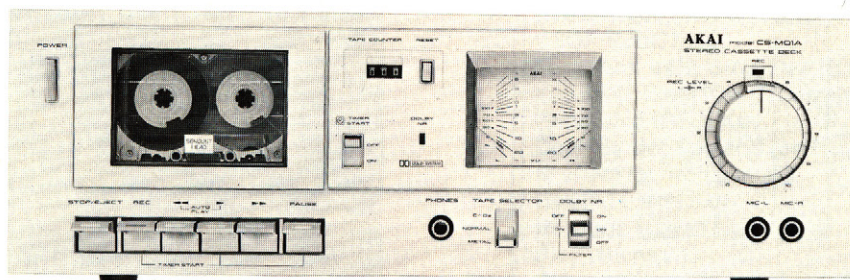


CS-MO1A

STEREO CASSETTE DECK

- Notes:**
- * Cassette tape in photograph not included in standard accessories.
 - * This manual is applicable to both silver and black panel models.
- Remarques:**
- * La bande de cassette sur la photo n'est pas comprise dans les accessoires standards.
 - * Ce manuel s'applique aussi aux modèles avec panneaux argent et noir.
- Opmerkingen:**
- * De in de foto's afgebeelde cassettes behoren niet tot het standaardtoebehooren.
 - * Deze gebruiksaanwijzing is van toepassing op modellen met zilver en zwart paneel.
- Anmärkning:**
- * Kassettbanden i bilderna hör inte till standard tillbehören.
 - * Bruksanvisningen gäller för både modellen med silverpanel och modellen med mattsvart panel.
- Anmerkungen:**
- * Die Cassette im Bild gehört nicht zum Standardzubehör.
 - * Diese Betriebsanleitung gilt auch für die Ausführung mattsilber und mattschwarz.
- Notas:**
- * La cinta casele mostrada en la fotografía no está incluida como accesorio estándar.
 - * Este manual cubre ambos modelos, el de panel plateado y el de panel negro.



Operator's Manual

WARNING:

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

Manuel de l'utilisateur
Gebruiksaanwijzing
Bruksanvisning
Bedienungsanleitung
Manual del usuario

AKAI

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 AKAI TRADING CO., LTD./AKAI AMERICA LTD.

WARNING

Voltage Selection

Power requirements for electrical equipment differ from area to area.

Please ensure that your machine meets the power requirements in your area.

If in doubt, consult a qualified electrician.

120V, 60 Hz for USA and Canada

220V, 50 Hz for Europe except UK

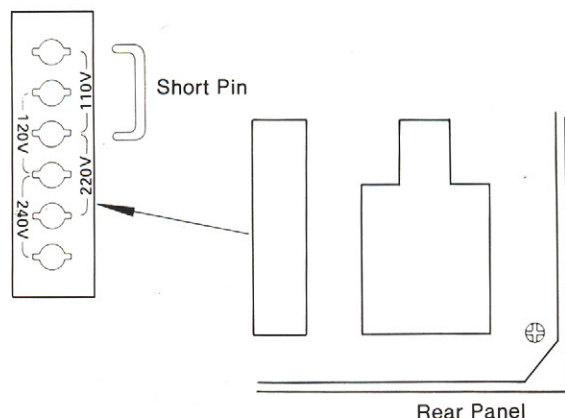
240V, 50 Hz for UK and Australia

110V/120V/220V/240V, 50/60 Hz internally switchable for other countries.

DO NOT ATTEMPT THIS CONVERSION YOURSELF.

Voltage conversion (Models for Canada, USA, Europe, UK and Australia are not equipped with this facility). Each machine is preset at the factory according to destination, but some machines can be set to 110V, 120V, 220V or 240V as required. If your machine's voltage can be converted, refer the following voltage conversion to a qualified Service Repair Shop or professional service personnel.

1. Disconnect power cord.
2. Loosen holding screws and remove top panel and rear panel.
3. Remove short pin plug from present holes and replace in correct holes. Follow the markings explicitly.



FOR CUSTOMERS IN THE UK IMPORTANT FOR YOUR SAFETY

The flex supplied with your machine will have either two wires or three as shown in the illustrations.

THREE CORE FLEX

WARNING

THIS APPARATUS MUST BE EARTHED IMPORTANT

The wires in this mains lead are coloured in accordance with the following code: Green-and-yellow: Earth

Blue: Neutral,

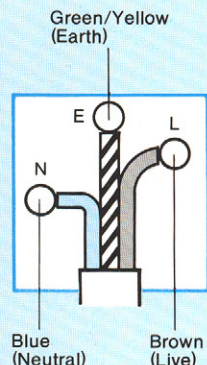
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \perp or coloured green or coloured green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.



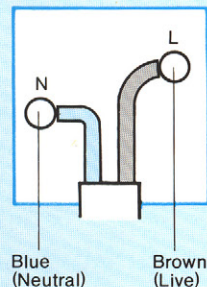
TWO CORE FLEX IMPORTANT

The wires in this mains lead are coloured in accordance with the following code: Blue: Neutral, Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked by the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.



- * Do not connect any wire to the larger pin marked E or \perp when wiring a plug. Ensure that all terminals are securely tightened and that no loose strands of wire exist.

