US Model
Canadian Model
AEP Model
UK Model
E Model

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STEREO-CASSETTE DECK

SPECIFICATIONS

Recording system 4-track 2-channel stereo

Fast-forward and rewind time
Approx. 90 sec. (with C-60 cassette)

Bias frequency 105 kHz

Signal-to-noise ratio (NAB, at peak level)

Cassette \ Dolby NR switch	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METALLIC)	60 dB	67 dB	73 dB
TYPE III (Sony FeCr)	61 dB	68 dB	74 dB
TYPE II (Sony CD-α)	57 dB	64 dB	70 dB
TYPE I (Sony BHF)	56 dB	63 dB	69 dB

Total harmonic distortion
0.8 % (with Sony METALLIC and FeCr cassettes)

Frequency response DOLBY NR OFF
- With TYPE IV cassette (Sony METALLIC)
  20 - 19,000 Hz
  25 - 17,000 Hz (±3 dB)
  25 - 13,000 Hz (±3 dB, 0 VU recording)
- With TYPE III cassette (Sony FeCr)
  20 - 19,000 Hz
  25 - 18,000 Hz (±3 dB)
- With TYPE II cassette (Sony EHF)
  20 - 18,000 Hz
  25 - 16,000 Hz (±3 dB)
- With TYPE I cassette (Sony HFX)
  20 - 18,000 Hz

Wow and flutter 0.04 % WRMS

Inputs
Line inputs (phono jacks)
Sensitivity 77.5 mV (−20 dB)
Input impedance 50 k ohms

— Continued on page 2 —

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES ÉCLATÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MICROFILM

SONY

SERVICE MANUAL

Outputs	Line outputs (phono jacks) Output level 0.435 V (−5 dB) at a load impedance of 50 k ohms Load impedance over 10 k ohms Headphone output Output level, variable from −20 dB to −50 dB at a load impedance of 8 ohms

General

Power requirements	Type 1 : 220 V ac, 50/60 Hz (240 V ac adjustable by authorized Sony personnel) Type 2 : 240 V ac, 50/60 Hz (220 V ac adjustable by authorized Sony personnel) Type 3 : 110, 120, 220 or 240 V ac adjustable, 50/60 Hz
Power consumption	26 watts
Dimensions	Approx. 430 × 105 × 285 mm (w/h/d) (17 × 4¼ × 11¼ inches) including projecting parts and controls
Weight	Approx. 6.1 kg (13 lbs 8 oz)

Peak program meters

Response range	−40 dB to +8 dB
Frequency response	20 - 20,000 Hz ±1.5 dB
Response time	1 millisecond
Decay time (from 0 dB to −20 dB)	750 milliseconds
Overshoot	none

0 dB = 0.775 V

FEATURES

Three-head system with S & F (Sendust and Ferrite) heads
Separate record and playback heads allow optimum gap settings and impedance ratings for distortion-free recording and greatly extended frequency response. Sendust and Ferrite heads take full advantage of metal tapes to provide a wider dynamic range than is possible with conventional tapes. For good tape-to-head contact the heads are mounted in one block and each head is separately adjusted for precise azimuth alignment. The three-head system also enables you to monitor the recorded tape while actually recording.

Closed-loop dual-capstan tape drive system
Two pairs of capstans and pinch rollers ensure uniform tape tension and stable tape-to-head contact. As a result, wow and flutter and modulation noise are greatly reduced.

Dolby C-type NR (noise reduction) system
In addition to the conventional B-type Dolby NR system, the TC-K555 employs the newly-developed C-type Dolby NR system which reduces tape noise twice as effectively as the B-type system. The C-type system also incorporates an anti-saturation network to improve the high-frequency dynamic range by 4 dB at 10 kHz.

Digital linear counter
This counter indicates the recording or playback time elapsed on the tape so that the tape can be precisely indexed. While conventional displays can only indicate the elapsed recording time, this display can indicate with a minus sign how much recording time remains.

Bright FL-display peak program meters
The peak program meters follow the transient peaks of the music and maintain the peak readings for about 4 seconds. This double indication makes it easy to set critical recording levels precisely.

Remote control operation
Using the optional RM-50 or RM-80 remote control unit, various operations—recording, playback, record muting operation, etc.—can be remotely controlled.
When the RM-65 synchro remote control unit is used to connect this cassette deck with a turntable equipped with a synchro remote control jack or a TC-PB5 stereo cassette player, the operation of the cassette deck and the turntable or TC-PB5 will be synchronized.

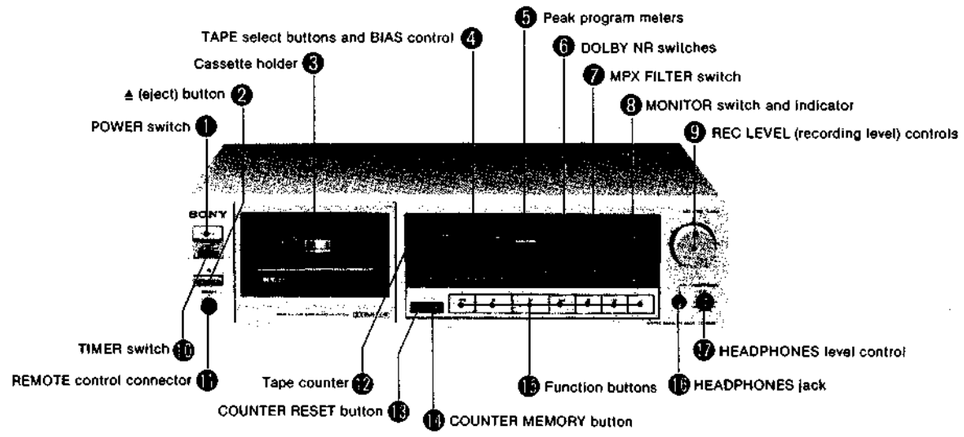
Two motors
The two-motor drive system assures accurate and stable tape transport. The capstan is driven by a linear torque BSL (brushless and slotless) motor to keep wow and flutter low and provide smooth torque.

Useful functions
- Record muting function allows you to easily insert a moderately long blank space between selections.
- Auto play permits one step rewind and playback from the beginning of the tape and the memory function allows you to easily locate any desired point on the tape.
- A timer switch is provided to turn the deck on and off any number of times at preset times set on an optional timer.

SECTION 1
OUTLINE

1-1. FUNCTION OUTLINE OF CONTROLS

The numbers in the photo are keyed to the following explanations.



1 POWER switch
Depress this switch to turn on the power. The lamp in the cassette holder, the display of the peak program meter and the tape counter will light up. The indicator lamp of the pause button will blink for about 4 seconds, indicating that the function button are inoperative during this period.
Press this switch again to turn the power off.

2 ≜ (eject) button
Press this button to open the cassette holder.

3 Cassette holder

4 TAPE select buttons and BIAS control
Depress one of the TAPE select buttons according to the type of tape to be used. When the appropriate button is depressed, the optimum equalization and bias current settings are obtained for recording, and the optimum equalization setting is obtained for playback. When recording using a TYPE I (NORM) tape, select the appropriate positions of the BIAS control. See "Recommended settings for the TAPE select buttons and the BIAS control" on page 6.

5 Peak program meter
With the MONITOR switch set to SOURCE, the meters show the peak input level of each channel, and to TAPE, the meters show recorded levels. They follow the transient peaks of high-level inputs that are too brief to be followed by conventional VU meters so that the optimum recording level can be accurately set. The highest input of each channel is held about 4 seconds on the scale, except when a higher peak occurs before 4 seconds have passed, in which case that peak is immediately indicated.

6 DOLBY NR switches
The left switch turns the Dolby NR* (Noise Reduction) system on and off and the right switch selects either the B-type or C-type Dolby NR system.
To record with the Dolby NR process, depress the ON/OFF switch to the ON position and choose between B-TYPE (◻) and C-TYPE (⧈).
To record without the Dolby NR process, press the ON/OFF switch again release.
When playing back, set these switches to the same position used in recording.

*"Dolby" and the double-D symbol are trade marks of the Dolby Laboratories. Noise reduction system manufactured under license from Dolby Laboratories.

7 MPX FILTER switch
Normally set this switch to OFF.
When recording FM stereo broadcasts with the Dolby NR system, set it to ON if the 19 kHz pilot signal and the 38 kHz subcarrier have not been adequately suppressed by the FM tuner or receiver.
If the tuner or the receiver suppresses such signals adequately (most high-quality tuners and receivers will), you do not have to set this switch to ON.

8 MONITOR switch and indicator
When adjusting the recording level, set this switch to the released position (SOURCE ◻) to allow monitoring of the sound to be recorded. During playback, depress this switch (TAPE ⧈) to allow monitoring of the recorded sound. According to the MONITOR switch setting, "SOURCE" or "TAPE" will appear in the indicator window.
During recording, use this switch to monitor either the source or the recorded sound.

9 REC LEVEL (recording level) controls
These controls adjust the recording level. The knob nearest the panel is for the left channel and the other knob for the right channel. To adjust the level of the left or right channel only, turn the appropriate knob while holding the other knob.

10 TIMER switch
You can set the unit to record or play back at a predetermined time by connecting any commercially available timer. To record, set this timer switch to REC. To playback, set it to PLAY. See "Timer-activated recording and playback" on page 11.

11 REMOTE control connector
Connect the optional RM-50 (wired) or RM-80 (wireless) remote control unit to operate the tape transport functions from a distance. Synchronized operation is also possible with selected Sony turntables, using the optional RM-65 synchro remote control unit. Read the instruction manual of your remote control unit before operating it.

12 Tape counter
This counter indicates the tape running time.
See "Using the digital linear counter" on page 8.

13 COUNTER RESET button
Press this button to reset the tape counter to "0.00".

14 COUNTER MEMORY Button
Press to rewind the tape to the "0.00" point on the tape counter. The word "MEMORY" is displayed below the tape counter. Pressing the ► button together with the ◄◄ button automatically starts playback from "0.00."
When you do not use the memory function, press this button again. The word "MEMORY" will disappear.

15 Function buttons
It is possible to switch directly from one mode to another. The indicator lamps light when the tape deck is in the forward, record or pause mode.

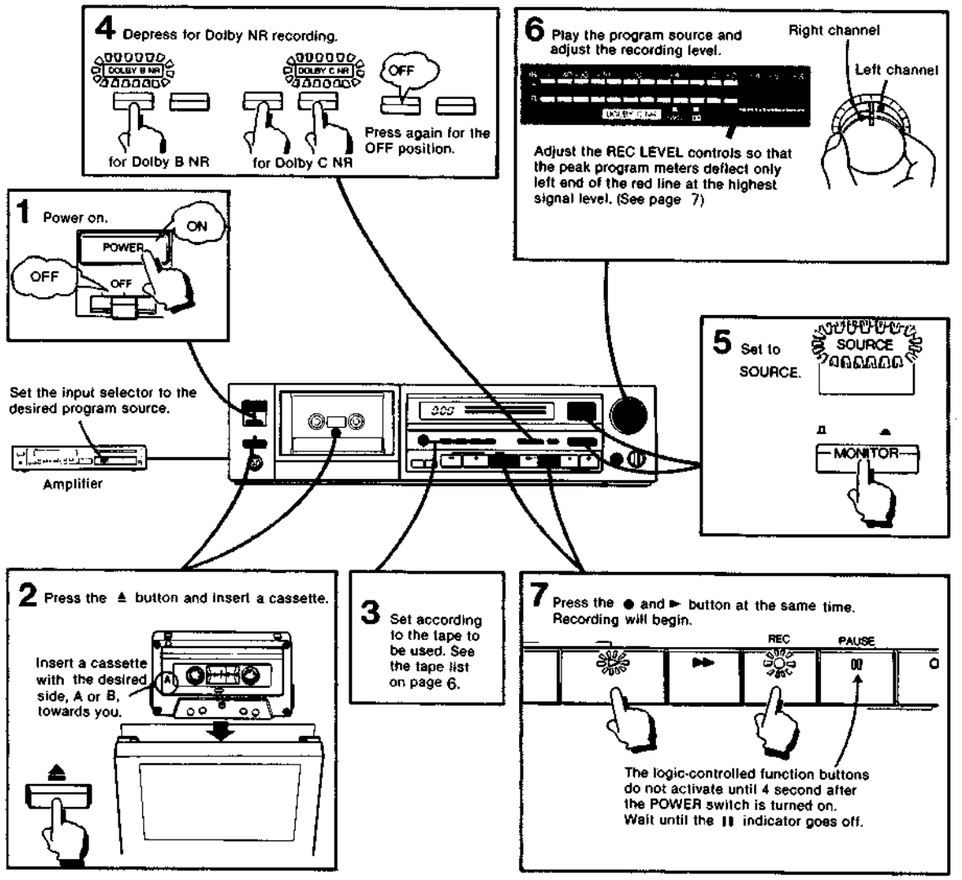
◄◄ (rewind) button : Press this button to rewind the tape. The rewind button is also used, with the forward button, to initiate auto play. See "Auto play" on page 10.
■ (stop) button : To stop the tape, press this button. The tape will stop automatically when it is completely wound up in either direction.
► (forward) button : Press this button to play the tape back. To record, press this button while holding the ● button down.
►► (fast-forward) button : Press this button to advance the tape rapidly.
● (record) button : Press this button together with the ► button to start recording.
❚❚ (pause) button : To pause for a moment during recording or playback, press this button. This button is also used to control more precisely the start of recording and to release the record muting mode.
O (record muting) button : Press this button to eliminate unwanted material and to insert a blank space during recording.

16 HEADPHONES jack
Headphones may be inserted either to monitor the input signals to be recorded or to listen to a recording in the playback mode. Headphone volume is adjustable with the HEADPHONES control.

17 HEADPHONES level control
This control adjusts the headphone level. This setting does not affect the peak program meters or the output level of the LINE OUT jacks at the rear.

RECORDING

TO RECORD
The numbers in this diagram indicate the sequence to be followed.

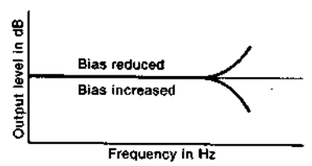


RECOMMENDED SETTINGS FOR THE TAPE SELECT BUTTONS AND BIAS CONTROL
Press the appropriate TAPE select button referring to the recommended settings listed below. When recording using a TYPE I (normal) tape, adjust the BIAS control also.
While the settings are optimum for Sony cassettes, you may want to change them when using cassettes produced by other manufactures.

TAPE	Tapes (C-60 and C-90)	
BIAS — TYPE I, NORMAL	AMPEX: 371 PLUS FUJI: FL TDK: D	BASF: PERFORMANCE SCOTCH: DYNARANGE
BIAS — TYPE I, NORMAL	**SONY: SHF, HFX** BASF: PROFESSIONAL I MAXELL: LN, UD, UD-XL I SCOTCH: MASTER I MEMOREX: MRX$_1$	AMPEX: GRAND MASTER I FUJI: FX-I TDK: AD
TYPE II, CrO_2	**SONY: EHF** MAXELL: UD-XLII SCOTCH: MASTER II MEMOREX: CrO_2	FUJI: FX-II TDK: SA AMPEX: GRAND MASTER II
TYPE III, Fe-Cr	**SONY: FeCr** BASF: PROFESSIONAL III SCOTCH: MASTER III	PHILIPS: FERRO CHROMIUM
TYPE IV, METAL	**SONY: METALLIC**	Other metal tapes

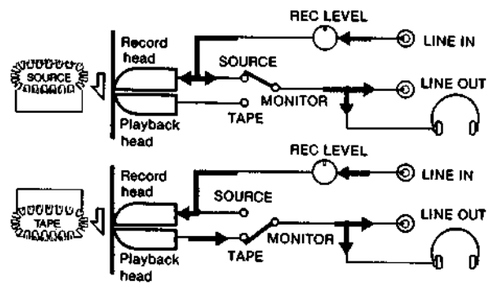
The three-head system permits you to monitor the recorded sound while in the record mode, so that you can easily check the effects of various settings of the TAPE select buttons and the BIAS control.

BIAS control
This control regulates bias current for TYPE I (NORM) cassettes. The full counterclockwise position decreases bias by about 20% from the center position and the full clockwise position increases it by about 20%. Generally, as bias is increased, extreme high frequencies will be suppressed. As bias is reduced, extreme high frequencies will be boosted. You can then find the appropriate bias setting for each brand of TYPE I cassettes.



RECORD MONITORING
As this tape deck has separate record and playback heads, you can easily compare the source and the recorded sounds in the recording mode by using the MONITOR switch. You can check the recording level and whether there is any contamination on the heads that is affecting the recording.
●If the connected amplifier has a tape monitor selector, source/tape comparison is possible with the amplifier monitor selector. In this case, set the tape deck MONITOR switch to TAPE.

MONITOR switch setting and signal flow

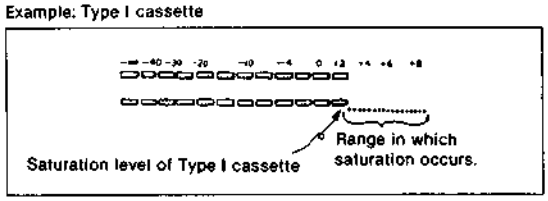


TO RECORD MATERIAL ONTO A SPECIFIC PORTION OF TAPE
When you want to re-record a specific portion of tape or to insert new material between two points on a tape you will find it handy to be able to change directly from the playback to the record mode by pressing the ● button while holding the ► button down.

TO ADJUST THE RECORDING LEVEL

Adjust the recording level while monitoring on the peak program meters the input level of the program source to be recorded. If the recording level setting is too high, the recording will be distorted, and if the setting is too low, the recording will be noisy. The recording level should be set as high as possible while still avoiding distortion. This level will depend on the type of tape being used. When the TAPE button is pressed, the range above the saturation level of the selected type of tape is indicated by the red line. Generally speaking, adjust the recording level by making sure that the meters deflect only to the left end of the red line at the highest signal level.

Example: Type I cassette



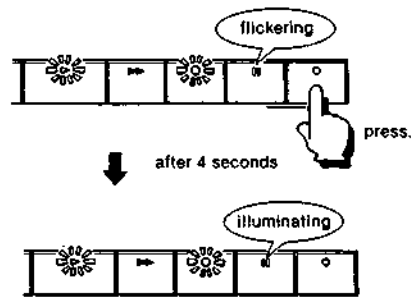
Since the saturation level of any tape is lower in the higher frequencies than in the lower frequencies, the recording level may still be too high if adjusted in this way if the program to be recorded contains many high frequency signals. Consideration has to be given to the program source to be recorded as well as to the characteristics of the cassette to be used, since each cassette, even cassettes using the same type of tape, may have different characteristics. The following table will provide you with a starting point in setting the recording level of various kinds of programs when using Sony cassettes.

Type of tape	Sony cassettes	Low and mid freq. range programs (vocal, etc.)	Mid and high freq. range programs (piano, guitar, etc.)
I	HFX	+ 3 dB	+ 1 dB
	SHF	+ 4 dB	+ 2 dB
II	EHF	+ 2 dB	+ 2 dB
III	FeCr	+ 5 dB	+ 1 dB
IV	METALLIC	+ 6 dB	+ 6 dB

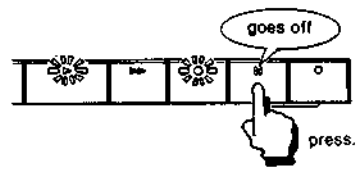
RECORD MUTING

By pressing the ● button during recording, four seconds interspacing is provided automatically, eliminating unwanted program material such as broadcasting commercials. While the record muting is operating, the incoming signal is not recorded on the tape but it continues to register on the meters and feed to the monitor so that you know exactly what is going on.

1 Press the ● button when the segment you do not want to record begins. The indicator of the ❚❚ button will blink, and the tape path will pause automatically after four seconds.



2 When you want to resume recording, press the ❚❚ button.

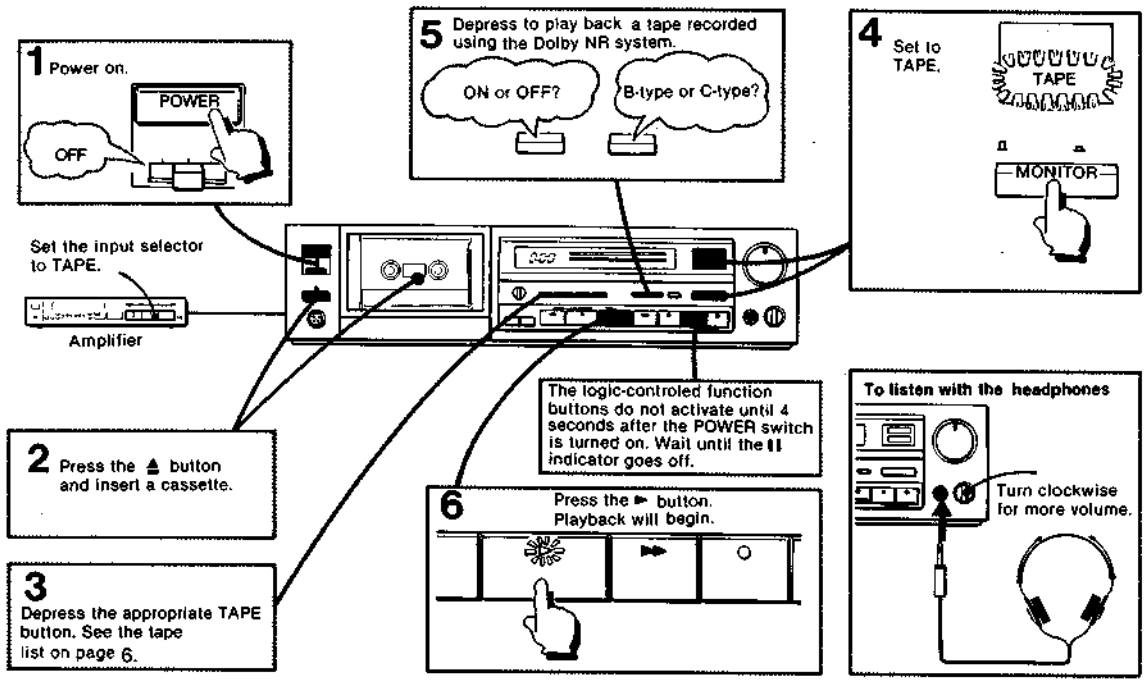


To insert a blank less than four seconds long
Press the ● button to mute recording. Press the ❚❚ button when you want to resume recording.

To insert a blank over four seconds long
Hold down the ● button for as long as you want the blank segment on the tape to be. After four seconds, the indicator of the ❚❚ button will blink more rapidly. When you release the ● button, the tape deck will be in the pause mode. When you want to resume recording, press the ❚❚ button to release the pause mode.

PLAYBACK

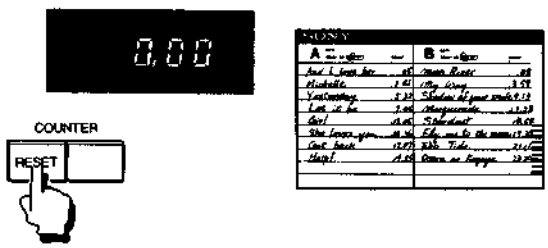
The numbers in this diagram indicate the sequence to be followed.



USING THE DIGITAL LINEAR COUNTER

The first two digits of this tape counter show the approximate recording or playback time in minutes, and the last two digits show the seconds.

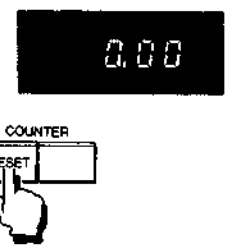
TO INDEX THE WHOLE TAPE



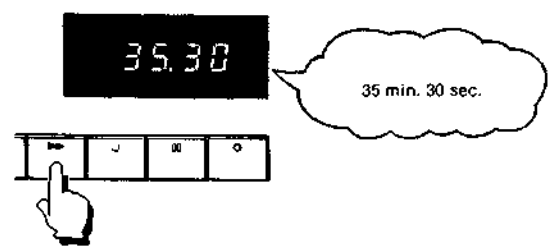
Before recording or playback, set the counter to "0.00" by pressing the COUNTER RESET button.
As the tape runs, the figures of the counter change. Note the numbers and the program being recorded or played back. Any point of the tape can thus be readily located later by reference to these numbers.

TO CHECK THE AVAILABLE RECORDING TIME ON ONE SIDE OF A CASSETTE

1 At the beginning of the tape, set the counter to "0.00".



2 Fast-forward the tape to the end.
The digits will shown the approximate available recording time.



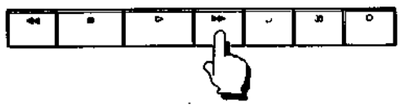
TO DETERMINE THE REMAINING RECORDING TIME

1 Stop the tape at the point at which you wish to begin recording.

2 Set the counter to "0.00".

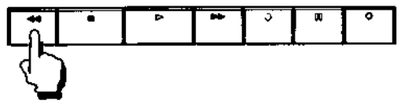
3 Activate the memory counter.

4 Fast-forward the tape to the end.



The digits will show the approximate remaining recording time.

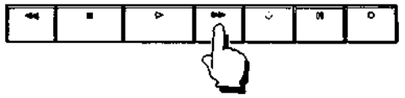
5 Rewind the tape. The tape will stop at "0.00".



TO MONITOR THE REMAINING RECORDING TIME WHILE RECORDING—Using the minus display

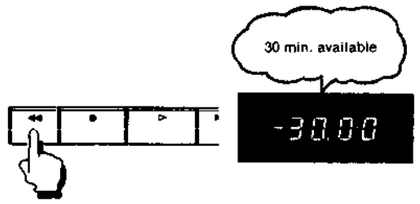
This counter shows the recording or playback time from the "0.00" point preceded by a minus sign when the tape is rewound beyond "0.00".

1 Fast-forward the tape to the end.

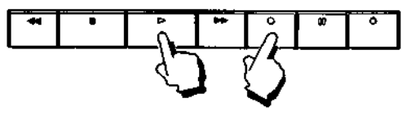


2 Set the counter to "0.00".

3 Rewind the tape to the beginning. The digits will show the approximate recording time on one side of the cassette.



4 Start the recording.

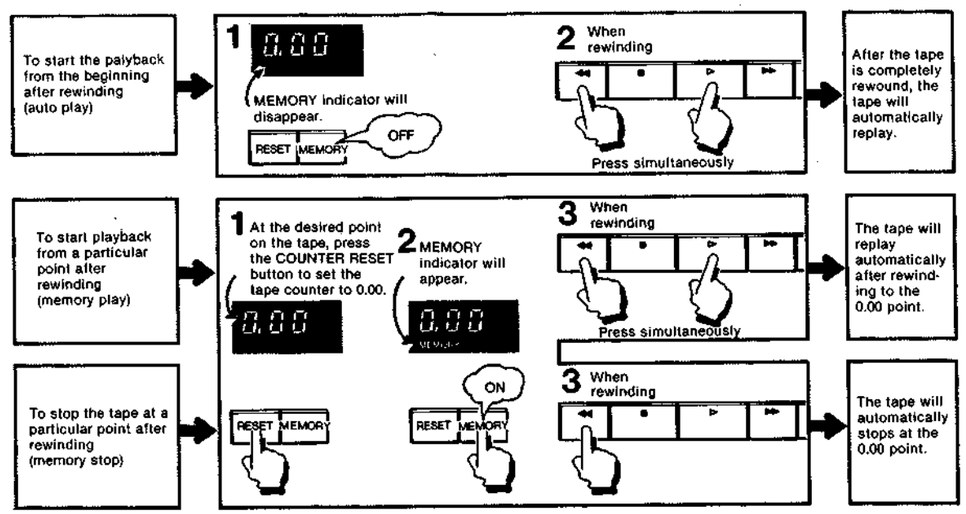


The digits will change from −30.00 to −29.59, −29.58 ... as the recording goes on, and you can monitor the remaining recording time at any point on the tape.

Note
Do not turn off the power while measuring the time because the numbers will return to "0.00" when the power is turned on again.

The accuracy of the counter
This counter is not actually a digital clock, so that the displayed figures are not exactly equal to the actual elapsed time. The accuracy will vary depending on the type of tape being used.
This counter has been designed using C-60 cassettes as the standard. Make sure that the displayed time is greater than the time required, when using a C-46 cassette.

AUTO PLAY AND MEMORY PLAY/STOP



Why does the tape stop around −0.02?
In order to avoid any chance of cutting off the starting point.

How can the tape be rewound futher than 0.00?
Press the ◄◄ button again.

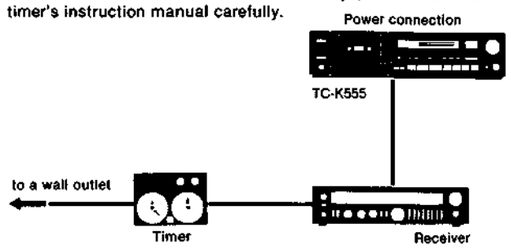
ERASING

When the tape deck functions in recording mode, the erase head automatically erases any previously recorded material.
To erase without recording :

1. Make sure that the safety tab of the cassette is in place, or that the tab slot is covered with plastic tape.
2. Set the REC LEVEL controls fully to "0". (Disconnecting all inputs will result in a more complete erasure.)
3. Press the appropriate TAPE select button according to the type of tape to be erased. (The TYPE IV button assures good erasing for any type of tape.)
4. While holding the ● button down, press the ► button.

TIMER-ACTIVATED RECORDING AND PLAYBACK

By connecting any commercially available timer to the tape deck, the deck can be set to play back or record automatically at any desired time. As timers work in different ways, be sure to read the timer's instruction manual carefully.



To record a broadcast using a timer

1. Connect the tape deck, receiver and timer. Set the timer so that power is supplied to the connected equipment.
2. Turn on the receiver and tune in the station which will broadcast the program you want to record.
3. Set the tape deck's **TIMER** switch to OFF.
4. Insert a cassette. Make sure that the tab is intact or that plastic tape covers the tab slot.
5. Turn on the tape deck and adjust the recording level.
6. Set the timer for the desired time. (At this point power to the connected equipment will be cut off.)
7. Set the tape deck's timer switch to REC.
   The tape deck is now ready to start recording at the time set on the timer.

To play back using a timer

The connections between equipment are the same as for recording using a timer.

1. Set the tape deck's TIMER switch to OFF.
2. Turn on the receiver and set the appropriate switches for playback.
3. Turn on the tape deck and insert the recorded cassette.
4. Set the timer for the desired time. (At this point power to the connected equipment will be cut off.)
5. Set the tape deck's timer switch to PLAY. The tape deck is now ready to start playback at the time set on the timer.

