TASCAM

TEAC Professional Division

122MKIII/
112RMKII/112MKII

Stereo Cassette Deck

OWNER'S MANUAL

Note for U.K. Customers

SAFETY INSTRUCTIONS

CAUTION:
- **Read all of these instructions.**
- **Save these instructions for later use.**
- **Follow all warnings and instructions marked on the audio equipment.**

1. **Read Instructions** – All the safety and operating instructions should be read before the appliance is operated.

2. **Retain Instructions** – The safety and operating instructions should be retained for future reference.

3. **Heed Warnings** – All warnings on the appliance and in the operating instructions should be adhered to.

4. **Follow Instructions** – All operating and use instructions should be followed.

5. **Water and Moisture** – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

6. **Carts and Stands** – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. **Wall or Ceiling Mounting** – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.

8. **Ventilation** – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

9. **Heat** – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

10. **Power Sources** – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

11. **Grounding or Polarization** – The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.

12. **Power-Cord Protection** – Power-supply cords 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 point where they exit from the appliance.

13. **Cleaning** – The appliance should be cleaned only as recommended by the manufacturer.

14. **Power Lines** – An outdoor antenna should be located away from power lines.

15. **Outdoor Antenna Grounding** – If an outside antenna is connected to the receiver, 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 – 1984, 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. See Figure below.

EXAMPLE OF ANTENNA GROUNDING
AS PER NATIONAL
ELECTRICAL CODE

NEC – NATIONAL ELECTRICAL CODE
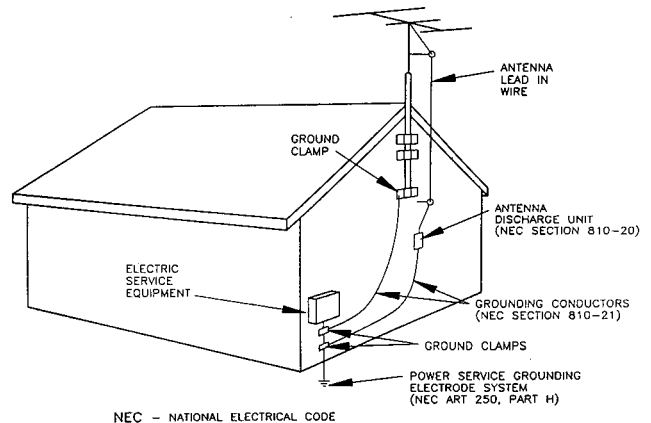
16. **Nonuse Periods** – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

17. **Object and Liquid Entry** – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

18. **Damage Requiring Service** – The appliance should be serviced by qualified service personnel when:
   A. The power-supply cord or the plug has been damaged; or
   B. Objects have fallen, or liquid has been spilled into the appliance; or
   C. The appliance has been exposed to rain; or
   D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
   E. The appliance has been dropped, or the enclosure damaged.

19. **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.

Introduction

This manual covers the 122 MKIII, 112R MKII, and 112 MKII.

Your new TASCAM deck is a professional rack-mount 4-track, 2-channel recorder/reproducer designed to offer outstanding audio performance and convenient features. Speed in operation is enhanced by CPS (Computomatic Program Search) (112R MKII only), 2-point Autolocator, and Return-to-zero. Dolby* HX Pro is provided to improve high frequency response. The bias is automatically set to its optimum value for each tape in use (except for the 122 MKIII). With the 122 MKIII, a built-in oscillator (400 Hz and 10 kHz) along with individual Bias and Level trimmers can be used to maximize performance with any tapes. The 3-head design of 122 MKIII and 112R MKII produces real-time, off-tape monitoring.

> We suggest that you read this manual thoroughly before using the machine. Even though a quick glance will get you going, careful study will ensure that misunderstanding won't slow you down.

Table of Contents

* Dolby noise reduction and HX PRO headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX PRO originated by Bang and Olufsen. "Dolby", the double-D symbol "□□" and "HX PRO" are trademarks of Dolby Laboratiries Lisensing Corporation.

Optional Accessories

■ **RC-134 Remote Control Unit**
(for 122 MKIII/112 MKII)
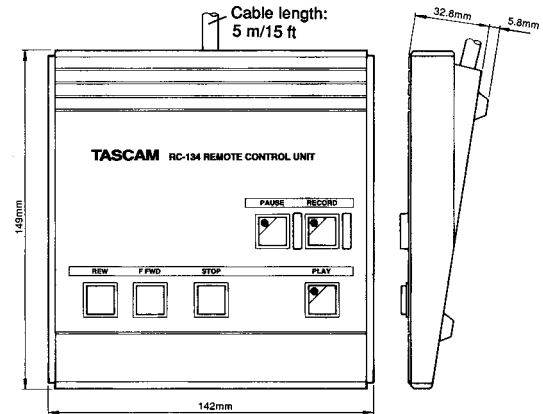
■ **RC-112R Remote Control Unit**
(for 112R MKII)
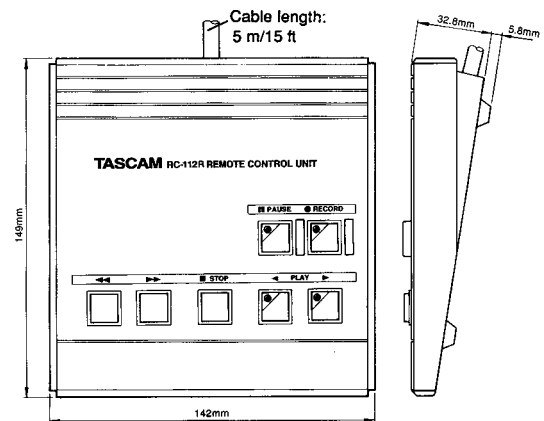
■ **LA-112 Balanced Amp/Connector Kit**
(for 112 MKII/112 RMKII)
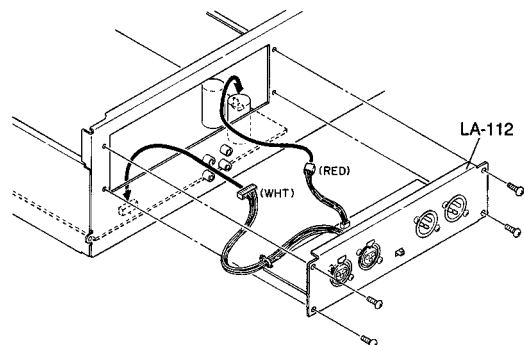
■ **PB-32 Series Patch Bay**

■ **Head Demagnetizer**

■ **HC-1 Head Cleaner & RC-1 Rubber Cleaner**
(U.S. Only)

■ **TZ-261 Cleaning Kit**
(Except U.S.)