FOR CUSTOMERS IN AUSTRALIA

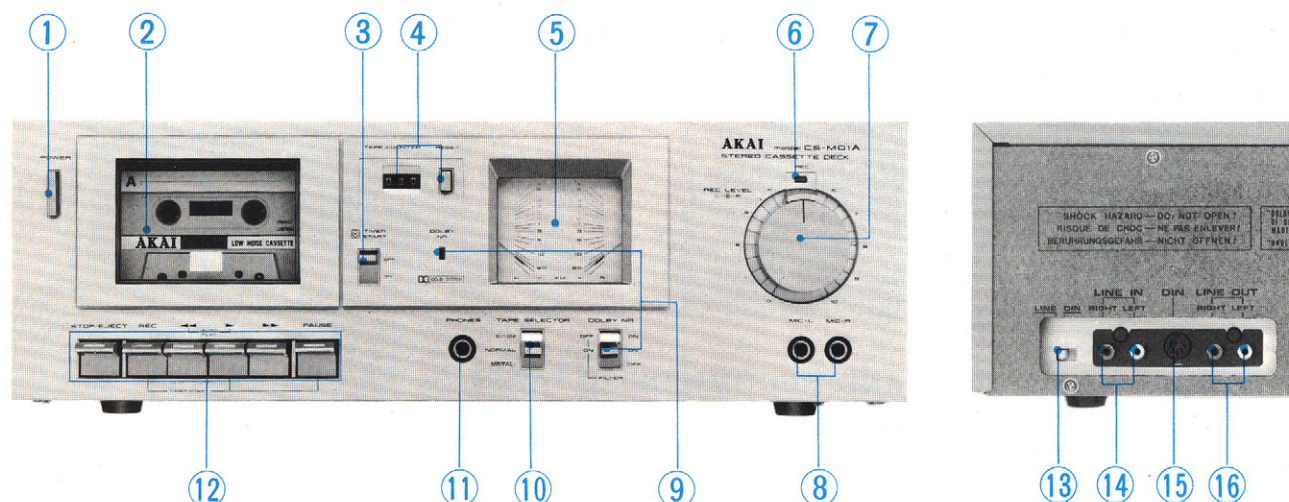
If your machine comes with a three core power cord, FOR YOUR SAFETY.

1. Insert this plug only into an effectively earthed three-pin plug socket outlet.
2. If any doubt exists regarding the earthing, consult a qualified electrician.
3. Extension cords, if used, must be three core correctly wired.
6. If water is spilled on this equipment, disconnect and call your dealer.
7. Make sure the equipment is well ventilated and away from direct sunlight.
8. Keep away from heat (stoves, etc.) to avoid damage to the external surface and internal circuits.
9. Avoid spray-type insecticides which will damage the equipment and may ignite suddenly.
10. To avoid damaging the finish never use alcohol, paint thinner or others similar chemicals.
11. Always place the equipment on a flat and solid surface.
12. Please read this manual in its entirety and keep it handy for further reference.

PRECAUTIONS

1. Use only household AC power sources.
Never use DC power sources.
2. Touching the plug with wet hands risks dangerous electric shocks.
Always pull out by the plug and never the cord.
3. Make sure the power consumption to each audio component does not exceed wattage specified.
Only connect other audio components.
4. Only let a qualified professional repair or reassemble the equipment. An unauthorized person may touch the internal parts and receive a serious electric shock.
5. Never allow a child to put anything, especially metal into this equipment. A serious shock or malfunction may occur.

CONTROLS



1. POWER Switch

2. Cassette Receptacle

3. TIMER START Switch

Put to ON for absentee recording and timed playback with a timer. Leave OFF at all other times.

4. INDEX COUNTER and RESET Button

Tape indexing is made easy with this 3-digit Index Counter. To reset to "000", depress Reset Button.

5. VU Meters

Show the VU reading for both recording and playback for both channels.

6. RECORDING Indicator

Lights when the Recording Key is depressed.

7. Left → Right RECORDING LEVEL Controls

The outer ring controls the right channel recording input level and the inner knob controls the left channel recording input level. The controls are coaxial therefore they may be adjusted independently or together. Observing the left and right VU meters, adjust so that the meter indicators read up to, but not exceeding 0 VU.

- Coaxial controls and enumerated positions facilitate easy fade-in (gradual increase in volume at the beginning of a musical selection) and fade-out (gradual decrease in volume at the end) recording operations.

8. MICROPHONE Jacks (left and right)

- The model for the USA is equipped with a MONO MIC jack. Connect one microphone to the left jack for mono-phonetic recording.

9. DOLBY NR Switch/MPX FILTER and DOLBY NR Indicator

DOLBY NR ON, FILTER OFF:

Use for recording and playback with Dolby NR.

DOLBY NR ON, FILTER ON:

Use for recording with Dolby NR from STEREO FM broadcasts.

DOLBY OFF:

Use for recording and playback with Dolby NR.

10. TAPE SELECTOR

Set to position corresponding to tape for correct equalization and bias adjustment.

CrO₂ — Chrome oxide tapes

NORMAL — Normal tapes

METAL — metal tapes

11. HEADPHONE Jack

Accommodates stereo headphones of 8 ohms impedance for monitoring or private headphone listening.

12. Operating Keys

This deck features autoplay which rewinds the tape to the beginning of the tape and begins playback automatically any time during playback when the Rewind (◀◀) and Play (▶) Keys are engaged. When the tape finishes, the full release auto stop is activated. By separating the headblock from the capstan and the tape, the tape is protected and pinch wheel wear is prevented.

