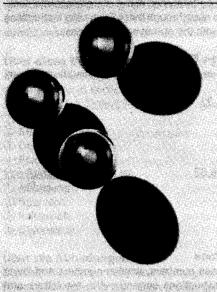


For more Hi-Fi manuals and set-up information please visit www.hifiengine.com





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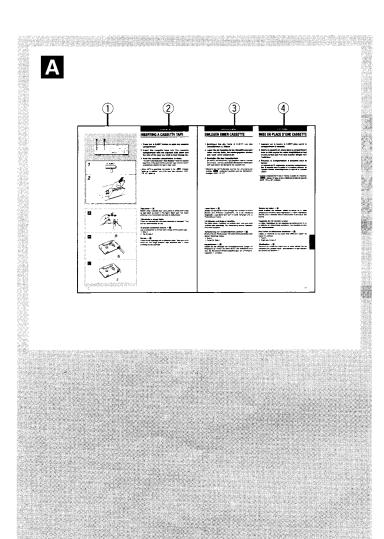
STEREO CASSETTE DECK STEREOCASSETTENDECK MAGNETOCASSETTE STEREO PLATINA DE CASETE ESTEREO PIASTRA A CASSETTE STEREO 卡式立體聲走帶機

**AD-S750** 

OPERATING INSTRUCTIONS See page 2.
BEDIENUNGSANLEITUNG Siehe Seite 3.
MODE D'EMPLOI Voir page 3.

MANUAL DE INSTRUCCIONES Consulte la página 36. ISTRUZIONI PER L'USO Vedere pagina 37.

使用說明書 請參閱第37頁。



# Welcome to the Aiwa AD-S750

Congratulations on your purchase of an Aiwa Stereo Cassette Deck. To optimize the performance of this stereo cassette deck, please take the time to read through these Operating Instructions and become familiar with the operating procedures.

#### About this manual → A

This manual contains illustrations and instructions in six languages.

From page 2 to page 33

- ① Illustration
- 2 English
- 3 German
- 4 French

#### From page 36 to page 67

- 1 Illustration
- ② Spanish
- (3) Italian
- (4) Chinese

#### About the illustrations

Capital letters, bold face numbers, smaller numbers and lower case letters in the instructions correspond to the letters and numbers in the illustration column.

For example, the " $\rightarrow$   $\blacksquare$ " following "About this manual" above is a reference to  $\blacksquare$  of the illustration.

#### **OWNER'S RECORD**

For your convenience, record the model number and serial number (you will find them on the rear of your set) in the space provided below. Please refer to them when you contact your AIWA dealer in case of difficulty.

Model No. AD-S750 E, K, U

Serial No.

#### WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



# CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN



"CAUTION:TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."

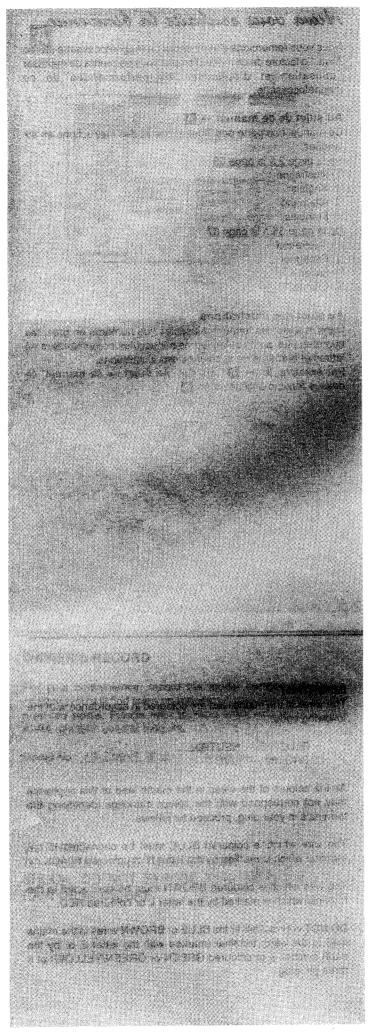
#### **Explanation of Graphical Symbols:**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



# **MAIN FEATURES**

The Aiwa AD-S750 Stereo Cassette Deck is a 2-head design single cassette deck. Read the following to familiarize yourself with the main features of your unit.

#### **DOLBY S NR SYSTEM** (→ page 14)

The Dolby S NR system delivers exceptional noise reduction performance in the low-frequency range as well as in the middle-frequency to high-frequency range to reduce harmful "breathing" and "pumping" noises. The Dolby S NR system provides advanced noise reduction and increased headroom for clear and true-to-life premium sound entertainment.

AMTS (Anti Modulation Tape Stabilizer → page 12)
Aiwa's innovative AMTS technology stabilizes the cassette tape automatically to dramatically reduce vibration for optimal sound reproduction.

# DATA SYSTEM (Automatic Bias/Recording Sensitivity Tuning System → page 24)

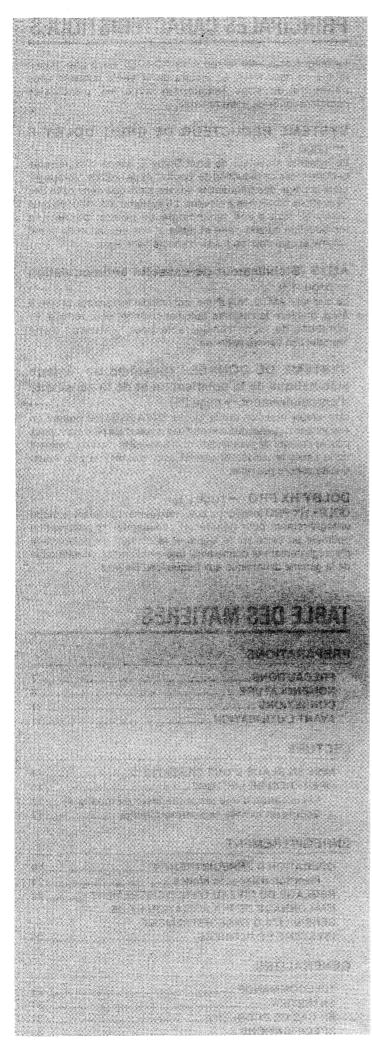
A single press of the DATA SYSTEM button enables complete automatic calibration of the most favorable levels for the bias current and recording sensitivity of the tape in use to deliver the highest sound quality possible.