Controls and Indicators
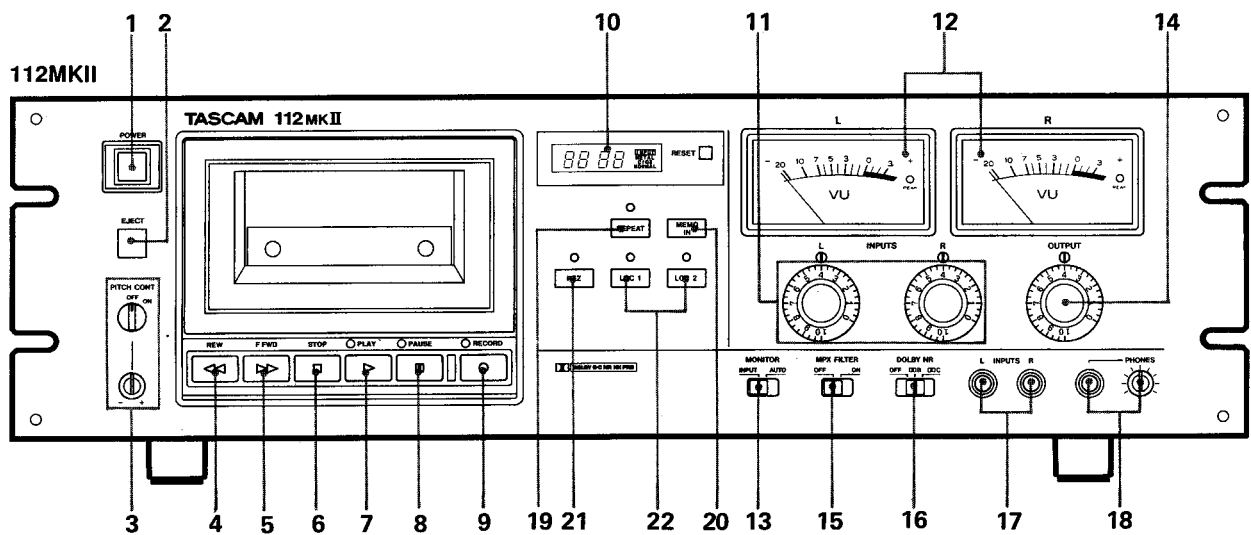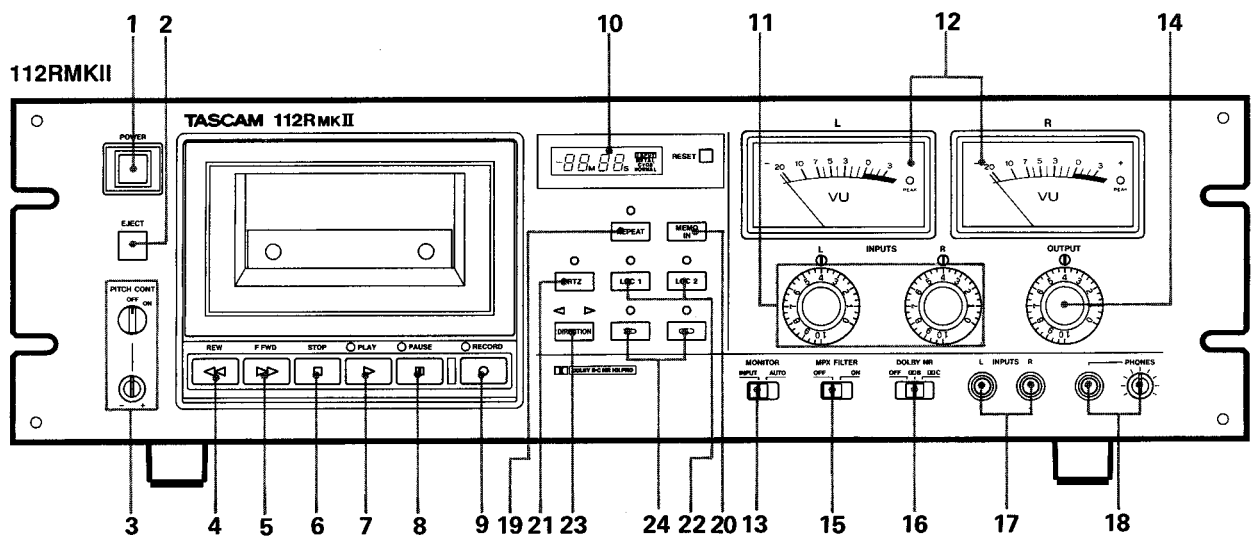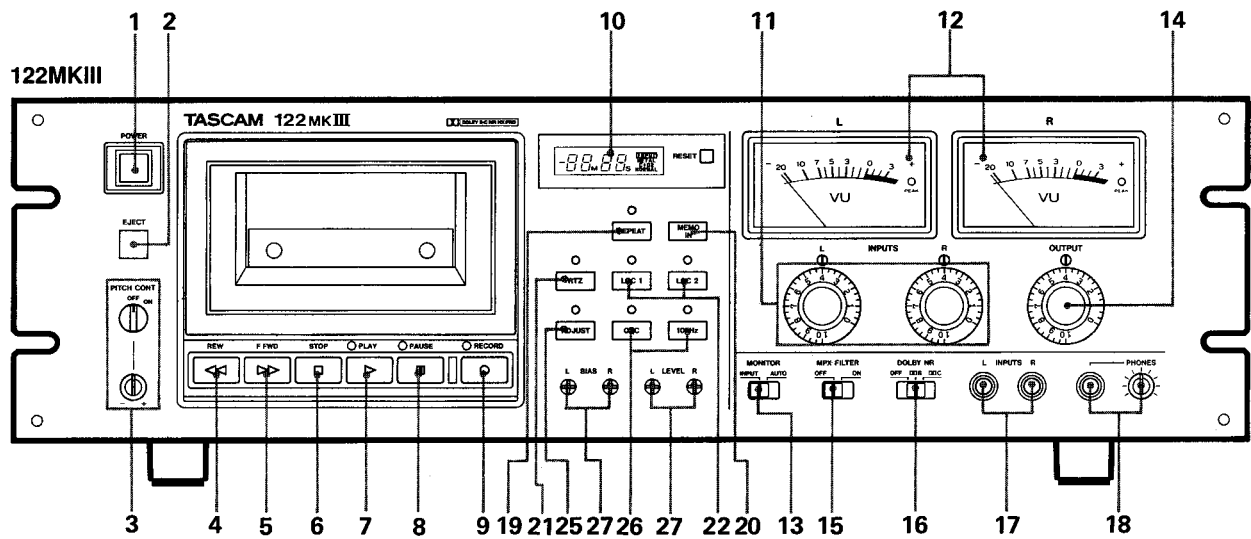
1. POWER : Switches power on to the unit.

Each time you turn on the deck, the last on/off status of the ADJUST switch (122 MKIII only) and Auto Reverse (⊂⊃ / ⊐⊃) switch (112R MKII only) and the last play/record direction as set with the DIRECTION switch (112R MKII only) are retrieved from a backup memory.

2. EJECT : Opens the cassette compartment.

3. PITCH CONT : Provides about a plus or minus 12 % variation to the tape speed in both Play and Record modes. Unless you use the function intentionally, make sure that the knob is at its OFF position for the tape to roll at normal speed (1-7/8 i.p.s. or 4.8 cm/sec.).

4. REW : Winds the tape at high speed in reverse. If pressed during Play Pause, enables reverse cueing.

5. F.FWD : Winds the tape at high speed in the forward direction. If pressed during Play Pause, enables the forward cueing.

