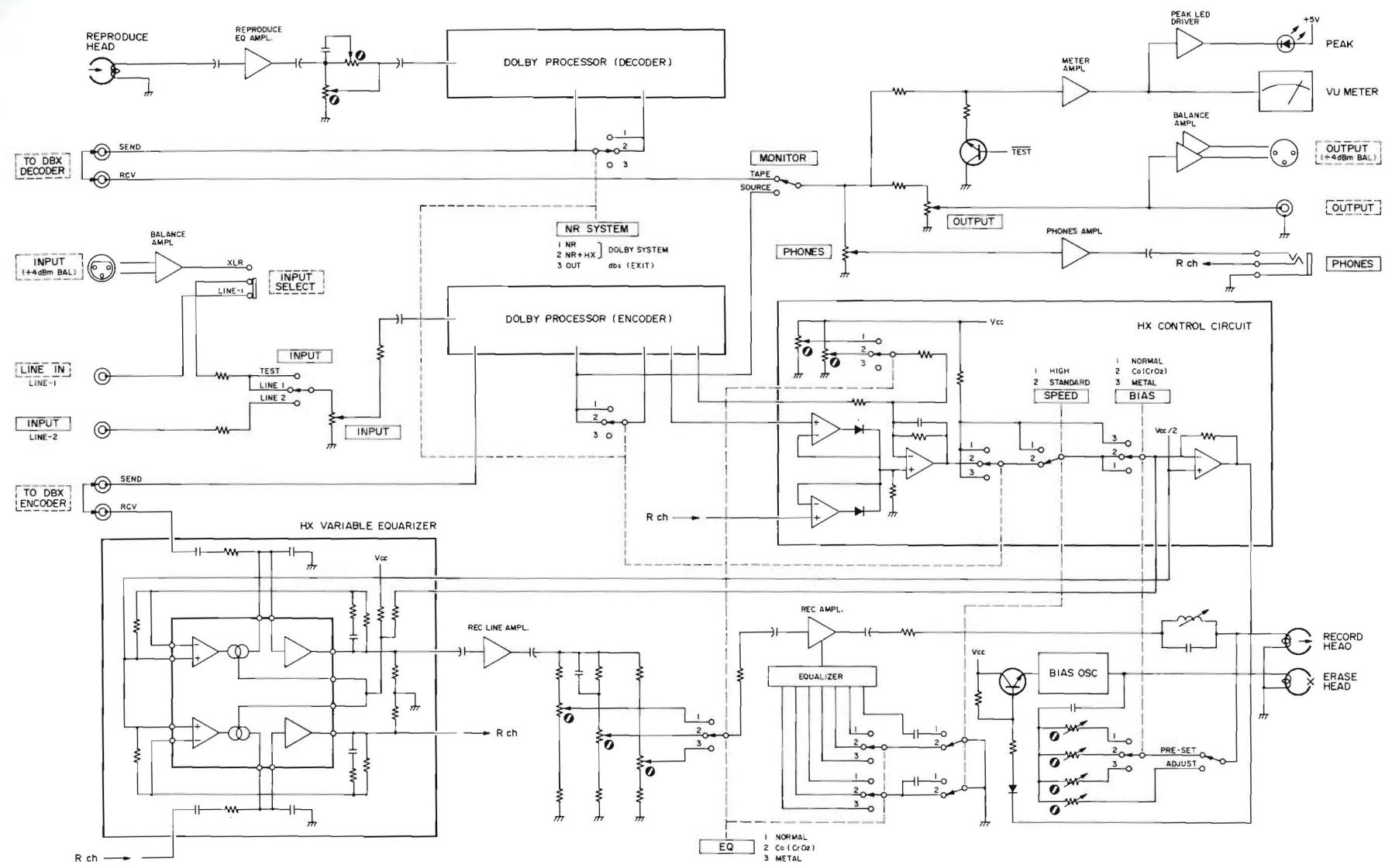
7733 TELEGRAPH ROAD MONTEBELLO CALIFORNIA 90640 PHONE (213) 726-0303