### **DOLBY HX PRO** (→ page 20)

The DOLBY HX PRO functions automatically during the recording mode to generate and control the optimal bias by calculating the recording signal and the recording bias current for a dramatic enhancement of the high-frequency dynamic range.

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# **PRECAUTIONS**

#### **Proper Operation**

- Read the Operating Instructions carefully and completely before operating the unit.
- Be sure to keep the Operating Instructions for future reference.
- All warnings and cautions in the Instructions and on the unit should be strictly followed.
- Clean the unit only as recommended in the Operating Instructions.

#### Installation

- The unit should not be used near water, such as in a bathroom or kitchen.
- The unit should not be used near sources of heat, including heating vents, stoves, or other appliances. Do not place next to power amplifiers that generate heat.
- Take care so that small objects or liquids do not get inside the unit through the ventilation openings.
   PORTABLE CART WARNING
- When placed or mounted on a stand or cart, it should be moved with care so that the unit does not overturn or fall.
- The unit should be situated with adequate space around it so that proper heat ventilation is assured.



S3125A

- Do not place it on a bed, rug, or similar surface that may block the ventilation openings.
- Do not install it in a bookcase, cabinet, or airtight rack where ventilation may be impeded.

#### **Electric Power**

- Connect this unit only to power sources specified in the Operating Instructions, and as marked on the unit.
- Be sure that the unit is properly grounded.
- When disconnecting the power cord, pull it out by the power plug. Do not pull the cord itself.
- Never handle the power plug with wet hands, as this could result in fire or shock.
- Unplug the power cord from the power socket if the unit will not be used for several months or more.
- Avoid overloading power sockets and extension cords beyond their capacity, as this could result in fire or shock.

#### **Damage Requiring Service**

Have the unit serviced by a qualified service technician if:

- -The power cord or power plug has been damaged
- -Objects or liquid have gotten inside the unit
- -The unit has been exposed to rain or water
- -The unit does not seem to operate normally
- -The unit exhibits a marked change in performance
- -The unit has been dropped, or the cabinet has been damaged DO NOT ATTEMPT TO SERVICE THE UNIT YOURSELF.

# 0 00 ( a ender og Bygger (f. 1920). Grand Grand Bygger В 20 16 12 10 8 6 4 2 0 2 4 +6 EKTATON TADAMA PARKAN AKATAK DIRITAT ARKADA SEMBAH ARKADA AKATAK ANADAK ANADAK ARADAK ANADAK ANADAK MT AMTS DATA SYSTEM MPX HX PRO DOLBY B C S NR The last of the second en productivitation de la company de la c And the major of the second ngan diga da kanggaran kanggaran da kanggaran da kanggaran da kanggaran da kanggaran da kanggaran da kanggaran enggerige den gegende betrept van de betrept van de beste de se

# NAME OF PARTS

The following parts are described in detail on the page(s) indicated in the black circle  $\blacksquare$ .

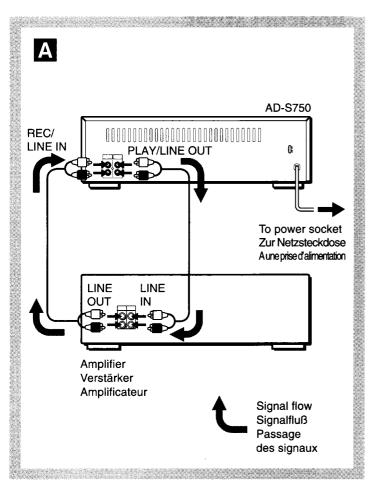
#### A Front

- 1 POWER button ®
- 2 Cassette compartment 10
- 3 COUNTER RESET button ®
- 4 Display window
- 5 DOLBY NR selector 📵 🚯
- 6 REC LEVEL control 18 22

- 9 ●/O REC/REC MUTE button ® ②
- 10 button 10 18 29
- 11 ► button 🗗 🚯
- 12 ►► MS/CUE button 16
- 13 II button (B)
- 14 PHONES jack
- 15 DATA SYSTEM button @
- 16 REC BALANCE control ®

#### B Display window

- 1 Tape counter 🚯 🚳
- 2 Peak level meter ②
- 3 Operation indicator
- 4 Tape type indicator 12
- 5 AMTS indicator **1** 
  - DATA SYSTEM indicator 🛭 🚳
- 7 MPX FILTER indicator ®
- 8 HX PRO indicator
- 9 DOLBY B, C, S NR indicator 19 18



# **CONNECTIONS**

Illustration A shows how to connect the unit with an amplifier.

- Connect other equipment before connecting the power cord.
- Firmly insert the red plug into the R jack, and the white plug into the L jack.