6. STOP : Stops all tape motion.

7. PLAY : Starts playback. If pressed together with RECORD, starts recording. If pressed during Record Pause, resumes recording.

8. PAUSE : Temporarily stops play or recording ; to resume the function interrupted, press PLAY. If pressed together with RECORD, activates Record Ready mode, allowing you to start recording by pressing PLAY only.

9. RECORD : Starts recording when pressed together with PLAY.

10. Tape Counter : Displays the distance from a zero reference point, selected by pressing RESET (-99 M 59 S to 99 M 59 S with the 122 MKIII and 112R MKII ; or 00 00 to 99 99 with the 112 MKII).

A **type of tape** in use (NORMAL, CrO2 or METAL) is indicated on the right hand side of the tape counter, and the **monitor source** too—"INPUT" lights unless tape signal is feeding the front PHONES and rear OUTPUT.

NOTE

122 MKIII and 112R MKII : The tape counter is not a clock. Its reading depends on the tape length, relative tape packs on both reels and other mechanical factors. Use a watch to measure the correct length of particular program.

Discrepancy between measurements on the tape counter and a clock (from beginning to end, one-way run) :

	Normal/CrO2	Metal
C-30	+3 min. 00 sec. to 4 min. 00 sec.	—
C-46	+1 min.30 sec. to 2 min.45 sec.	+2 min.00 sec.to 3 min.15 sec.
C-60	−45 sec. to +30 sec.	0 min.00 sec. to +1 min.15 sec.
C-90	−1 min.30 sec. to −30 sec.	−1 min.15 sec. to 0 min. 00 sec.

C-30/46 measurements made with narrow hub cassettes.

11. INPUTS, L and R : Allow individual control of both channel levels.

122 MKIII : Both controls are geared together to allow simultaneous adjustment of the record level of both channels. Each channel can be adjusted independently by holding one knob and turning the other.

12. VU meters : Indicate input or tape signal levels depending on the transport mode and the MONITOR switch setting.

13. MONITOR : Setting to INPUT routes the input signal to the PHONES and OUTPUT jacks, whatever the transport mode. If set to AUTO, the input signal can be monitored in Record Pause (Ready) mode, and the tape signal while recording (off-tape monitoring) or playing. The VU meters also switch the same way.

The 112 MKII does not provide off-tape monitoring ; you'll hear the input signal instead while recording is taking place.

14. OUTPUT : Adjusts the signal level sent to the OUTPUT jacks on the rear panel.

15. MPX FILTER : For making Dolby recording of FM broadcasts. Without this filter, the pilot tone (19 Hz) and subcarrier note (38 kHz) contained in FM programs may "thwart" the DOLBY NR system.

16. DOLBY NR : Selects the Dolby B or C Noise Reduction system or defeats them.

17. INPUTS, L and R : These 1/4" jacks accept unbalanced line-level signals.

NOTE

Connecting signals to the front input jacks defeats the rear input jacks. You cannot use both jacks at one time.

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18. PHONES : The knob adjusts the listening level in the headphones plugged into the adjacent jack.

19. REPEAT : Initiates repeat play between Memo 1 and Memo 2 (p.12)

20. MEMO IN : If pressed together with LOC 1 or 2, stores the current tape point into memory.

☞ *MEMO IN cannot operate during repeat play or when the tape is fast-winding as a result of pressing either LOC.*

21. RTZ : Fast-winds the tape at either direction, stopping when the tape counter reads 00 00. Inertia may carry the tape slightly past the 00 00 point.

22. LOC, 1 and 2 : Locate the tape to Memo 1 and Memo 2 points, respectively.

23. DIRECTION (112R MKII only) : Switches over the tape side to play or record.

☞ *DIRECTION cannot operate during :*
   ○ *Repeat play*
   ○ *Search with LOC or CPS*
   ○ *Fast cueing*
   ○ *4-second blank recording*

☞ *If pressed while in F.FWD or REW, switches the tape side to play (or record) only when the tape reaches the end or beginning or when stop is pressed.*

24. Auto Reverse (112R MKII only) : In one-time, auto-reverse mode (⊃), both sides of the tape play or record and stop. But, if play or record starts on the reverse tape side, only that tape side plays or records and stops.

In continuous reverse mode (⊂⊃), the entire tape plays up to five times and stops, or both sides of the tape record and stop.

25. ADJUST (122 MKIII only) : If pressed when MONITOR is set to AUTO and the transport is in Record mode, allows you to press the OSC and 10 kHz switches and to "fine tune" the BIAS and LEVEL settings. For more details, see page 15.

26. OSC and 10 kHz (122 MKIII only) : Pressing OSC after ADJUST allows you to get 400 Hz or 10 kHz oscillator signals for BIAS and LEVEL adjustments (you get a 400 Hz signal unless you press the 10 kHz switch).

27. BIAS/LEVEL trimmers (122 MKIII only) : For precise calibration of the bias/record levels to the tape being used.

❏ The Rear Panel
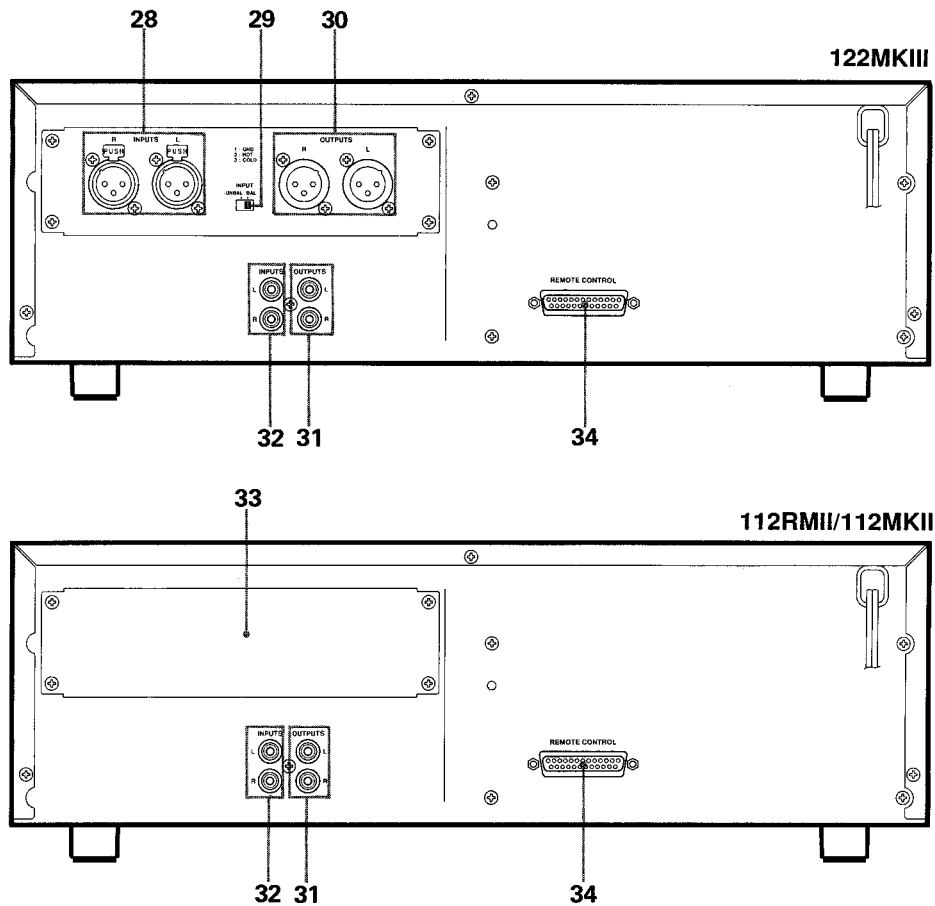
28. INPUT XLR-type jacks : Accept +4 dBm balanced signals. Pin assignment : Pin 1 is shield (ground), Pin 2 is Hot (+), and Pin 3 is Cold (-).