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- 4 -



Specifications

MECHANICAL

Tape:	Philips Type Cassette C-60 and C-90
Track Format:	4-Track, 2-Channel Stereo
Tape Speed:	1-7/8 ips and 3-3/4 ips
Speed Accuracy:	1-7/8 ips ±0.5 % Deviation
	3-3/4 ips ±0.5 % Deviation
Wow & Flutter:	1-7/8 ips ¹⁾ ±0.085 % peak (DIN/IEC/ANSI weighted)
	±0.18 % peak (DIN/IEC/ANSI unweighted)
	0.06 % (NAB weighted)
	0.11 % (NAB unweighted)
	3-3/4 ips ²⁾ ±0.055 % peak (DIN/IEC/ANSI weighted)
	±0.13 % peak (DIN/IEC/ANSI unweighted)
	0.04 % (NAB weighted)
	0.07 % (NAB unweighted)
Fast Wind Time:	90 secs. for MTT-501 (C-60)
Motor:	1 FG Servo Controlled DC Motor
	1 DC Reel Motor
Head Configuration:	3 Heads; Erase, Playback/Record
Dimensions (WxHxD):	19" x 5-13/16" x 13-9/16" (482 x 147 x 345 mm)
Weight:	22-1/16 lbs (10 kg) net

ELECTRICAL

Line Input (XLR):	
Input Impedance:	600 ohms, balanced
Nominal Input Level:	+4 dBm (1.23 V)
Minimum Input Level:	-6 dBm (0.39 V)
Maximum Input Level:	+20 dBm (7.75 V)
Line Input 1, 2 (RCA PIN):	
Input Impedance:	50k ohms unbalanced
Maximum Source Impedance:	10k ohms or less
Nominal Input Level:	-14 dBV (190 mV)
Minimum Input Level:	-24 dBV (60 mV)
Line Output (XLR):	
Output Impedance:	20 ohms, balanced
Nominal Load Impedance:	600 ohms
Nominal Output Level:	+4 dBm (1.23 V)
Maximum Output Level:	+6.5 dBm (1.64 V)
Line Output (RCA PIN):	
Minimum Load Impedance:	25k ohms or more, unbalanced
Output Impedance:	3.5k ohms or less
Nominal Output Level:	-10 dBV (0.3 V)
Maximum Output Level:	-7.5 dBV (0.42 V)
Headphone Output:	100 mW, Maximum at 8 ohms
Bias Frequency:	100 kHz
Equalization:	1-7/8 ips 3180 μ s. + 70 μ s.
	3180 μ s. + 120 μ s. switchable
	3-3/4 ips 3180 μ s. + 35 μ s.
	3180 μ s. + 50 μ s. switchable
Frequency Response ³⁾	1-7/8 ips 35 Hz - 14 kHz \pm 3 dB at -20 VU
(Record/reproduce):	35 Hz - 6.3 kHz \pm 3 dB at 0 VU
	3-3/4 ips 35 Hz - 20 kHz \pm 3 dB at -20 VU
	35 Hz - 15 kHz \pm 3 dB at 0 VU
Total Harmonic Distortion (THD) ³⁾:	1% at 0 VU, 1 kHz, 160 nWb/m
	1-7/8 ips 3% at 9 dB above 0 VU, 1 kHz, 451 nWb/m
	3-3/4 ips 3% at 10 dB above 0 VU, 1 kHz, 506 nWb/m
Signal to Noise Ratio ³⁾:	At a reference of 3% distortion level
	1-7/8 ips 58 dB weighted
	55 dB unweighted
	92 dB weighted with DBX
	3-3/4 ips 63 dB weighted
	58 dB unweighted
	92 dB weighted with DBX
Adjacent Channel Separation:	Better than 35 dB at 1 kHz
Erasure:	Better than 65 dB at 1 kHz + 10 VU reference
Headroom:	
Recording amplifier:	Better than 19 dB above 0 VU
Reproduce amplifier:	Better than 19 dB above 0 VU
Power Requirement:	120 V AC, 60 Hz, 45 watts