#### **PLAY/LINE OUT jacks**

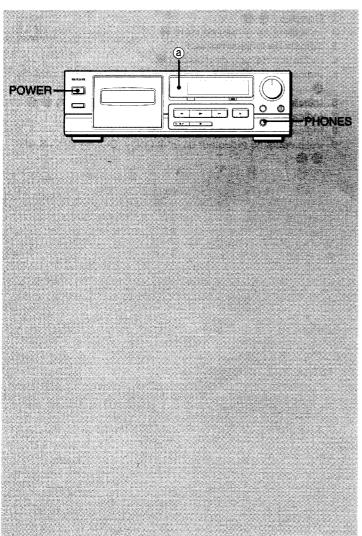
These are the jacks through which the playback sound is output. Use the supplied stereo phono cords to connect the unit to the TAPE PLAY, LINE IN or AUX IN jacks on the amplifier or receiver.

#### **REC/LINE IN jacks**

These are the jacks that input the sound from the source (tuner, stereo amplifier, etc.) which you wish to record. Use the supplied stereo phono cords to connect the unit to the TAPE REC or LINE OUT jacks of the source.

#### NOTE

Loose connections may cause noise.



# **BEFORE OPERATION**

#### Remote control

When this unit is connected to the Aiwa XA-950\* stereo integrated amplifier, basic operations such as playback, recording, fast forward and rewind can be carried out using the remote control supplied with the XA-950.

When operating the remote control, point the remote control to sensor ⓐ in the display window and press the desired button(s).

\* The Aiwa XA-950 stereo integrated amplifier is not available in the USA.

#### **PHONES** jack

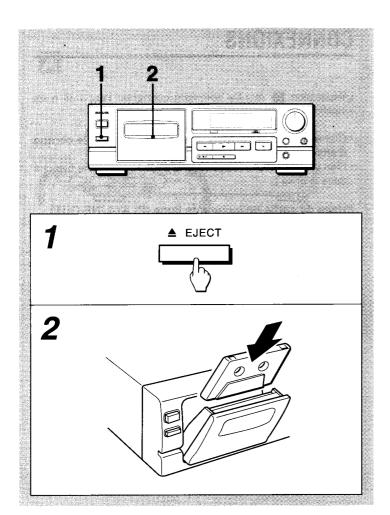
Connect headphones rated at 8 ohms to 1k ohm impedance to the PHONES jack with a stereo standard plug ( $\emptyset$  6.3 mm/ $^{1}$ /4 inch).

#### **Power supply**

Plug the power cord that extends from the rear panel into a power socket, and turn the unit on and off by pressing the POWER button.

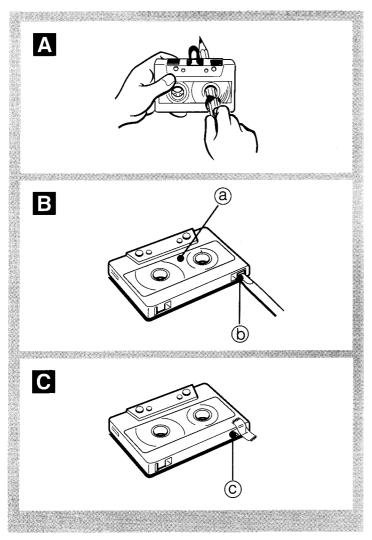
#### When the power is turned on

The II indicator flashes for about 2 seconds when the power is turned on, to indicate that the unit is in the standby mode.



# **INSERTING A CASSETTE TAPE**

- 1 Press the ≜ EJECT button to open the cassette compartment.
- 2 Insert the cassette tape into the cassette compartment with the exposed side down and the side of the tape you wish to hear facing you.
- 3 Push the cassette compartment to close. The AMTS (Anti Modulation Tape Stabilizer) holds the cassette tape firmly in the deck and the automatic tape selector system automatically detects the type of tape used.
- When AMTS is operating, the border of the AMTS indicator lights up. In addition, one of the tape type indicators (NOR, CR, MT) lights up.



#### Tape slack → 🔼

Before using a cassette tape, use a pencil or similar tool to take up tape slack as shown in the figure. Slack tape may cause jamming in the mechanism and lead to malfunctions.

#### 120-minute or longer tapes

These are extremely thin and easily deformed or damaged. They are not recommended for use.

#### To prevent accidental erasure → **B**

Use a screwdriver or pointed tool to break off the plastic tabs.

- (a) Side A
- **b** Tab for side A

#### Re-use → C

Cover the tab openings with a cellophane tape. Take care not to cover the  $CrO_2$  (high position) tape detection slot © when covering the tab openings.

# 0 2 DOLBY NR 3 Α **Effects of Dolby Noise Reduction** Die Wirkung von Dolby-Rauschunterdrückung Effets de la réduction de bruit Dolby Response Ansprechen Réponse (dB) 10 dB

# PLAYBACK OPERATION

- 1 Insert the cassette tape and push the cassette compartment to close.
- 2 Slide the DOLBY NR selector to the appropriate position to match the playback tape.

For tapes recorded with Dolby S NR, set the DOLBY NR selector to S.

For tapes recorded with Dolby C NR, set the DOLBY NR selector to C.

For tapes recorded with Dolby B NR, set the DOLBY NR selector to B.

For tapes recorded without Dolby NR, set the DOLBY NR selector to OFF.

You can confirm the Dolby NR type by checking the Dolby NR indicator on the display. When no indicator is displayed, the Dolby NR system is off.

- 3 Press the ▶ button to start playback.
- 4 Adjust the volume control on the connected amplifier.

#### Tape movement controls

To stop	
To pause	11
To resume	11
To eject	<b>≜</b> EJECT

#### **Full automatic stop**

When the tape reaches the end in any playback mode (playback, rewind or fast forward) or recording mode, the automatic stop mechanism disengages the drive mechanism and returns all controls to neutral.