29. INPUT UNBAL/BAL switch : Selects either the XLR-type or RCA input jacks.

30. OUTPUT XLR-type jacks : Transmit +4 dBm balanced signals to your mixer, monitor amp, etc. Pin assignment : Pin 1 is shield (ground), Pin 2 is Hot (+), and Pin 3 is Cold (-).

31. OUTPUT RCA jacks : Transmit -10 dBV unbalanced signals.

32. INPUT RCA jacks : Accept -10 dBV unbalanced signals.

33. Blank Panel (except 122 MKIII) : Space for mounting an optional balanced amp kit (LA-112).

When the LA-112 is installed, you who are using the 112R MKII/112 MKII will have access to the INPUT XLR-type jacks (#28), the INPUT UNBAL/BAL switch (#29) and the OUTPUT XLR-type jacks (#30) as with the 122 MKIII.

34. REMOTE CONTROL connector : This 25-pin D-sub connector is for controlling the transport from the optional remote RC-112R (for 112R MKII) or RC-134 (for 122 MKIII and 112 MKII), or for fader start from a mixer.

A 25-pin connector (Part No. 53363571-00) and its jacket (Part No. 5336358100) are optionally available.

Fader start (122 MKIII and 112 MKII only) : Pins 22 and 24 are assigned for this function. The transport will toggle Play and Pause, as depicted.
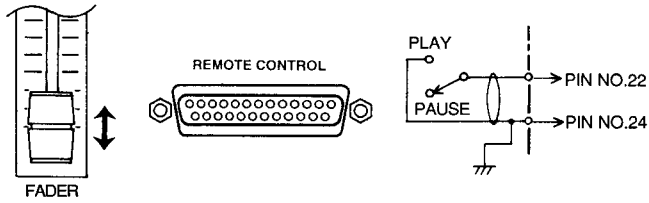
Pin	Signal	Function		
22	FADER START	Closed, Play; opened, Pause	Y	N
23	Not Used		–	–
24	GND		Y	Y
25	+5V	Max. 50mA	Y	Y

Y stands for Yes, N for No.
Input : To activate a function, the pin must be brought to ground potential for 24 msec or more.
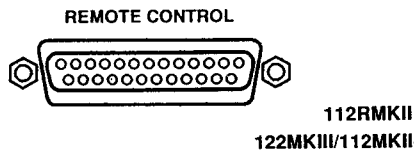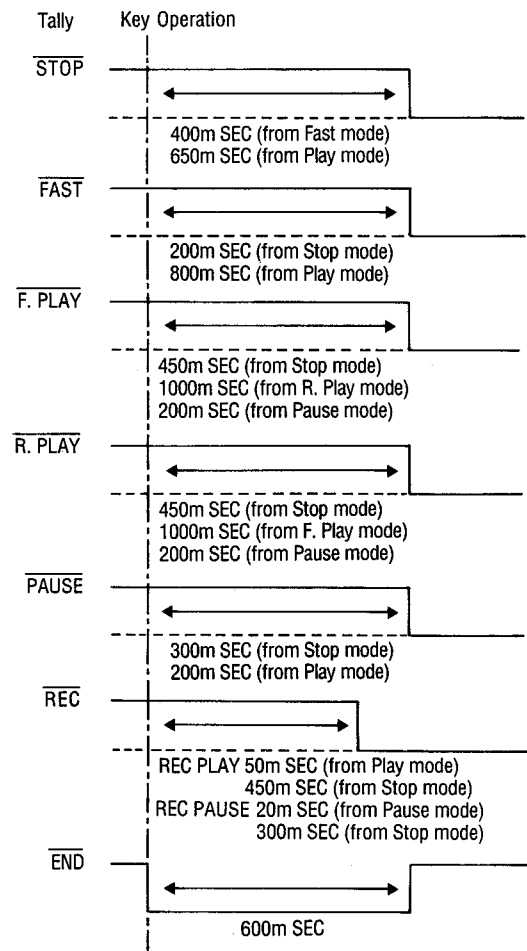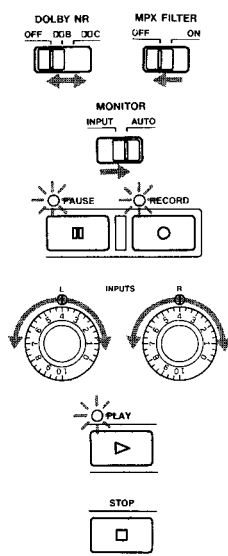
REMOTE CONTROL Pin Assignment

REMOTE CONTROL

112RMKII ──┐
122MKIII/112MKII ──┐

Pin	Signal	Function		
1	PLAY IN	Activates the corresponding transport mode, active at low level	Y	Y
2	FF IN	"	Y	Y
3	REW IN	"	Y	Y
4	PAUSE IN	"	Y	Y
5	STOP IN	"	Y	Y
6	REC IN	"	Y	Y
7	START COMMAND	Lets the next deck start playing during sequential play of two decks, active at low level (only when ordered to provide the function).	N	Y
8	Not Used		–	–
9	UP/DOWN OUT	Indicates the tape travel direction (UP : forward, DOWN : rewind)	Y	Y
10	END TALLY OUT	Indicates either end of the tape is reached, active at low level.	N	Y
11	F. PLAY TALLY OUT	Indicates the corresponding mode is activated, active at low level.	Y	Y
12	FF TALLY OUT	"	Y	Y
13	REW TALLY OUT	"	Y	Y
14	PAUSE TALLY OUT	"	Y	Y
15	STOP TALLY OUT	"	Y	Y
16	REC TALLY OUT	"	Y	Y
17	R. PLAY IN	Activates reverse side play, active at low level.	N	Y
18	R. PLAY TALLY OUT	Indicates reverse side play mode, active at low level.	N	Y
19	REEL PULSE		Y	Y
20	Not Used		–	–
21	RTZ IN	Fast-winds the tape to 00 00, active at low level.	Y	Y

Timing of Tally Outs

9

Basic Operation

Recording

DOLBY NR
OFF DDB DDC

MPX FILTER
OFF ON

MONITOR
INPUT AUTO

PAUSE RECORD

INPUTS
L R

PLAY

STOP

If you are using the 122 MKIII, first adjust **BIAS** and **LEVEL** as per instructions on page 15.