STOP/EJECT Key

Functions as a Stop Key during operating mode, and as an Eject Key during stop mode.

Recording (REC) Key

Depress this key and the Play Key simultaneously to effect recording mode.

Rewind (◀◀) Key

Rewinds tape at high speed.

Play (▶) Key

Advances tape for playback and recording modes.

Fast Forward (▶▶) Key

Advances tape at high speed.

PAUSE Key

Depress to momentarily suspend tape travel during recording or playback. Convenient for tape editing.

- Pause Control does not function during Fast Forward or Rewind.

13. Input Selector Switch (The USA model does not have this facility)

Set to LINE for recording from Line connections and to DIN for recording from DIN connections.

14. LINE INPUT Jacks (left and right)

Connects to outputs (or Rec. outputs) of external source.

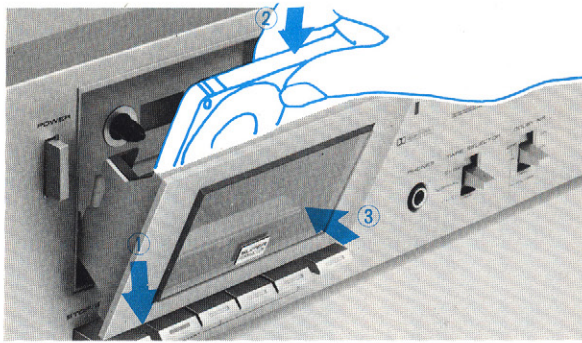
15. DIN Jack (the USA model does not have this facility)

Can be used instead of the Line Input and Output Jacks for connection with an external amplifier through a DIN connection cord.

16. LINE OUTPUT Jacks (left and right)

Connects to tape inputs of external amplifier or tape recorder.

TAPE LOADING



1. Depress the Stop/Eject Key to open the cassette receptacle.
2. Insert the cassette with tape facing the heads.
3. Close the lid.

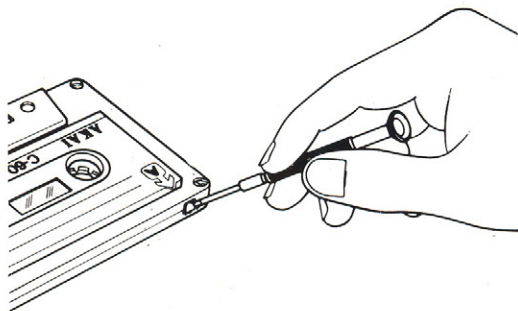
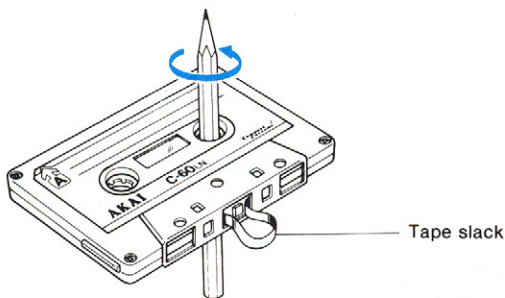
STANDARD REFERENCE AND RECOMMENDED TAPES

Tape Selector Position	Recommended Tapes	
NORMAL Position	AKAI FUJI MAXELL SCOTCH	LN FL, FX-I LN, UD*, XL-I Dynarange Master-I D, AD, OD
	TDK	
CrO ₂ (CHROME) Position	TDK MAXELL SCOTCH FUJI	SA* XL-II Master-II FX-II
Metal Position	AKAI SCOTCH TDK FUJI	MT, MX Metafine MA*, MA-R METAL

When playing back FeCr tapes, set to CrO₂ position or Metal position.

* C-60 tapes with this mark are the standard reference tapes.