#### Dolby S NR System → A

In addition to the Dolby B NR system and Dolby C NR system, this unit features the latest Dolby S NR system which was developed for use in professional recording studios.

The Dolby S NR system is based on the operating principles developed for Dolby SR (the professional Spectral Recording system) introduced in 1986 by Dolby Laboratories.

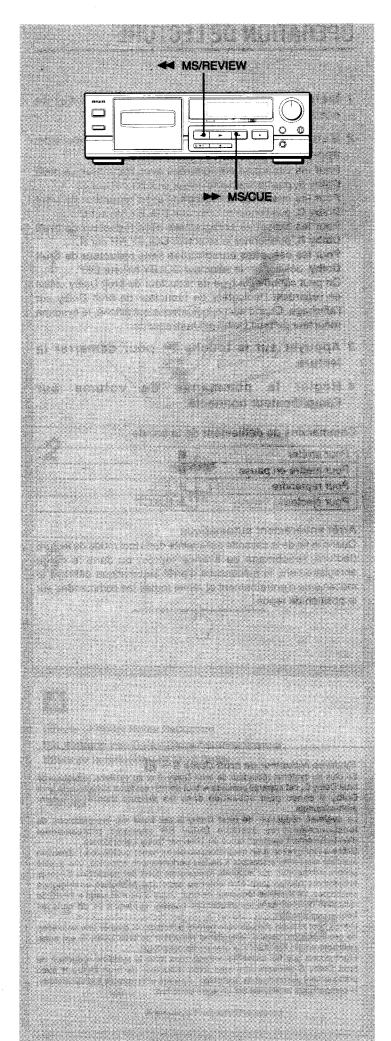
When incorporated into a high quality cassette deck and used with today's high performance tape formulations, sound performance which compares with digital media in actual subjective listening conditions can be achieved from conventional analog cassettes. The Dolby S NR system boasts up to 10 dB of noise reduction in the lower frequencies; and up to 24 dB in the higher frequencies.

Designed to dramatically reduce distortion and increase headroom, the Dolby S NR system is also particularly resistant to decode errors. Enhanced compatibility is another feature as cassette tapes recorded with Dolby S NR may be played back with Dolby B NR with virtually no "pumping" or other harmful dynamic effects.

100

10K (Hz)

Frequency/Frequenz/Fréquence



#### PLAYBACK OPERATION

## Locating a selection (Music Sensor)

If there is a 4-second or longer blank between each track, the search for the beginning of the current or next track during playback can be easily made.

To listen from the beginning of the current selection Press the ◀◀ MS/REVIEW button once during playback.

To listen from the beginning of the next selection Press the ▶► MS/CUE button once during playback.

#### NOTE

The music sensor may not function properly when using a tape with:

- blanks of less than four seconds between tracks.
- · noisy blanks.
- low overall recording levels.
- · long passages of low-end sound.

#### **Cue/Review**

#### Cue

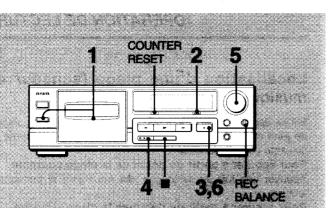
This function is useful for locating the beginning of a selection, or for skipping undesired portions of the tape.

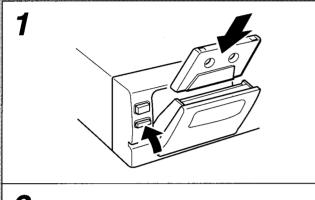
During playback, press the ►► MS/CUE button continuously.
 The tape is fast-forwarded as long as the button is pressed, and playback resumes when the button is released.

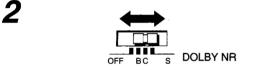
#### Review

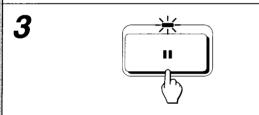
This function is useful for repeating the playback of one portion of the tape.

 During playback, press the ■ MS/REVIEW button continuously. The tape is rewound as long as the button is pressed, and playback resumes when the button is released.

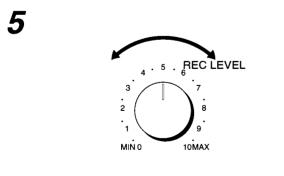


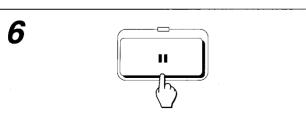












# RECORDING OPERATION

#### Preparation

- Wind up the tape to the point where recording will start.
- Normal, CrO<sub>2</sub> (high position) and metal tapes can be recorded.
- Before recording, it is strongly recommended that the DATA SYSTEM function be used for the automatic calibration of the tape to deliver the highest sound quality possible. The calibration of the DATA SYSTEM function improves the frequency characteristics of the specific tape to be used. See pages 24 to 26 for details on bias and recording sensitivity calibration.
- 1 Insert the cassette tape and push the cassette compartment to close.
- 2 Slide the DOLBY NR selector to the desired position.

To record with Dolby S NR, set the DOLBY NR selector to S. To record with Dolby C NR, set the DOLBY NR selector to C. To record with Dolby B NR, set the DOLBY NR selector to B. To record without Dolby NR, set the DOLBY NR selector to OFF.

You can confirm the Dolby NR type by checking the Dolby NR indicator on the display. When no indicator is displayed, the Dolby NR system is off.

#### 3 Press the II button.

The indicator above the II button lights up.

#### 4 Press the ●/O REC/REC MUTE button.

The ●/O REC/REC MUTE indicator lights up.

# 5 Adjust the recording level with the REC LEVEL control.

See page 22 for details on adjusting the recording level.