1. Plug the record source into the front or rear input jacks.

   If you have plugged the record source into the rear jacks, set the **INPUT** switch (on rear) to the appropriate position.

2. Set the **DOLBY NR** switch to the desired position, and the **MPX FILTER** switch to OFF unless you intend to record FM broadcasts.

3. Set the **MONITOR** select switch to AUTO.

4. Press and hold **RECORD** and press **PAUSE** to activate Record Ready mode.

5. Start your record source and adjust the **INPUT** controls so that the VU meters peak at about 0, and adjust the **PHONES** control for a comfortable listening level.

6. When everything is ready, press **PLAY** to start recording.

7. To stop recording, press **STOP**. Or press **PAUSE** to temporarily stop recording; to resume recording, press **PLAY**.

Playback

DOLBY NR
OFF DDB DDC

MONITOR
INPUT AUTO
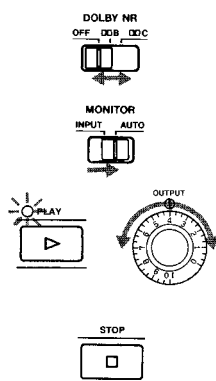
PLAY

OUTPUT

STOP

1. Set the **DOLBY NR** switch depending on the tape in use.

2. Set the **MONITOR** switch to AUTO.

3. To initiate playback, press **PLAY**.

   Adjust the **OUTPUT** and/or **PHONES** level controls as required.

4. To stop playback, press **STOP**. Or press **PAUSE** to temporarily stop playback; to resume playback, press **PLAY**.

Erasing a Tape

To erase a cassette tape not by overwriting, set the **INPUT** controls to 0 and press **RECORD** and **PLAY** together.

To quickly erase both sides of a tape (except metal tapes), use the optional TEAC E-2A Bulk Eraser.

10

Special Features

Autolocator Functions

### □ Setting Memo 1 and Memo 2 points

MEMO IN   LOC 1

Press **MEMO IN** and **LOC** (1 or 2) together at the desired moment. The tape counter reading at that moment is stored into memory.

☞ *You cannot set any memory points during repeat play or when the tape is fast-winding as a result of pressing either LOC.*

When the tape counter is reset to 00 00, your Memo points are automatically recalculated, so that they stay the same relative to their original tape positions.

□ Checking Memo Points

STOP   LOC 1
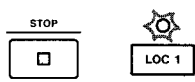
Press **STOP** and **LOC** 1/2 together and hold them. The tape counter will read the corresponding memory point until you release the buttons.

□ Changing Memo Points

Each time you press **MEMO IN** and **LOC** 1 or 2, a new memory point is established and the previous memory point is erased.

□ Erasing Memo points

All memory points are erased when you

    ○ Turn off the deck, or
    ○ Eject the tape.

□ Locating the tape

LOC 1

To Memo points : Press **LOC 1** to locate the tape to the Memo 1 point, and **LOC 2** to the Memo 2 point.

Auto Play : Press **PLAY** after **LOC**. The tape will automatically start playing at the end of search operation.

Auto Pause : Press **PAUSE** after **LOC**. The transport will automatically go into Pause mode at the end of search operation.

RTZ

To 00 00 : Press **RTZ**.

A repeat function continually plays a segment between two memory points.

1. Mark the desired start point with **MEMO IN** and **LOC 1**, and the end of the segment you want to repeat with the **MEMO IN** and **LOC 2**.

2. Press **REPEAT**.

   The tape will be located to the Memo 1 point and start playing, automatically. When it plays up to the Memo 2 point, it will again rewind to the Memo 1 point to resume playback.
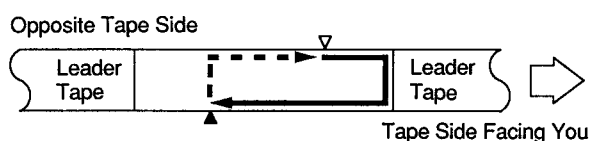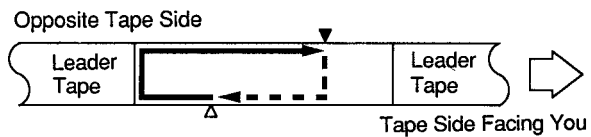
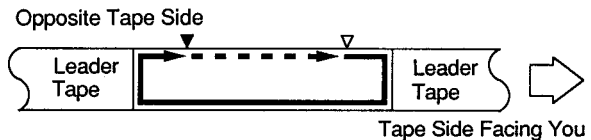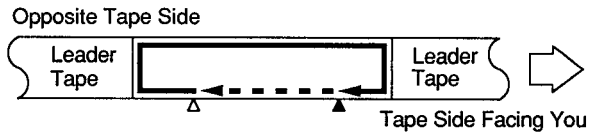● **To exit the repeat mode**, press **REPEAT** again.

☞ *REPEAT is locked out during Record or Record Pause (Ready).*

■ 122 MKIII/112 MKII : The Memo 1 point does NOT have to be higher than the Memo 2 point. The tape will play to the higher Memo point on the tape, rewind to the lower Memo point.

■ 112R MKII : The tape always plays to the Memo 2 point and rewinds to the Memo 1 point : Memo 2 should be higher than Memo 1.

■ If you press LOC 1/2 during repeat play, the tape will be located to the Memo 1/2 point and start playing or rewind to the lower Memo point.

■ If you press a transport control, the function pressed is activated and the repeat play mode is temporarily disabled; and the repeat sequence will resume when you

   ○ Press LOC 1 or 2, or
   ○ Press PLAY when you are somewhere inside the programed loop or at a point lower than the start point of loop.

112R MKII : **To create a repeat loop over both tape sides**, use the continuous reverse mode (⊂⊃) :

△ : Start point (Memo 1)   - - ► : Skip
▲ : End point (Memo 2)   ▷ : Forward play direction
——► : Play

Opposite Tape Side

Tape Side Facing You

Opposite Tape Side

Leader Tape | Leader Tape

Tape Side Facing You

Opposite Tape Side

Leader Tape | Leader Tape

Tape Side Facing You

Opposite Tape Side

Leader Tape | Leader Tape

Tape Side Facing You

Only the last example can either be in one-time, auto-reverse ⊃ or continuous reverse ⊂⊃ mode.

Recording a Blank Space Between Programs
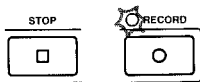
STOP | RECORD

Pressing **STOP** while holding **RECORD** down during Record records 4 seconds of silence, and the tape stops.

☞ *When a 4-second blank space is recording, all controls are locked out except :*

> *STOP, RESET, MEMO IN, ⊂⊃ , ⊃ (112R MKII only), and ADJUST (122 MKIII only)*

☞ *122 MKIII : If the OSC LED is lit when you press STOP and RECORD, the deck only goes into Stop mode.*

Using CPS (Computomatic Program Search) (112R MKII only)

STOP | MEMO IN

CPS counts a blank space of about 4 seconds between selections (programs) to locate the beginning of a specific one, letting the tape start playing after the search operation.