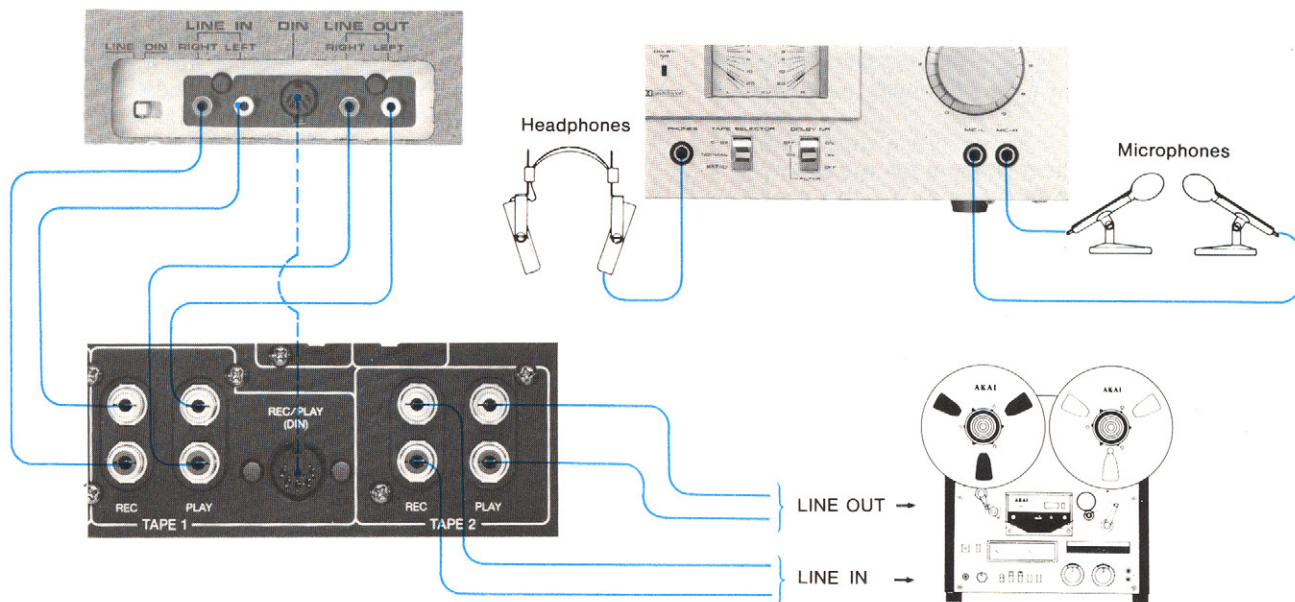
CASSETTE TAPE CARE



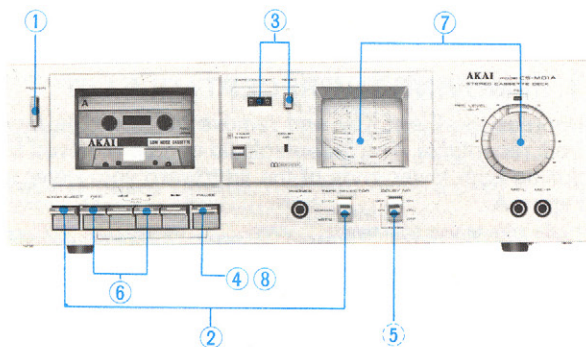
- * Heads should be kept clean and demagnetized at all times.
- * Before using a cassette tape, confirm whether tape slack exists. As tape slack causes the tape to twist or tangle around the pinch wheel and capstan, take up slack if necessary.
- * Recording cannot be made on the leader tape. Therefore, when using a new cassette tape, be sure to forward the tape slightly so that the leader tape is not in the head path.
- * Tapes which have been stored in a hot moist place for a period of time or cassette tape with bent cases should not be used. Such tapes may curl or have greasy places altering tape speed and preventing proper performance. Always store tapes in a cool, dry place.
- * Do not touch the tape with your fingers as high frequency signals cannot be recorded in places which are not clean on the tape.
- * When using a tape recorded with the Dolby process, it is necessary to set the Dolby NR switch at playback time also. Keep the Dolby NR Switch at OFF position at all times except during recording or playback with Dolby NR.
- * Cassette tapes are equipped with a break-out tab for both A and B sides. When these tabs have been removed to protect an important recording, no further recording can be made on the tape unless the cavities are plugged or covered with a piece of tape.

CONNECTIONS For Recording and Playback

- Set all the components' power switches to off before connecting.
- When microphones are connected, DIN or LINE input is cut.
- To avoid cross-talk, do not operate the machine with input sources connected to both the LINE and DIN input jacks. (Disconnect plugs from inputs not being used prior to operation.)



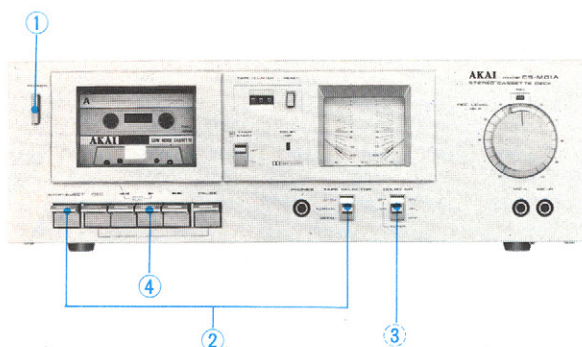
OPERATIONS



RECORDING

Connect desired program source to appropriate inputs as shown in CONNECTIONS FOR RECORDING AND PLAYBACK.

1. Connect the power cord and turn on the Power Switch and set the Input Selector Switch at the back according to connection.
 2. Depress STOP/EJECT Key and load a tape (new tape gives best results) and set the TAPE SELECTOR switch to match the tape being used.
 3. Set the Index Counter to "000".
 4. Depress PAUSE Key.
 5. Set the Dolby NR and MPX Filter switch if recording with Dolby NR is required.
 6. Depress the Recording (REC) Key and Play (▶) Key simultaneously and lock into recording mode position.
 7. Adjust the recording levels so that the read-out does not exceed 0 VU.
 8. When an optimum recording level has been determined, release the PAUSE Key to begin recording.
- Automatic Stop will be effected at the end of the tape.
 - To stop tape travel during performance, depress the STOP/EJECT Key (This key functions as a Stop Key during operating modes and as an Eject Key during stop mode).