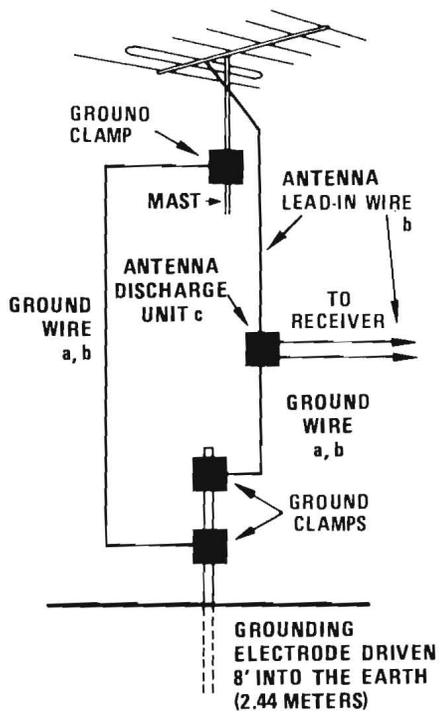
In these specifications, 0 dBV is referenced to 1.0 Volt. Actual voltage levels also are given in parenthesis. To calculate the 0 dB = 0.775 Volt reference level (i.e., 0 dBm in a 600-ohm circuit) add 2.2 dB to the listed dB value; i.e., -10 dB re: 1 V = -7.8 dB re: 0.775 V.

1) Specifications were determined using TEAC Test Tape MTT-111

2) Specifications were determined using TEAC Test Tape MTX-111

3) Specifications were determined using TEAC Test Tape MTT-506

Changes in specifications and features may be made without notice or obligation.



EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS

a
Use No. 10 AWG (5.3 mm²) copper or No. 8 AWG (8.4 mm²) aluminum or No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as ground wire.

b
Secure lead-in wire from antenna to antenna discharge unit and mast ground wire to house with stand-off insulators, spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.

c
Mount antenna discharge unit as closely as possible to where lead-in enters house.

SAFETY INSTRUCTIONS

PREPARATION

- BEFORE OPERATING APPLIANCE, read and understand all the following Safety Instructions as well as operating instructions in the Owner's Manual.
- HEED all WARNINGS and FOLLOW all INSTRUCTIONS – in these Safety Instructions, in the Owner's Manual, and on the appliance itself.
- RETAIN the INSTRUCTIONS for reference when needed.

LOCATION AND HOOKUP

- Appliance should not be used near water or in areas of high humidity – for example, near a swimming pool or in a damp basement.
- Appliance should not be used near heat sources such as heat radiators, stoves, direct sunlight.
- Appliance should be located so that its position does not interfere with proper ventilation. Make sure that air vents on the appliance are not blocked from air by such objects as other appliances, draperies, walls, or carpets.
- Appliance should not be suspended from ceilings or walls except as specifically recommended by the manufacturer.
- Similarly, appliance should not be used with a cart or stand except as specifically recommended by the manufacturer.
- Appliance should be used only on power line sources as indicated in the Owner's Manual and as marked on the appliance itself.
- If appliance requires grounding, or polarization of power source, follow instructions in the Owner's Manual for proper connections.
- If appliance is to be used with an Outdoor Antenna, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1981, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. The example shown on the back is for an FM/TV antenna installation. However, the basic grounding circuit and conductor size will also apply to external AM antenna installations.
- The Outdoor Antenna should be located as far as possible away from power lines.
- Power supply cords of the appliance should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the points where they exit from the appliance.

MAINTENANCE

- Cleaning of the appliance should be done only as recommended by the manufacturer.
- In extended periods of non-use, the appliance should be unplugged from the power line source.
- Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
- The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged;
 - B. Objects have fallen, or liquid has been spilled into the appliance;
 - C. The appliance has been exposed to rain;
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance;
 - E. The appliance has been dropped, or the enclosure damaged.

SERVICING

The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.