Note

The tape deck's timer switch will function properly only if the tape deck is turned on **after** the switch is set to REC or PLAY. Do not change the setting of the timer switch during the four second stand-by period immediately after the power is turned on. If you want to change the setting of the switch, turn the power off first.

MAINTENANCE

Cleaning of heads and tape path

The performance of your unit is dependent on the periodic cleaning of the heads and all surfaces over which the tape travels.
Dirty heads and a dirty tape path cause :

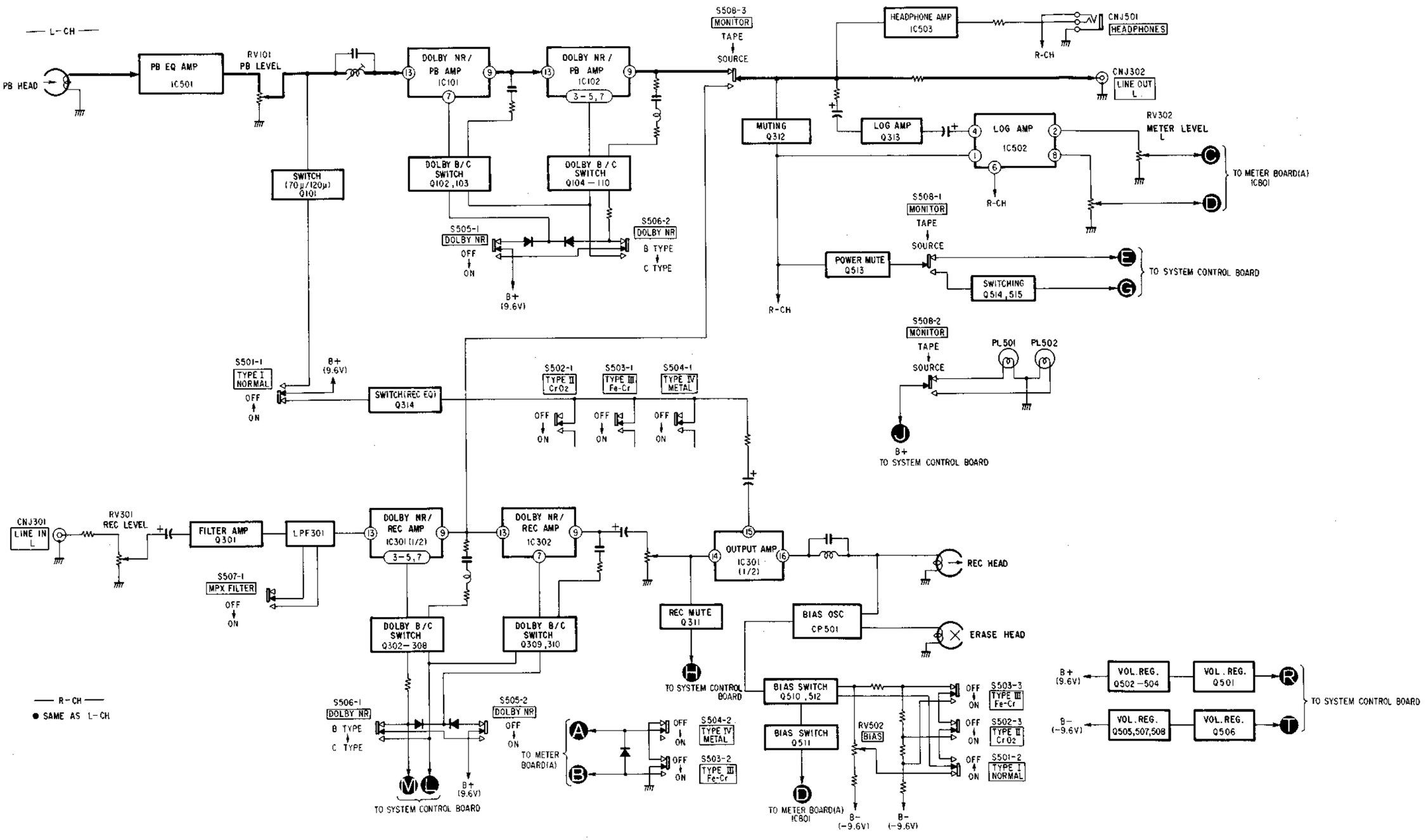
- Loss of high frequency response
- Loss of sound volume
- Sound drop-outs

The heads and tape path should be cleaned after 10 hours of operation.

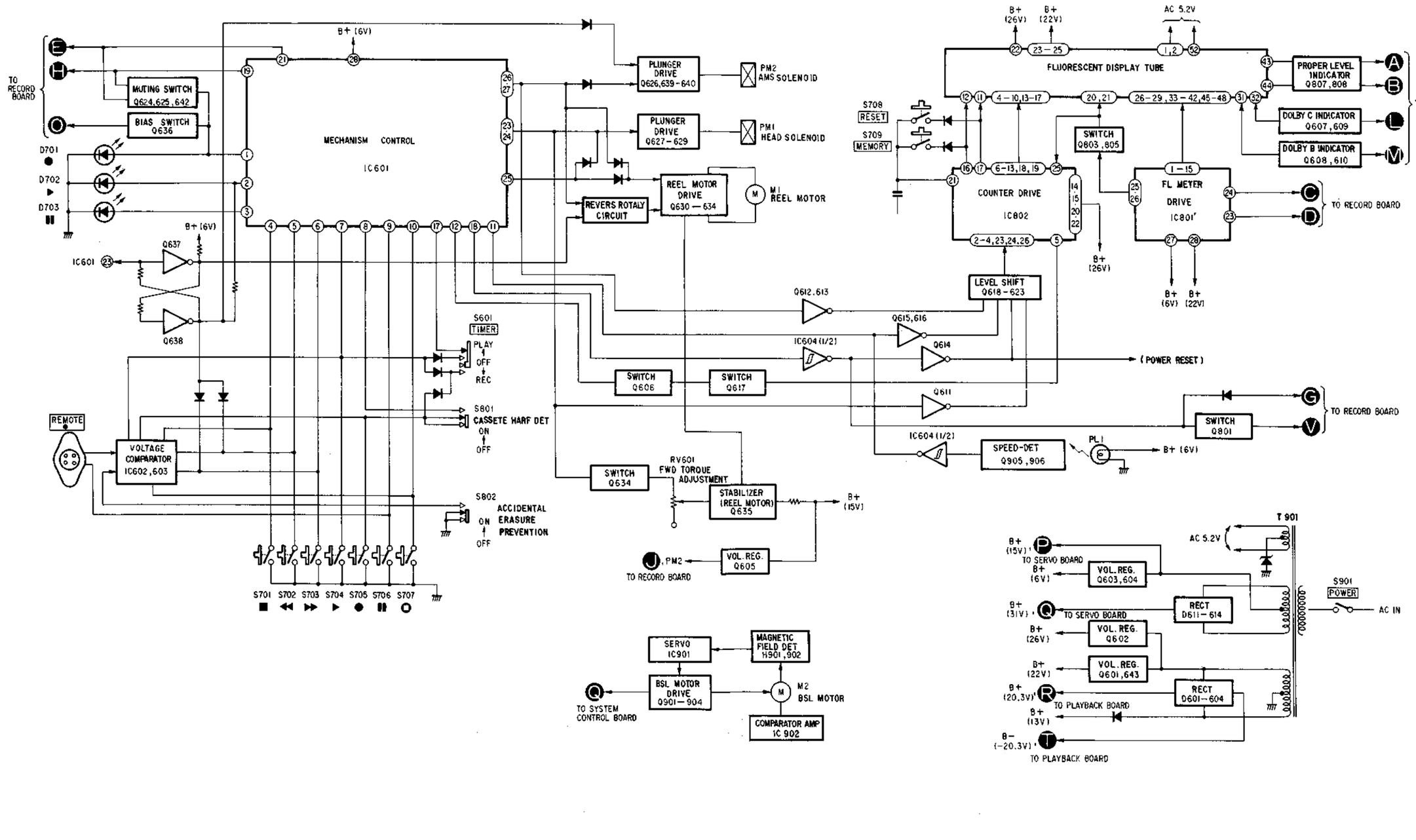
MEMO

1-2. BLOCK DIAGRAMS

– Amp Section –



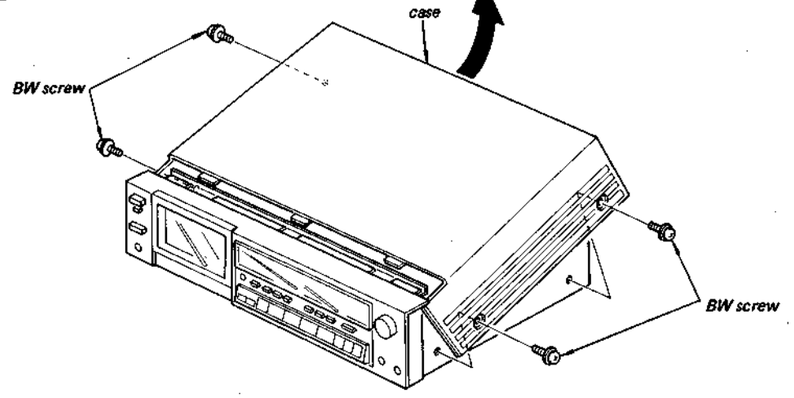
– System Control Section –



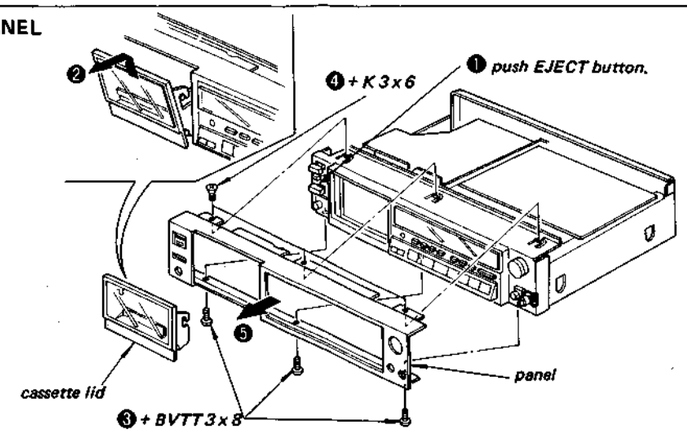
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

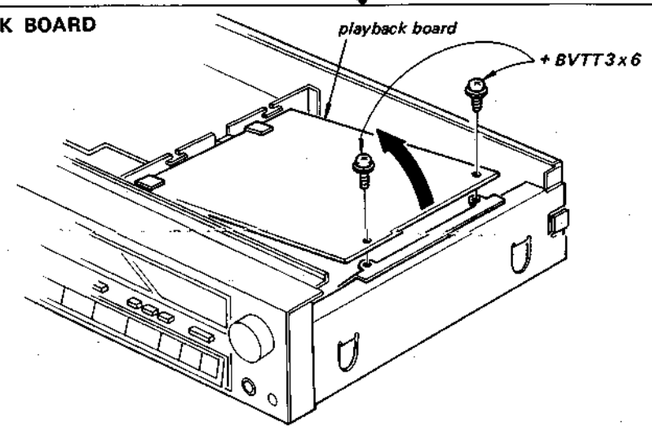
CASE



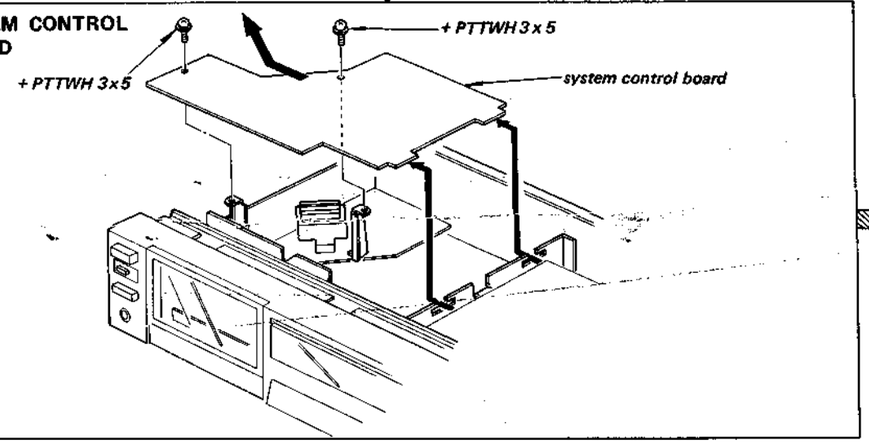
CASSETTE LID/PANEL



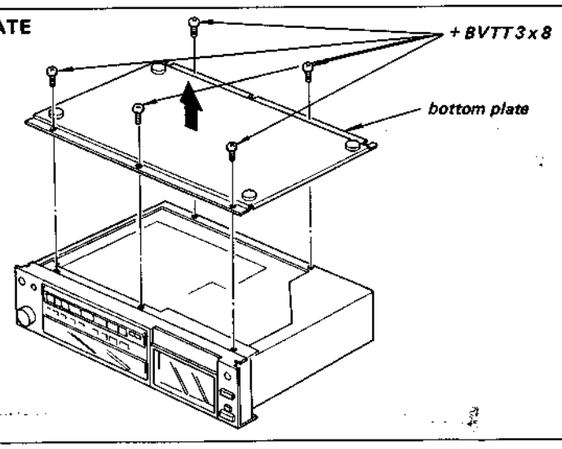
PLAYBACK BOARD



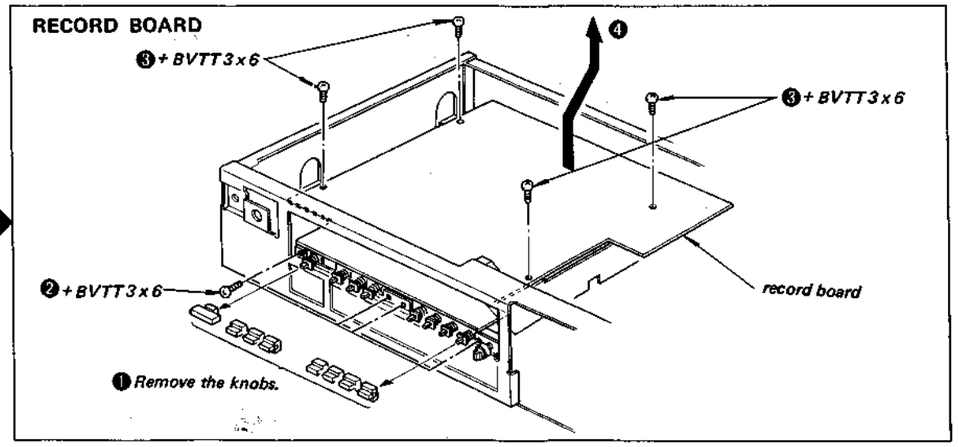
SYSTEM CONTROL BOARD



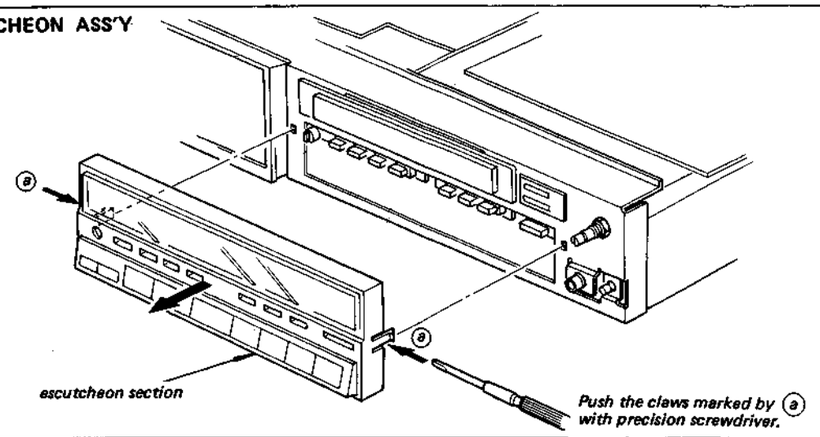
BOTTOM PLATE



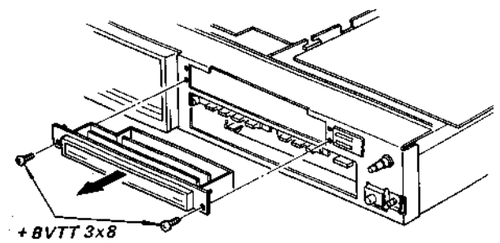
RECORD BOARD



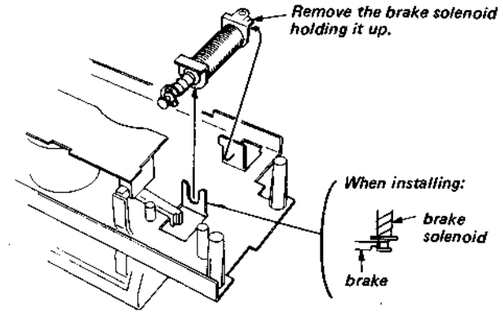
ESCUTCHEON ASS'Y



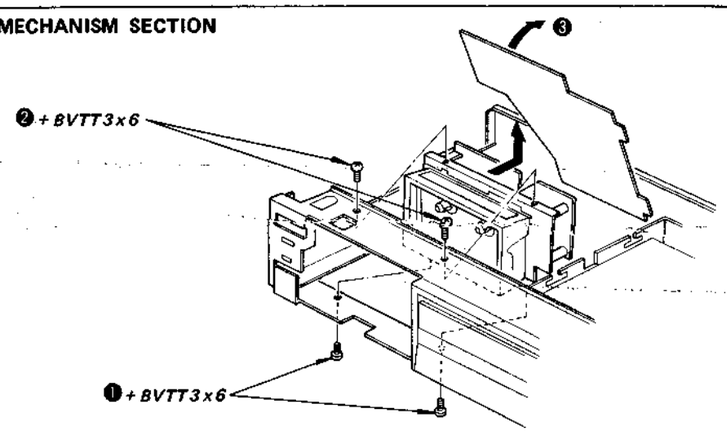
METER



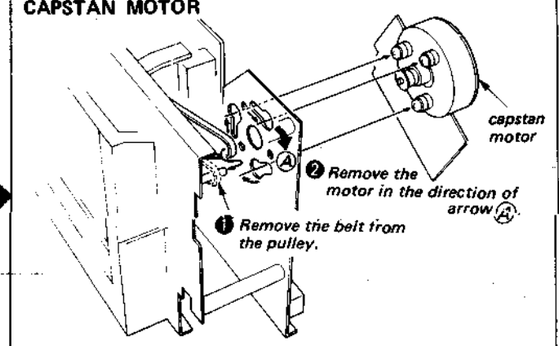
AMS SOLENOID



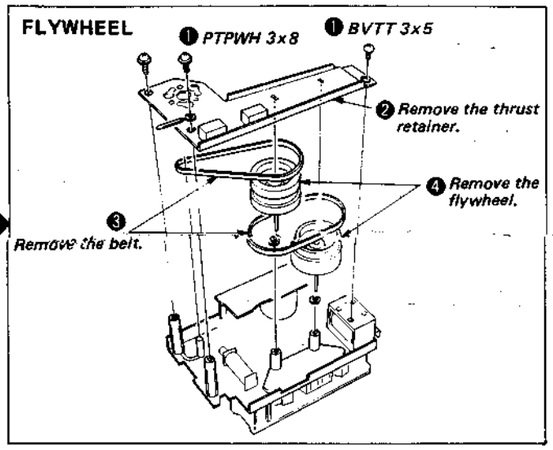
MECHANISM SECTION



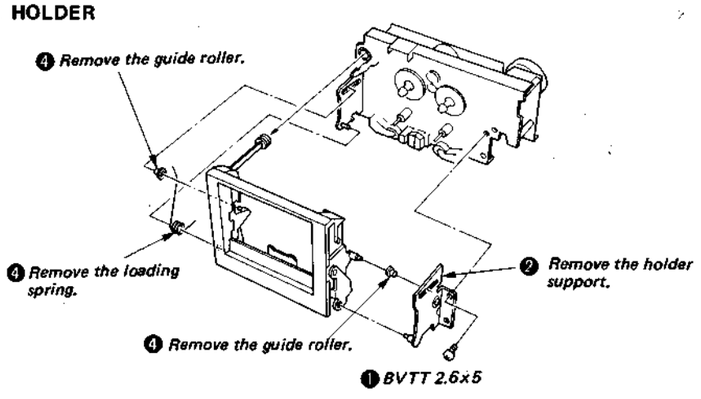
CAPSTAN MOTOR



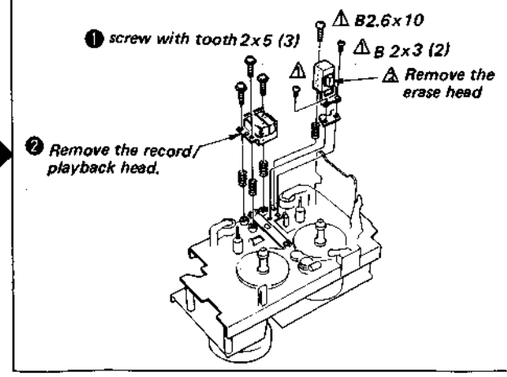
FLYWHEEL



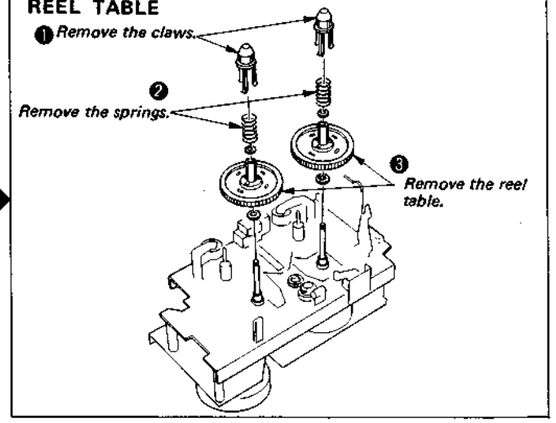
CASSETTE HOLDER



RECORD/PLAYBACK HEAD..... ❶ ~ ❷
ERASE HEAD..... ⚠ ~ ⚠



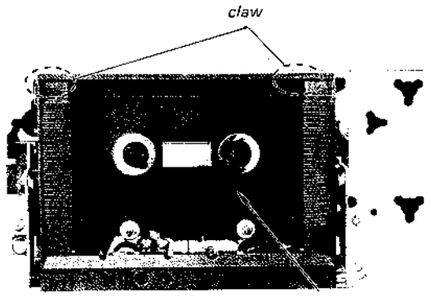
REEL TABLE



CASSETTE-ORNAMENT PLATE

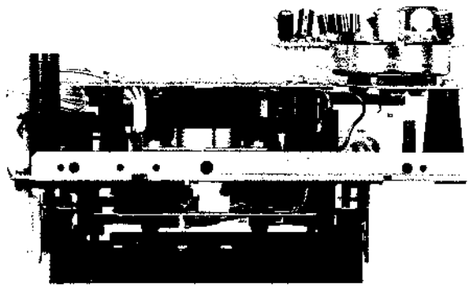
Note: This plate does not need screws to be installed.

1. Press the ejection button and open the cassette lid.
2. Release the two claws from the cassette-ornament plate at both the top corners.
3. Depress the REC detecting lever and the half detecting levers at the inside of the set and remove the cassette-ornament plate.
4. When reinstalling the cassette-ornament plate, perform the steps in a reverse manner.

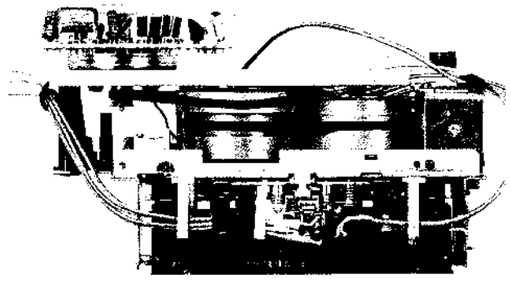


MECHANISM SECTION PHOTOGRAPHS

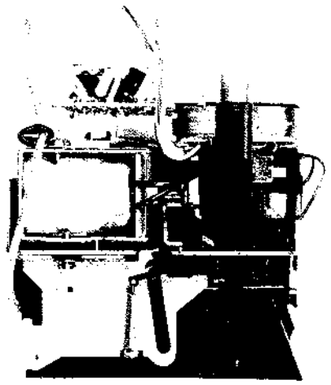
1. Top View with Cassete Holder Shut:



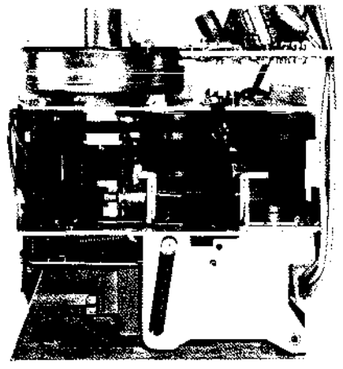
2. Bottom View with Cassette Holder Shut:



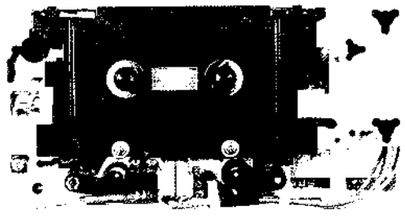
3. Left Side View with Cassette Holder Shut:



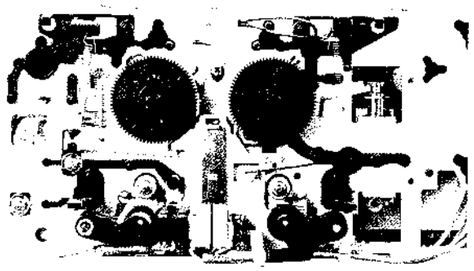
4. Right Side View with Cassette Holder Shut:



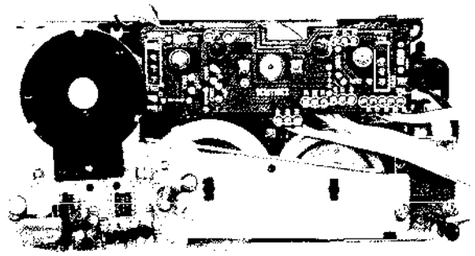
5. Front View with Cassette Holder Removed:



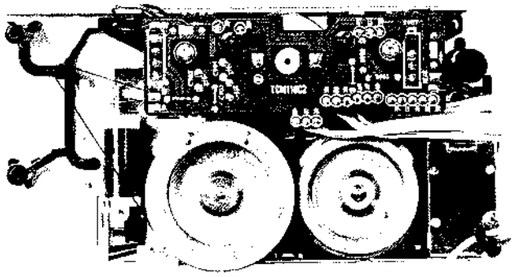
6. Front View with Cassette Holder and Cassette-Ornament Plate Removed:



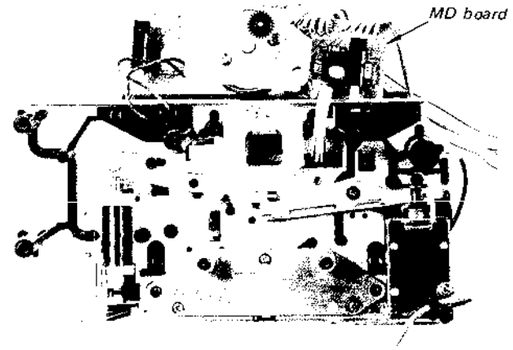
7. Rear View:



8. Bottom View with Thrust Retainer and DC Motor Removed:



9. Bottom View with Switch Board and Flywheel (T) Removed:



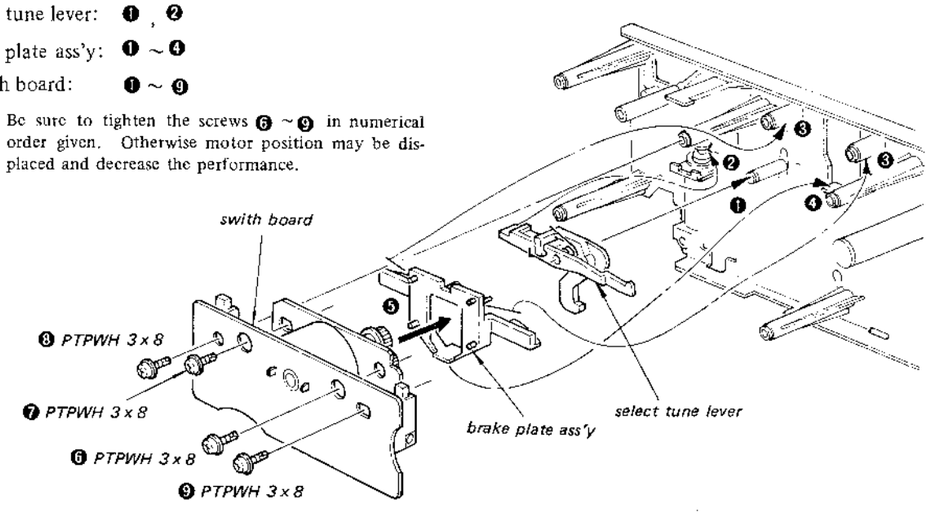
SELECT TUNE LEVER/BRAKE PLATE ASS'Y/ SWITCH BOARD

Select tune lever: ❶ , ❷

Brake plate ass'y: ❶ ~ ❹

Switch board: ❶ ~ ❾

Note: Be sure to tighten the screws ❻ ~ ❾ in numerical order given. Otherwise motor position may be displaced and decrease the performance.



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

FF/REW Torque Measurement

Torque	Torque meter	Meter reading
FF REW	CQ-201B	65 – 85 g•cm

Tape Path Adjustment

1. Insert a mirror cassette (CQ-009C).
2. Set for forward mode and confirm that there is no tape curl at the tape guides and recording head.
3. If there is curl, turn the adjust nut and raise and lower the supply side pinch roller (with tape guide attached) to adjust.
4. If step 3 does not get rid of the curl, adjust further by turning adjustment screws A, B, C less than ½ turn in the same direction at the same angle.
5. Confirm that the erase head height is as shown in Figure 2.
6. Check tape wrinkling (zigzag).
   Tighten adjust screw D if the tape is wrinkling up. (clockwise)
   Loosen screw D if the tape is wrinkling downward. (conterclockwise)
   Repeat step 5 after adjusting screw D as necessary, within ½ turn.
7. Lock the screw with locking compound.