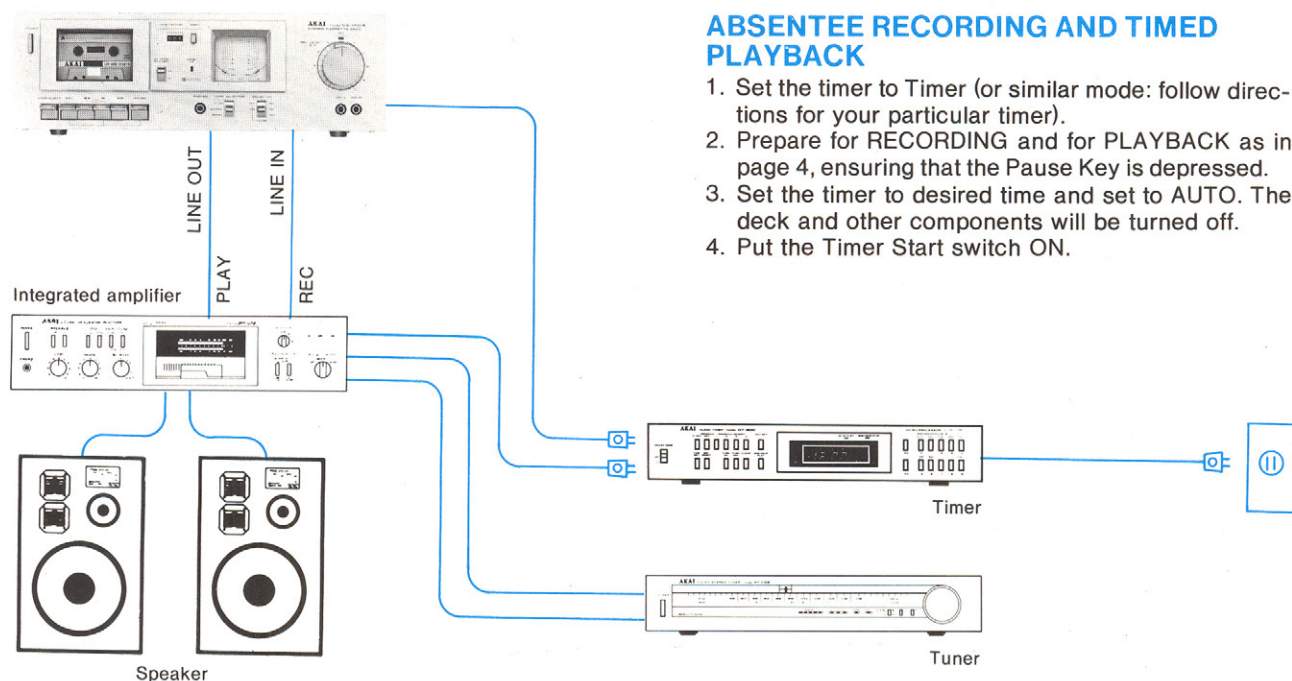
PLAYBACK

Make the necessary connections for playback as shown in CONNECTIONS FOR RECORDING AND PLAYBACK.

1. Connect the power cord and turn on the Power Switch.
 2. Depress the STOP/EJECT Key and load a pre-recorded tape and set the TAPE SELECTOR switch to match the tape being used.
 3. Set the Dolby NR and MPX Filter switch if the tape was recorded with the Dolby NR processor.
 4. Depress the Play (▶) Key to begin playback.
 5. Adjust the external amplifier controls.
- Automatic Stop will be effected at the end of the tape.
 - To stop tape travel during performance, depress STOP/EJECT Key (This key functions as a Stop Key during operating modes and as an Eject Key during stop mode).

CONNECTIONS

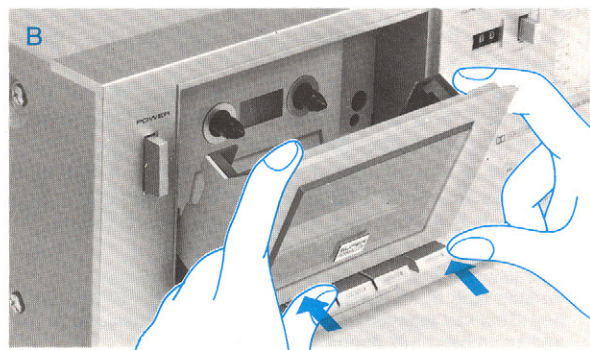
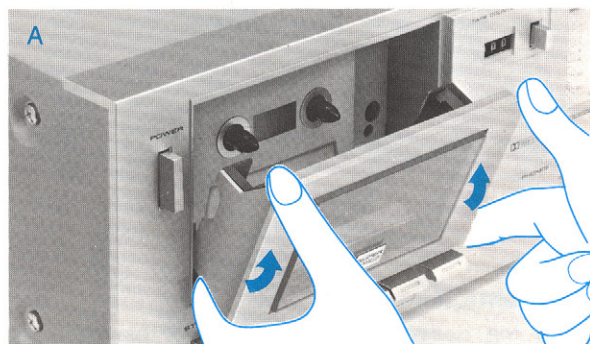
For Absentee Recording and Timed Playback



ABSENTEE RECORDING AND TIMED PLAYBACK

1. Set the timer to Timer (or similar mode: follow directions for your particular timer).
2. Prepare for RECORDING and for PLAYBACK as in page 4, ensuring that the Pause Key is depressed.
3. Set the timer to desired time and set to AUTO. The deck and other components will be turned off.
4. Put the Timer Start switch ON.

MAINTENANCE



Turn off the Power Switch.

1. REMOVING THE RECEPTACLE LID

Depress the Eject Key and remove the cassette tape from receptacle. The receptacle lid can be removed by pulling both lower ends of the lid toward you. Refer to Figure A.