#### 6 Press the II button to begin recording.

#### Tape movement controls

	To stop recording		
	To pause recording	11	11
	To resume recording	11	II

#### To adjust the recording balance

Adjust the left balance and right balance of the source to be recorded as desired if necessary. Turn the REC BALANCE control toward LEFT or RIGHT before recording.

Under normal conditions, set the REC BALANCE control to the center position.

#### To start recording during playback

Press the ► and ●/O REC/REC MUTE buttons simultaneously during playback. Recording begins.

#### To quick review during recording

Press and hold the ◀◀ MS/REVIEW button during recording. Release the ◀◀ MS/REVIEW button at the desired point to hear the sound which was recorded a moment ago. The recording mode is released and the tape is rewound for quick review.

#### Tape counter

A convenient way to locate desired points on the tape is to reset the counter at the beginning of the tape by pressing the COUNTER RESET button and then taking note of the counter value while recording or playing back.

#### RECORDING OPERATION

## 

To create a four-second blank segment on the cassette tape, press the •/O REC/REC MUTE button once during recording. The •/O REC/REC MUTE indicator flashes. After creating a blank segment, the unit enters the pause mode.

#### To resume recording

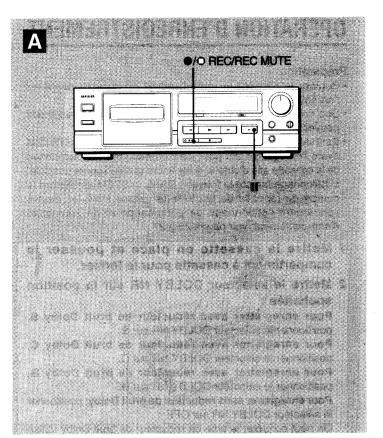
Press the II button.

#### For blank segments of less than four seconds

After pressing the ●/O REC/REC MUTE button, press it once again quickly (i.e., within the four-second period). Muting will stop and normal recording will resume.

#### For blank segments of more than four seconds

Hold the ●/O REC/REC MUTE button down for as long as desired. When the button is released, normal recording will resume. The ●/O REC/REC MUTE indicator flashes at approximately one-second intervals after the first four-second period has elapsed.

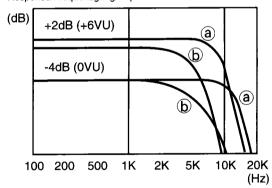




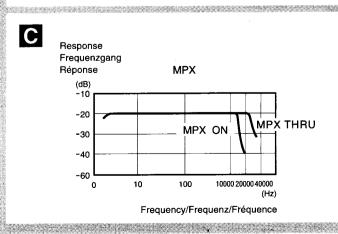
Effects of DOLBY HX PRO when using a Normal position tape Effekt von DOLBY HX PRO bei der Verwendung eines Normalband-Cassette

Effets du DOLBY HX PRO lors de l'utilisation d'une cassette normale

Response/Frequenzgang/Réponse



Frequency/Frequenz/Fréquence



#### Dolby S NR System

See page 14 for details on the Dolby S NR system.

#### DOLBY HX PRO → B

When a source containing high-frequency components is recorded, these components function as a bias and the high-frequency characteristics deteriorate. DOLBY HX PRO is a servo control system which always provides the most suitable value for the bias by calculating the recording signal and the recording bias current as a whole. A metal-tape-like performance is attained even with normal tapes, because the frequency response is kept flat at all times by stabilizing the dynamic frequency characteristics. Furthermore, the DOLBY HX PRO substantially expands the high-frequency dynamic range.

- This is not a noise reduction system.
- The system functions automatically when the deck is in the recording mode.
   At this time, HX-PRO appears on the display.

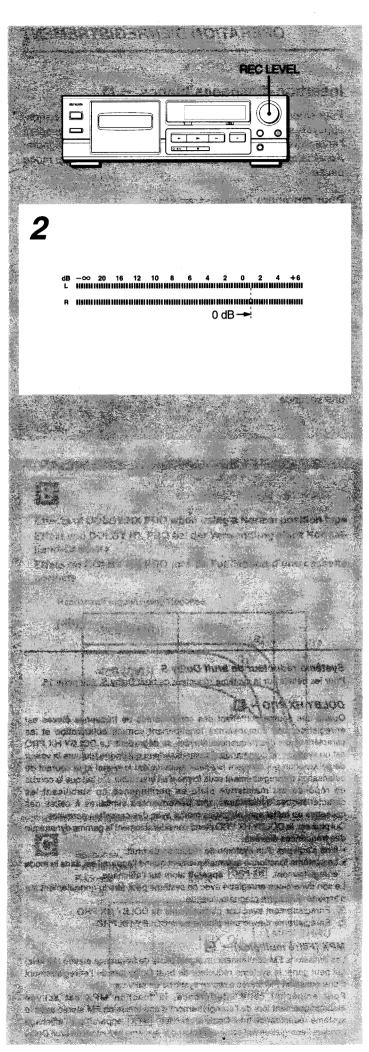
The dynamic sound recorded with this deck can be played back normally in other decks and headphone stereo sets.

- Recording with a deck equipped with DOLBY HX PRO
- **b** Recording with a deck not equipped with DOLBY HX PRO

#### MPX (Multiplex filter) → G

FM broadcasts contain a high-frequency pilot signal (19 kHz) which may interfere with the Dolby NR system when recording an FM stereo broadcast with the Dolby NR system turned on.

To prevent this interference, the MPX function is activated automatically when recording an FM stereo broadcast with the Dolby NR system. MPX appears on the display during recording only when the Dolby NR system is turned on.



# ADJUSTING THE RECORDING LEVEL

Set the recording level as described below while observing the peak level meter in the display window.