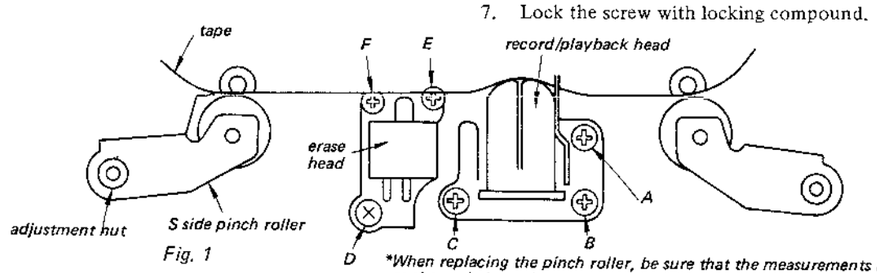


Fig. 1

*When replacing the pinch roller, be sure that the measurements are as shown below when attaching it. (After installation, perform the above adjustment.)

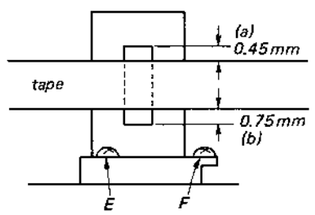


Fig. 2

1. Loosen screws E, F so that the ratio between a and b is 3 : 5 and adjust with the adjustment shim.
2. When changing erase head height, check for tape wrinkling.

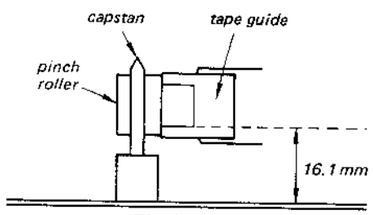
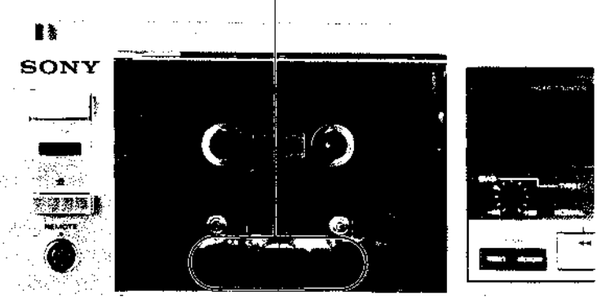


Fig. 3

tape path adjustment



Head Base Position Adjustment

Perform the following adjustment when replacing the head base solenoid.

Perform with the old head base solenoid still in place.

1. Press the head base solenoid core with the finger until the head base stops moving.
2. Draw a line as shown in Figure 2. Replace with the new head base solenoid.
3. Loosen the mounting screw, match with the line drawn in step 2, and tighten the screw.
4. Lock the screw after adjustment.

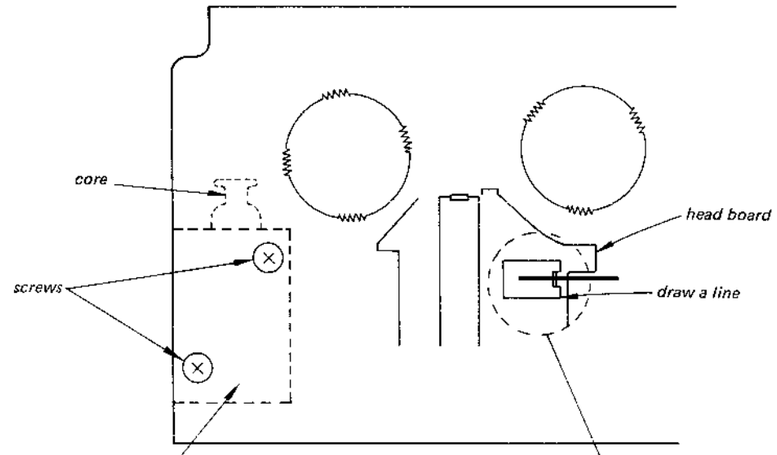


Fig. 1

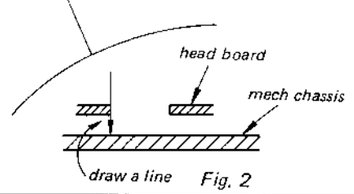
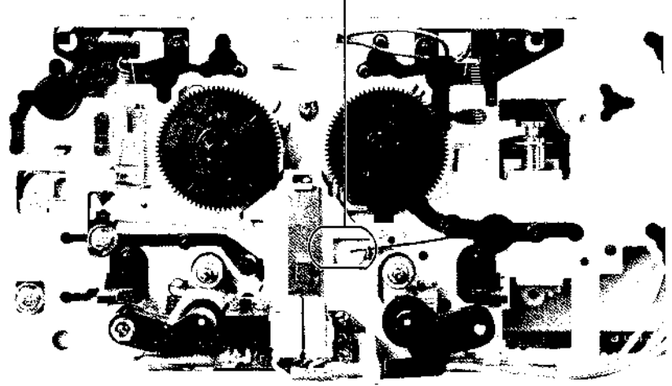


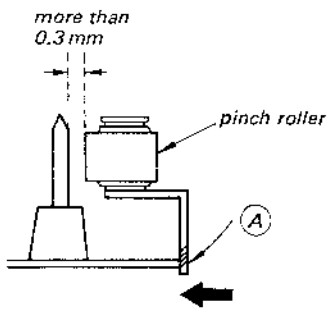
Fig. 2

head base position adjustment



Pinch Roller Clearance Adjustment

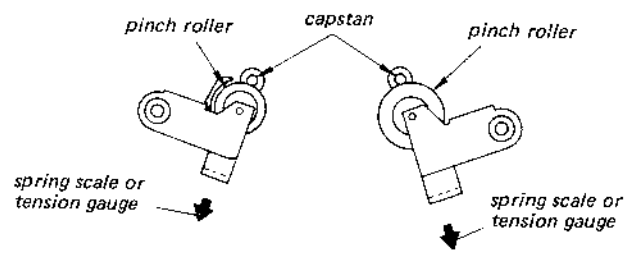
1. Confirm that the clearance between the pinch roller and capstan is more than 0.3 mm in pause mode.
2. If it is less than 0.3 mm, bend (A) in the direction of the arrow.



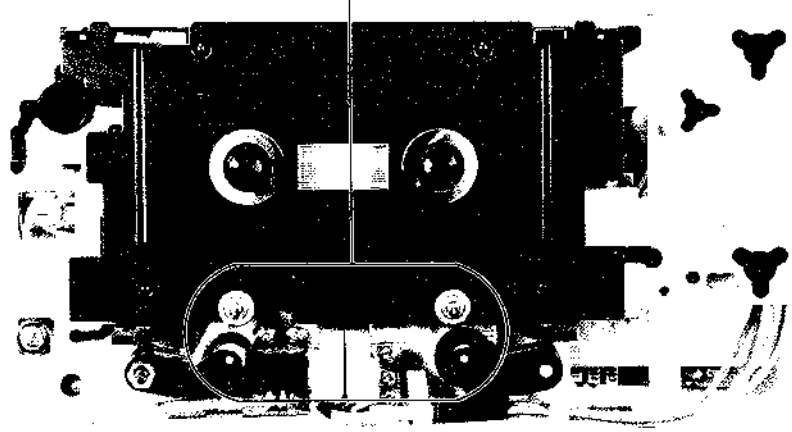
Pinch Roller Pressure Measurement

1. Confirm that the pinch roller is parallel to the capstan.
2. Set in forward, move the pinch roller away from the capstan, then back toward it, and measure the value at the point where the pinch roller begins to rotate.

   T side 270 – 330 g
   S side 180 280 g



pinch roller clearance adjustment

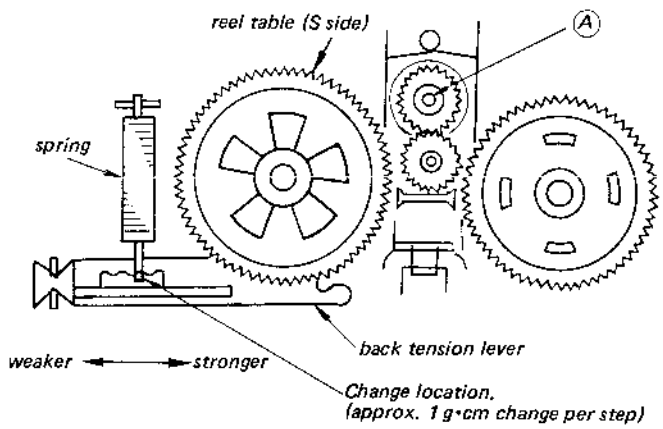


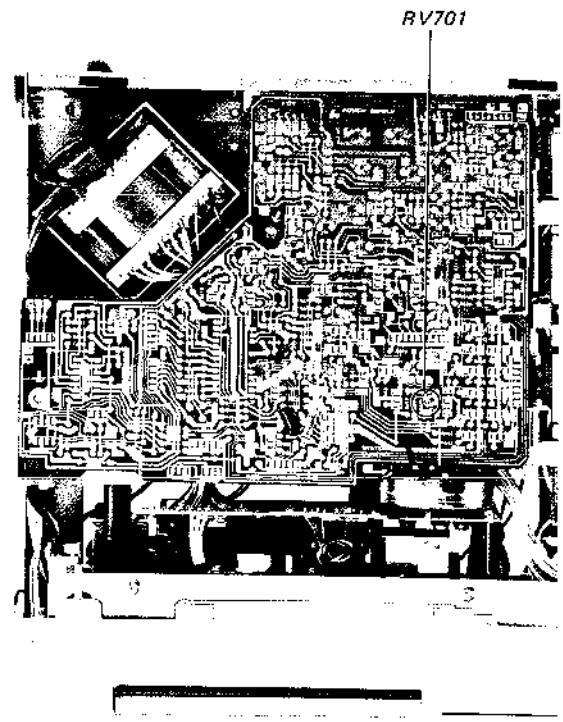
Forward Torque Adjustment

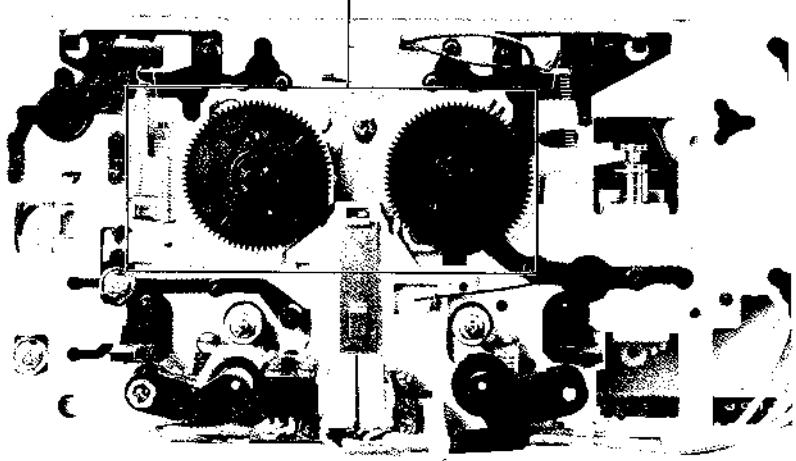
1. Remove the ornamental plate.
2. Press the cassette detection switch and T side reel table simultaneously by hand and then press the forward button. In this state, hold the T reel table so that it does not rotate.
3. Now adjust RV701 to the position where Ⓐ begins to rotate.
   (It will shut off immediately, so press the forward button to repeat.)
4. Next insert CQ-102C, and measure forward torque and back tension torque. If back tension torque is not within the specifications, change the location where the spring is hooked.

Specifications:

forward torque:	30 – 60 g•cm
back tension torque:	7 – 9 g•cm







3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Set the TAPE switches according to the tape as follows.

Tape	TAPE switch
CS-15	TYPE I
CS-20	TYPE II
CS-30	TYPE III
CS-40	TYPE IV

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch: OFF
TAPE switch: TYPE I
TIMER switch: OFF
LINE OUT/HEADPHONES: MAX

- Standard Record:
Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

Standard Input Level

	LINE IN
source impedance	10 kΩ
input level	0.25 V (-10 dB)

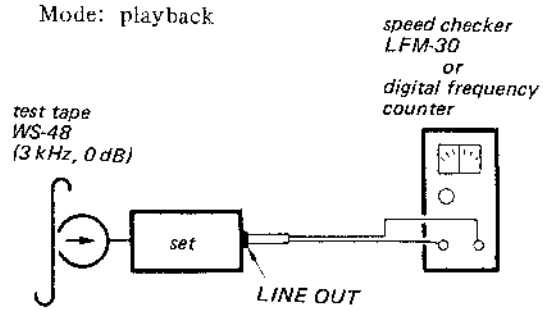
Standard Output Level

	HEADPHONES	LINE OUT
load impedance	8 Ω	47 kΩ
output level	77 mV (-20 dB)	0.44 V (-5 dB)

Tape Speed adjustment

Procedure:

Mode: playback

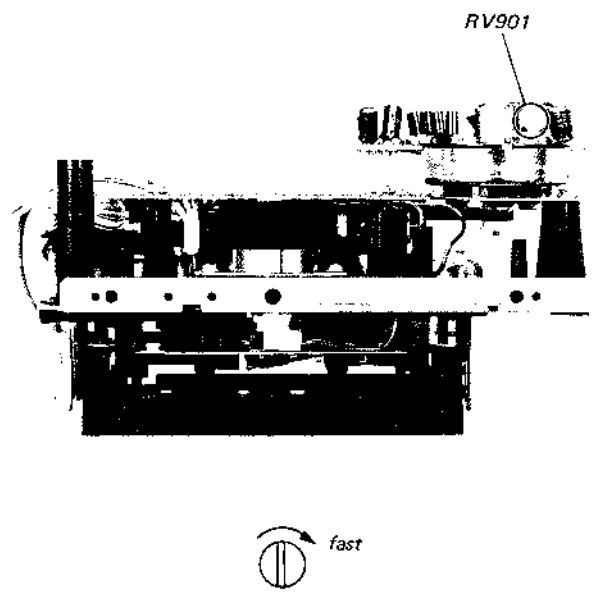


Specification:

Speed checker	Digital frequency counter
-0.17 to +0.17%	2,995 – 3,005 Hz

Frequency difference between the beginning and the end of the tape should be within 0.34% (10 Hz).

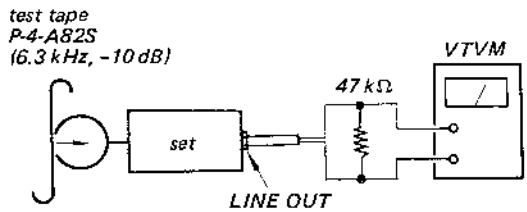
Adjustment Location:



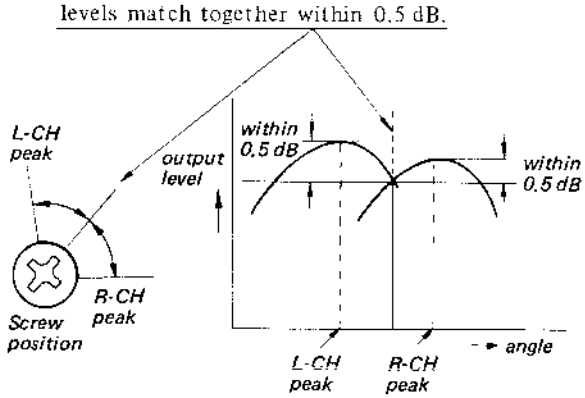
Record/playback Head Azimuth Adjustment

Procedure:

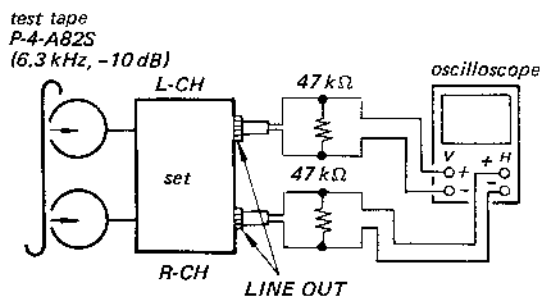
1. Mode: playback

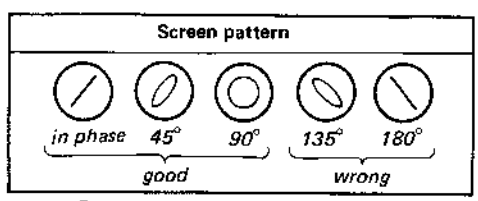


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 0.5 dB.

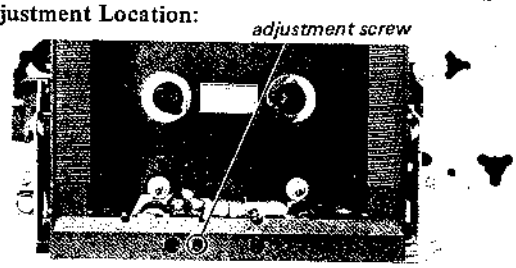


3. Phase Check
   Mode: playback





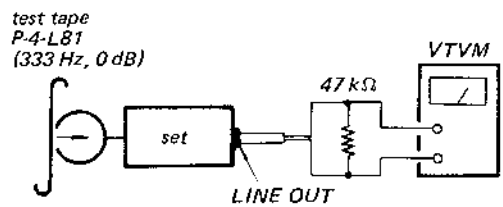
Adjustment Location:



Playback Level Adjustment

Procedure:

Mode: playback



Specification:

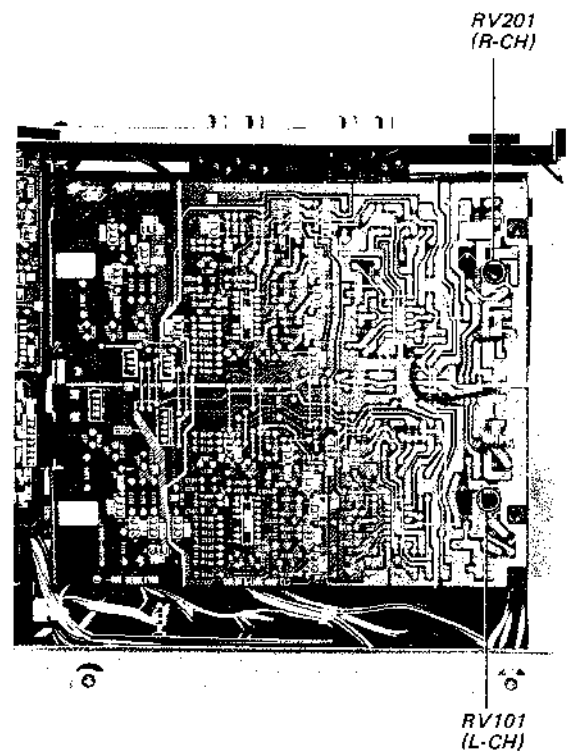
LINE OUT level: 0.52 ~ 0.59 V
(-3.5 ~ -2.5 dB)

Level difference between channels:
less than 0.5 dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location:

– record/playback board –



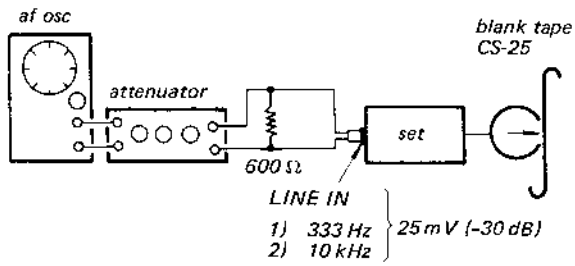
Record Bias Adjustment

Setting:

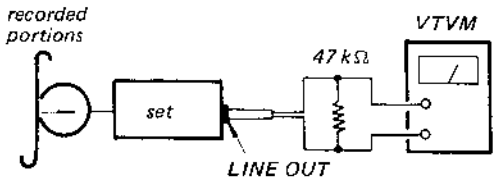
REC LEVEL control: standard record
(See page 27)

Procedure:

1. Mode: record



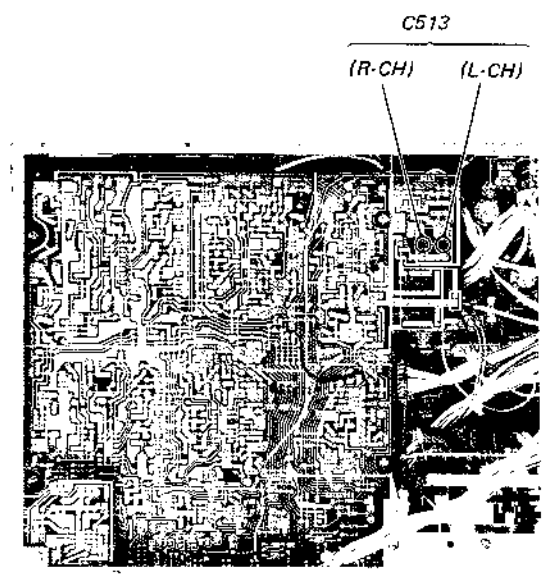
2. Mode: playback



Addust C513 (L-CH), (R-CH) so that the LINE OUT level of 333 Hz signal is 0 dB relative to that of 10 kHz.

Adjusting Location:

– record/playback board –



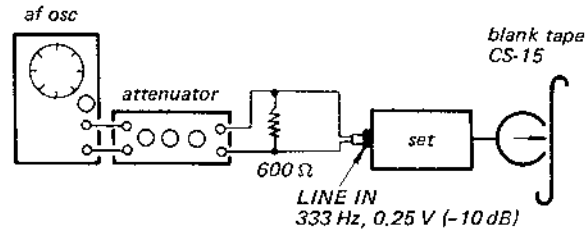
Record Level Adjustment

Setting:

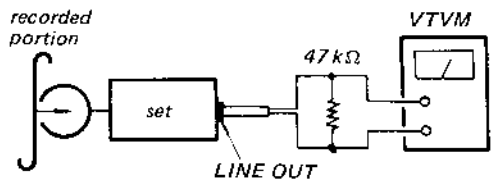
REC LEVEL control: standard record
(See page 27)

Procedure:

1. Mode: record



2. Mode: playback

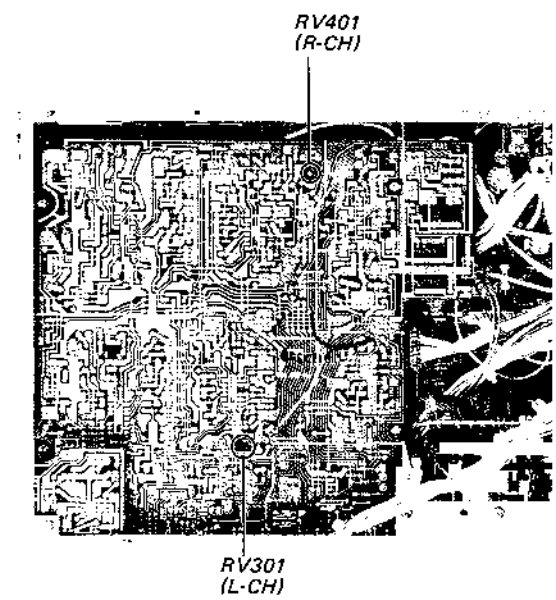


Specification:

LINE OUT level: 0.41 ~ 0.46 V
(-5.5 ~ -4.5 dB)

Adjustment Location:

– record/playback board –



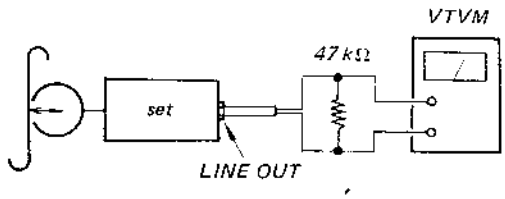
Bias Trap Adjustment

Setting:

MONITOR: TAPE
TAPE: TYPE IV

Procedure:

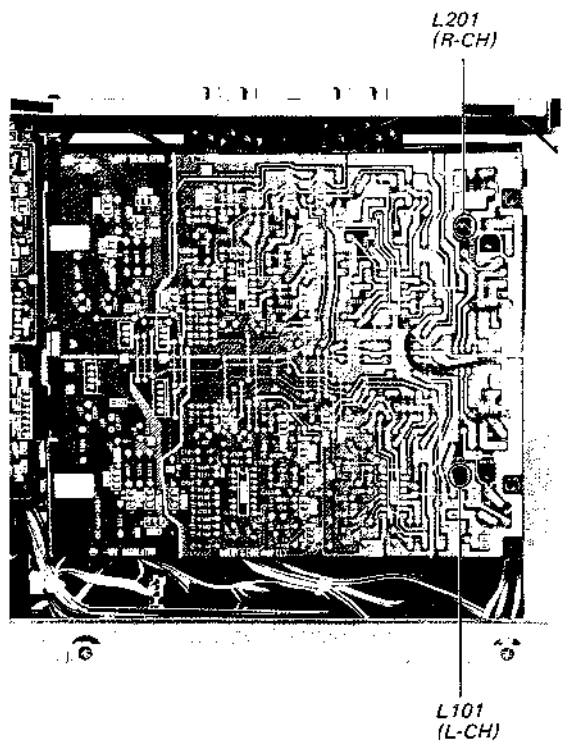
1. record and playback mode



In record and forward mode, adjust L101 (L-CH), L201 (R-CH) so that the LINE OUT level is minimum on the VTVM.

Adjustment Location:

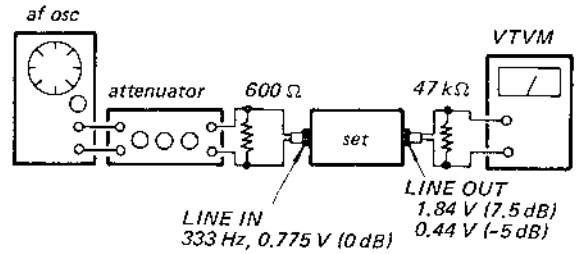
– record/playback board –



Level Meter Calibration

Procedure:

1. Mode: record

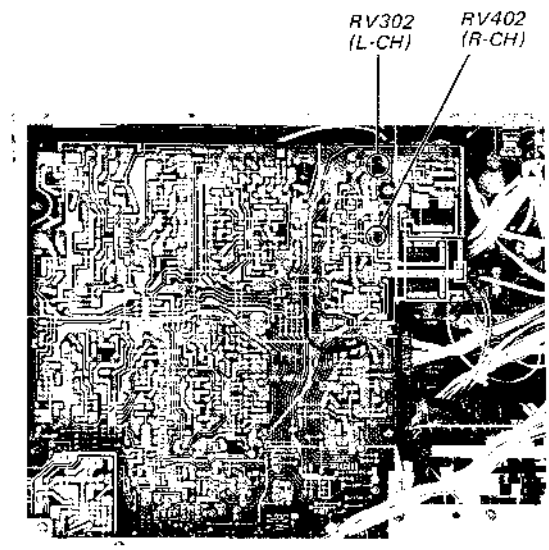


1. Set the REC LEVEL control so that the LINE OUT level is –5 dB.
2. Adjust RV302 (L-CH) and RV402 (R-CH) so that the LEDs including 4 dB (right-most element) light up.
3. Set the REC LEVEL control so that the LINE OUT level is –8 dB.
   Make sure that LED meter indicates –4 dB (0 VU) in this time.

   Note: Slide the REC LEVEL control rightward slowly. (Be careful to peakhold indication.)

Adjustment Location:

– record/playback board –



IC601's Terminal Name, Waveform and/or Voltages

Pin No.	Waveform and/or Voltages
①	REC lamp Drive Signal REC mode 4.7V 0 V
②	FWD Lamp Drive Signal FWD mode 4.6V 0 V
③	PAUSE Lamp Drive Signal PAUSE mode 4.6 V 0 V
④	$\overline{STOP}$ Input 4.4 V 0 V stop button kept pressed
⑤	$\overline{REW}$ Switch Input 4.9 V 0 V REW button kept pressed
⑥	$\overline{FF}$ Switch Input 5.1 V 0.5 V 0 V FF button kept pressed
⑦	$\overline{FWD}$ Switch Input 5.2V 0.5V 0 V FWD button kept pressed
⑧	$\overline{REC}$ Switch Input 5.3V 1.0V 0 V REC button kept pressed
⑨	$\overline{PAUSE}$ Switch Input 5.2V 0.3V 0 V PAUSE button kept pressed
⑩	REC MUTE Switch Input 5.3V 0.5V 0 V REC MUTE button kept pressed
⑪	Auto Shut-Off Signal 5 V 0 V 2 sec tape end 0.4 sec auto shut off becomes in stop mode at tape end in forward mode. (may become in 0 V according to the position of take-up reel spindle.)
⑫	Tape Counter Input DC 5.2V
⑬	Clock Signal 0.96 Vp-p 7.6 msec
⑭	GND 0 V
⑮	(not used in this set)
⑯	(not used in this set)
⑰	$\overline{Timer\ Signal\ (TIMER)}$ 5.1 V 0 V 4 sec 0.5 sec POWER Switch ON (regardless of position of TIMER switch)
⑱	$\overline{Reset}$ Signal (RESET) DC 4.4V
⑲	Record-Muting Signal 5.1V 0 V REC MUTE switch ON in record mode
⑳	(not used in this set)
㉑	Line-Muting Signal FWD mode or REC mode (only record switch ON DC 5.1 V) 5.1 V 0 V
㉒	(not used in this set)
㉓	Head-Solenoid Drive Signal FWD mode 4.5V 0 V
㉔	AMS Solenoid Drive Signal 5.0V 0 V 0.25 sec FWD button ON
㉕	Reel-Motor Drive Signal in Forward Mode FWD mode 4.5 V 0 V
㉖	Reel-Motor Drive Signal in Fast-Forward Mode FF mode 4.5 V 0 V
㉗	Reel-Motor Drive Signal in Rewind Mode REW mode 4.5V 0 V
㉘	B + Supply Voltage DC 6V

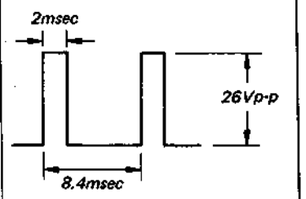
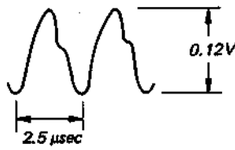
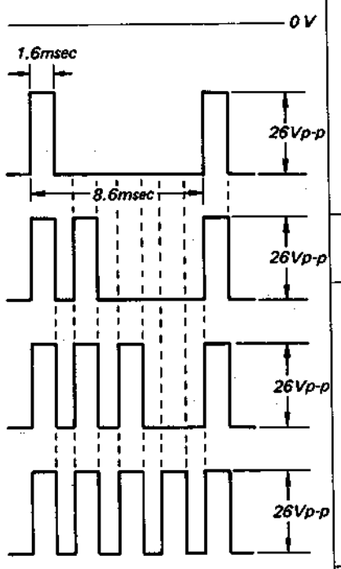
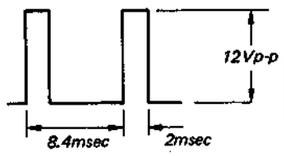
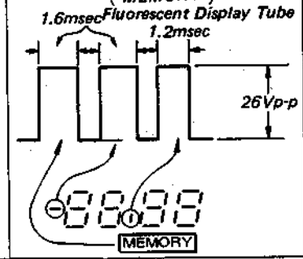
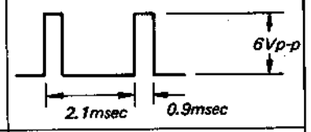
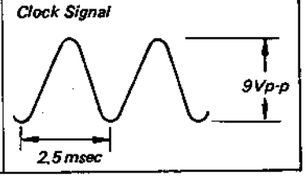
Note: Voltages are measured with an oscilloscope (10 MΩ probe). So readings are different from the mounting diagram and schematic diagram measured with a VOM.