- * Be sure to use both hands.

2. HEAD CLEANING

With the cassette holder at ejected position, clean the heads with a cotton swab stick which has been dipped in Akai Cleaning Fluid (Akai Cleaning Kit HC-550P). Also clean the pinch wheel, capstan, and other parts over which the tape travels.

- * If Akai Cleaning Fluid is not available, use alcohol. Do not use other chemical cleaners as the rubber parts will deteriorate.

3. HEAD DEMAGNETIZING

The steel pole pieces which form part of the recording and playback heads become slightly magnetized after several recording and playback hours and as a result, the tape is partially erased at high frequencies. Therefore, head demagnetizing is recommended periodically.

4. REPLACING THE RECEPTACLE LID

To replace lid onto holder, hook the upper part of the lid and fit the lower part of the lid onto holder. Refer to Figure B.

- * Do not insert the cassette tape with receptacle lid off.
- * The receptacle lid is properly attached when it is even with the front panel.

TROUBLE SHOOTING

The conditions listed below do not indicate mechanical failure of your unit. If your machine exhibits any of these conditions, check for trouble as indicated.

Recording key will not function

- * Cassette is not loaded.
- * Cassette break-out tabs are removed. Plug or cover cavities.

Tape will not run

- * Power is not being supplied. Check power cord and Power Switch.
- * Tape slack. Take up slack as mentioned in "Cassette Tape Care."

Noisy Sound

- * Heads are magnetized. Demagnetize following head demagnetizing instructions.
- * Heads are dirty. Clean following head cleaning instructions.
- * Connections are incorrect.
- * Wrong TAPE SELECTOR position. Position according to the kind of tape being used.

Previous recording will not erase

- * Erase head dirty. Clean following head cleaning instructions.

Distorted sound

- * Recording level is too high.

Playback cannot be effected

- * Connections are incorrect.
- * Controls are not properly adjusted or positioned. Check external amplifier controls.
- * Pause Key is depressed.

Recording will not take place

- * Dirty head. Clean following head cleaning instructions.
- * Connections are incorrect.
- * Controls are not properly positioned or adjusted. Check external source controls.
- * Pause Key is depressed.

Should there be a problem with your machine, write down the model and serial numbers and all pertinent data regarding warranty coverage as well as a clear description of the existing trouble and contact your nearest authorized Akai Service Station or the Service Department of Akai Company, Tokyo, Japan.

TECHNICAL DATA

Track System..... 4 Track 2 Channel Stereo System

Tape..... Philips Type Cassette

Tape Speed..... 4.76 cm/s $\pm 2.0\%$ (1-7/8 ips. $\pm 2.0\%$)

Heads..... Erase head $\times 1$
Sendust head for record/
playback $\times 1$

Motor..... Electronically speed
controlled D.C. motor $\times 1$

Wow & Flutter..... Less than 0.05% WRMS,
0.15% (DIN 45 500)

Tape Winding Time..... 90 sec. using a C-60
cassette tape

Frequency Response... Normal: 30 to 15,000 Hz
 ± 3 dB (-20 VU)

CrO₂: 30 to 16,000 Hz
 ± 3 dB (-20 VU)
30 to 8,000 Hz
 ± 3 dB (0 VU)

Metal: 30 to 18,000 Hz
 ± 3 dB (-20 VU)
30 to 12,000 Hz
 ± 3 dB (0 VU)

Signal to Noise Ratio.... Normal: Better than 57 dB
CrO₂: Better than 59 dB
Metal: Better than 59 dB

(measured via tape with
peak recording level)
Dolby NR switch ON:
Improves up to 10 dB above
5 kHz

Harmonic Distortion.... Normal: Less than 0.8%
CrO₂: Less than 0.7%
Metal: Less than 0.7%

Input..... MIC: 0.25 mV (input
impedance 5.0 kohms)

Required microphone
impedance: 600 ohms

Line: 70 mV (input
impedance 47 kohms)

Output..... Line: 410 mV at 0 VU
Required load impedance:
more than 20 kohms
Phone: 45 mV or more/
8 ohms at 0 VU

DIN..... Input: 0.25 mV (input
impedance 2.2 kohms)
Output: 410 mV
Required load impedance:
more than 20 kohms

Power Requirements.... 120V, 60 Hz for USA and
Canada
220V, 50 Hz for Europe
except UK
240V, 50 Hz for UK and
Australia
110V/120V/220V/240V,
50/60 Hz internally switch-
able for other countries.

Dimensions..... 440(W)x143(H)x250(D)mm
(17.3x5.6x9.8")

Weight..... 5.0 kg (11.0 lbs)

- * For improvement purpose, specifications and design are subject to change without notice.
- * "Dolby" and the Double D system are trademarks of Dolby Laboratories.
(Manufactured under license from Dolby Laboratories).