The peak level meter holds the peak level for a second or two to facilitate quick viewing of the recording level.

- 1 Play the source to be recorded after step 4 of "RECORDING OPERATION" on page 18.
- 2 Adjust the REC LEVEL control so that the maximum peak level of the loud portion of the source being played does not exceed the 0 dB level.

The recording level is adjusted successfully when the 0 dB segment lights from time to time but does not exceed this recommended range.

To increase the recording level, turn the REC LEVEL control toward MAX.

To decrease the recording level, turn the REC LEVEL control toward MIN.

#### Optimal recording level

Record the source at the highest possible level to reduce tape hiss noise. However, if the recording level is too high as to exceed the capacity of the cassette tape, the recorded sound will be distorted. On the other hand, if the level is too low, tape noise increases and the sound volume will be low.

#### To fade in or to fade out a recording

The REC LEVEL control can be used to slowly fade in a recording by adjusting from MIN towards MAX, and to slowly fade out by adjusting towards MIN.

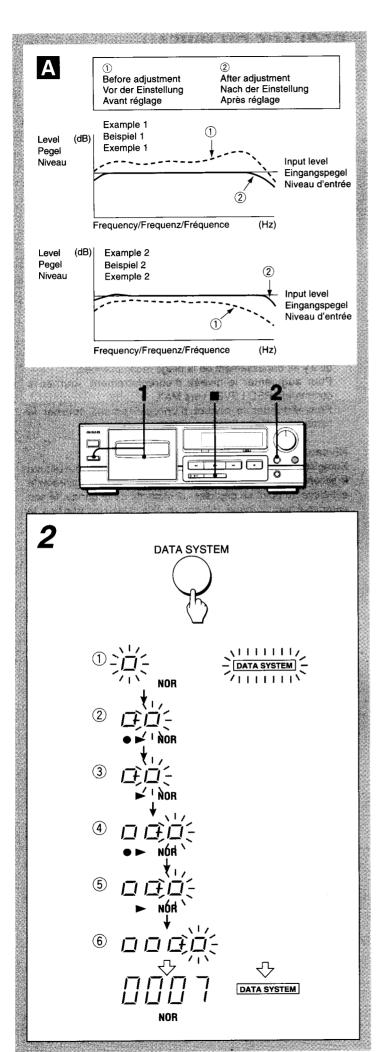
#### Peak Level

Because conventional VU meters indicate the average value of the input signal, it is difficult to read momentary peak levels. Thus, even when recording within the 0 VU range, the playback sound may sometimes be distorted (i.e., not optimal recording). In contrast, peak levels indicate the maximum value of the input signal to enable easy reading of momentary peaks for optimal recording.

#### Erasing a Tape

If a recorded portion of a tape is no longer required, a new recording can be made on the same tape. The earlier portion is erased and replaced by the new portion.

To completely erase a tape, record over it with the REC LEVEL control set to  $\operatorname{MIN}.$ 



# CALIBRATING BIAS AND RECORDING SENSITIVITY (DATA SYSTEM)

#### **Data System**

The Data System function automatically calibrates the bias current and recording sensitivity of the tape to its optimal value with the integrated microcomputer to deliver premium sound quality in combination with the Dolby NR system.

This unit determines the standard values for each tape type based on the automatic tape selector. Even tapes of the same type, however, may have different sensitivities. With a single press of the DATA SYSTEM button, you will obtain the highest sound quality possible for your tapes.

The calibration of the DATA SYSTEM function improves the frequency characteristics of the tape.  $\rightarrow$   $\blacksquare$ 

It is strongly recommended that the Data System function be used for the automatic calibration of the tape before recording to deliver the highest sound quality possible.

#### 1 Insert the cassette tape.

#### 2 Press the DATA SYSTEM button.

The Dolby NR system turns off automatically.

The border of **DATA SYSTEM** flashes while the unit performs operations ① to ⑥ as described below, and then remains lit on the display.

The tape is fast forwarded for a short while. The tape counter indicates the progress of the calibration by the Data System.

#### Bias calibration

- ② The signals of 400 Hz and 10 kHz are recorded, switching the bias data in 15 stages.
- 3 The tape is rewound to the recording start position and starts to play back. The microcomputer determines the bias value to obtain the flattest frequency characteristics.

#### Recording sensitivity calibration

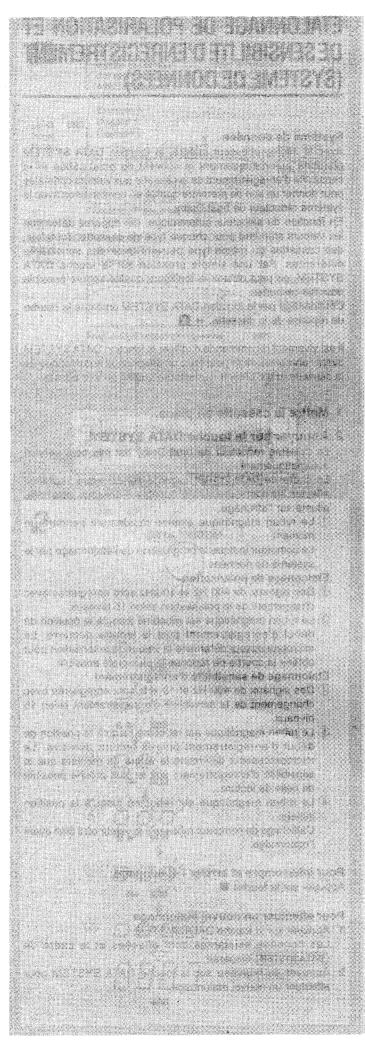
- The signals of 400 Hz and 10 kHz are recorded, switching the recording sensitivity in 15 stages.
- The tape is rewound to the recording start position and starts to play back. The microcomputer determines the value so that the recording sensitivity corresponds to the playback sensitivity as closely as possible.
- The tape is rewound to the initial position. The tape counter display returns to the initial point prior to calibration.