IC802's Terminal Name, Waveform and/or Voltages

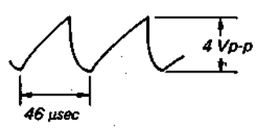
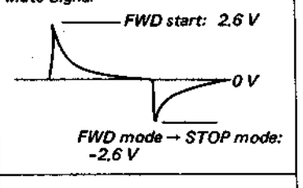
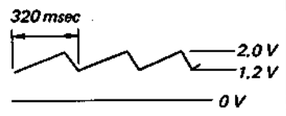
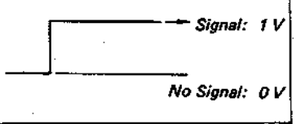
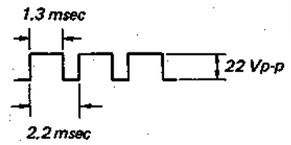
Pin No.	Waveform and/or Voltages
①	Clock Signal 7.6 Vp-p 2.5 µsec
②	Reel Motor Drive Signal in Rewind Mode STOP mode: DC24.5V REW mode: DC13.5V
③, ④	FF Mode Capstan Motor Drive Signal STOP mode: DC 24.5V FWD mode: DC 13.5V FF Mode: DC 0V
⑤	Counter "0" Output 0.12Vp-p 2.5 µsec
⑥	Drive Signal for "a" Segment of Fluorescent Display Tube. 1) In case of all "a" segments are not lit, i.e., all of the four digits are "1" or "4". 2) In case of only one out of four "a" segments lit, i.e., one of the four digits is "0", "2", "3", "5", "6", "7", "8", or "9" and all others are "1" or "4". 3) In case of only two out of four "a" segments lit as in the case of 2) above. 4) In case of only three out of four "a" segments lit as in the case of 2) above. 5) In case of all of the four "a" segments lit likewise. 0 V 1.6msec 26Vp-p 8.6msec 26Vp-p 26Vp-p 26Vp-p
⑦	Drive Signal for "b" Segments of Fluorescent Dsiplay Tube same as pin ⑥ for Segment "a".
⑧	Drive Signal for "c" Segments of Fluorescent Display Tube same as pin ⑥ for Segment "a".
⑨	Drive Signal for "d" Segments of Fluorescent Display Tube same as pin ⑥ for Segment "a".
⑩	Drive Signal for "e" Segments of Fluorescent Display Tube same as pin ⑥ for Segment "a".
⑪	Drive Signal for "f" Segments of Fluorescent Display Tube same as pin ⑥ for Segment "a".
⑫	Drive Signal for "g" Segments of Fluorescent Display Tube same as pin ⑥ for Segment "a".
⑬	Drive Signal ("DP"(dot) "–"(minus) "MEMORY") of Fluorescent Display Tube 1.6msec 1.2msec 26Vp-p MEMORY
⑭	B + Supply voltage 26V
⑮	TEST Terminal 26V
⑯ ⑰ ⑱ ⑲	Drive Signal for Grids G1 through G4 of Fluorescent Display Tube 2msec 26Vp-p 8.4msec
⑳	B + Supply Voltage DC 26V
㉑	Drive Signal for "MEMORY" of Fluorescent Display Tube 12Vp-p 8.4msec 2msec
㉒	B + Supply Voltage DC 26V
㉓ (φ2)	φ1 or φ2 – Signal Input from Photo Transistors fast forward and rewind modes: 6Vp-p
㉔ (φ1)	Pluse width varies according to tape take-up. (Stop mode: 10.6 V DC or 0 V according to the position of photo transistors)
㉕	1.5 kHz Clock Signal ($\overline{INT}$) 6Vp-p 2.1msec 0.9msec
㉖	$\overline{RESET}$ Signal 13.5V
㉗	GND (Ground) 12.5V
㉘	Clock Signal 9Vp-p 2.5 msec

Pin No.
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮

rminal Name, Waveform and/or Voltages

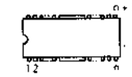
Pin No.	Waveform and/or Voltages	Pin No.	Waveform and/or Voltages
④	FF Mode Capstan Motor Drive Signal STOP mode: DC 24.5V FWD mode: DC 13.5V FF Mode: DC 0V	⑯ ⑰ ⑱ ⑲	Drive Signal for Grids G1 through G4 of Fluorescent Display Tube 
⑤	Counter "0" Output 	⑳	B + Supply Voltage DC 26V
		㉑	Drive Signal for "MEMORY" of Fluorescent Display Tube 
		㉒	B + Supply Voltage DC 26V
		㉓ (φ2) ㉔ (φ1)	φ1 or φ2 – Signal Input from Photo Transistors fast forward and rewind modes:  Pluse width varies according to tape take-up. (Stop mode: 10.6 V DC or 0 V according to the position of photo transistors)
⑬	Drive Signal ("DP"(dot) "–"(minus) "MEMORY") of Fluorescent Display Tube 	㉕	1.5 kHz Clock Signal (INT) 
		㉖	RESET Signal 13.5V
		㉗	GND (Ground) 12.5V
⑭	B + Supply voltage 26V	㉘	Clock Signal 
⑮	TEST Terminal 26V		

IC801's Terminal Name, Waveform and/or Voltages

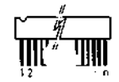
Pin No.	Waveform and/or Voltages	Pin No.	Waveform and/or Voltages	Pin No.	Waveform and/or Voltages
①	"B2" (dot) Drive signal R and L channel signal: 20.5 V R or L channel signal: 10.5 V	⑯	(not used in this set)	㉖	R-CH Grid Control Output Signal Same as ㉕
②	"B3" (dot) Drive Signal Same as ①	⑰	GND 0 V		
③	"B4" (dot) Drive Signal Same as ①	⑱	(not used in this set)	㉗	B+ Supply Voltage: 6 V
④	"B5" (dot) Drive Signal Same as ①	⑲	Clock Signal 	㉘	B+ Supply Voltage: 22 V
⑤	"B6" (dot) Drive Signal Same as ①				
⑥	"B7" (dot) Drive Signal Same as ①	⑳	Mute Signal 		
⑦	"B8" (dot) Drive Signal Same as ①				
⑧	"B9" (dot) Drive Signal Same as ①	㉑	(not used in this set)		
⑨	"B10" (dot) Drive Signal Same as ①	㉒	MEMORY RESET Input Signal 		
⑩	"B11" (dot) Drive Signal Same as ①				
⑪	"B12" (dot) Drive Signal Same as ①	㉓	R-CH Signal Input 		
⑫	"B13" (dot) Drive Signal Same as ①				
⑬	"B14" (dot) Drive Signal Same as ①	㉔	L-CH Signal Input Same as ㉓		
⑭	"B15" (dot) Drive Signal Same as ①	㉕	L-CH Grid Control Output Signal 		
⑮	"B16" (dot) Drive Signal Same as ①				

Semiconductor Lead Layouts

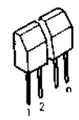
CX-174A
NJM2043D-D
µPC4557C
MSM58361RS
µPC339C
MB84069B
MSL9359RS
µPD554C089
NJM4558D-FA
NJM2903D
CX-174-1



BA6138



CX-069A



2SC1364
2SC1364-8
2SC1345
2SC2001
2SD1152
2SA844
2SC945-Q
2SC1815
2SB864

2SK30A-O

2SB731
2SD809

2SA1027R
2SA1026-7

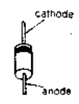
2SD880

2SD774
2SB734

2SB808

2SD1020

HZ6B1L
1S1555
10E-2
EQA01-08RI
HZ22-3L
HZ27-IL
RD7.5J-N1
HZ9A2L
HZ12C3L



minal Name, Waveform and/or Voltages

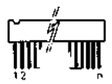
Pin No.	Waveform and/or Voltages	Pin No.	Waveform and/or Voltages
⑯	*(not used in this set)*	㉖	*R-CH Grid Control Output Signal* *Same as* ㉕
⑰	*GND 0 V*		
⑱	*(not used in this set)*	㉗	*B+ Supply Voltage: 6 V*
⑲	*Clock Signal* *4 Vp-p* *46 µsec*	㉘	*B+ Supply Voltage: 22 V*
⑳	*Mute Signal* *FWD start: 2.6 V* *0 V* *FWD mode → STOP mode: ~2.6 V*		
㉑	*(not used in this set)*		
㉒	*MEMORY RESET Input Signal* *320 msec* *2.0 V* *1.2 V* *0 V*		
㉓	*R-CH Signal Input* *Signal: 1 V* *No Signal: 0 V*		
㉔	*L-CH Signal Input* *Same as* ㉓		
㉕	*L-CH Grid Control Output Signal* *1.3 msec* *22 Vp-p* *2.2 msec*		

Semiconductor Lead Layouts

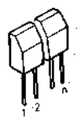
CX-174A
NJM2043D-D
µPC4557C
MSM58361RS
µPC339C
MB84069B
MSL9359RS
µPD554C089
NJM4558D-FA
NJM2903D
CX-174-1

(Top view)

BA6138



CX-069A



2SC1364
2SC1364-8
2SC1345
2SC2001
2SD1152
2SA844
2SC945-Q
2SC1815
2SB864

2SK30A-O

2SB731
2SD809

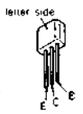
2SA1027R
2SA1026-7

2SD880

2SD774
2SB734

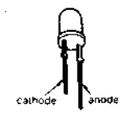
2SB808

2SD1020

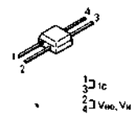


HZ6B1L
1S1555
10E-2
EQA01-08RI
HZ22-3L
HZ27-IL
RD7.5J-N1
HZ9A2L
HZ12C3L

SLR-34URC5
SLR-34PG5
SLR-34DU5



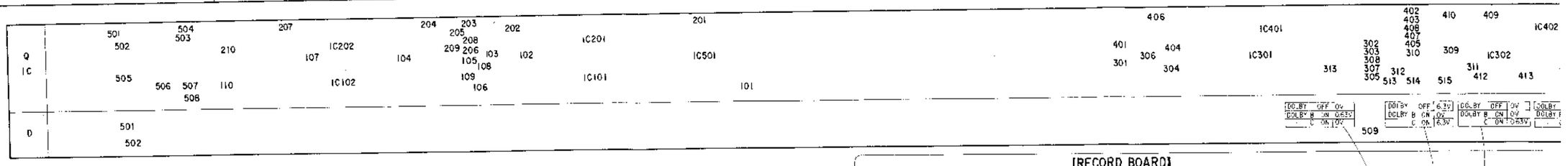
THS102

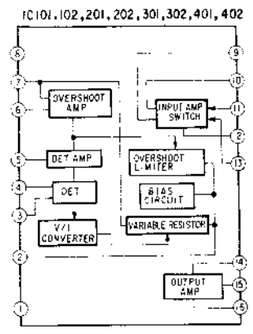


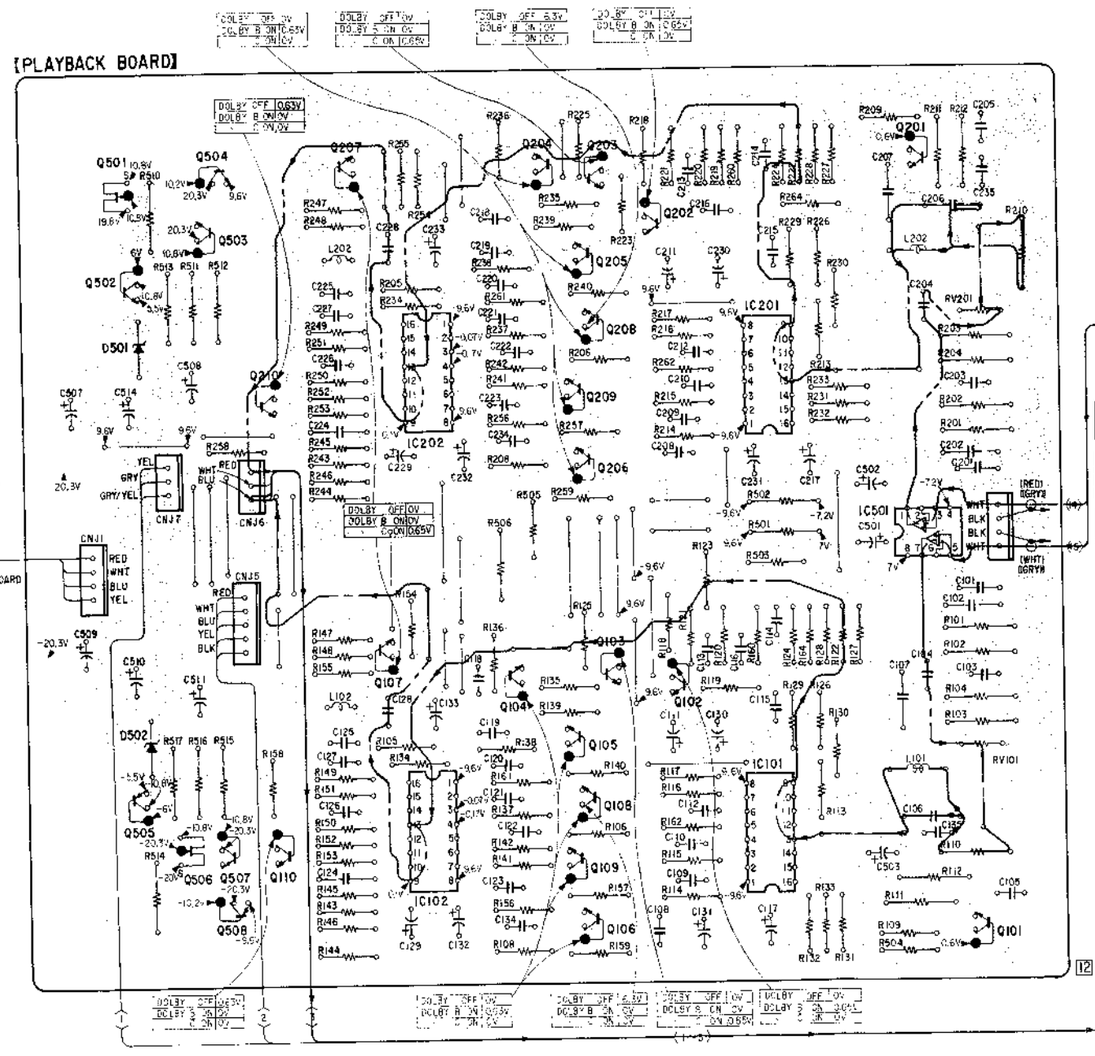
PH102

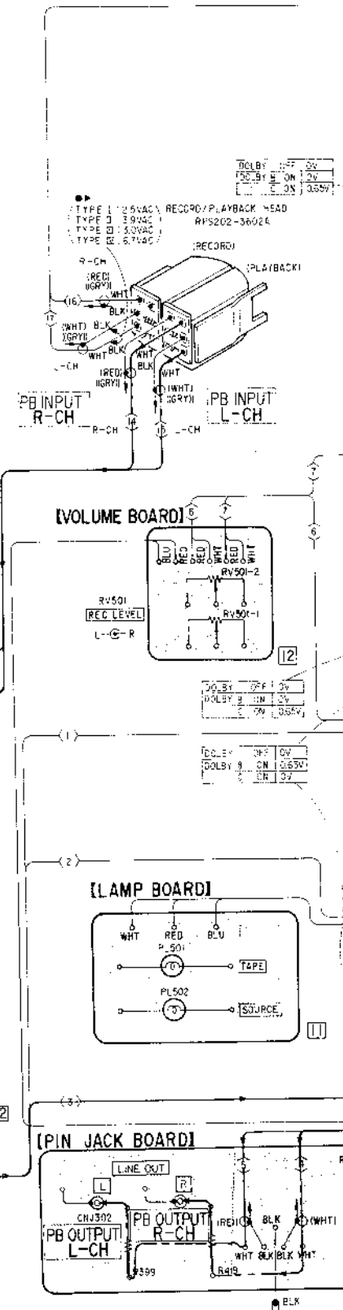
4-1. MOUNTING DIAGRAM

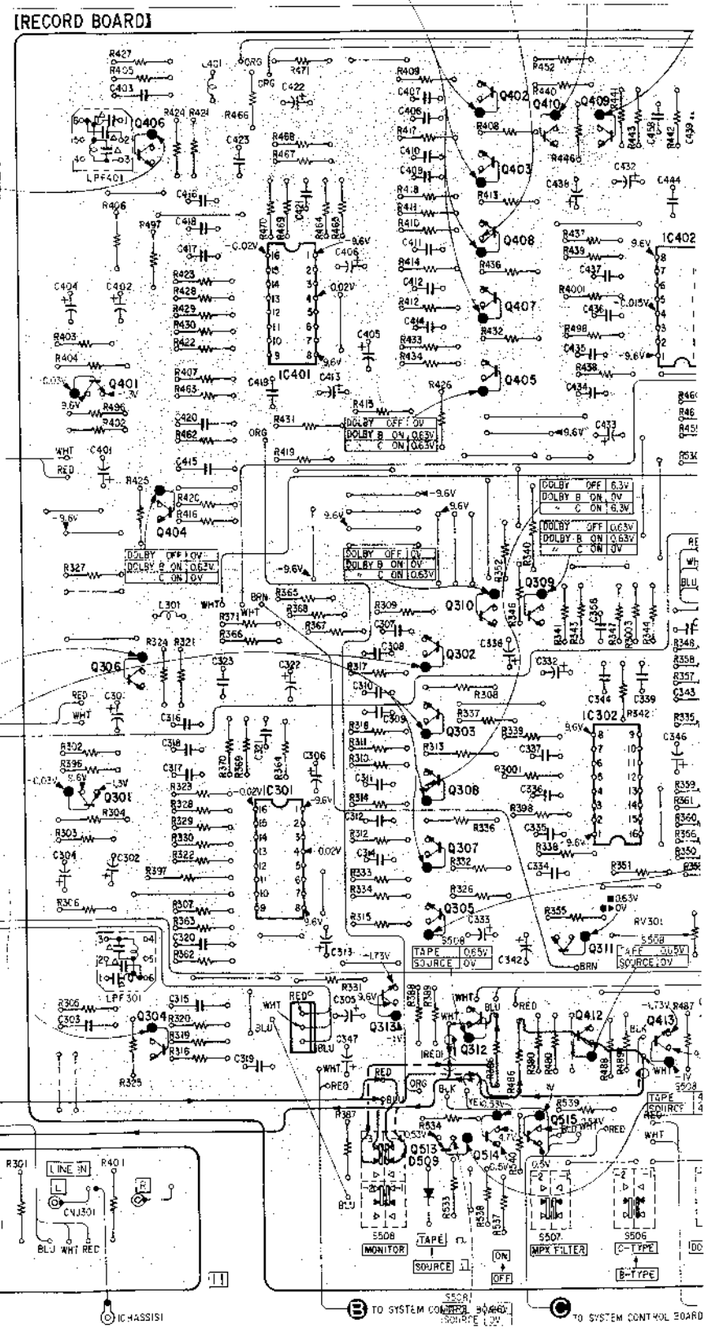
– Amp Section –











F G H I J K L M N

[RECORD BOARD]

[METER BOARD(A)]

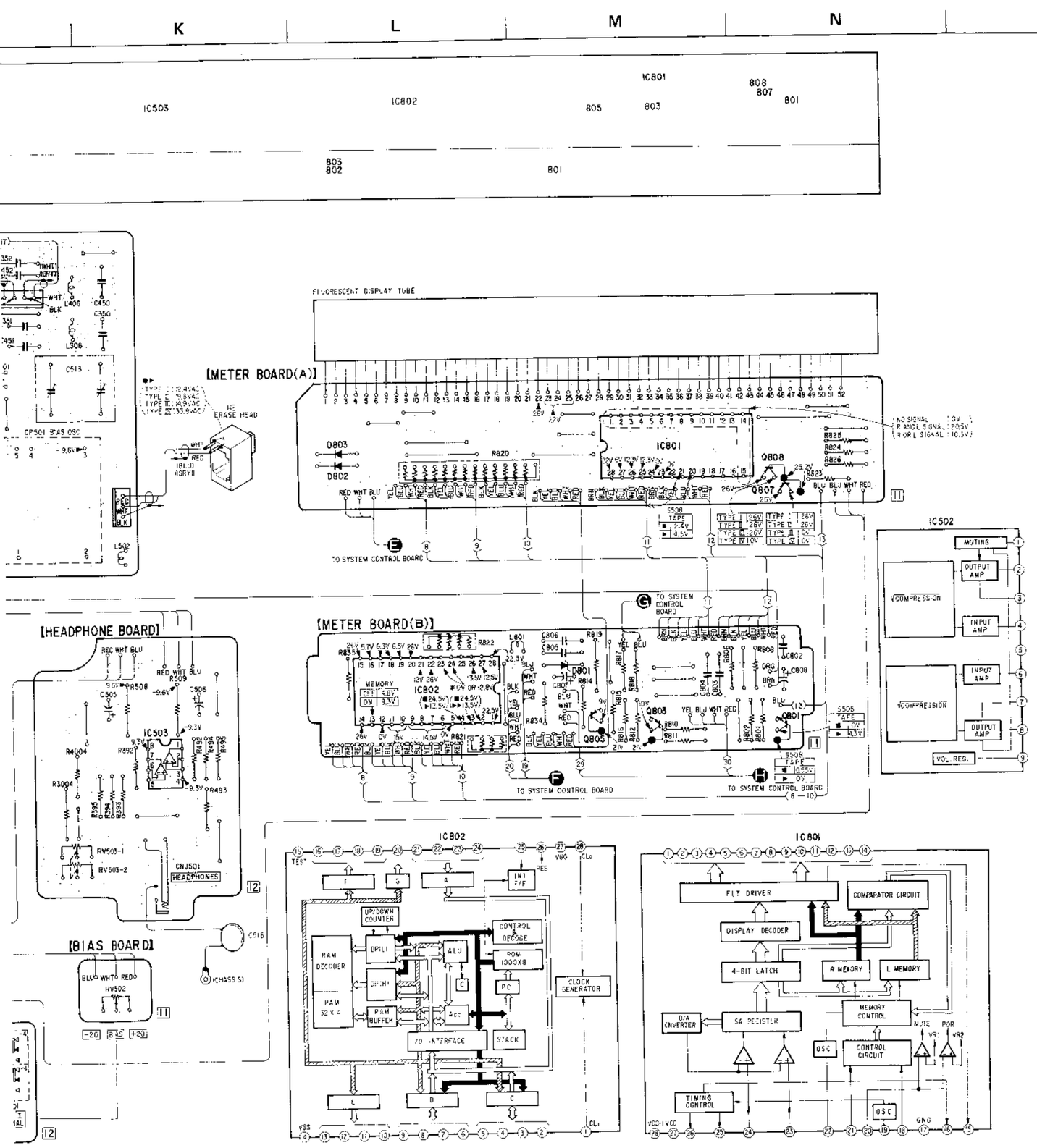
[METER BOARD(B)]

[HEADPHONE BOARD]

[BIAS BOARD]

IC802

IC801



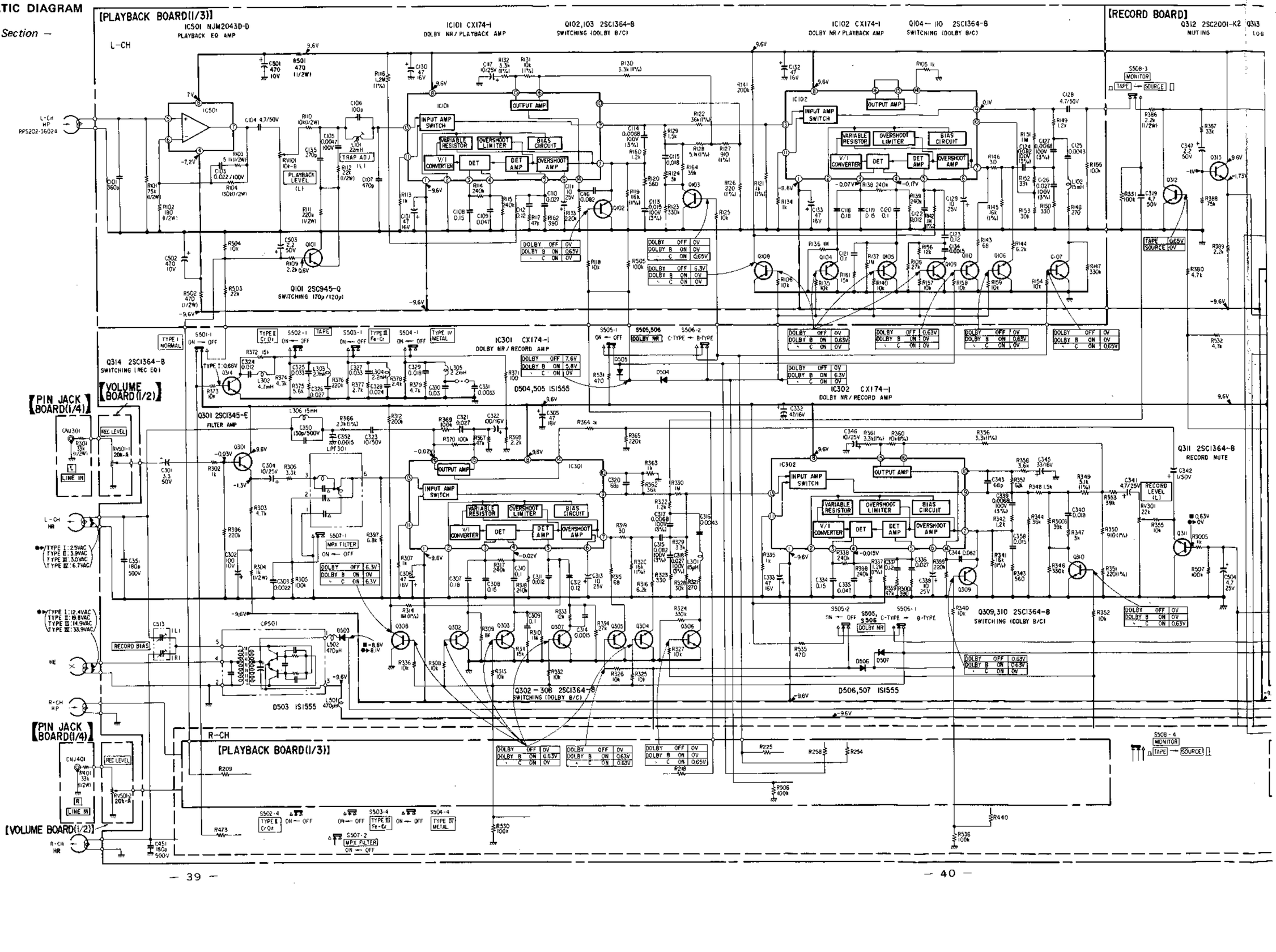
Note:

- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- : B + pattern

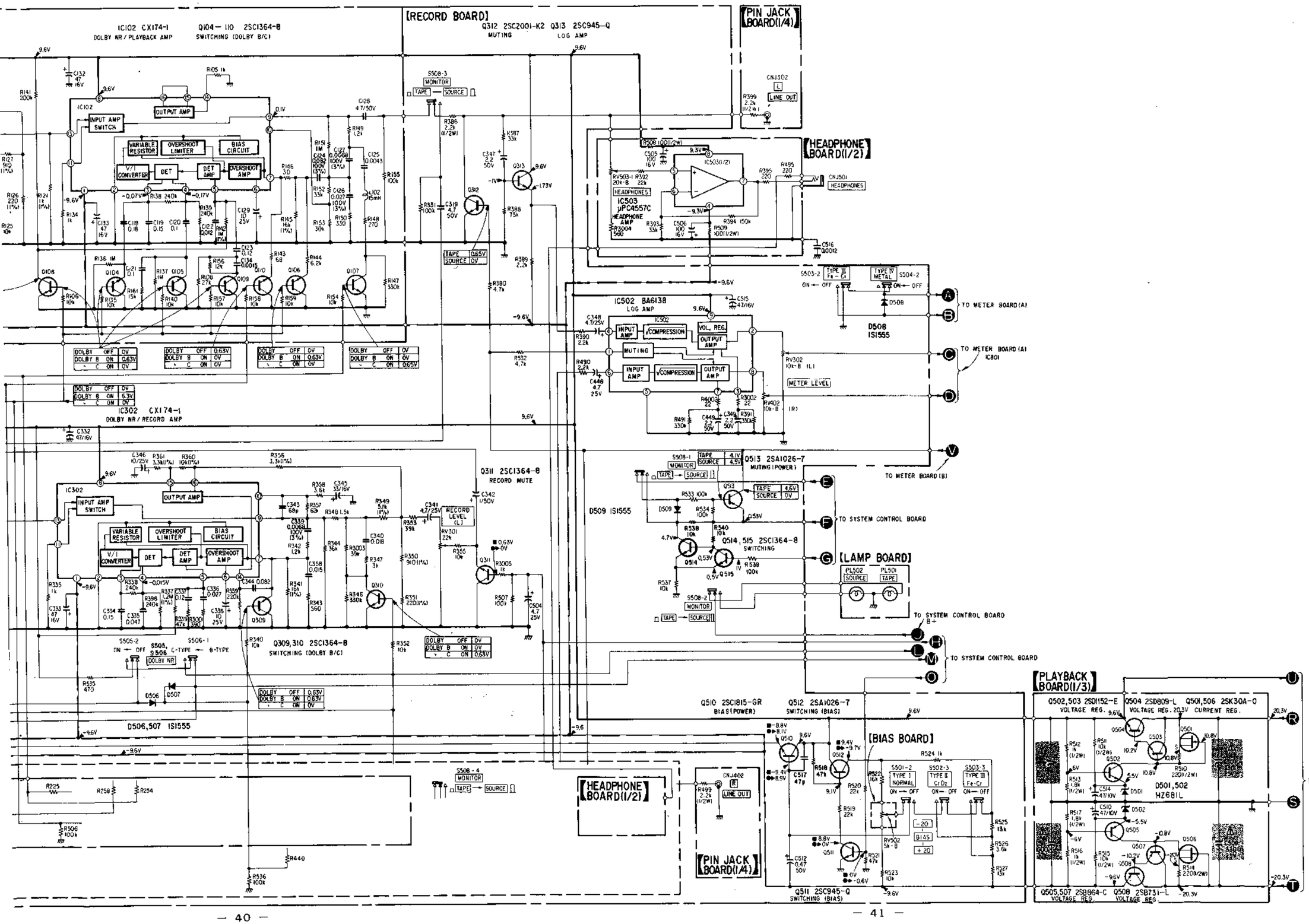
- ▬▶▬ : signal path
- ▬▪▬▶ : L-CH signal path
- ▬··▬▶ : R-CH signal path