1. When the tape is stopped, press **STOP** and **MEMO IN** simultaneously. The CPS mode is activated and the tape counter displays "1."

   Pressing STOP and MEMO IN in other transport modes than stop, too, activates the CPS mode, the transport going into stop.

MEMO
IN

F FWD
▷▷

2. Specify how many selections from the current tape location is the desired selection by pressing **MEMO IN** as many times as necessary. Each time you press MEMO IN the number in the tape counter window will increment. You can enter up to 15.

You can hold MEMO IN to scroll up the numbers.

3. Depending on whether your selection is ahead or behind the current tape location, press **F.FWD** or **REW**.

4. Each time a blank space of about 4 seconds is encountered, the tape counter display will decrement, and at the end of search operation, the tape will automatically start playing.

■ Before pressing F.FWD or REW in step 3 if any of the following is pressed, the function pressed is activated and the CPS mode is disabled :

   ○ Transport controls except F.FWD and REW
   ○ RTZ
   ○ LOC 1/2
   ○ REPEAT

■ If you press F.FWD or REW after once search starts, the function pressed is activated and the CPS mode is disabled.

■ In continuous reverse mode (⊂⊃), you can skip to a selection on either tape side.

In once-through reverse mode (⊃), you can skip from the tape side facing you to a selection on the reverse tape side, but you cannot skip from the reverse tape side to a selection on the tape side facing you ; the tape will stop when either end of the reverse tape side is reached.

High speed cueing functions (#4 and 5, page 6): Depending on some conditions such as type of tape in use, environmental temperature and humidity, etc. reverse cueing may not possibly start, or may start but not smoothly, if the current tape location is close to the beginning of the tape. Similarly, the forward cueing may not possibly start as expected if attempted near the end of the tape.

Bias and Recording Level Calibration (122 MKIII only)
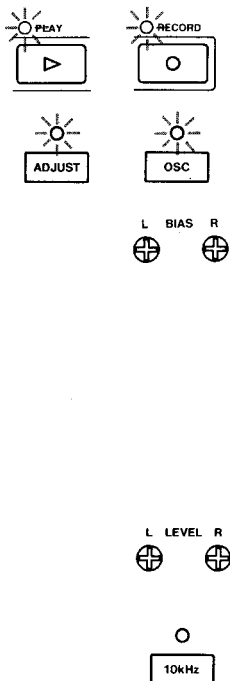
Tapes differ considerably in the bias required to record on them and in their sensitivity. The 122 MKIII allows fine adjustment of bias to exactly match the tape being used ; also the reference recording level can be precisely adjusted to compensate for difference in sensitivity among tapes.

■ Before starting adjustment, clean the heads, tape guides, rollers, etc. and demagnetize the heads and all metal parts in the tape path.

■ In you intend to make adjustment while monitoring through speakers, turn down their volume to avoid damage to them.

■ Have at hand a crisscross screwdriver which fits in with the BIAS/LEVEL trimmers.

1. Load the tape.

2. Make the following settings :

   INPUT level controls to 0 ;
   OUTPUT level control to 0 ;
   MONITOR switch to AUTO ;
   DOLBY NR switch to OFF ;
   MPX FILTER to OFF.

3. Press **PLAY** and **RECORD** to put the deck into Record mode.

4. Press **ADJUST**, then press **OSC**.

5. Turn the **BIAS** trimmers all the way to the left with the appropriate screwdriver.

6. Slowly turn the **BIAS** trimmers (one at time) clockwise for maximum reading on the VU meters.

   Suggestions : Turn the trimmers to the left and right alternately to "pinpoint" the exact maximum position. If the meter needles deflect all the way to the right, adjust the LEVEL trimmers until the meters read about 0 VU at a maximum setting of BIAS.

7. Adjust the **LEVEL** trimmers (one at time) for 0 VU.

8. While alternating the oscillator signal between 10 kHz and 400 Hz by pressing the **10 kHz** switch on and off (still in record mode), adjust the **BIAS** trimmers so that the VU meters show almost the same reading at both frequencies.

9. Set the oscillator to 400 Hz (10 kHz LED off) and readjust the **LEVEL** trimmers for 0 VU.

Repeat the procedure each time you change the tape, especially when you change the type of tape.

Dolby HX PRO

If the source you are recording is rich in high-frequency signals, they can adversely affect the accuracy of the recording and decrease the high-frequency response. The Dolby HX Pro system takes care of these signals during recording to prevent the accuracy of the recording from decreasing and improve the high-frequency response (by 6 dB or more).

The Dolby HX Pro system uses no encoding/decoding process and a cassette tape recorded with this system can be played back on any stereo cassette players.
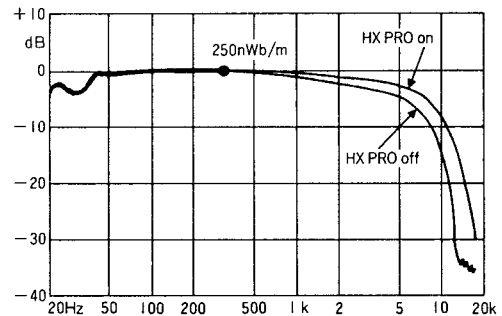
A typical example of effect of Dolby HX Pro (with Normal Tapes)

Care and Maintenance

❏ Cleaning the Heads and Tape Guides

All heads and metal parts in the tape path must be cleaned after every 6 hours of operation, or before starting and after ending a recording session.

1. Open the cassette door.

2. Using a good head cleaning fluid and a cotton swab, clean the heads and tape guides until the swab comes off clean. Wipe off any excess ceaning fluid with a dry swab.

❏ Cleaning the Pinch Roller

Clean the pinch roller at least once each day the deck is used. Use a good rubber cleancer.

1. Clean the pinch roller with a cotton swab moistened with rubber cleaner, until there is no visible residue on the pinch roller

2. Using a clean cotton swab, wipe off all excess rubber cleaner from the pinch roller. Make certain that there is no foreign matter remaining on the pinch roller.

❏ Cleaning the Capstan Shaft

After cleaning the pinch roller, clean the capstan shaft with a cotton swab moistened with head cleaning fluid.
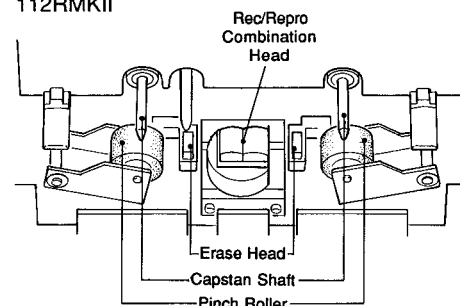
❏ Degaussing the Tape Path

Slowly move in to the tape path. Move the degausser slowly back and forth, touching lightly all metal parts in the tape path. Slowly move it away again to at least 1 m (3 feet) from the recorder before turning if off.
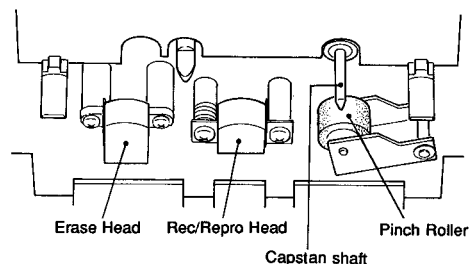
122MKIII