#### To interrupt and stop calibration

Press the button.

#### To recalibrate

- 1 Press the DATA SYSTEM button.
  - The existing data is erased and the border of DATA SYSTEM disappears.
- 2 Press the DATA SYSTEM button again to perform calibration once more.



## CALIBRATING BIAS AND RECORDING SENSITIVITY (DATA SYSTEM)

#### Calibration mechanism

The calibration mechanism involves changing the bias current and recording sensitivity through 15 stages at which signals of 400 Hz and 10 kHz are generated with the built-in oscillator for recording and playback. Based on these results, the microcomputer automatically sets the optimal values of the bias current and the recording sensitivities.

#### Information

- Automatic calibration is performed for each of the tape types (Normal, CrO<sub>2</sub> or high position, and Metal). The data for each of the tape types is recorded separately.
- When a tape whose tape type has already been recorded as data is inserted, the border of <u>DATA SYSTEM</u> lights up to indicate that the tape has been calibrated.
- In general, recalibration of tapes of identical tape type from the same manufacturer is not necessary once the data is recorded.
   However, to maintain the highest sound quality possible, it is recommended to calibrate each tape prior to recording.
- The calibration data will remain in memory for a day after turning off the power.

#### NOTE

- The value indicated by the tape counter before and after the calibration operation may differ slightly due to rewind condition of the tape.
- When a tape whose tape type has already been recorded as data is inserted, the border of <u>DATA SYSTEM</u> lights up to indicate that the tape has been calibrated. This also applies for tapes of identical tape type but different manufacturer. Thus, the tape will be recorded based on the existing data (i.e., data based on tapes of identical tape type but different manufacturer).
- "E" is displayed on the display and calibration is canceled when:
- the tape is damaged or deformed.
- the calibration cannot be performed properly due to bad tape.
- the characteristic of the tape markedly deviates from the generally acceptable standard value

In these cases, both bias and recording sensitivity are set to the optimal standard value.

- The calibration cannot be performed when the erasure prevention tab on the tape side to be adjusted is broken off.
- The recording signal is not heard during calibration.

#### Bias

The recording bias is commonly referred to as bias. In addition to the recording signals, a fairly large amount of current is applied that is greater than the existing signal current during recording in order to establish a reference level to promote the efficiency of the recording operation, Without the bias, recording will dramatically deteriorate and be marred by distortion.

#### Recording Sensitivity

Magnetic intensity is distinct and varies with the nature of the magnetic particles adopted by each cassette tape when recorded under identical magnetic field conditions also. For this reason, different tape types will certainly generate slightly different playback levels when recorded under identical recording levels with an identical cassette deck. This is known as the difference in the recording sensitivity. To some extent, recording sensitivity indicates the magnetic intensity which is dependent on the nature of the magnetic particles adopted by the specific cassette tape.

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# REMOTE CONTROL

### (Supplied with sets purchased in the USA only)

#### Inserting batteries → A

Detach the battery cover on the rear of the remote control and insert two R6 (size AA) batteries.

#### When to replace the batteries

The maximum operational distance between the remote control and the sensor in the display window of the unit is approximately 5 meters (16 feet). When this distance decreases, replace the batteries with new ones.

#### NOTE

- Do not mix different types of batteries, or old batteries with new ones
- If the unit is not going to be used for an extended period of time, remove the batteries to prevent possible electrolyte leakage.
- The remote control may not operate correctly when:
- -the line of sight between the remote control and the sensor in the display window of the unit is exposed to intense light, such as direct sunlight.
- -other remote controls are used nearby (television, etc.).

#### Name of parts → **□**

Buttons on the remote control can be used as well.

The following parts are described in detail on the page(s) indicated in the black circle  $\blacksquare$ .

- 1 DISPLAY button → see below.
- 2 RESET button → see below.
- 4 REC button **®**
- 5 STOP button 1 20\*
- 6 ZERO RETURN button → see below.
- 7 ►► MS/CUE button 16
- 8 ► PLAY button 🗗 🚯
- 9 II PAUSE button 19 18
- 10 O REC MUTE button @
- \* The button is identical to the STOP button on the remote control in operation.

#### To turn off the display

Press the DISPLAY button on the remote control to turn off the peak level meter, AMTS, DATA SYSTEM, MPX, HX PRO, and DOLBY B/C/S NR indicators.

To turn on the display, press the DISPLAY button once again.

#### **ZERO RETURN function**

If you set the beginning of a desired point to "0000", you can easily search for that point.

- 1 Press the RESET button on the remote control at the desired point to set the tape counter to "0000".
- 2 After recording or playback is completed, press the STOP button on the remote control.
- 3 Press the ZERO RETURN button on the remote control. The tape will search and return to the "0000" position.
- The value indicated by the tape counter may not necessarily be "0000" due to the wind condition of the tape.

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## MAINTENANCE

#### To clean the cabinet

Use a soft cloth slightly moistened with mild detergent solution. Do not use strong solvents, such as alcohol, benzene or thinner.

#### To clean the deck → A

Clean the erasure head ①, recording/playback head ②, capstan ③ and pinchroller ④ regularly (every 10 hours of use) for optimum sound quality. Use a cotton swab ⑤ slightly moistened with cleaning fluid or denatured alcohol.

#### To demagnetize the head

The head of the recorder may become magnetized after longterm use. This may limit the output range of the recorded tape and increase noise. Demagnetize the head at least once every 30 hours of use with a commercially available demagnetizer.