4-2. SCHEMATIC DIAGRAM

– Amp Section –



F G H I J K L M



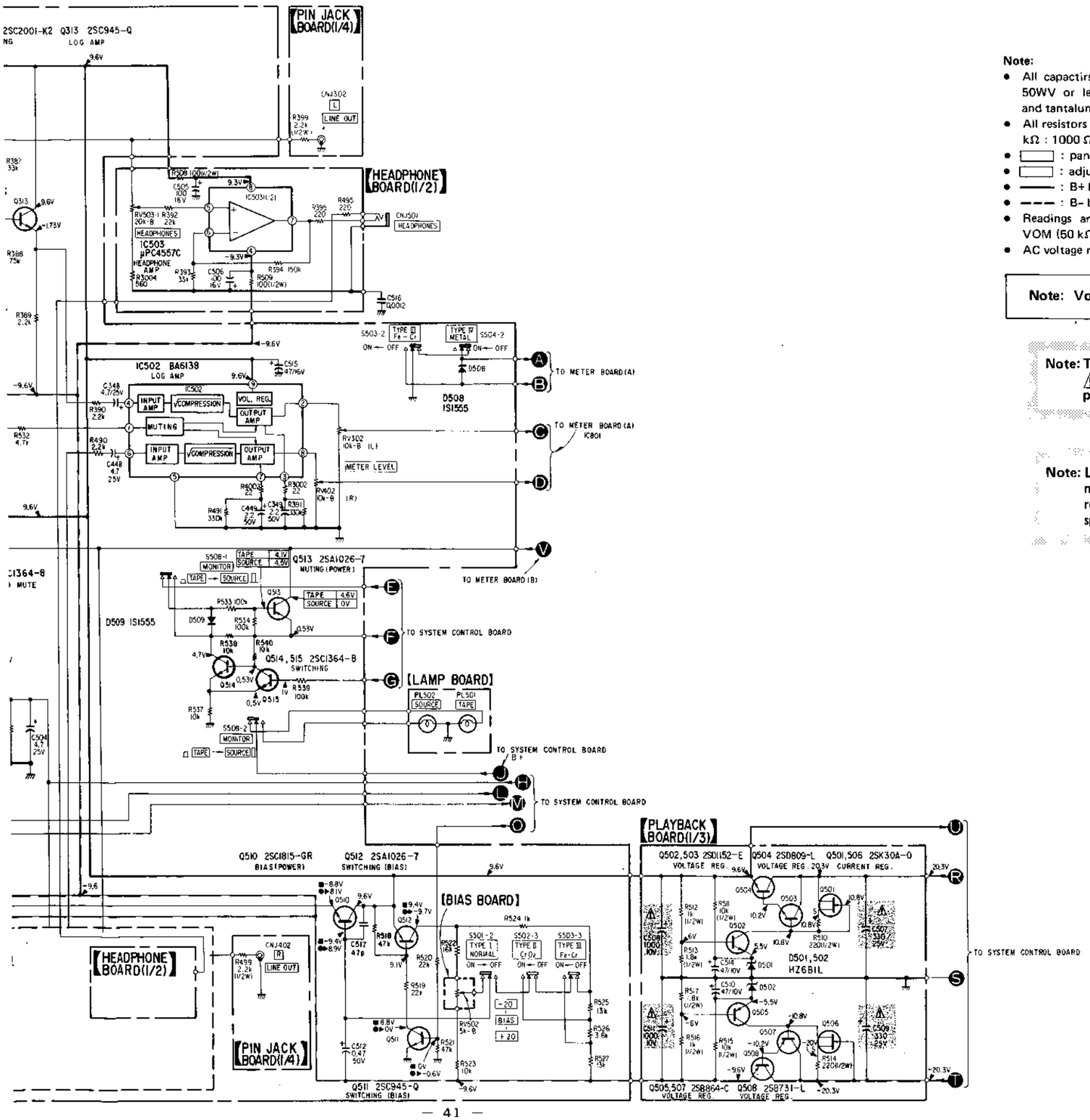
Note:

- All capacitirs are in μF unless otherv 50WV or less are not indicated exce and tantalums.
- All resistors are in ohms, 1/4 W unless kΩ : 1000 Ω, MΩ : 1000 kΩ
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——— : B+ bus.
- – – – : B– bus.
- Readings are taken under no-signal VOM (50 kΩ/V).
- AC voltage readings in the bias oscillat

Note: Voltages are measured wit

Note: The components identif ⚠ are critical for safe part number specified.

Note: Les composants identifi marque ⚠ sont critiques remplacer que par une spécifié.



Note:

- All capactirs are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4 W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——— : B+ bus.
- – – – : B– bus.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).
- AC voltage readings in the bias oscillator with a VTVM.

Note: Voltages are measured with a VOM (50kΩ/V).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

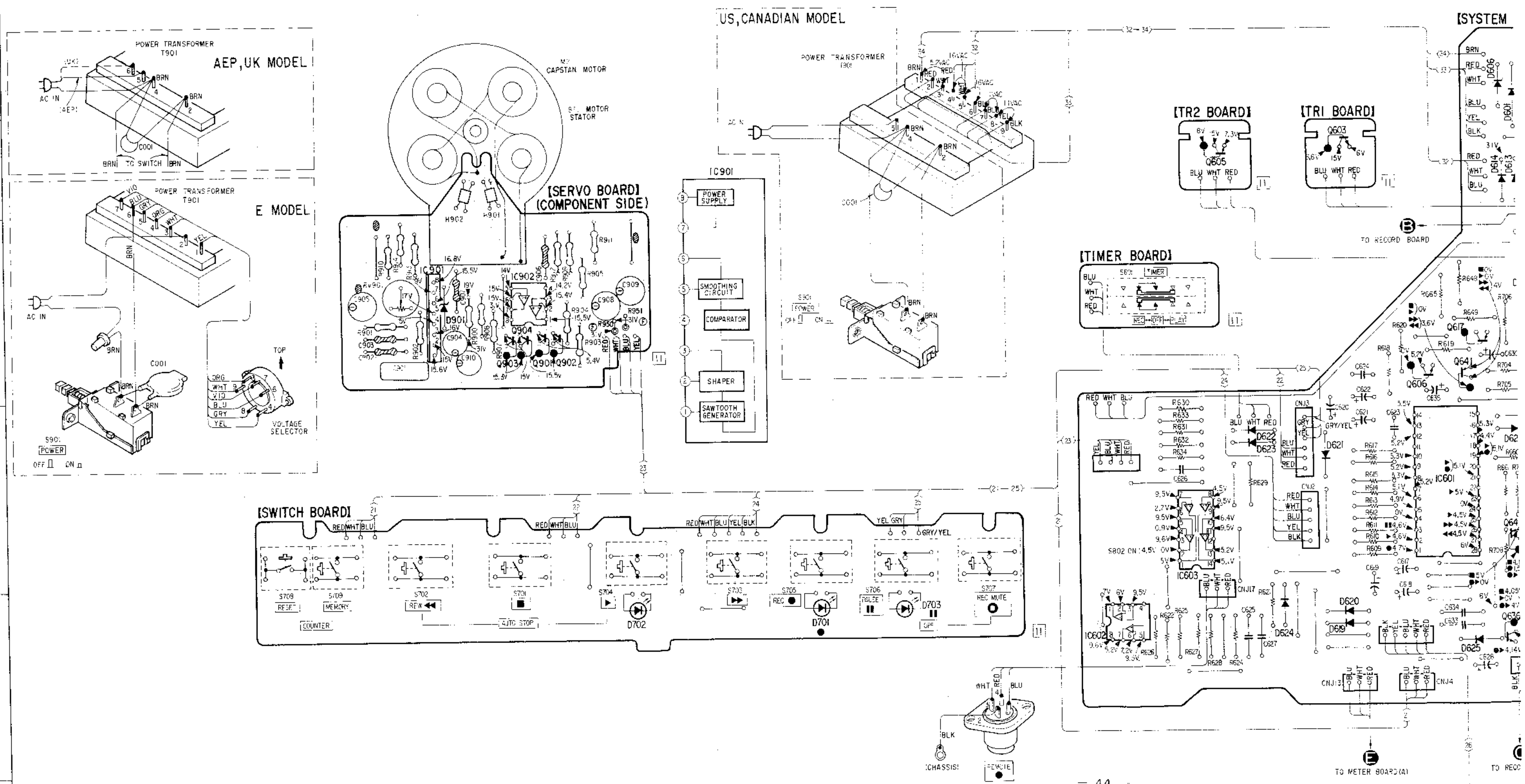
A B C D E F G H

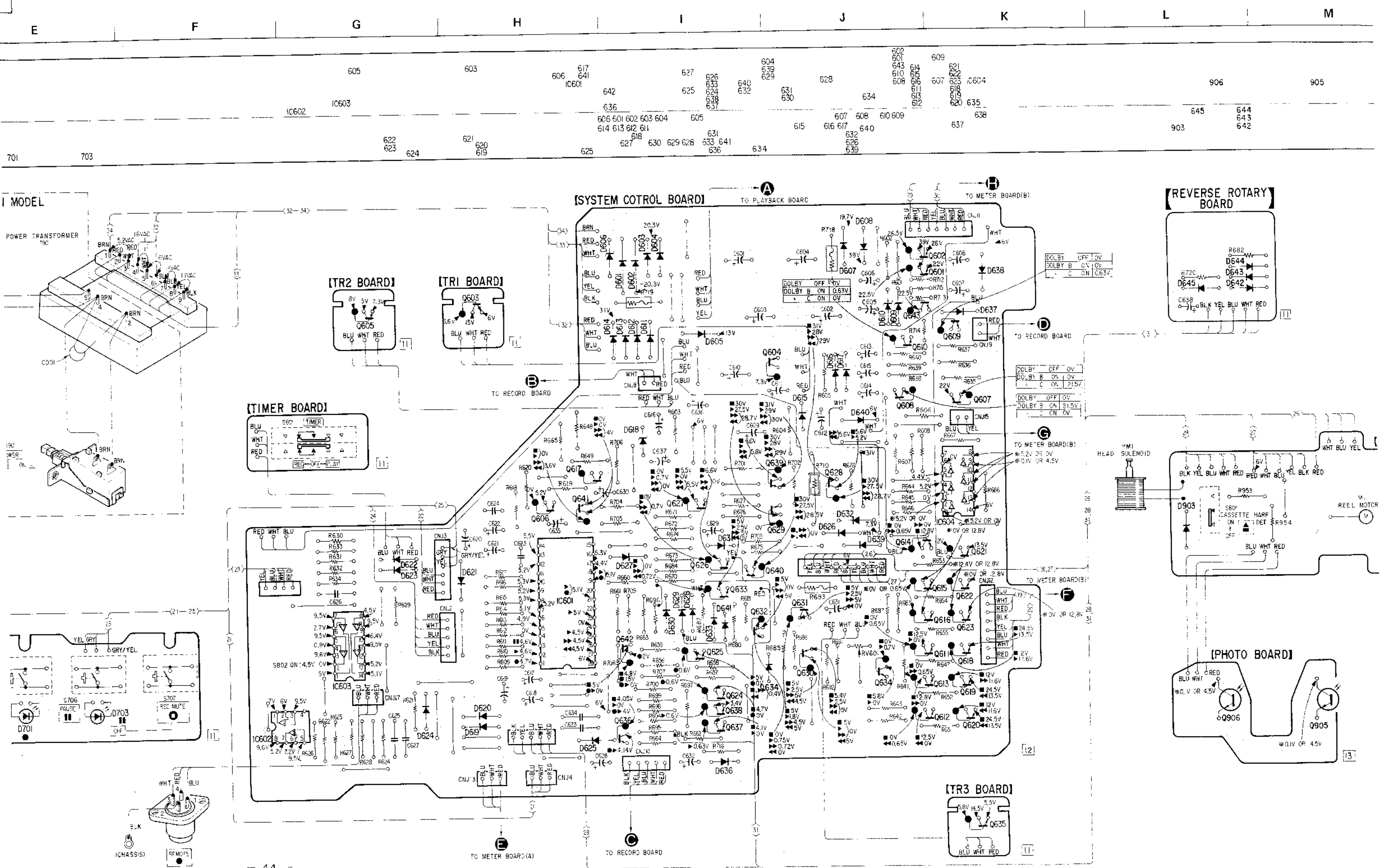
1 2 3 4 5

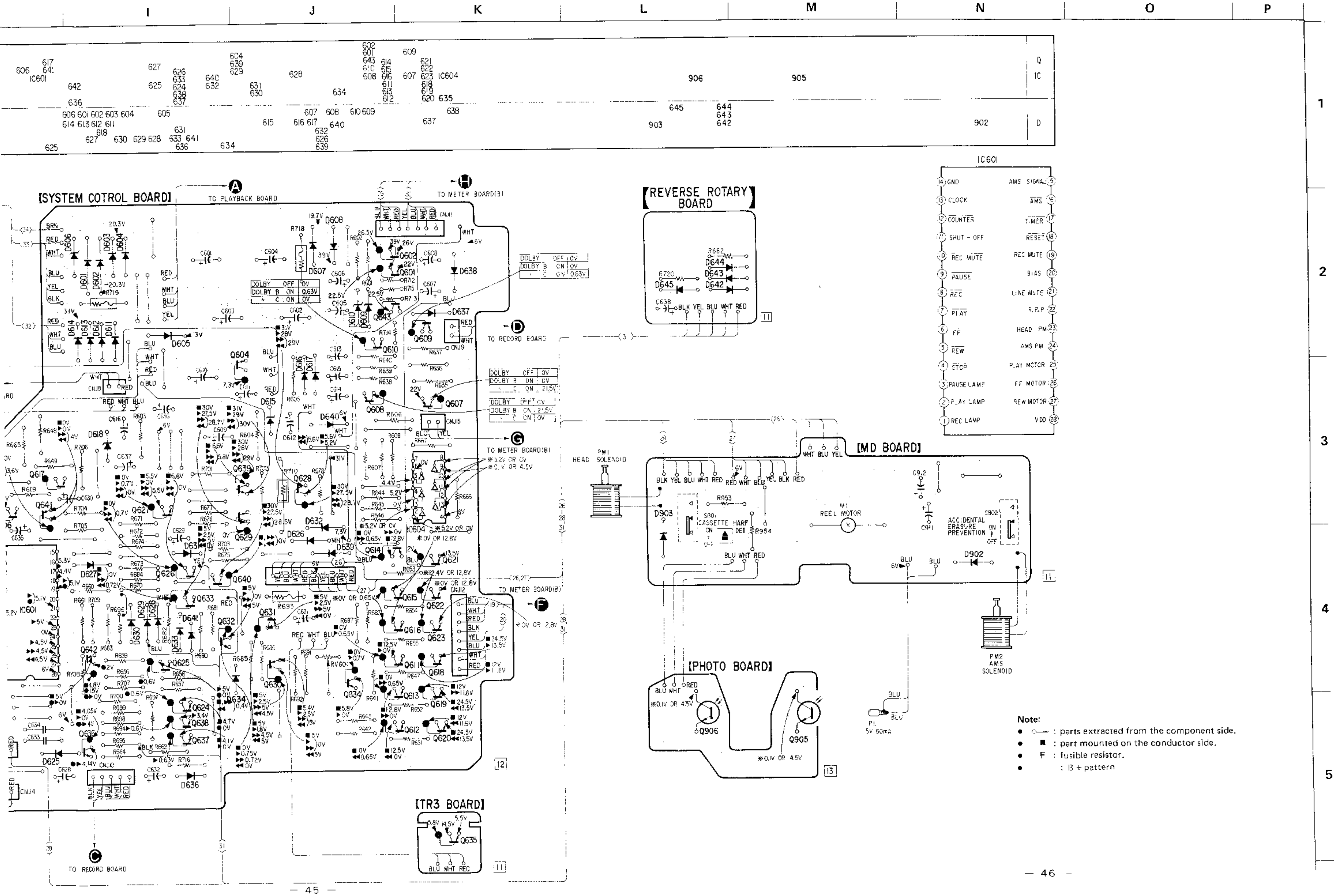
4-3. MOUNTING DIAGRAM

– System Control Section –

Q IC	IC901 IC902 903 904 901 902 IC602 IC603 605 603 606 617 641 IC601 642 636 606 60! 614 61:
D	901 702 701 703 622 623 624 621 620 619 625




E
F
G
H
I
J
K
L
M
MODEL
POWER TRANSFORMER
[TR2 BOARD]
[TR1 BOARD]
[TIMER BOARD]
[SYSTEM COTROL BOARD]
TO PLAYBACK BOARD
TO METER BOARD(B)
[REVERSE ROTARY BOARD]
TO RECORD BOARD
TO METER BOARD(B)
HEAD SOLENOID
REEL MOTOR
CASSETTE HARF DET
[PHOTO BOARD]
[TR3 BOARD]
TO METER BOARD(A)
TO RECORD BOARD
REMOTE
(CHASSIS)
IC601
IC602
IC603
IC604
Q605
Q603
Q635
Q906
Q905
D701
D703
S706 PAUSE
S707 REC MUTE
DOLBY OFF 0V
DOLBY B ON 0.63V
DOLBY C ON 0V

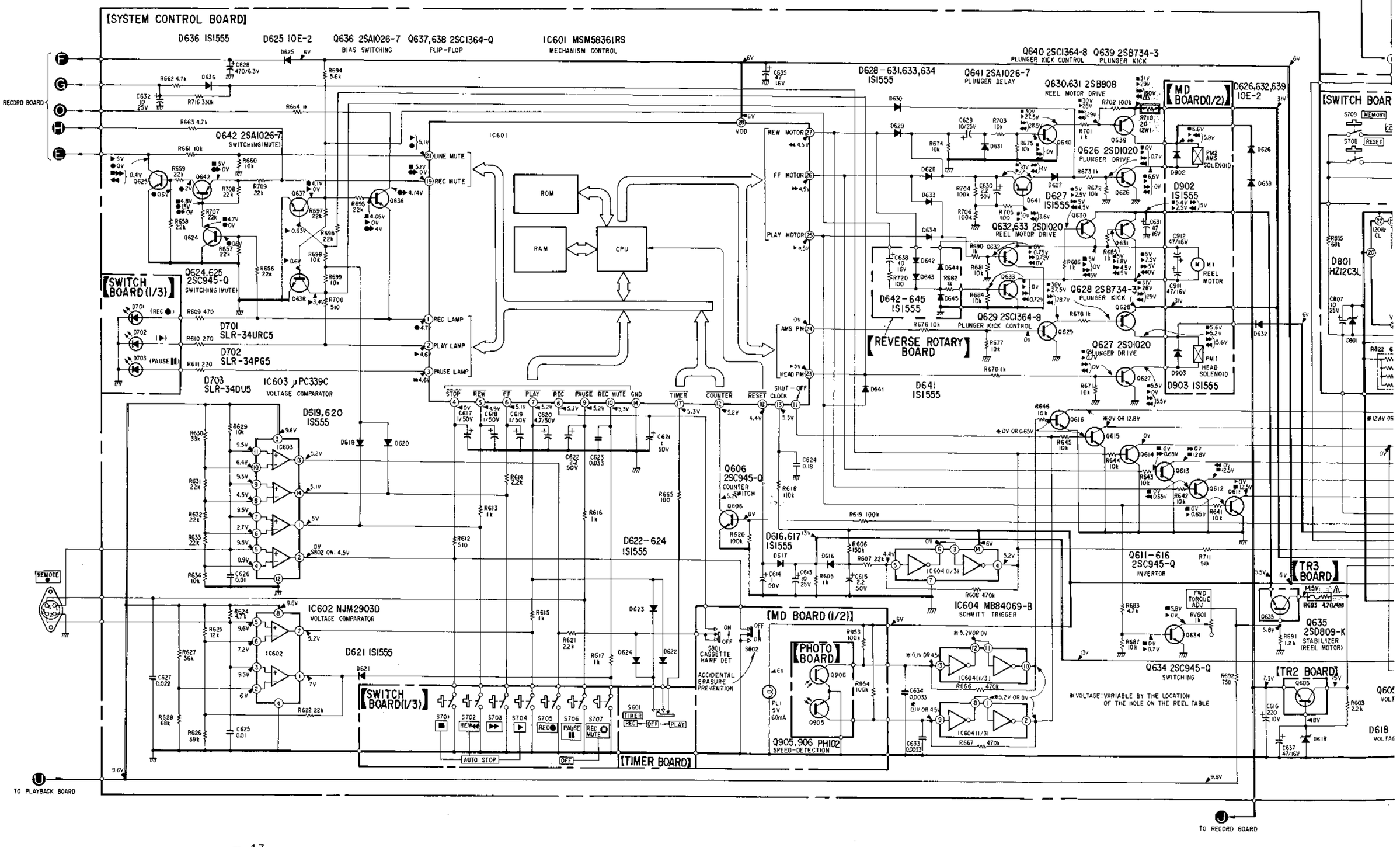


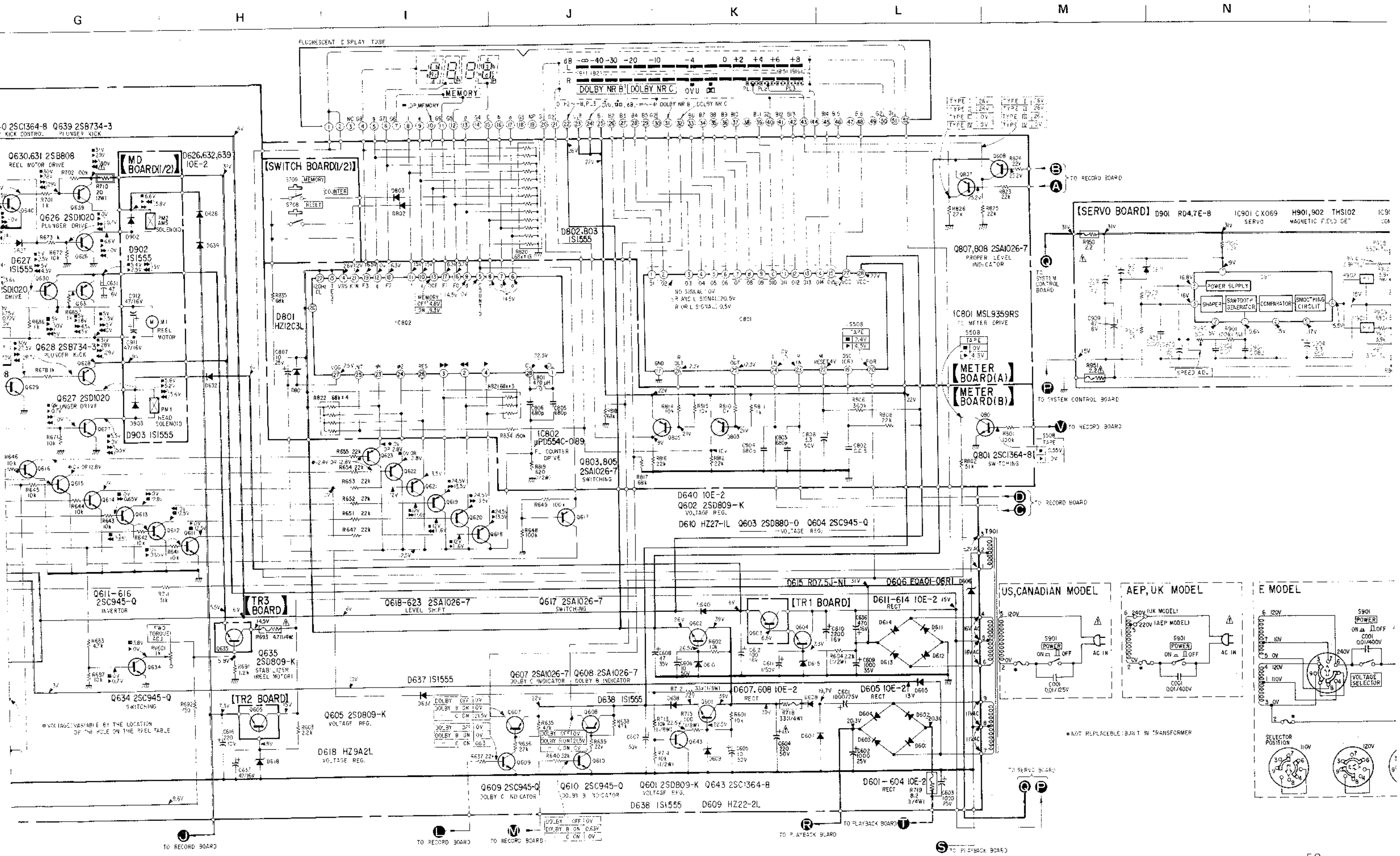
Note:

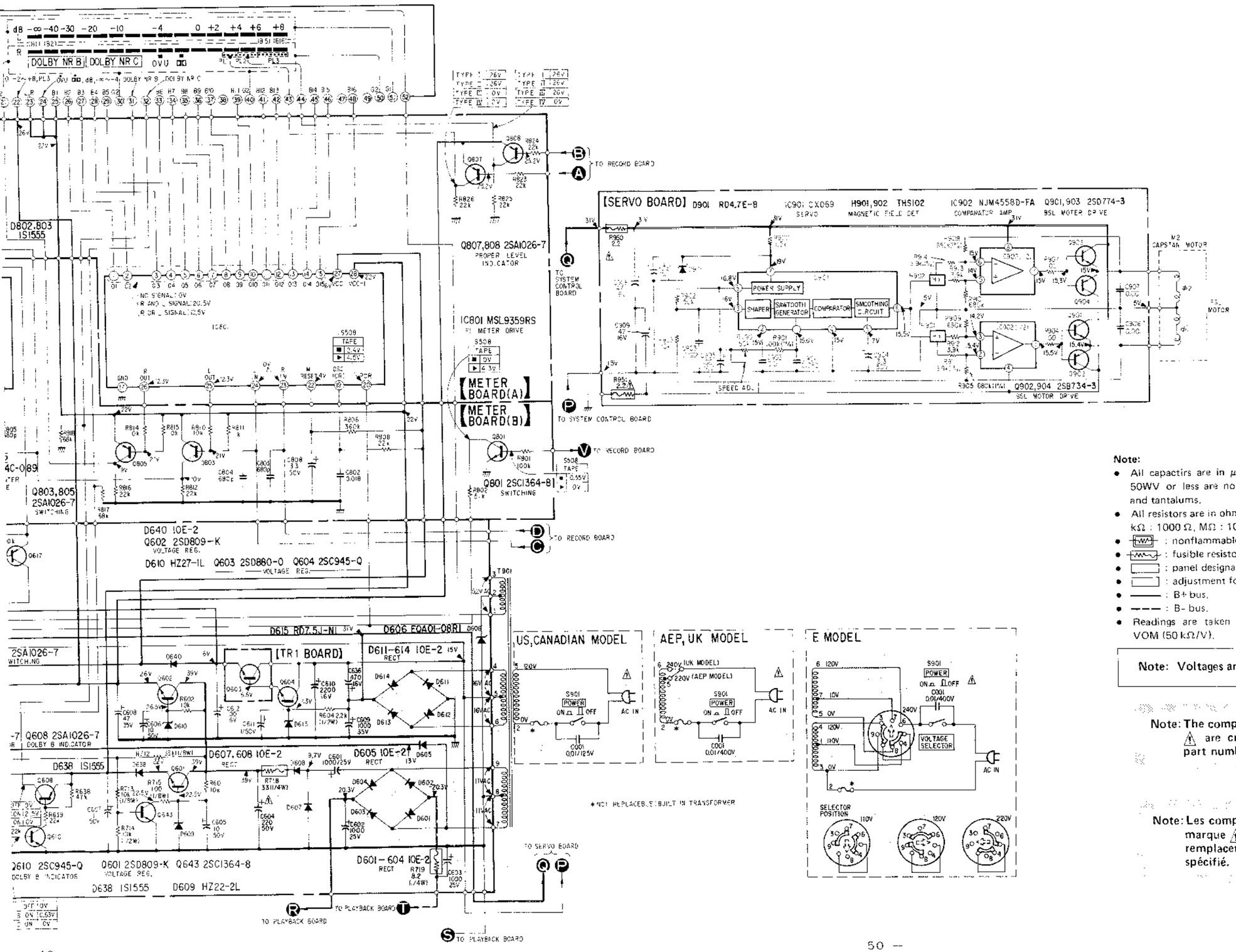
- ○— : parts extracted from the component side.
- ■ : part mounted on the conductor side.
- F : fusible resistor.
- : B + pattern

4-4. SCHEMATIC DIAGRAM

– System Control Section –




G
H
I
J
K
L
M
N
FLUORESCENT DISPLAY TUBE
MEMORY
DOLBY NR B
DOLBY NR C
0VU
[MD BOARD(1/2)]
[SWITCH BOARD(1/2)]
[SERVO BOARD]
[METER BOARD(A)]
[METER BOARD(B)]
[TR1 BOARD]
[TR2 BOARD]
[TR3 BOARD]
Q630,631 2SB808
REEL MOTOR DRIVE
Q626 2SD1020
PLUNGER DRIVE
Q628 2SB734-3
PLUNGER KICK
Q627 2SD1020
D902 1S1555
D903 1S1555
D626,632,639 10E-2
D801 HZ12C3L
D802,803 1S1555
IC802 μPD554C-089
FL COUNTER DRIVE
Q803,805 2SA1026-7
SWITCHING
IC801 MSL9359RS
FL METER DRIVE
Q807,808 2SA1026-7
PROPER LEVEL INDICATOR
Q801 2SC1364-8
SWITCHING
TO RECORD BOARD
TO SYSTEM CONTROL BOARD
D901 RD4.7E-B
IC901 CX069
SERVO
H901,902 THS102
MAGNETIC FIELD DET
POWER SUPPLY
SHAPER
SAWTOOTH GENERATOR
COMPARATOR
SMOOTHING CIRCUIT
SPEED ADJ.
D640 10E-2
Q602 2SD809-K
VOLTAGE REG.
D610 HZ27-1L
Q603 2SD880-0
Q604 2SC945-Q
VOLTAGE REG.
Q611-616 2SC945-Q
INVERTOR
Q618-623 2SA1026-7
LEVEL SHIFT
Q617 2SA1026-7
SWITCHING
Q635 2SD809-K
STABILIZER (REEL MOTOR)
D615 RD7.5J-N1
D606 EQA01-06R
D611-614 10E-2
RECT
US,CANADIAN MODEL
AEP,UK MODEL
E MODEL
AC IN
POWER
VOLTAGE SELECTOR
SELECTOR POSITION
Q634 2SC945-Q
SWITCHING
*VOLTAGE:VARIABLE BY THE LOCATION OF THE HOLE ON THE REEL TABLE
D637 1S1555
Q605 2SD809-K
VOLTAGE REG.
D618 HZ9A2L
VOLTAGE REG.
Q607 2SA1026-7
DOLBY C INDICATOR
Q608 2SA1026-7
DOLBY B INDICATOR
D638 1S1555
D607,608 10E-2
RECT
D605 10E-2
RECT
*NOT REPLACEABLE:BUILT IN TRANSFORMER
Q609 2SC945-Q
DOLBY C INDICATOR
Q610 2SC945-Q
DOLBY B INDICATOR
Q601 2SD809-K
Q643 2SC1364-8
VOLTAGE REG.
D638 1S1555
D609 HZ22-2L
D601-604 10E-2
RECT
TO SERVO BOARD
TO PLAYBACK BOARD
TO RECORD BOARD



Note:

- All capacitrs are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4 W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.
- : adjustment for repair.
- : B+ bus.
- : B- bus.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).