112RMKII

112MKII

16
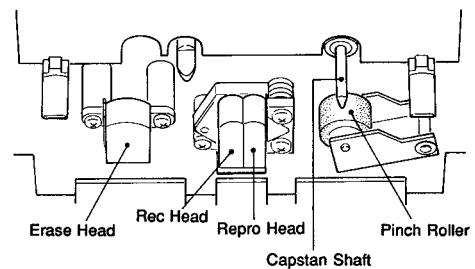
Specifications

Tape : Compact cassette C-30 to C-90
(Normal/CrO2/Metal)

Track Format : 4-track, 2-channel

Head Configuration

122 MKIII : 4-track, 2-channel
Record (x1)/repro (x1) combination
head (amorphous)
Half track
Erase head (x1) (ferrite)

112R MKII : 4-track, 2-channel
Record (x1)/repro (x1) combination
rotary head (permalloy)
Half track
Erase head (x1) (ferrite)

112 MKII : 4-track, 2-channel
Record/repro head (x1) (permalloy)
Half track
Erase head (x1) (ferrite)

Motor

122 MKIII : FG servo direct-drive capstan motor x1
DC servo reel motor x1
DC ancillary motor x1

112R MKII/112 MKII :DC servo capstan motor x1
DC reel motor x1
DC ancillary motor x1

Tape Speed : 4.8 cm/sec. (1-7/8")

Pitch Control : +/-12% (approx.)

Line Input
- Rear RCA jack/front 1/4" jack
Nominal Input Level : -10 dBV (0.3 V)
Minimum Input Level : -18 dBV (126 mV)
Input Impedance : 20k ohms, unbalanced
- XLR-type jack (standard on 122 MKIII ; optional on
112R MKII/112 MKII—LA-112 required)
Nominal Input Level : +4 dBm (1.23 V)
Input Impedance : 10k ohms, balanced

Line Output
- RCA jack (rear)
Nominal Output Level : -10 dBV (0.3 V)
Maximum Output Level : -2 dBV (0.8 V)
Output Impedance : 100 ohms
Load Impedance : 25k ohms or more
- XLR-tyep jack (standard on 122 MKIII ; optional on
112R MKII/112 MKII—LA-112 required)
Nominal Output Level : +4 dBm (1.23 V)
Minimum Load Impedance : 600 ohms

Headphone Output : 100 mW (8-ohm load)

Bias/Erase Frequency :
122 MKIII : 150 kHz
112R MKII/112 MKII : 100 kHz

Equalization : 3180 μs + 70 μs (CrO2/Metal)
3180 μs + 120 μs (Normal)

Reference Recording Level :
250 nWb/m = 0 VU (315 Hz) (EIAJ);
With Dolby : 200 nWb/m = -1 VU

Remote Connector : 25-pin D-sub (see also page 9)

Power Requirements :
USA/Canada : 120 V AC, 60 Hz
U.K./Australia : 240 V AC, 50 Hz
Europe : 230 V AC, 50 Hz

Consumption :
122 MKIII/112R MKII : 23 W
112 MKII : 20 W

Dimensions (WxHxL) : 482 mm x 132 mm (rubber
feet not included)x 356.3 mm (19" x 5-3/16" x 14")

Weight :
122 MKIII/112 MKII : 8.4 kg (18-8/16 lbs.)
112R MKII : 8.7 kg (19-3/16 lbs.)

Typical Performance

Speed Accuracy :
122 MKIII : +/-0.5%
112R MKII/112 MKII : +/-1.0%

Wow & Flutter[1] :
less than 0.04% WRMS

Fast Winding Time :
70 sec. (approx.) with C-60

Frequency Reponse, Overall[2] (EIAJ, without NR)

122 MKIII : 25 Hz to 20 kHz, +/-3 dB (Metal)
25 Hz to 19 kHz, +/-3 dB (CrO2)
25 Hz to 17 kHz, +/-3 dB (Normal)

112R MKII : 25 Hz to 19 kHz, +/-3 dB (Metal)
25 Hz to 18 kHz, +/-3 dB (CrO2)
25 Hz to 17 kHz, +/-3 dB (Normal)

112 MKII : 25 Hz to 19 kHz, +/-3 dB (Metal)
25 Hz to 18 kHz, +/-3 dB (CrO2)
25 Hz to 16 kHz, +/-3 dB (Normal)

Distorsion[2] : less than 1.0%, at 1 kHz,
160 nWb/m (Metal)

S/N Ratio[2] (metal tape)
122 MKIII/112R MKII : 60 dB (without NR, ref.3%
THD, WTD)
70 dB (with Dolby-B NR, over 5 kHz)
80 dB (with Dolby-C NR, over 1 kHz)

112 MKII : 59 dB (without NR, ref.3% THD,
WTD)
68 dB (with Dolby-B NR, over 5 kHz)
78 dB (with Dolby-C NR, over 1 kHz)

Channel Separation[2] : 45 dB or better (1 kHz)
Erase Ratio[2] :
 65 dB or better (1 kHz)

In these specifications, 0 dBV is referenced to 1 Volt, and
0 dBm is referenced to 0.775 Volt. Actual voltage levels are
shown in parenthesis.