STANDARD ACCESSORIES

Connection Cords..... 1 set
Operator's Manual..... 1

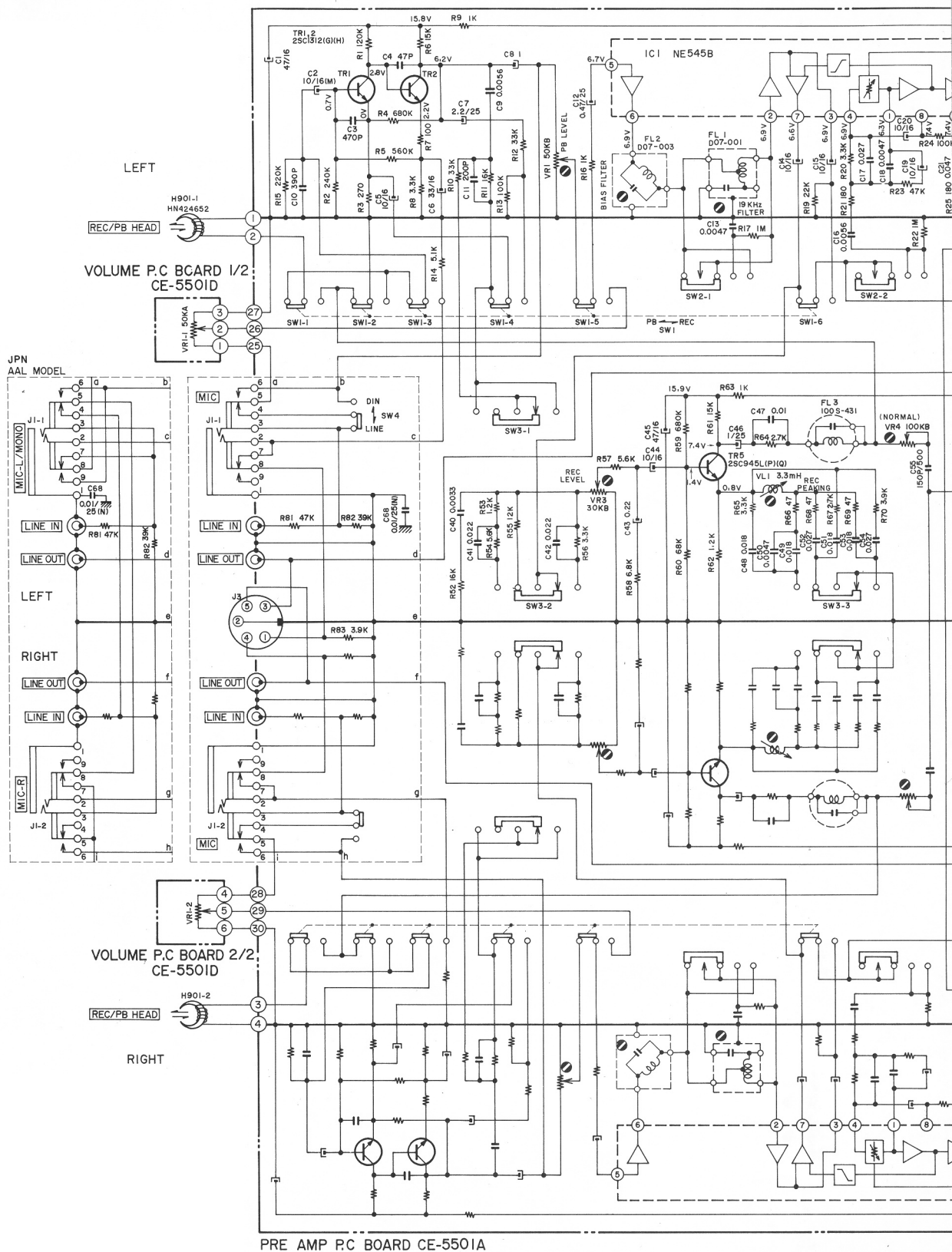


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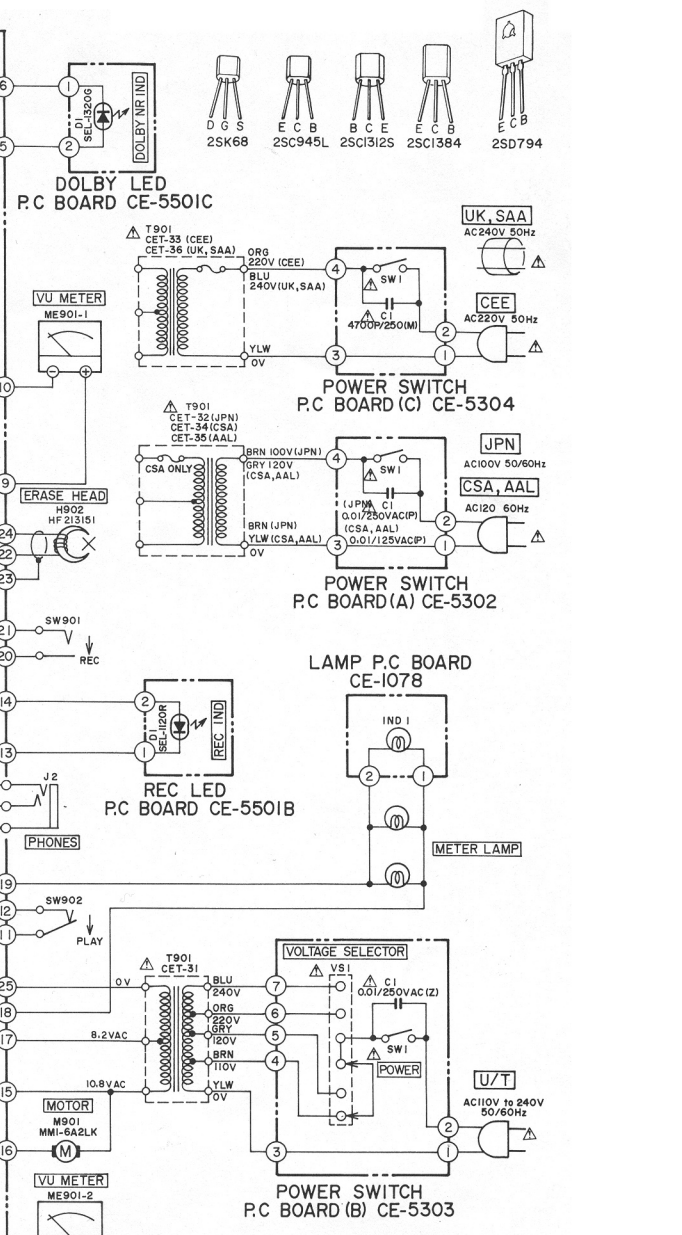
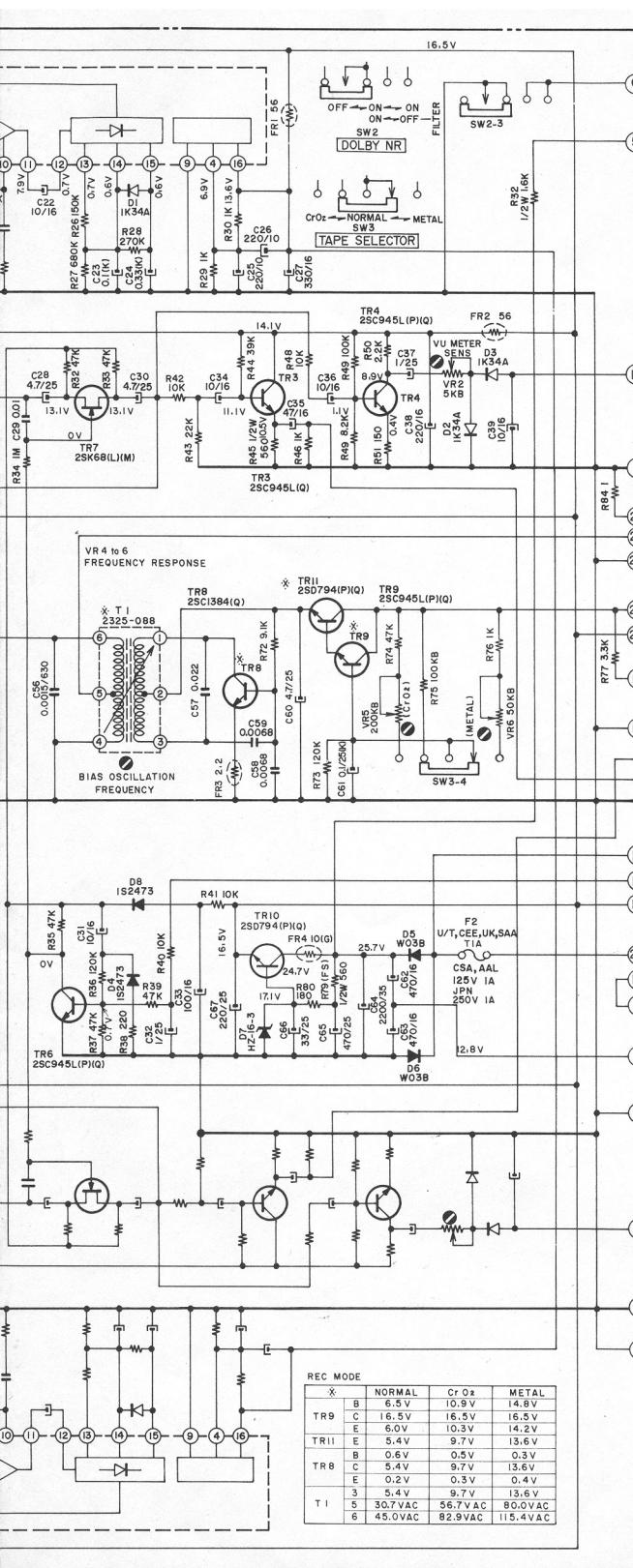
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TELEPHONE: (213) 537-3880
TELEX: 67-7494



Ⓢ 550517-B3
550911-20
Printed in Japan



PRE AMP P.C BOARD CE-5501A



REC MODE

×		NORMAL	CrOs	METAL
TR9	B	6.5V	10.9V	14.8V
	C	16.5V	16.5V	16.5V
	E	6.0V	10.3V	14.2V
TR11	B	5.4V	9.7V	13.6V
	C	0.6V	0.5V	0.3V
	E	5.4V	9.7V	13.6V
	C	0.2V	0.3V	0.4V
TR8	B	5.4V	9.7V	13.6V
	C	5.4V	9.7V	13.6V
T1	5	30.7VAC	56.7VAC	80.0VAC
	6	45.0VAC	82.9VAC	115.4VAC

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SÛRETÉ DE L'APPAREIL, NE REMPLACEZ LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SÛRETÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μ F 50WV(J)
POWER TRANSFORMER IS DIFFERENT
ACCORDING TO AREA

CS-M01A
SCHEMATIC DIAGRAM
No. 1600656A