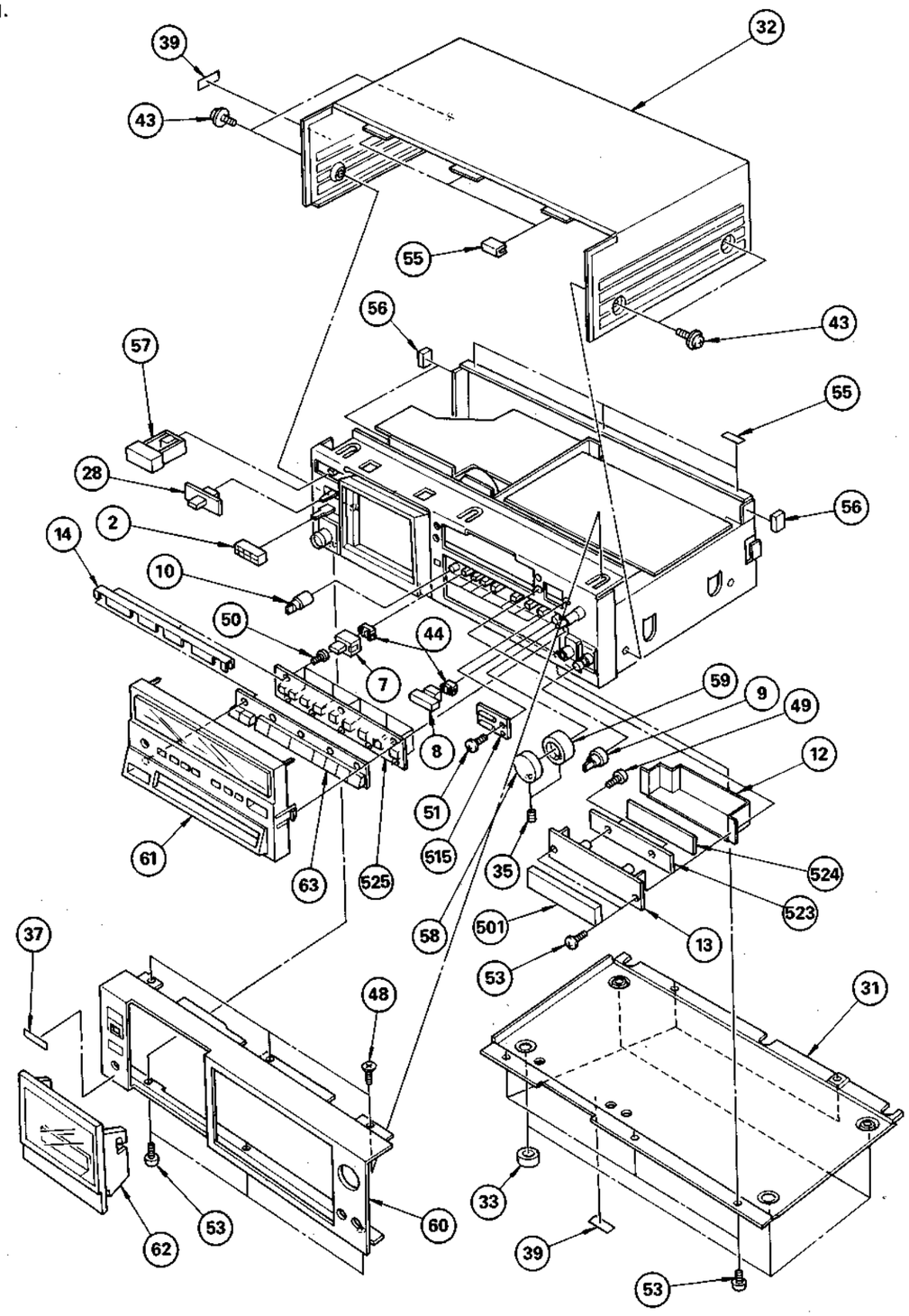
Note: Voltages are measured with a VOM (50kΩ/V).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

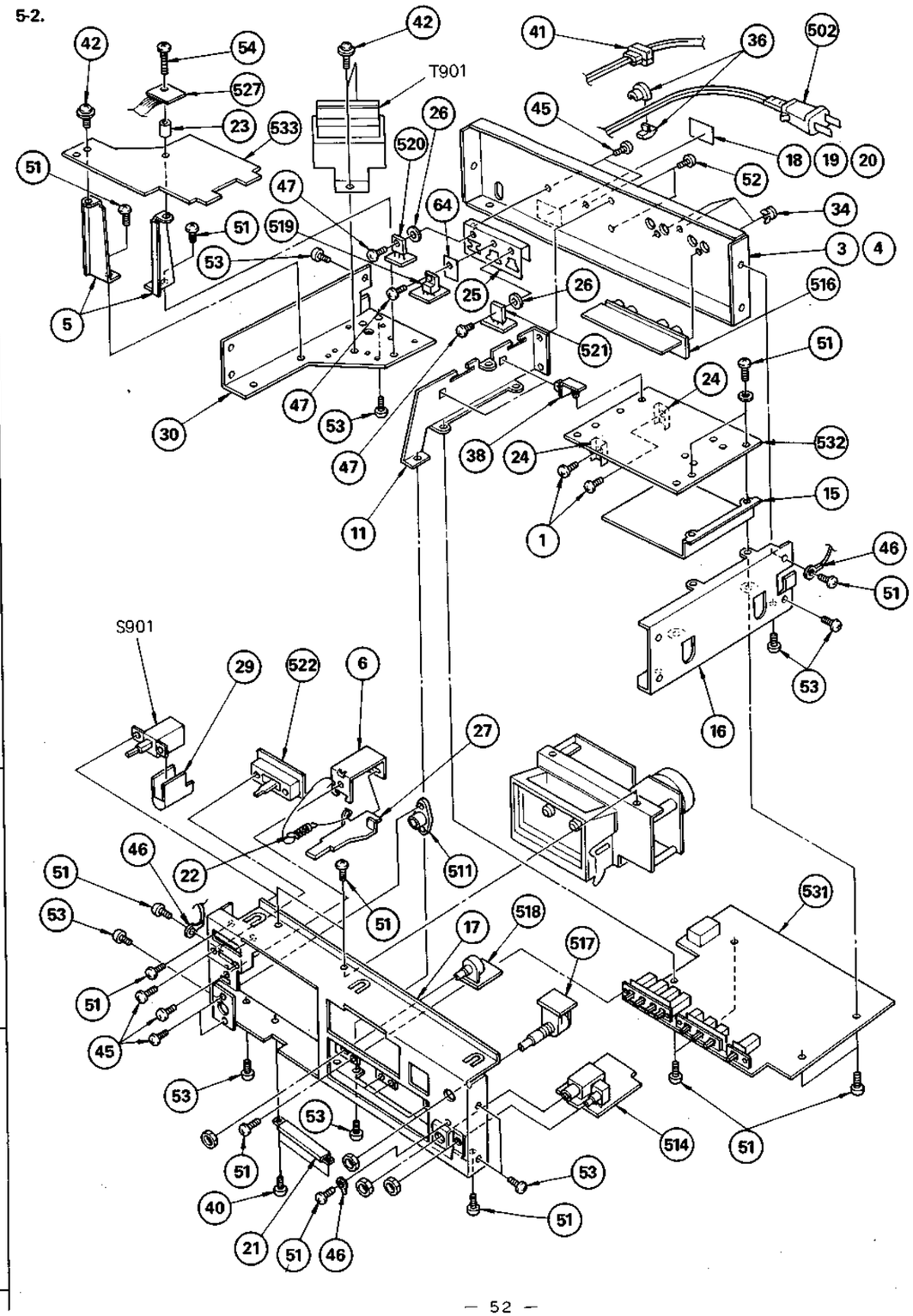
Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 5
EXPLODED VIEWS AND PARTS LIST

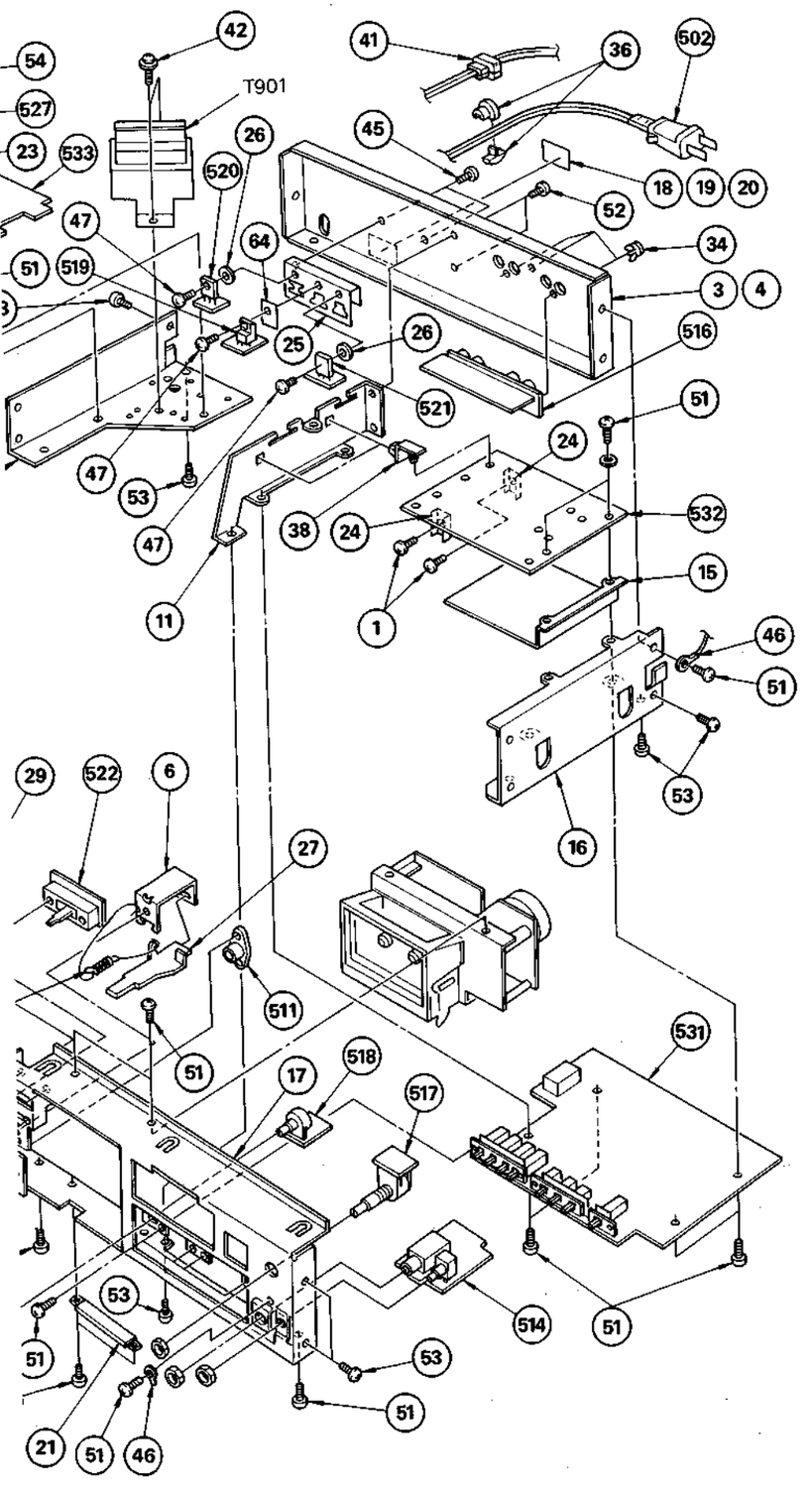
5-1.

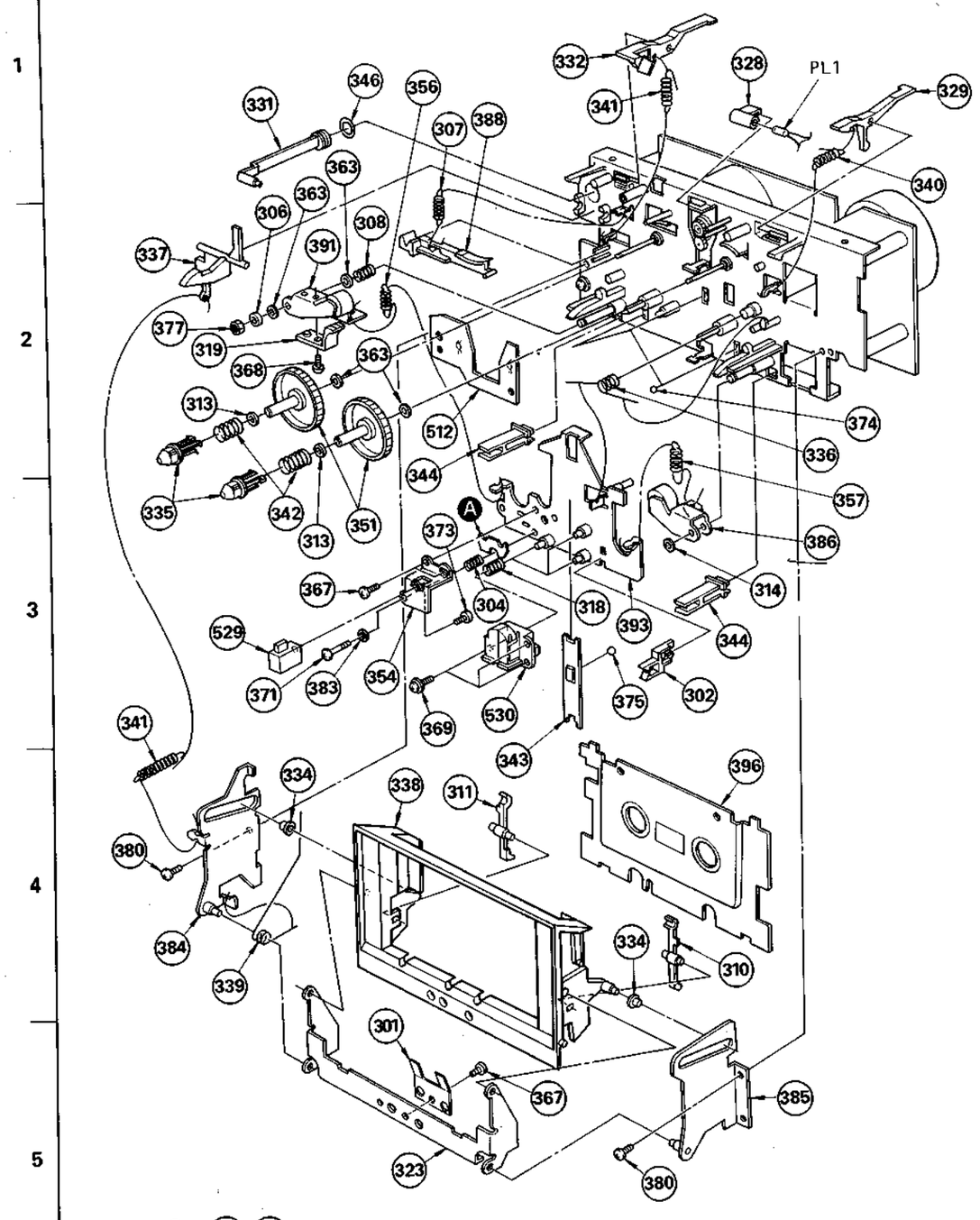


5-2.

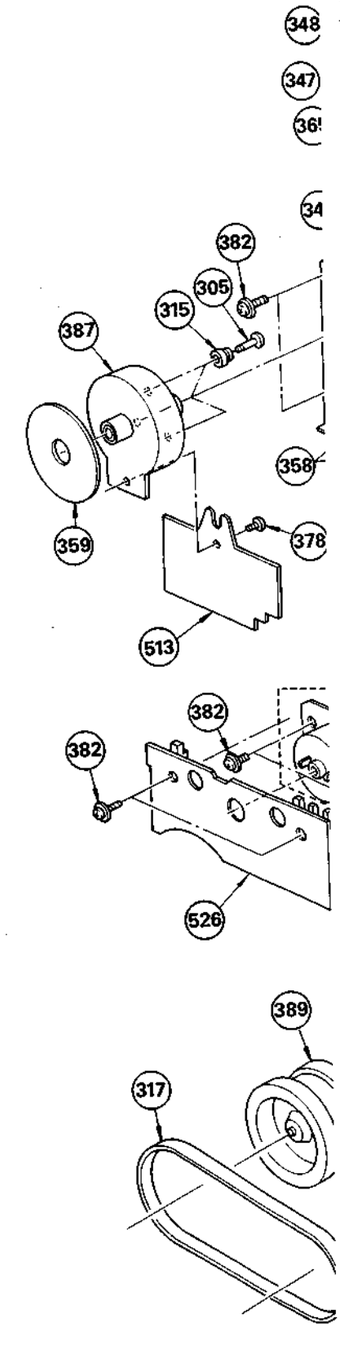


5-3.

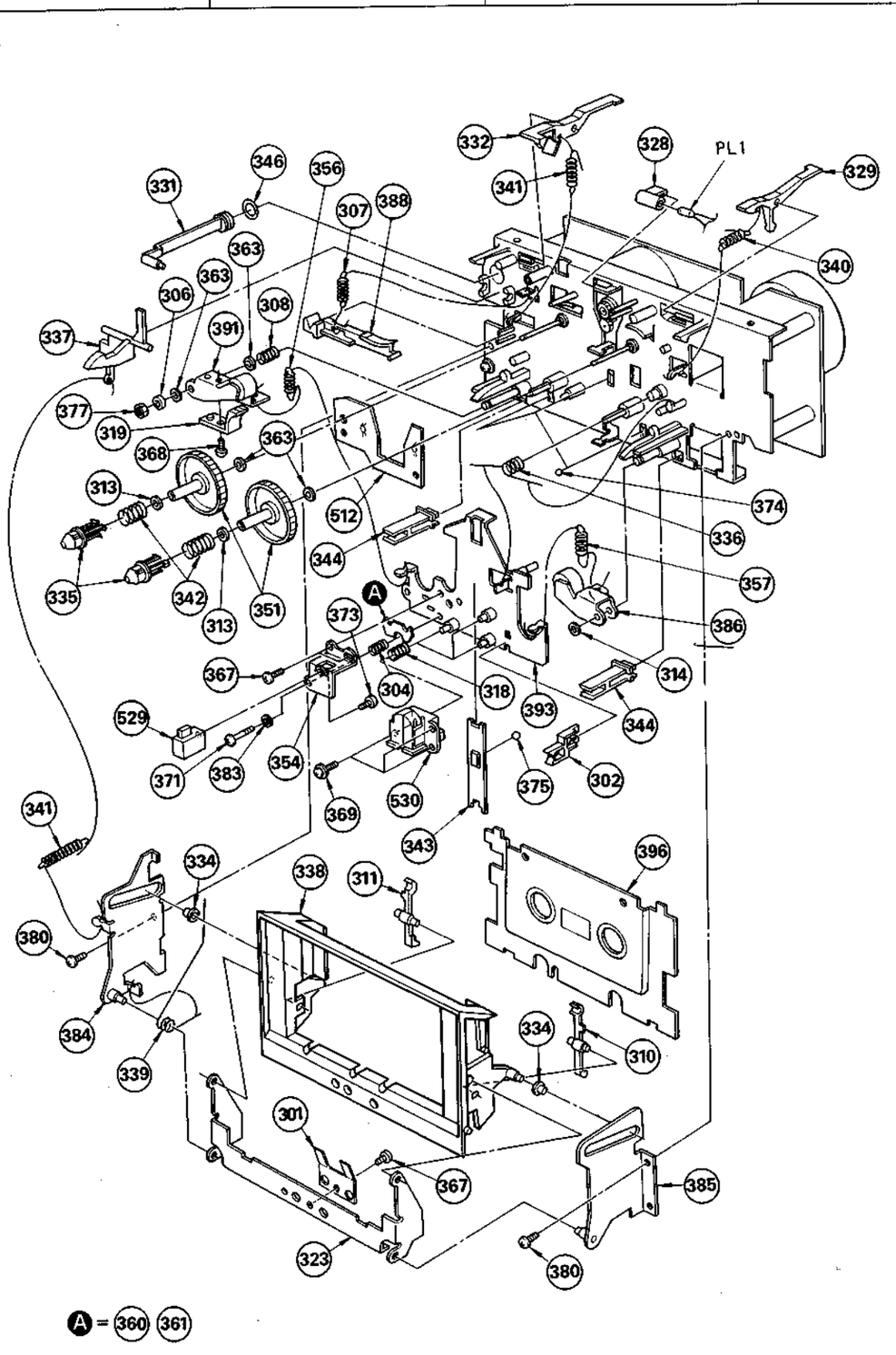




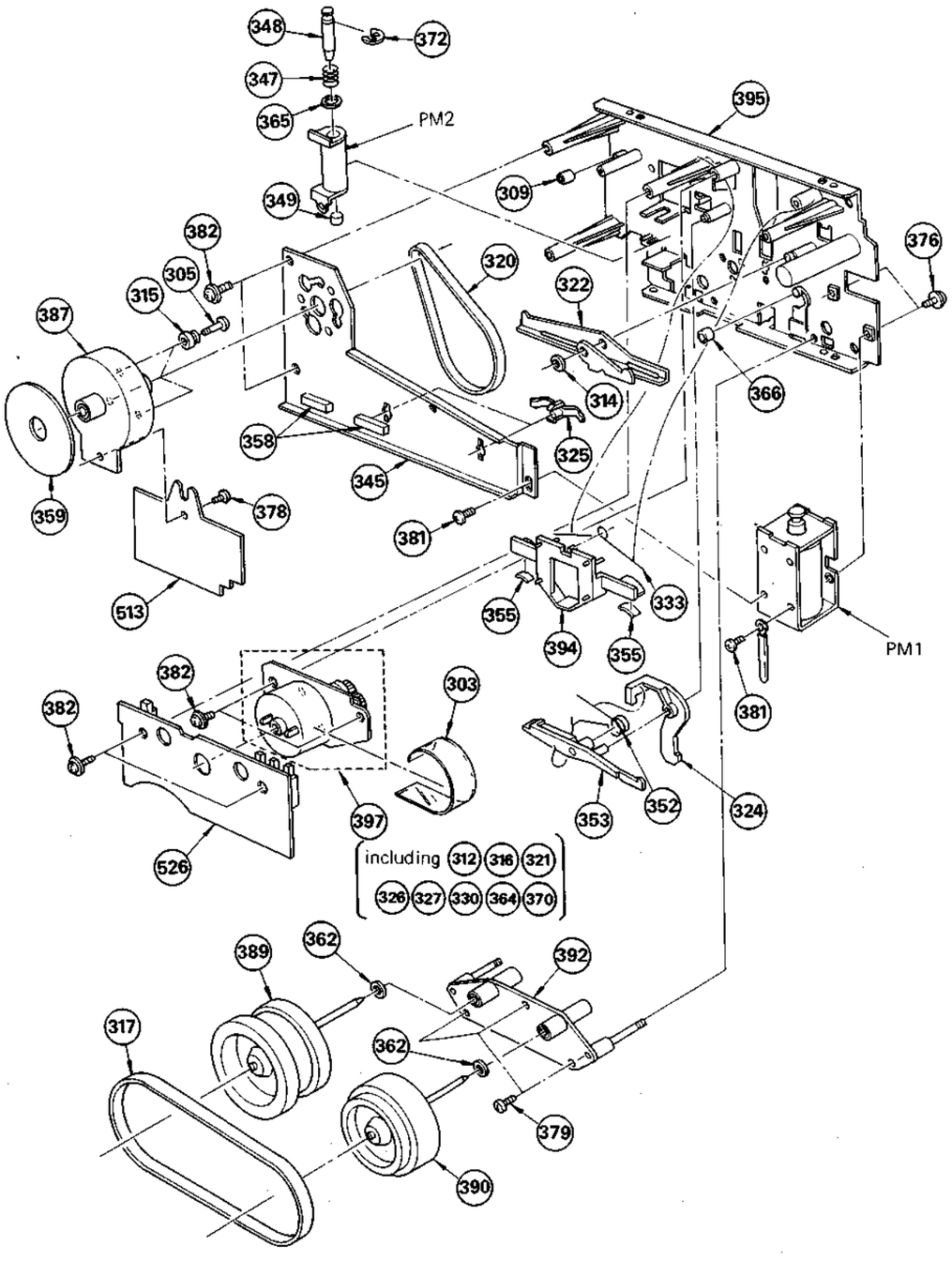
5-4.



5-3.



5-4.