# TROUBLESHOOTING GUIDE

If the unit fails to perform as described in these operating instructions, check the following guide.

#### There is no sound.

- Is the power cord connected properly?
- Is there a bad connection?

#### The tape does not run.

• Is the deck in the pause mode?

### The sound is off-balance or not adequately high.

Is the playback head dirty?

#### Recording is not possible.

- Is the erasure prevention tab on the tape broken off?
- · Is the recording head dirty?

#### Erasure is not possible.

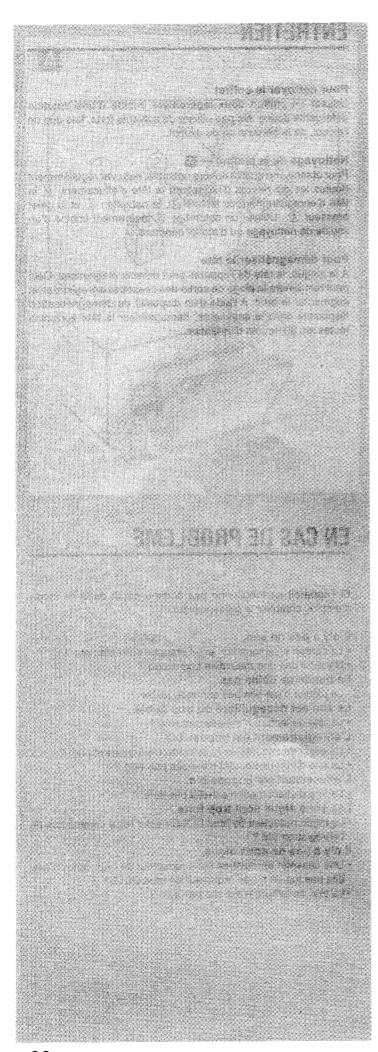
• Is the erasure head dirty?

## High sounds are too loud.

 Is the DOLBY NR mode set differently from when the recording was made?

#### There are no high sounds.

- Is a tape recorded without Dolby NR being played back in DOLBY NR mode?
- Is the playback head dirty?



# **SPECIFICATIONS**

**Type** Stereo cassette deck 4 tracks, 2 channels **Track format** 

European models: 230 V fixed, 50 Hz Power supply

USA model: 120 V fixed, 60 Hz

Power consumption 16W

Frequency response (-24 dB Recording)

Metal tape:

20-19.000 Hz (±3 dB) 10-20,000 Hz (-10 dB)

CrO₂ tape:

20-18,000 Hz (±3 dB) 10-19,000 Hz (-10 dB)

Normal tape:

20-17,000 Hz (±3 dB) 10-18,000 Hz (-10 dB)

78 dB (METAL tape DOLBY C NR ON Signal-to-noise ratio

above 5 kHz)

80 dB (METAL tape DOLBY S NR ON

peak level)

0.065 % (WRMS) Wow and flutter Tape speed 4.75 cm/sec. (17/8 ips) AC bias (frequency 85 kHz) **Recording system** 

AC erase Erase system

DC servomotor × 1 Motor

Recording/playback head × 1 Heads (Hyperbolic hard permalloy head)

Erase head ×1

REC/LINE IN: 100 mV (MAX input Inputs

sensitivity, 47 k ohms)

PLAY/LINE OUT: 350 mV (0 dB) **Outputs** 

Suitable load impedance over

47 k ohms

PHONES: 0.3 mW (0 dB)

Suitable load impedance 32 ohms 430 (W) × 133 (H) × 266 (D) mm

 $(17\times5^{1}/_{4}\times10^{1}/_{2} \text{ inches})$ 

4 kg (8 lbs 13 oz) Weight

Connection cord (2 cords) **Accessories** 

Remote control (Supplied with sets

purchased in the USA only)

Specifications and external appearance subject to change without notice.

#### Note:

**Dimensions** 

This product is manufactured to comply with the radio interference requirements of EEC directive 82/499/EEC.

#### **COPYRIGHT**

Please check the copyright laws relating to recordings from discs, radio or external tape for the country in which the machine is being used.

#### HINWEIS ZUM URHEBERRECHTSSCHUTZ

Die Gesetze über Urheberrechte für Aufzeichnungen von Schallplatten, Rundfunksendungen oder Bandkas setten des Landes, in dem dieses Gerät verwendet wird, müssen beachtet werden.

#### **DROITS D'AUTEUR**

Prière de consulter les documents légaux relatifs aux droits d'auteur sur les enregistrements de disques, de radio ou de bandes magnétiques en vigueur dans le pays où l'appareil est utilisé.

#### **DERECHOS DE AUTOR**

Comprobar las leyes de derechos de autor relacionadas con las grabaciones de discos, radio o magnetófono externo del país en que se utilice el aparato.

#### DIRITTI D'AUTORE

Attenersi alle leggi sui diritti d'autore del paese in cui si usa l'apparecchio per riguarda registrazioni da dischi, trasmissioni radio o cassette preregistrate.

#### 炉塘

使用本系統時,請查閱本國有關鐳射唱片,收音機或磁帶錄音 機版權之法律規定。

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杜比噪音減低器及HX PRO空間分機係經杜比實驗證明公司授權製造。HX PRO由賓及歐樂遜生產。

杜比, DOLBY, 雙D標章DD及HX PRO為杜比實驗證明公司之商標。

#### NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and re-
- Connect the equipment into an outlet on circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### CAUTION

Modifications or adjustments to this product, which are not expressly approved by the manufacturer, may void the user's right or authority to operate this product.

# AIWA CO.,LTD.