[1] Measurements made with TEAC test tape MTT-111
[2] Measurements made with TEAC blank test tapes MTT-
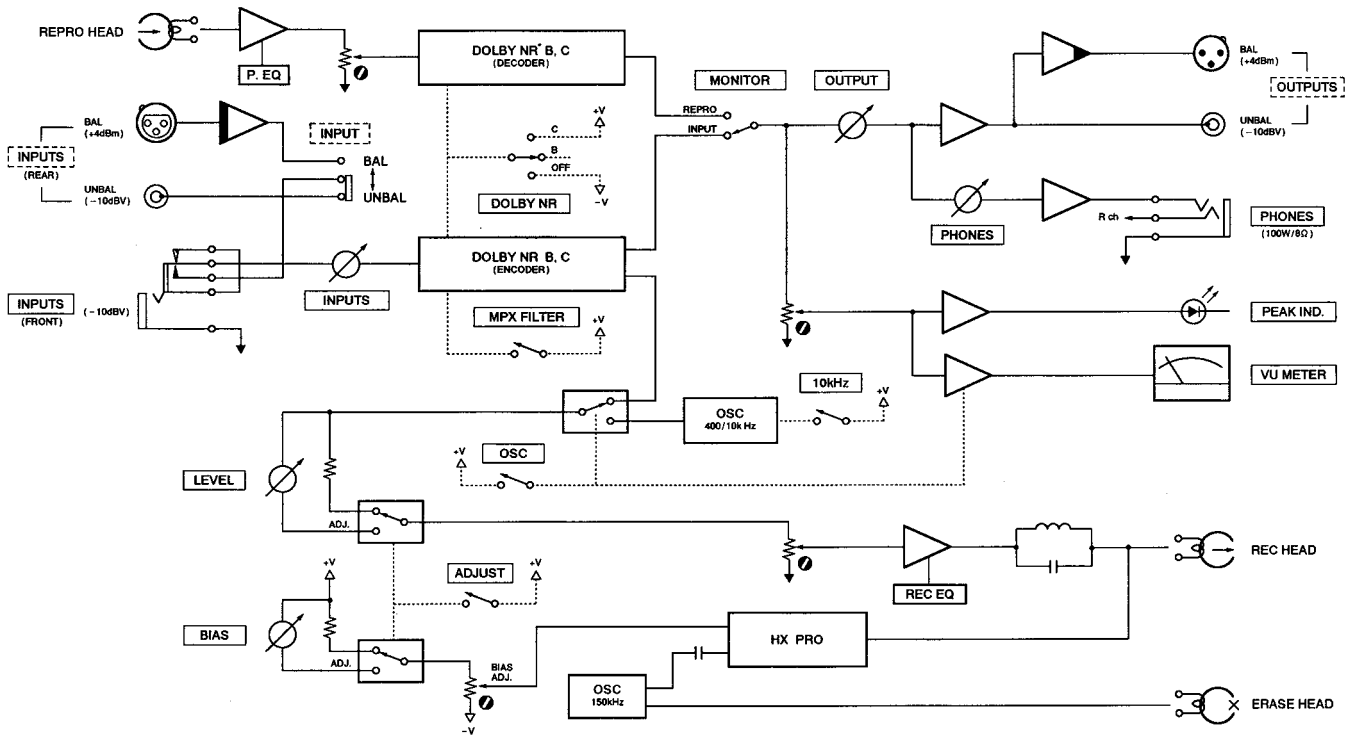 5571 (Metal), MTT-5562 (CrO2) and MTT-5512
 (Normal).

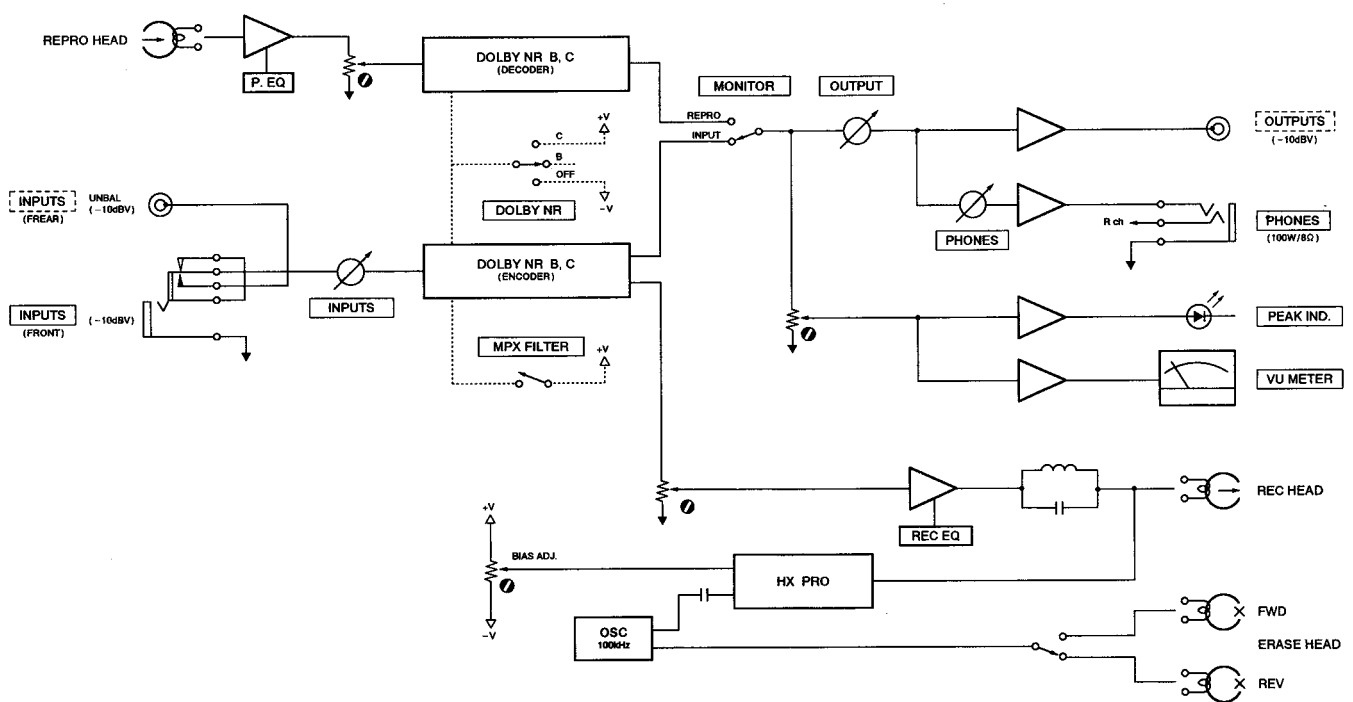❑ Specifications and features subject to change without
 notice or obligation.
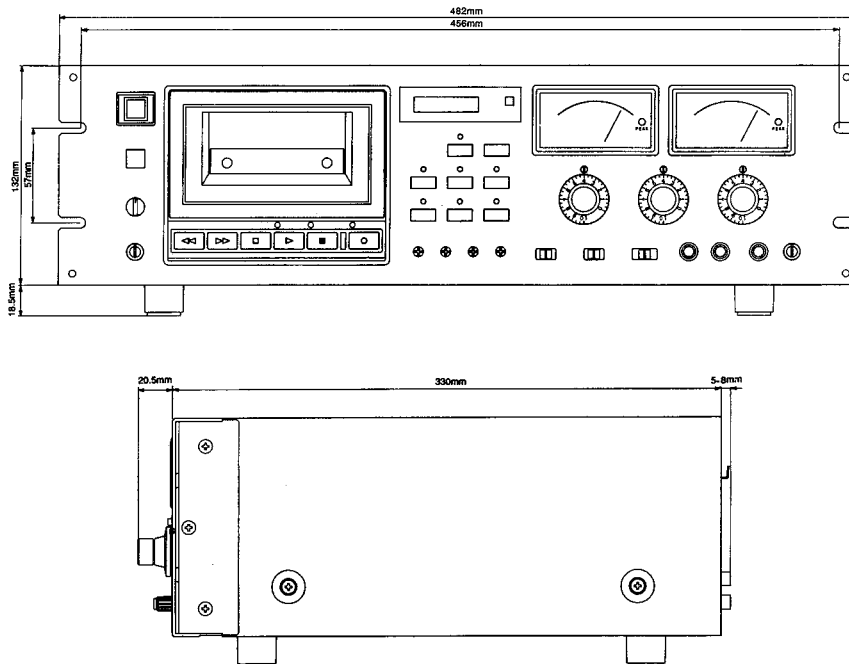
(Illustration shows 122 MKIII. The measurements of the three
models are the same.)

Block Diagrams

122MKIII

112RMKII

112MKII

TASCAM
TEAC Professional Division
122MKIII/112RMKII/112MKII