GENERAL SECTION

No.	Part No.	Description
1	2-259-121-00	SCREW, TR
2	3-304-419-00	BUTTON, EJECT
3 ♣	3-304-907-11	(US,Canadian)...PLATE, JACK
4 ♣	3-304-908-01	(UK,AEP).....PLATE, JACK
5 ♣	3-304-910-00	BRACKET, PC BOARD
6 ♣	3-304-911-00	SLIDER, EJECT
7	3-304-926-00	KNOB (A), PUSH
8	3-304-927-00	KNOB (B), PUSH
9	3-304-929-00	KNOB, HEADPHONE
10	3-304-930-00	KNOB, BIAS
11 ♣	3-304-934-00	PLATE, RELAY
12 ♣	3-304-935-00	CASE, SHIELD
13 ♣	3-304-938-00	HOLDER, FL TUBE
14 ♣	3-304-939-00	BRACKET, CONTROL BUTTON
15 ♣	3-304-942-00	PLATE, SHIELD, PLAYBACK PCB
16 ♣	3-304-944-00	PLATE, SIDE, RIGHT
17 ♣	3-304-949-05	CHASSIS, AMPLIFIER
18	3-304-958-00	LABEL, MODEL NUMBER (USA,CND)
19	3-304-959-00	LABEL, MODEL NUMBER (AEP1)
20	3-304-960-00	LABEL, MODEL NUMBER (UK)
21	3-304-962-00	COVER, MD
22	3-534-238-XX	SPRING, TENSION
23 ♣	3-565-796-00	SPACER, PC BOARD
24 ♣	3-567-242-00	HEAT SINK
25 ♣	3-572-305-00	HEAT SINK
26	3-572-365-11	SHEET, INSULATING (A)
27 ♣	3-575-502-00	BRACKET, EJECT
28	3-575-515-00	KNOB, SLIDE SWITCH
29	3-575-524-00	COVER, POWER SWITCH
30 ♣	3-575-537-00	PLATE, SIDE, LEFT
31 ♣	3-575-538-12	PLATE, BOTTOM
32	3-575-539-00	CASE
33	3-576-731-00	FELT (H)
34	3-646-090-11	RIVET, NYLON
35	3-701-506-01	SET SCREW, DOUBLE POINT 3X4
36	3-701-682-00	(US,Canadian)...STOPPER, CORD
37 ♣	3-701-690-00	(UK)...LABEL (MADE IN JAPAN)
38 ♣	3-701-832-00	HINGE, CIRCUIT BOARD
39	3-703-079-21	(US,UK)...LABEL, COURTION (BACK)
40	3-703-108-21	SCREW +BV 3X6, S TIGHT
41	3-703-244-00	(AEP,UK,E)...BUSHING, CORD
42	3-703-486-00	+PTTWH 3X5
43	4-820-330-21	SCREW, BW, PLUS MINUS
44	4-864-307-00	RING
45	7-621-775-20	SCREW +B 2.6X5

GENERAL SECTION

No.	Part No.	Description
46	7-623-508-01	LUG, 3
47	7-682-147-20	SCREW +P 3X6
48	7-682-247-04	SCREW +K 3X6
49	7-685-146-21	SCREW +P 3X8 TYPE2 SLIT
50	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
51	7-685-871-01	SCREW +BVTT 3X6 (S)
52	7-685-871-09	SCREW +BVTT 3X6 (S)
53	7-685-872-01	SCREW +BVTT 3X8 (S)
54	7-685-877-01	SCREW +BVTT 3X20 (S)
55	9-911-837-XX	CUSHION, FILTER
56	9-911-841-XX	CUSHION
57	X-3304-405-0	KNOB ASSY, POWER
58	X-3304-902-0	KNOB (RIGHT) ASSY, REC
59	X-3304-903-0	KNOB (LEFT) ASSY, REC
60	X-3304-904-3	PANEL ASSY, FRONT
61	X-3304-905-0	ESCUTCHEON SUB ASSY
62	X-3304-906-0	WINDOW ASSY, CASSETTE
63	X-3304-908-0	BUTTON ASSY, CONTROL
64	3-703-037-00	INSULATOR, TO-220
65 ♣	3-304-908-11	(E)...PLATE, JACK
66	3-304-961-00	LABEL, MODEL NUMBER (E1,E2)
67	7-682-547-09	SCREW +B 3X6

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
101	1-551-734-11	CORD, CONNECTION (RK- 74A)
102	3-304-902-00	CUSHION (LEFT), UPPER
103	3-304-903-00	CUSHION (RIGHT), UPPER
104	3-304-904-00	CUSHION (LEFT), LOWER
105	3-304-905-00	CUSHION (RIGHT), LOWER
106	3-304-956-00	SHEET, PROTECTION
107	3-304-957-00	INDIVIDUAL CARTON
108	3-701-630-00	BAG, POLYETHYLENE
109	3-783-827-11	(UK,AEP,E).....MANUAL, INSTRUCTION
109	3-783-827-21	(US,Canadian)...MANUAL, INSTRUCTION
109	3-783-827-31	(Canadian).....MANUAL, INSTRUCTION
110	3-793-828-11	QUESTIONNAIRE
111	3-793-481-13	(Canadian,AEP,UK,E)...INSTRUCTION
112	4-873-610-00	SHEET, PROTECTION
113	8-890-434-11	(Canadian)...TAPE (EHF-46)
114	X-3701-105-0	ROD ASSY, CLEANING, HEAD

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♣ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : μH

MECHANISM SECTION

No.	Part No.	Description
301	3-304-639-00	SHIELD PLATE, HEAD
302 ♦	3-304-963-00	RETAINER, LEAD
303	3-306-209-00	PLATE (D), SHIELD, MOTOR
304	3-481-272-00	SPRING, COMPRESSION
305	3-489-077-21	SCREW, MOTOR STOPPER
306	3-491-191-00	COLLAR
307	3-537-205-00	SPRING, TENSION
308	3-537-213-00	SPRING, COMPRESSION
309	3-538-051-00	RUBBER, BRAKE
310	3-555-113-00	SPRING (RIGHT)
311	3-555-114-00	SPRING (LEFT)
312	3-558-708-01	WASHER, STOPPER
313	3-558-708-11	WASHER, STOPPER
314	3-558-708-21	WASHER, STOPPER
315	3-564-017-00	RUBBER, CUSHION
316	3-564-027-11	FELT, LIMITER
317	3-564-088-00	BELT (2), CAPSTAN
318	3-564-121-00	SPRING, COMPRESSION
319	3-564-138-00	GUIDE (S), TAPE
320	3-564-319-00	BELT, CAPSTAN
321	3-575-304-00	SHAFT, GEAR, FR
322 ♦	3-575-307-00	LEVER, FWD
323 ♦	3-575-314-00	LEVER, FULCRUM, HOLDER
324	3-575-318-00	LEVER, LOCK, TUNING
325	3-575-321-00	RETAINER, THRUST, CAPSTAN
326	3-575-324-00	GEAR, LIMITER
327	3-575-327-00	STOPPER
328	3-575-328-00	HOLDER, LAMP
329 ♦	3-575-331-00	LEVER, DETECTION, HALF
330	3-575-332-00	GEAR, FR
331	3-575-333-00	PISTON
332 ♦	3-575-334-00	LEVER, DETECTION, REC
333	3-575-345-00	SPRING
334	3-575-348-00	ROLLER, GUIDE, THREADING
335	3-575-350-00	CLAW, REEL TABLE
336	3-575-351-00	SPRING
337	3-575-354-00	LEVER, LOCK
338	3-575-355-00	HOLDER, CASSETTE
339	3-575-356-00	SPRING
340	3-575-358-00	SPRING, TENSION
341	3-575-364-00	SPRING, TENSION
342	3-575-365-00	SPRING, COMPRESSION
343 ♦	3-575-377-00	SPRING
344 ♦	3-575-378-00	GUIDE, LEAD
345 ♦	3-575-381-00	RETAINER (W), THRUST

MECHANISM SECTION

No.	Part No.	Description
346	3-575-392-00	RING, PISTON
347	3-575-414-00	SPRING, COMPRESSION
348	3-575-415-11	ARBOR, MOVABLE
349	3-575-416-11	ARBOR, FIXED
350	.....	
351	3-575-447-00	TABLE, REEL
352	3-575-458-00	SPRING
353	3-575-460-00	LEVER, SELECT TUNE
354 ♦	3-575-464-00	BRACKET, HEAD, ERASE
355	3-575-469-00	SHOE, BRAKE
356	3-575-481-00	SPRING, TENSION
357	3-575-482-00	SPRING, TENSION
358	3-575-485-00	RUBBER, VIBRATION PROOF
359	3-575-486-00	SHEET, VIBRATION PROOF
360	3-576-835-01	SEAM, ADJUSTMENT, ERASE HEAD
361	3-576-835-11	SEAM, ADJUSTMENT, ERASE HEAD
362	3-701-438-21	WASHER
363	3-701-439-21	WASHER
364	3-701-441-01	WASHER
365	3-701-444-11	WASHER, 6
366	4-855-109-12	RUBBER, LIFTER CUSHION
367	7-621-772-00	SCREW +B 2X3
368	7-621-772-10	SCREW +B 2X4
369	3-701-467-01	SCREW 2X5
370	7-621-775-10	SCREW +B 2.6X4
371	7-621-775-50	SCREW +B 2.6X10
372	7-624-110-04	STOP RING 6.0, TYPE -E
373	7-627-552-38	SCREW, PRECISION +P 1.7X3
374	7-671-112-11	BALL, STEEL
375	7-671-113-11	BALL, STEEL
376	7-682-949-01	SCREW +PSW 3X10
377	7-684-023-04	N 3, TYPE 2
378	7-685-533-11	SCREW +BTP 2.6X6 TYPE2 N-S
379	7-685-791-01	SCREW +PTT 2.6X5 (S)
380	7-685-862-01	SCREW +BVTT 2.6X6 (S)
381	7-685-870-01	SCREW +BVTT 3X5 (S)
382	7-687-246-21	SCREW, TOTSU PTPWH 3X8,TYPE2
383	7-688-002-12	W 2.6, MIDDLE
384 ♦	X-3575-301-0	PLATE (A) ASSY, HOLDER FULCRUM
385 ♦	X-3575-302-0	PLATE (B) ASSY, FULCRUM
386	X-3575-304-0	PINCH LEVER (T) ASSY
387	X-3575-308-0	MOTOR COMPLETE ASSY, BSL
388	X-3575-310-0	LEVER ASSY, TENSION, BACK
389	X-3575-319-0	FLYWHEEL (RIGHT) ASSY
390	X-3575-320-0	FLYWHEEL (LEFT) ASSY

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF: μF, PF: μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : μH

MECHANISM SECTION

No.	Part No.	Description
391	X-3575-321-0	PINCH LEVER (S) ASSY
392	X-3575-322-0	BASE ASSY, CAPSTAN
393	X-3575-323-0	CHASSIS ASSY, HEAD
394 ♦	X-3575-342-0	PLATE ASSY, BRAKE
395 ♦	X-3575-344-0	CHASSIS ASSY, MECHANISM
396	X-3575-347-0	PLATE ASSY, ORNAMENTAL
397	X-3575-349-0	MOTOR ASSY, REEL

ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	1-519-247-00	INDICATOR TUBE, FLUORESCENT
502 ⚠	.1-534-817-XX	(AEP).....CORD, POWER
502 ⚠	.1-534-986-XX	(US,Canadian)...CORD, POWER
502 ⚠	.1-551-884-00	(UK).....CORD, POWER
503 ♦	;1-560-060-00	PIN, CONNECTOR 2P
504 ♦	;1-560-061-00	PIN, CONNECTOR 3P
505 ♦	;1-560-062-00	PIN, CONNECTOR 4P
506 ♦	;1-560-063-00	PIN, CONNECTOR 5P
507 ♦	;1-560-064-00	PIN, CONNECTOR 6P
508 ♦	;1-560-065-00	PIN, CONNECTOR 8P

ELECTRICAL PARTS

Ref.No.	Part No.	Description
509 ♦	;1-560-338-00	PIN, CONNECTOR 7P
510 ♦	;1-560-339-00	PIN, CONNECTOR 9P
511	1-561-293-00	SOCKET (4P)
512 ♦	;1-603-823-00	PC BOARD, PHOTO
513 ♦	;1-603-825-00	PC BOARD, SERVO
514 ♦	;1-606-772-00	PC BOARD, H.P
515 ♦	;1-606-773-00	PC BOARD, LAMP
516 ♦	;1-606-774-00	PC BOARD, PIN JACK
517 ♦	;1-606-775-00	PC BOARD, VOL
518 ♦	;1-606-776-00	PC BOARD, BIAS FINE
519 ♦	;1-606-778-00	PC BOARD, TR-1
520 ♦	;1-606-779-00	PC BOARD, TR-2
521 ♦	;1-606-780-00	PC BOARD, TR-3
522 ♦	;1-606-781-00	PC BOARD, TIMER
523 ♦	;1-606-783-00	PC BOARD, METER (A)
524 ♦	;1-606-784-00	PC BOARD, METER (B)
525 ♦	;1-606-785-00	PC BOARD, SW
526 ♦	;1-606-786-00	PC BOARD, MD
527 ♦	;1-607-454-00	PC, BOARD, REVERSE ROTARY
529	8-825-604-30	HEAD, ERASE
530	8-825-728-21	HEAD, REC/PB RPS202-36D2A
531	A-2006-047-A	MOUNTED PCB, REC
532	A-2008-034-A	MOUNTED PCB, PB
533	A-2019-141-A	MOUNTED PCB, SYSTEM CONTROL
534 ⚠	.1-526-576-31	(E)....SELECTOR, POWER VOLTAGE
535 ⚠	.1-551-472-00	(E2)...CORD, POWER
536 ⚠	.1-555-734-00	(E1)...CORD, POWER
C001 ⚠	.1-130-230-00	(E).....CAP, FILM 0.01MF 300V
C001 ⚠	.1-161-749-00	(US,Canadian)..CAP, CERAMIC 10000PF 125V
C001 ⚠	.1-161-744-00	(AEP,UK).....CAP, CERAMIC 10000PF 400V
C103	1-130-305-00	FILM 0.022MF 5% 100V
C104	1-123-830-00	ELECT 4.7MF 20% 50V
C105	1-130-289-00	FILM 0.0047MF 5% 100V
C107	1-161-319-00	CERAMIC 470PF 10% 50V
C108	1-130-634-00	FILM 0.15MF 5% 50V
C109	1-130-629-00	FILM 0.047MF 5% 50V
C110	1-130-625-00	FILM 0.02/MF 5% 50V
C113	1-130-892-00	FILM 0.015MF 3% 100V
C114	1-130-856-00	FILM 0.0068MF 3% 100V
C115	1-130-623-00	FILM 0.018MF 5% 50V
C119	1-130-634-00	FILM 0.15MF 5% 50V
C120	1-130-632-00	FILM 0.1MF 5% 50V
C121	1-130-632-00	FILM 0.1MF 5% 50V
C122	1-130-621-00	FILM 0.012MF 5% 50V
C124	1-130-851-00	FILM 0.082MF 3% 100V

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COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C126	1-130-893-00	FILM	0.027MF	3%	100V
C127	1-130-856-00	FILM	0.0068MF	3%	100V
C128	1-123-232-00	ELECT	4.7MF	20%	50V
C203	1-130-305-00	FILM	0.022MF	5%	100V
C204	1-123-830-00	ELECT	4.7MF	20%	50V
C205	1-130-289-00	FILM	0.0047MF	5%	100V
C207	1-161-319-00	CERAMIC	470PF	10%	50V
C208	1-130-634-00	FILM	0.15MF	5%	50V
C209	1-130-628-00	FILM	0.047MF	5%	50V
C210	1-130-625-00	FILM	0.027MF	5%	50V
C213	1-130-892-00	FILM	0.015MF	3%	100V
C214	1-130-856-00	FILM	0.0068MF	3%	100V
C215	1-130-623-00	FILM	0.018MF	5%	50V
C219	1-130-634-00	FILM	0.15MF	5%	50V
C220	1-130-632-00	FILM	0.1MF	5%	50V
C221	1-130-632-00	FILM	0.1MF	5%	50V
C222	1-130-621-00	FILM	0.012MF	5%	50V
C224	1-130-851-00	FILM	0.082MF	3%	100V
C226	1-130-893-00	FILM	0.027MF	3%	100V
C227	1-130-856-00	FILM	0.0068MF	3%	100V
C228	1-123-232-00	ELECT	4.7MF	20%	50V
C308	1-130-634-00	FILM	0.15MF	5%	50V
C309	1-130-632-00	FILM	0.1MF	5%	50V
C310	1-130-632-00	FILM	0.1MF	5%	50V
C311	1-130-621-00	FILM	0.012MF	5%	50V
C315	1-130-851-00	FILM	0.082MF	3%	100V
C317	1-130-856-00	FILM	0.0068MF	3%	100V
C318	1-130-893-00	FILM	0.027MF	3%	100V
C319	1-123-232-00	ELECT	4.7MF	20%	50V
C321	1-130-625-00	FILM	0.027MF	5%	50V
C323	1-123-234-00	ELECT	10MF	20%	50V
C324	1-130-621-00	FILM	0.012MF	5%	50V
C325	1-130-626-00	FILM	0.033MF	5%	50V
C326	1-130-625-00	FILM	0.027MF	5%	50V
C327	1-130-626-00	FILM	0.033MF	5%	50V
C329	1-130-623-00	FILM	0.018MF	5%	50V
C334	1-130-634-00	FILM	0.15MF	5%	50V
C335	1-130-628-00	FILM	0.047MF	5%	50V
C336	1-130-625-00	FILM	0.027MF	5%	50V
C339	1-130-856-00	FILM	0.0068MF	3%	100V
C340	1-130-623-00	FILM	0.018MF	5%	50V
C358	1-130-892-00	FILM	0.015MF	3%	100V
C408	1-130-634-00	FILM	0.15MF	5%	50V
C409	1-130-632-00	FILM	0.1MF	5%	50V
C410	1-130-632-00	FILM	0.1MF	5%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C411	1-130-621-00	FILM	0.012MF	5%	50V
C415	1-130-851-00	FILM	0.082MF	3%	100V
C417	1-130-856-00	FILM	0.0068MF	3%	100V
C418	1-130-893-00	FILM	0.027MF	3%	100V
C419	1-123-232-00	ELECT	4.7MF	20%	50V
C421	1-130-625-00	FILM	0.027MF	5%	50V
C423	1-123-234-00	ELECT	10MF	20%	50V
C424	1-130-621-00	FILM	0.012MF	5%	50V
C425	1-130-626-00	FILM	0.033MF	5%	50V
C426	1-130-625-00	FILM	0.027MF	5%	50V
C427	1-130-626-00	FILM	0.033MF	5%	50V
C429	1-130-623-00	FILM	0.018MF	5%	50V
C434	1-130-634-00	FILM	0.15MF	5%	50V
C435	1-130-628-00	FILM	0.047MF	5%	50V
C436	1-130-625-00	FILM	0.027MF	5%	50V
C439	1-130-856-00	FILM	0.0068MF	3%	100V
C440	1-130-623-00	FILM	0.018MF	5%	50V
C458	1-130-892-00	FILM	0.015MF	3%	100V
C507 ⚠	1-123-335-00	ELECT	330MF	20%	25V
C508 ⚠	1-123-311-00	ELECT	1000MF	20%	10V
C509 ⚠	1-123-335-00	ELECT	330MF	20%	25V
C511 ⚠	1-123-311-00	ELECT	1000MF	20%	10V
C513	1-141-225-00	CAP, TUNING, TRIMMER			
C601 ⚠	1-123-337-00	ELECT	1000MF	20%	25V
C602 ⚠	1-123-697-00	ELECT	1000MF	20%	25V
C603 ⚠	1-123-697-00	ELECT	1000MF	20%	25V
C604 ⚠	1-123-361-00	ELECT	220MF	20%	25V
C609 ⚠	1-123-349-00	ELECT	1000MF	20%	35V
C610 ⚠	1-123-325-00	ELECT	2200MF	20%	16V
C636 ⚠	1-123-323-00	ELECT	470MF	20%	16V
C901	1-130-134-00	FILM	0.082MF	5%	100V
CNJ301	1-507-531-00	PLATE, PIN-JACK			
CNJ302	1-507-531-00	PLATE, PIN-JACK			
CNJ401	1-507-531-00	PLATE, PIN-JACK			
CNJ402	1-507-531-00	PLATE, PIN-JACK			
CNJ501	1-507-659-00	JACK			
CP501	1-464-132-00	UNIT, BIAS OSCILLATOR			
D501	8-719-910-64	DIODE HZ6B1L			
D502	8-719-910-64	DIODE HZ6B1L			
D503	8-719-815-55	DIODE 1S1555			
D504	8-719-815-55	DIODE 1S1555			
D505	8-719-815-55	DIODE 1S1555			
D506	8-719-815-55	DIODE 1S1555			
D507	8-719-815-55	DIODE 1S1555			
D508	8-719-815-55	DIODE 1S1555			
D509	8-719-815-55	DIODE 1S1555			

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SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF: μF, PF: pF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D601 ⚠	8-719-200-02	DIODE 10E-2
D602 ⚠	8-719-200-02	DIODE 10E-2
D603 ⚠	8-719-200-02	DIODE 10E-2
D604 ⚠	8-719-200-02	DIODE 10E-2
D605 ⚠	8-719-200-02	DIODE 10E-2
D606 ⚠	8-719-999-81	DIODE EQA01-08R1
D607	8-719-200-02	DIODE 10E-2
D608	8-719-200-02	DIODE 10E-2
D609	8-719-902-23	DIODE HZ22-3L
D610	8-719-922-71	DIODE HZ27-1L
D611 ⚠	8-719-200-02	DIODE 10E-2
D612 ⚠	8-719-200-02	DIODE 10E-2
D613 ⚠	8-719-200-02	DIODE 10E-2
D614 ⚠	8-719-200-02	DIODE 10E-2
D615	8-719-103-39	DIODE RD7.5J-N1
D616	8-719-815-55	DIODE 1S1555
D617	8-719-815-55	DIODE 1S1555
D618	8-719-910-92	DIODE HZ9A2L
D619	8-719-815-55	DIODE 1S1555
D620	8-719-815-55	DIODE 1S1555
D621	8-719-815-55	DIODE 1S1555
D622	8-719-815-55	DIODE 1S1555
D623	8-719-815-55	DIODE 1S1555
D624	8-719-815-55	DIODE 1S1555
D625	8-719-200-02	DIODE 10E-2
D626	8-719-200-02	DIODE 10E-2
D627	8-719-815-55	DIODE 1S1555
D628	8-719-815-55	DIODE 1S1555
D629	8-719-815-55	DIODE 1S1555
D630	8-719-815-55	DIODE 1S1555
D631	8-719-815-55	DIODE 1S1555
D632	8-719-200-02	DIODE 10E-2
D633	8-719-815-55	DIODE 1S1555
D634	8-719-815-55	DIODE 1S1555
D636	8-719-815-55	DIODE 1S1555
D637	8-719-815-55	DIODE 1S1555
D638	8-719-815-55	DIODE 1S1555
D639	8-719-200-02	DIODE 10E-2
D640	8-719-200-02	DIODE 10E-2
D641	8-719-815-55	DIODE 1S1555
D642	8-719-815-55	DIODE 1S1555
D643	8-719-815-55	DIODE 1S1555
D644	8-719-815-55	DIODE 1S1555
D645	8-719-815-55	DIODE 1S1555
D701	8-719-934-05	DIODE SLR-34URC5

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D702	8-719-902-26	DIODE SLR-342G5
D703	8-719-902-25	DIODE SLR-340U5
D801	8-719-910-29	DIODE HZ12C3L
D802	8-719-815-55	DIODE 1S1555
D803	8-719-815-55	DIODE 1S1555
D901	8-719-100-27	DIODE RD4.7E-B2
D902	8-719-815-55	DIODE 1S1555
D903	8-719-815-55	DIODE 1S1555
H901	8-719-814-11	DIODE THS102
H902	8-719-814-11	DIODE THS102
IC101	8-759-300-74	IC CX-174A
IC102	8-759-300-74	IC CX-174A
IC201	8-759-300-74	IC CX-174A
IC202	8-759-300-74	IC CX-174A
IC301	8-759-300-74	IC CX-174A
IC302	8-759-300-74	IC CX-174A
IC401	8-759-300-74	IC CX-174A
IC402	8-759-300-74	IC CX-174A
IC501	8-759-700-04	IC NJM2043D-D
IC502	8-759-961-38	IC BA6138
IC503	8-759-145-57	IC UPC455C
IC601	8-759-900-71	IC MSM58361RS
IC602	8-759-729-03	IC NJM2903D
IC603	8-759-133-90	IC UPC339C
IC604	8-759-984-69	IC MB840690
IC801	8-759-904-72	IC MSL9359RS
IC802	8-759-100-12	IC UPD554C089
IC901	8-759-600-69	IC CX-060A
IC902	8-759-700-58	IC NJM4558D-EA
L101	1-407-240-00	MICRO INDUCTOR 22MMH
L102	1-408-259-00	MICRO INDUCTOR 15MMH
L201	1-407-240-00	MICRO INDUCTOR 22MMH
L202	1-408-259-00	MICRO INDUCTOR 15MMH
L301	1-408-259-00	MICRO INDUCTOR 15MMH
L302	1-408-253-00	MICRO INDUCTOR 4.7MMH
L303	1-408-250-00	MICRO INDUCTOR 2.7MMH
L304	1-408-249-00	MICRO INDUCTOR 2.2MMH
L305	1-408-249-00	MICRO INDUCTOR 2.2MMH
L306	1-408-259-00	MICRO INDUCTOR 15MMH
L401	1-408-259-00	MICRO INDUCTOR 15MMH
L402	1-408-253-00	MICRO INDUCTOR 4.7MMH
L403	1-408-250-00	MICRO INDUCTOR 2.7MMH
L404	1-408-249-00	MICRO INDUCTOR 2.2MMH
L405	1-408-249-00	MICRO INDUCTOR 2.2MMH

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
L406	1-408-259-00	MICRO INDUCTOR 15MMH
L501	1-407-177-XX	MICRO INDUCTOR 470UH
L502	1-407-177-XX	MICRO INDUCTOR 470UH
L801	1-407-177-XX	MICRO INDUCTOR 470UH
LPF301	1-231-388-00	FILTER, LOWPASS
LPF401	1-231-388-00	FILTER, LOWPASS
M1	1-541-163-00	MOTOR
PL1	1-518-313-00	LAMP, PILOT
PL501	1-518-489-21	LAMP, PILOT
PL502	1-518-489-21	LAMP, PILOT
PM1	1-454-288-00	SOLENOID, PLUNGER
PM2	1-454-291-00	SOLENOID, PLUNGER
Q101	8-729-663-47	TRANSISTOR 2SC1364
Q102	8-729-663-48	TRANSISTOR 2SC1364-8
Q103	8-729-663-48	TRANSISTOR 2SC1364-8
Q104	8-729-663-48	TRANSISTOR 2SC1364-8
Q105	8-729-663-48	TRANSISTOR 2SC1364-8
Q106	8-729-663-48	TRANSISTOR 2SC1364-8
Q107	8-729-663-48	TRANSISTOR 2SC1364-8
Q108	8-729-663-48	TRANSISTOR 2SC1364-8
Q109	8-729-663-48	TRANSISTOR 2SC1364-8
Q110	8-729-663-48	TRANSISTOR 2SC1364-8
Q201	8-729-663-47	TRANSISTOR 2SC1364
Q202	8-729-663-48	TRANSISTOR 2SC1364-8
Q203	8-729-663-48	TRANSISTOR 2SC1364-8
Q204	8-729-663-48	TRANSISTOR 2SC1364-8
Q205	8-729-663-48	TRANSISTOR 2SC1364-8
Q206	8-729-663-48	TRANSISTOR 2SC1364-8
Q207	8-729-663-48	TRANSISTOR 2SC1364-8
Q208	8-729-663-48	TRANSISTOR 2SC1364-8
Q209	8-729-663-48	TRANSISTOR 2SC1364-8
Q210	8-729-663-48	TRANSISTOR 2SC1364-8
Q301	8-729-334-58	TRANSISTOR 2SC1345
Q302	8-729-663-48	TRANSISTOR 2SC1364-8
Q303	8-729-663-48	TRANSISTOR 2SC1364-8
Q304	8-729-663-48	TRANSISTOR 2SC1364-8
Q305	8-729-663-48	TRANSISTOR 2SC1364-8
Q306	8-729-663-48	TRANSISTOR 2SC1364-8
Q307	8-729-663-48	TRANSISTOR 2SC1364-8
Q308	8-729-663-48	TRANSISTOR 2SC1364-8
Q309	8-729-663-48	TRANSISTOR 2SC1364-8
Q310	8-729-663-48	TRANSISTOR 2SC1364-8
Q311	8-729-663-48	TRANSISTOR 2SC1364-8
Q312	8-729-100-13	TRANSISTOR 2SC2001
Q313	8-729-663-47	TRANSISTOR 2SC1364

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q314	8-729-663-48	TRANSISTOR 2SC1364-8
Q401	8-729-334-58	TRANSISTOR 2SC1345
Q402	8-729-663-48	TRANSISTOR 2SC1364-8
Q403	8-729-663-48	TRANSISTOR 2SC1364-8
Q404	8-729-663-48	TRANSISTOR 2SC1364-8
Q405	8-729-663-48	TRANSISTOR 2SC1364-8
Q406	8-729-663-48	TRANSISTOR 2SC1364-8
Q407	8-729-663-48	TRANSISTOR 2SC1364-8
Q408	8-729-663-48	TRANSISTOR 2SC1364-8
Q409	8-729-663-48	TRANSISTOR 2SC1364-8
Q410	8-729-663-48	TRANSISTOR 2SC1364-8
Q411	8-729-663-48	TRANSISTOR 2SC1364-8
Q412	8-729-100-13	TRANSISTOR 2SC2001
Q413	8-729-663-47	TRANSISTOR 2SC1364
Q414	8-729-663-48	TRANSISTOR 2SC1364-8
Q501	8-729-203-02	TRANSISTOR 2SK30A-0
Q502	8-729-315-22	TRANSISTOR 2SD1152
Q503	8-729-315-22	TRANSISTOR 2SD1152
Q504	8-729-180-93	TRANSISTOR 2SD809
Q505	8-729-384-48	TRANSISTOR 2SA844
Q506	8-729-203-02	TRANSISTOR 2SK30A-0
Q507	8-729-384-48	TRANSISTOR 2SA844
Q508	8-729-173-13	TRANSISTOR 2SD731
Q510	8-729-663-47	TRANSISTOR 2SC1364
Q511	8-729-663-47	TRANSISTOR 2SC1364
Q512	8-729-612-77	TRANSISTOR 2SA1027R
Q513	8-729-612-77	TRANSISTOR 2SA1027R
Q514	8-729-663-48	TRANSISTOR 2SC1364-8
Q515	8-729-663-48	TRANSISTOR 2SC1364-8
Q601	8-729-180-93	TRANSISTOR 2SD809
Q602	8-729-180-93	TRANSISTOR 2SD809
Q603	8-729-288-02	TRANSISTOR 2SD880
Q604	8-729-663-47	TRANSISTOR 2SC1364
Q605	8-729-180-93	TRANSISTOR 2SD809
Q606	8-729-663-47	TRANSISTOR 2SC1364
Q607	8-729-612-77	TRANSISTOR 2SA1027R
Q608	8-729-612-77	TRANSISTOR 2SA1027R
Q609	8-729-663-47	TRANSISTOR 2SC1364
Q610	8-729-663-47	TRANSISTOR 2SC1364
Q611	8-729-663-47	TRANSISTOR 2SC1364
Q612	8-729-663-47	TRANSISTOR 2SC1364
Q613	8-729-663-47	TRANSISTOR 2SC1364
Q614	8-729-663-47	TRANSISTOR 2SC1364
Q615	8-729-663-47	TRANSISTOR 2SC1364
Q616	8-729-663-47	TRANSISTOR 2SC1364

NOTE:
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- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (A-XXX-XXX-XX or A-XXXX-XXX-X) may be different from those used in the set.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q617	8-729-612-77	TRANSISTOR 2SA1027R
Q618	8-729-612-77	TRANSISTOR 2SA1027R
Q619	8-729-612-77	TRANSISTOR 2SA1027R
Q620	8-729-612-77	TRANSISTOR 2SA1027R
Q621	8-729-612-77	TRANSISTOR 2SA1027R
Q622	8-729-612-77	TRANSISTOR 2SA1027R
Q623	8-729-612-77	TRANSISTOR 2SA1027R
Q624	8-729-663-47	TRANSISTOR 2SC1364
Q625	8-729-663-47	TRANSISTOR 2SC1364
Q626	8-729-102-03	TRANSISTOR 2SD1020
Q627	8-729-102-03	TRANSISTOR 2SD1020
Q628	8-729-103-43	TRANSISTOR 2SB734
Q629	8-729-663-48	TRANSISTOR 2SC1364-8
Q630	8-729-880-82	TRANSISTOR 2SB808
Q631	8-729-880-82	TRANSISTOR 2SB808
Q632	8-729-102-03	TRANSISTOR 2SD1020
Q633	8-729-102-03	TRANSISTOR 2SD1020
Q634	8-729-663-47	TRANSISTOR 2SC1364
Q635	8-729-180-93	TRANSISTOR 2SD809
Q636	8-729-612-77	TRANSISTOR 2SA1027R
Q637	8-729-663-47	TRANSISTOR 2SC1364
Q638	8-729-663-47	TRANSISTOR 2SC1364
Q639	8-729-103-43	TRANSISTOR 2SB734
Q640	8-729-663-48	TRANSISTOR 2SC1364-8
Q641	8-729-612-77	TRANSISTOR 2SA1027R
Q642	8-729-612-77	TRANSISTOR 2SA1027R
Q643	8-729-663-48	TRANSISTOR 2SC1364-8
Q801	8-729-663-48	TRANSISTOR 2SC1364-8
Q803	8-729-612-77	TRANSISTOR 2SA1027R
Q805	8-729-612-77	TRANSISTOR 2SA1027R
Q807	8-729-612-77	TRANSISTOR 2SA1027R
Q808	8-729-612-77	TRANSISTOR 2SA1027R
Q901	8-729-177-43	TRANSISTOR 2SD774
Q902	8-729-103-43	TRANSISTOR 2SB734
Q903	8-729-177-43	TRANSISTOR 2SD774
Q904	8-729-103-43	TRANSISTOR 2SB734
Q905	8-729-110-21	TRANSISTOR PH102
Q906	8-729-110-21	TRANSISTOR PH102

Ref.No.	Part No.	Description			
R116	1-214-966-00	METAL	1.2M	1%	1/4W
R119	1-214-758-00	METAL	16K	1%	1/4W
R122	1-214-766-00	METAL	36K	1%	1/4W
R126	1-214-713-00	METAL	220	1%	1/4W
R128	1-214-746-00	METAL	5.1K	1%	1/4W
R130	1-214-741-00	METAL	3.3K	1%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R131	1-214-753-00	METAL	10K	1%	1/4W
R132	1-214-741-00	METAL	3.3K	1%	1/4W
R142	1-214-964-00	METAL	1M	1%	1/4W
R145	1-214-758-00	METAL	16K	1%	1/4W
R216	1-214-966-00	METAL	1.2M	1%	1/4W
R219	1-214-758-00	METAL	16K	1%	1/4W
R222	1-214-766-00	METAL	36K	1%	1/4W
R226	1-214-713-00	METAL	220	1%	1/4W
R228	1-214-746-00	METAL	5.1K	1%	1/4W
R230	1-214-741-00	METAL	3.3K	1%	1/4W
R231	1-214-753-00	METAL	10K	1%	1/4W
R232	1-214-741-00	METAL	3.3K	1%	1/4W
R242	1-214-964-00	METAL	1M	1%	1/4W
R245	1-214-758-00	METAL	16K	1%	1/4W
R314	1-214-964-00	METAL	1M	1%	1/4W
R320	1-214-758-00	METAL	16K	1%	1/4W
R337	1-214-966-00	METAL	1.2M	1%	1/4W
R341	1-214-758-00	METAL	16K	1%	1/4W
R349	1-214-746-00	METAL	5.1K	1%	1/4W
R351	1-214-713-00	METAL	220	1%	1/4W
R356	1-214-741-00	METAL	3.3K	1%	1/4W
R360	1-214-753-00	METAL	10K	1%	1/4W
R361	1-214-741-00	METAL	3.3K	1%	1/4W
R366	1-214-739-00	METAL	2.7K	1%	1/4W
R414	1-214-964-00	METAL	1M	1%	1/4W
R420	1-214-758-00	METAL	16K	1%	1/4W
R437	1-214-966-00	METAL	1.2M	1%	1/4W
R441	1-214-758-00	METAL	16K	1%	1/4W
R449	1-214-746-00	METAL	5.1K	1%	1/4W
R451	1-214-713-00	METAL	220	1%	1/4W
R456	1-214-741-00	METAL	3.3K	1%	1/4W
R460	1-214-753-00	METAL	10K	1%	1/4W
R461	1-214-741-00	METAL	3.3K	1%	1/4W
R466	1-214-739-00	METAL	2.7K	1%	1/4W
R693 ⚠	1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R710 ⚠	1-206-470-00	METAL OXIDE	20	5%	2W F
R718 ⚠	1-212-855-00	FUSIBLE	8.2	5%	1/4W F
R719 ⚠	1-217-393-00	FUSIBLE	33	5%	1/4W F
R911	1-214-743-00	METAL	3.9K	1%	1/4W
R914	1-214-743-00	METAL	3.9K	1%	1/4W
R950 ⚠	1-217-379-00	FUSIBLE	2.2	5%	1/4W F
R951 ⚠	1-217-379-00	FUSIBLE	2.2	5%	1/4W F
RV101	1-224-645-XX	RES, ADJ, CARBON 10K			
RV201	1-224-645-XX	RES, ADJ, CARBON 10K			
RV301	1-224-646-XX	RES, ADJ, CARBON 22K			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
RV302	1-226-236-00	RES, ADJ, CARBON 10K
RV401	1-224-646-XX	RES, ADJ, CARBON 22K
RV402	1-226-236-00	RES, ADJ, CARBON 10K
RV501	1-226-740-00	RES, VAR, CARBON 20K/20K
RV502	1-226-560-00	RES, VAR, CARBON 5K
RV503	1-226-980-00	RES, VAR, CARBON 20K/20K
RV601	1-226-233-00	RES, ADJ, CARBON 1K
RV901	1-224-661-00	RES, ADJ, METAL GLAZE 50K
S501	1-554-007-00	SWITCH, PUSH
S502	1-554-007-00	SWITCH, PUSH
S503	1-554-007-00	SWITCH, PUSH
S504	1-554-007-00	SWITCH, PUSH
S505	1-554-008-00	SWITCH, PUSH
S506	1-554-008-00	SWITCH, PUSH
S507	1-554-008-00	SWITCH, PUSH
S601	1-552-809-00	SWITCH, SLIDE
S701	1-552-539-00	SWITCH, KEY BOARD

ELECTRICAL PARTS

Ref.No.	Part No.	Description
S702	1-552-539-00	SWITCH, KEY BOARD
S703	1-552-539-00	SWITCH, KEY BOARD
S704	1-552-539-00	SWITCH, KEY BOARD
S705	1-552-539-00	SWITCH, KEY BOARD
S706	1-552-539-00	SWITCH, KEY BOARD
S707	1-552-539-00	SWITCH, KEY BOARD
S708	1-553-235-00	SWITCH, KEY BOARD
S709	1-553-235-00	SWITCH, KEY BOARD
S801	1-552-532-00	SWITCH, PUSH
S802	1-552-532-00	SWITCH, PUSH
S901 ⚠	1-553-318-00	(UK,AEP,E).....SWITCH, PUSH (AC POWER)
S901 ⚠	1-553-319-00	(US,Canadian)...SWITCH, PUSH (AC POWER)
T901 ⚠	1-447-319-00	(US,Canadian)...TRANSFORMER, POWER
T901 ⚠	1-447-320-00	(E).....TRANSFORMER, POWER
T901 ⚠	1-447-321-00	(AEP,UK).....TRANSFORMER, POWER

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SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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ELECTROLYTIC CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.					
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-419-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000	–	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	–
3300	1-121-661-00	1-123-075-00	1-123-071-00	–	–	–

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	–	–	–	–
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	–	1-123-028-00
3.3	1-121-995-00	–	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	–	–
47	1-123-251-00	1-121-919-00	–	–
100	1-123-084-00	–	–	–

CERAMIC CAPACITORS

CAP. (pF)	RATING 50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

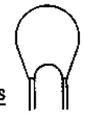
0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.				
	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

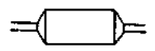
MYLAR CAPACITORS

CAP. (μF)	RATING 50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.
	PART No.	PART No.	PART No.		PART No.	PART No.	PART No.		PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	–	–
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	–	–
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	–	–
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	–	–
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.						
	3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.01					→	→	1-131-396-00
0.015						→	1-131-397-00
0.022						→	1-131-398-00
0.033						→	1-131-399-00
0.047						→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	–	–	–	–	1-131-412-00	→	1-131-406-00
0.68	–	–	–	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	–	–	1-131-418-00	–	1-131-413-00	→	1-131-408-00
1.5	–	1-131-421-00	–	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	–	1-131-419-00	–	1-131-414-00	1-131-355-00	1-131-349-00
3.3	–	1-131-422-00	–	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	–	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	–	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	–
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	–			
68	1-131-394-00	1-131-388-00	–	–			
100	1-131-395-00	–	–	–			



TANTALUM CAPACITORS

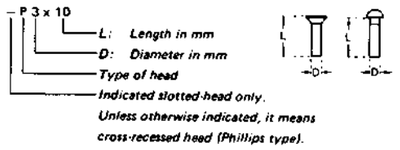
CAP. (μF)	RATING 3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			–	–	1-131-262-00	1-131-278-00
0.33			–	–	1-131-263-00	1-131-279-00
0.47			1-131-169-00	–	1-131-264-00	1-131-280-00
0.68			–	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	–	1-131-266-00	1-131-282-00
1.5		1-131-250-00	–	–	1-131-267-00	1-131-283-00
2.2		–	–	1-131-259-00	1-131-268-00	1-131-284-00
3.3		–	1-131-255-00	–	1-131-269-00	–
4.7		1-131-251-00	1-131-171-00	–	1-131-270-00	–
6.8		–	–	1-131-260-00	1-131-271-00	–
10	–	–	1-131-256-00	–	1-131-272-00	–
15	–	1-131-252-00	–	1-131-261-00		
22	–	–	1-131-257-00	–		
33	1-131-176-00	1-131-253-00	1-131-173-00	–		
47	1-131-288-00	1-131-174-00	–	–		
100	1-131-177-00					

1/4 WATT CARBON RESISTORS

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-476-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-477-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-478-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-479-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-480-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-481-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-482-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-483-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-484-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-485-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-486-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-487-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

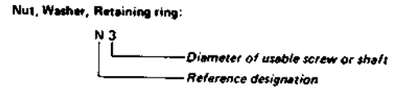
HARDWARE NOMENCLATURE

Screw:



Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazier-head screw	

Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

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Sony Corporation
Audio & Video Group

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TC-K555

STEREO-CASSETTE DECK

US Model 188
Canadian Model
AEP Model
UK Model
E Model

SUPPLEMENT

File this supplement with the service manual.

No. 1
February, 1983

CHANGED PORTION

- Addition of the record head azimuth adjustment.
- Modification of a part of the schematic diagram and the mounting diagram, due to the Dolby C Level Adjustment addition.

[Changed Parts List]

Ref. No.	Part No.	Description	
R165	1-214-964-00	METAL 1M 1% 1/4W	added
R265	1-214-964-00	METAL 1M 1% 1/4W	added
R3006	1-214-964-00	METAL 1M 1% 1/4W	added
R4006	1-214-946-00	METAL 1M 1% 1/4W	added
D701	8-719-902-33	DIODE SLR-34UR5	changed

Sony Corporation
Consumer Products Group
Technical Support Dept.

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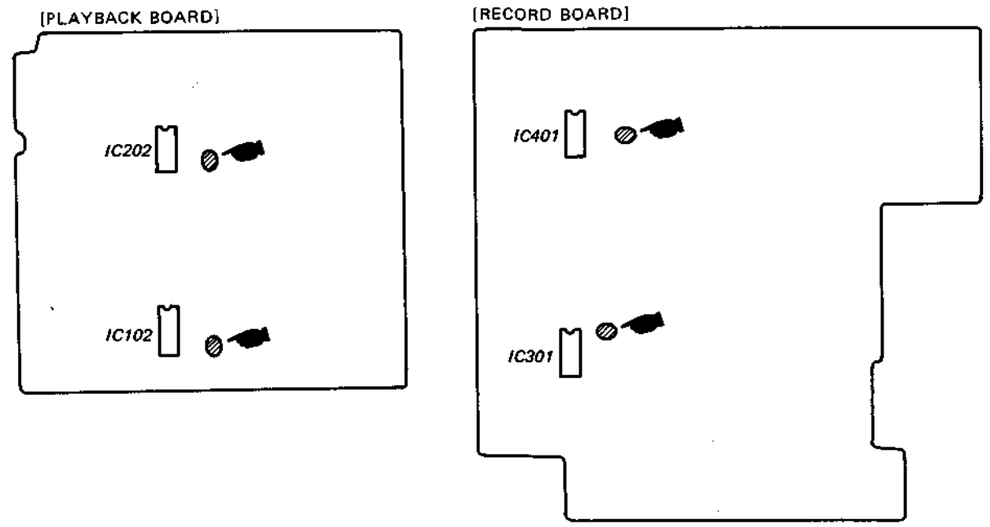
950-841-82

188

- **Addition of Dolby C level adjustment**

Amp section – P35 –

changed portion: ☛



SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

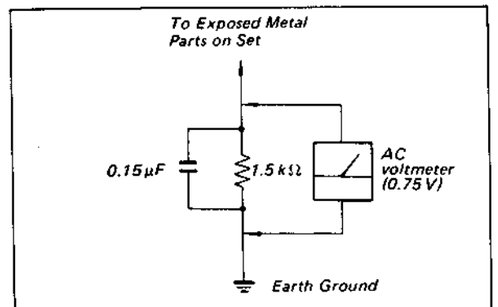


Fig. A. Using an AC voltmeter to check AC leakage.

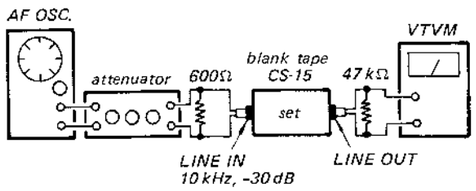
Record Head Azimuth Adjustment (Record head azimuth adjustment should be made later than playback head azimuth adjustment.)

Setting:

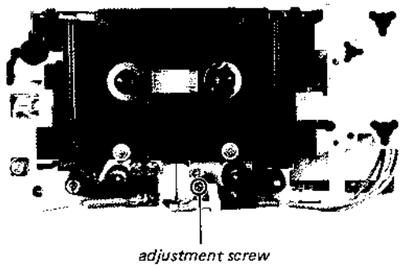
MONITOR: TAPE
REC LEVEL control: standard record
TAPE: TYPE I

Procedure:

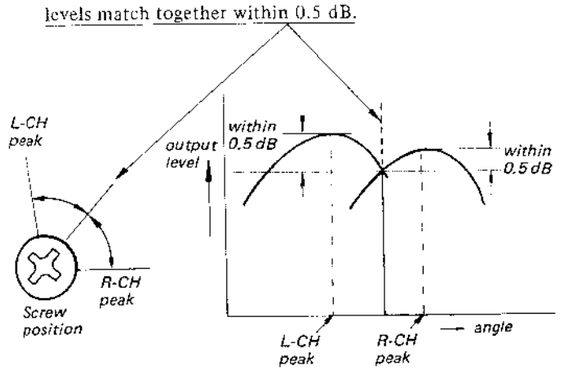
record and playback mode



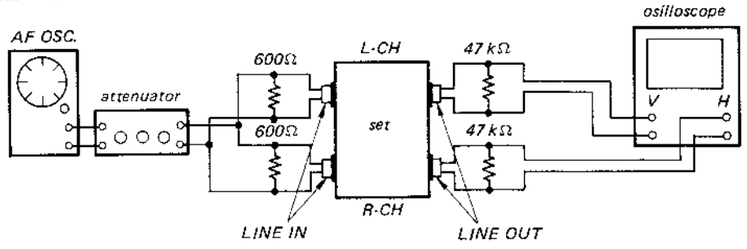
Adjustment Location:

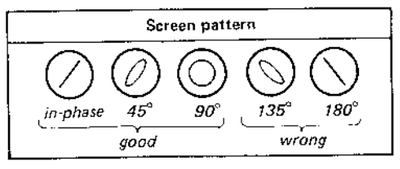


1. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 0.5 dB.



2. Phase Check





Adjust the screw so that L-CH and R-CH are in phase.

Specification:

Phase difference between L-CH and R-CH: less than 90°
Level difference between L-CH and R-CH: less than 1 dB

DOLBY C Level Adjustment

Setting:

MONITOR: TAPE
TAPE: TYPE I

1. Set DOLBY switch to DOLBY C.
   Adjust for obtaining the specification.

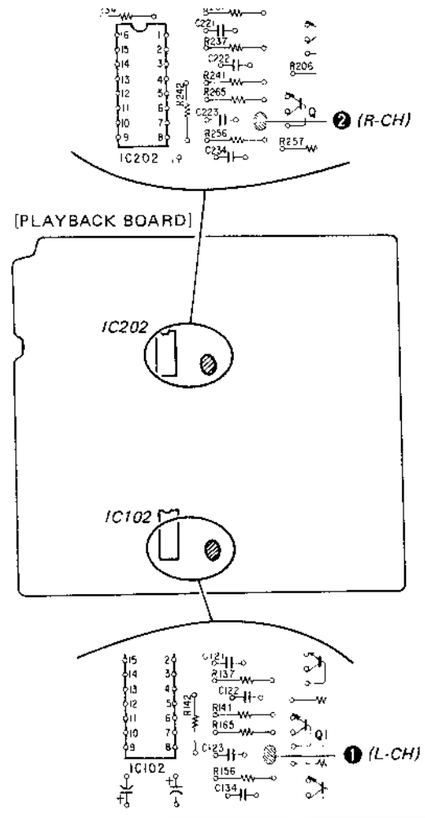
Specification:

- LINE OUT level: −25 dB ± 2 dB
- Level difference between L-CH and R-CH: less than 2 dB

Adjustment Location:

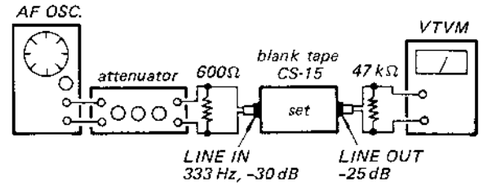
– playback board –

If LINE OUT level is higher than the specification, unsolder the portion marked by ❶ (L-CH), ❷ (R-CH).



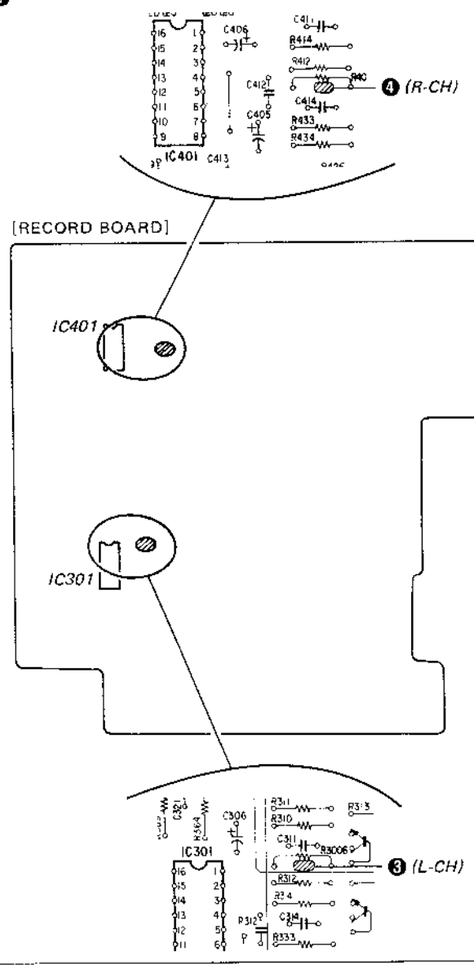
Procedure:

record and playback mode



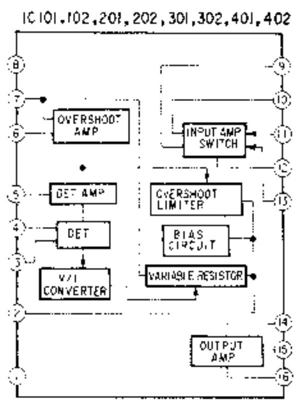
– record board –

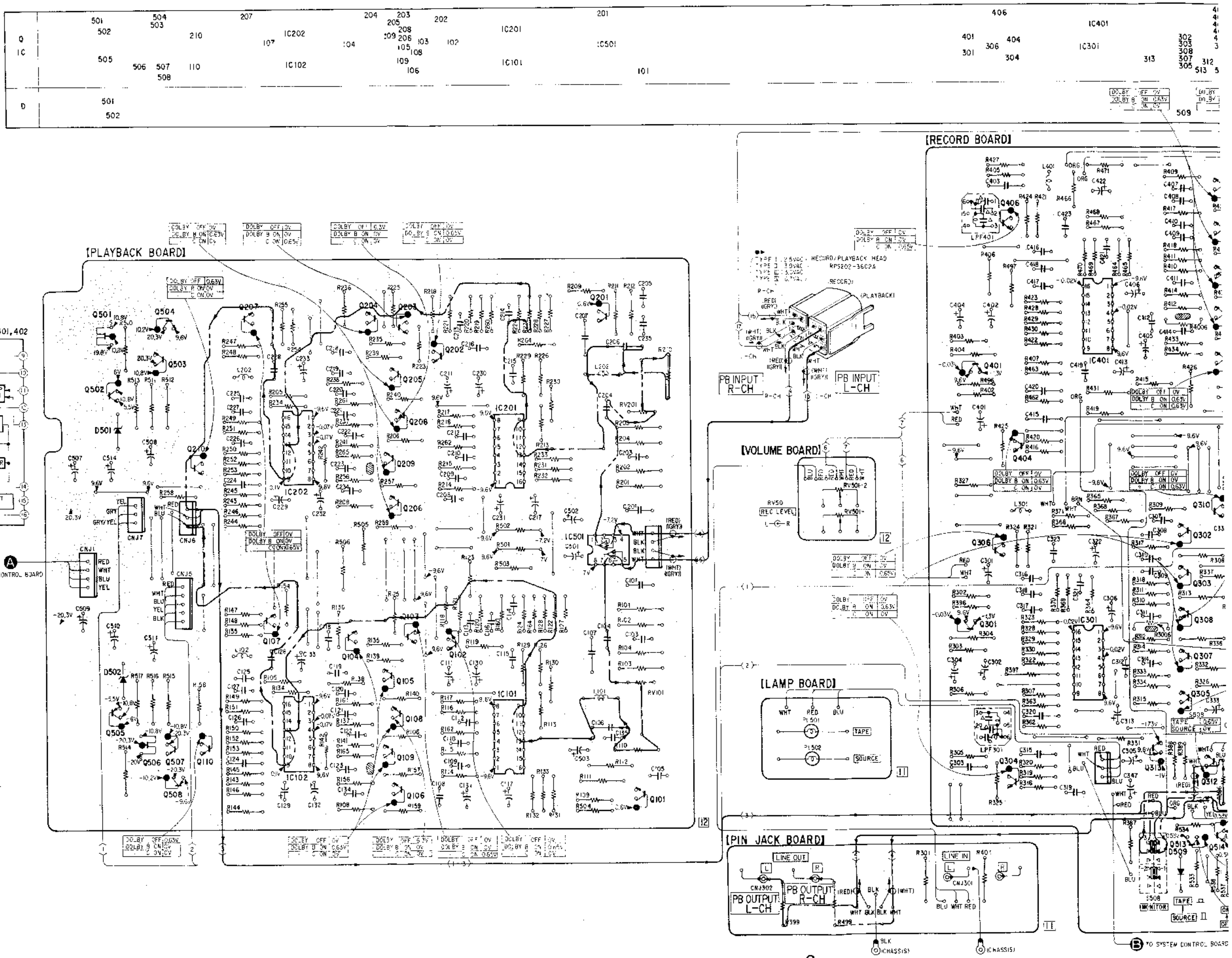
If LINE OUT level is lower than the specification, unsolder the portion marked by ❸ (L-CH), ❹ (R-CH).



MOUNTING DIAGRAM

— Amp Section —





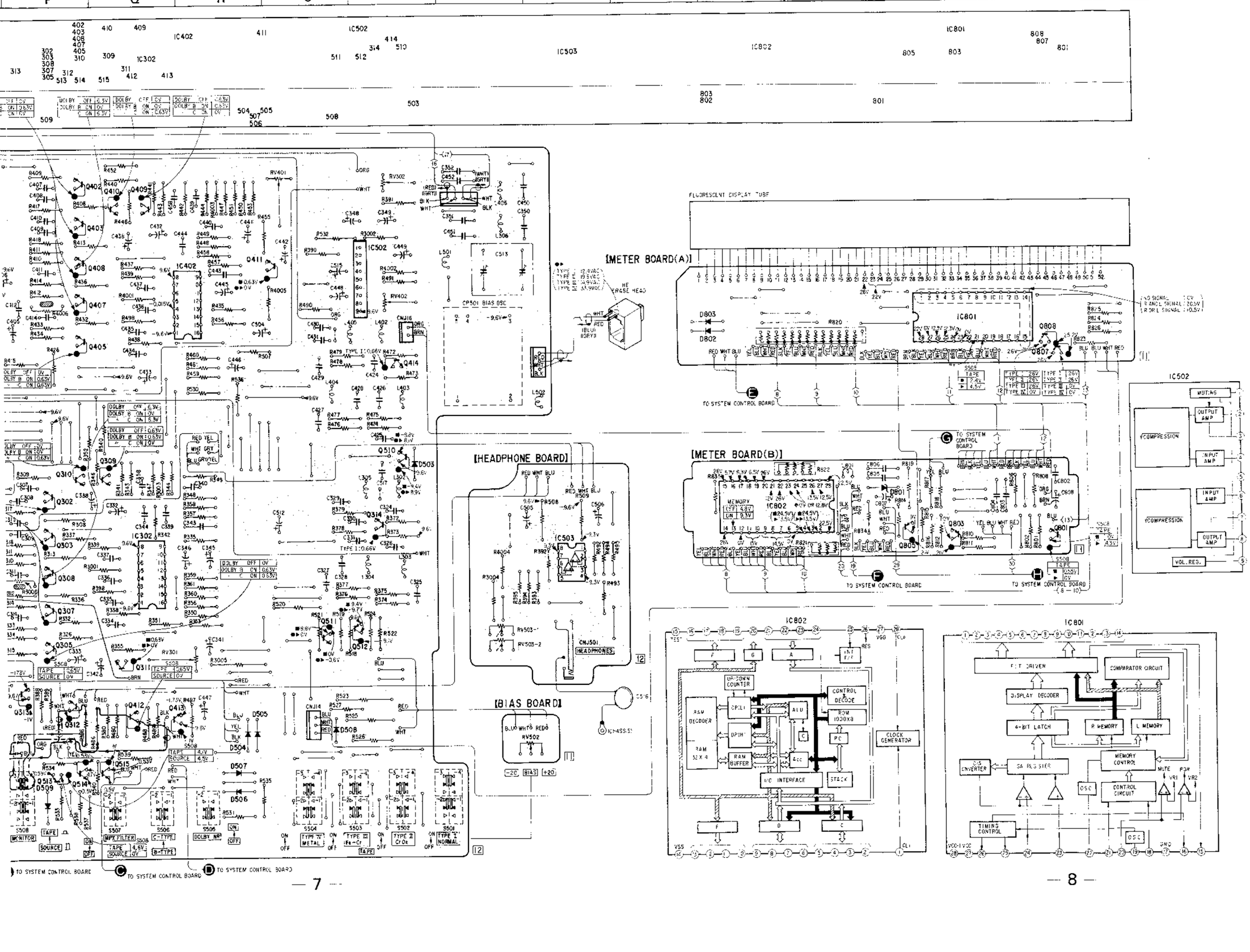
Note:

- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ░ : B + pattern

- ▬▬►▬▬ : signal path
- ▬▬▬▬► : L-CH signal path
- ▬·▬·▬► : R-CH signal path

P Q R S T U V W X Y Z A1 B1 C1 D1 E1

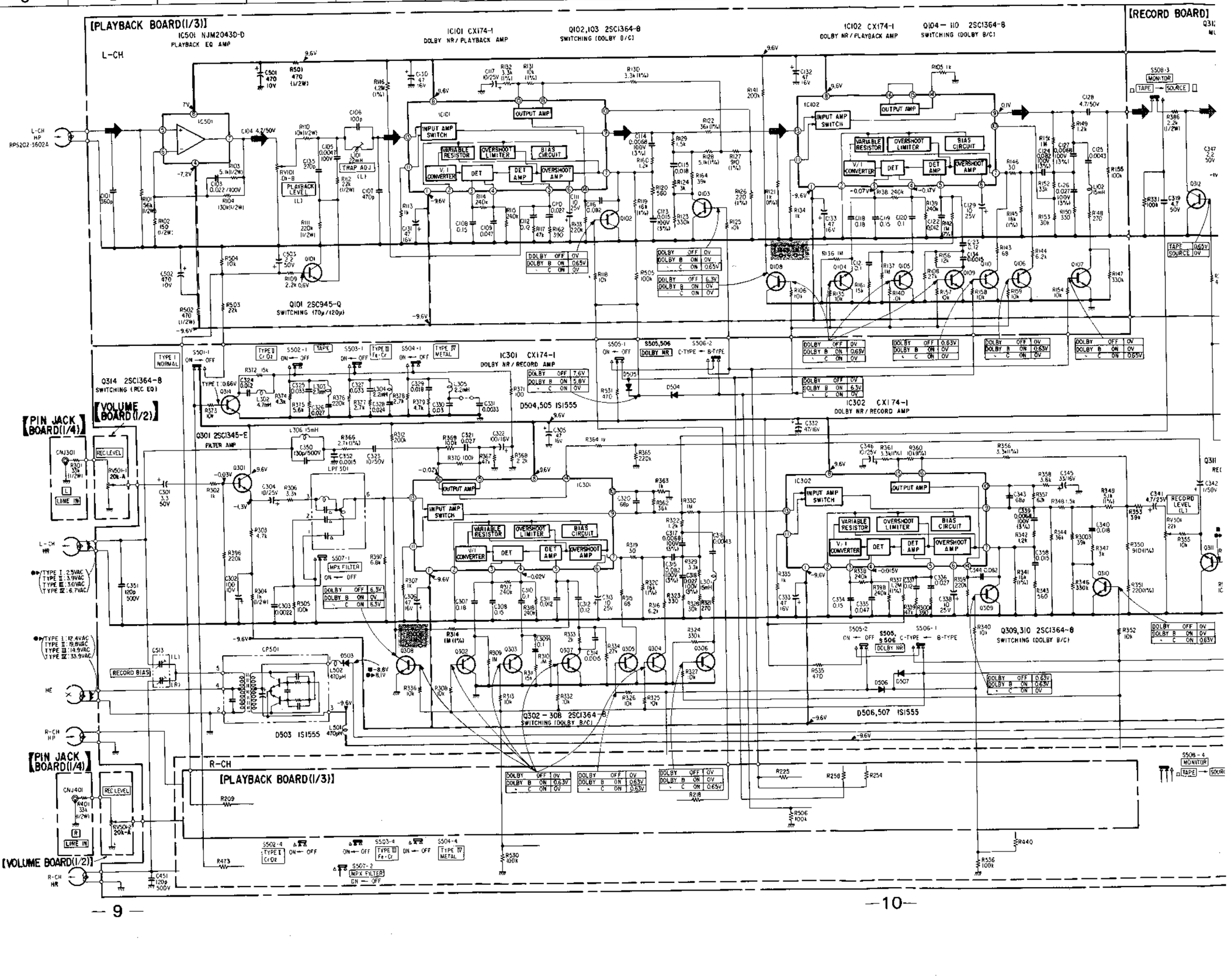
1 2 3 4 5 6 7 8 9 10

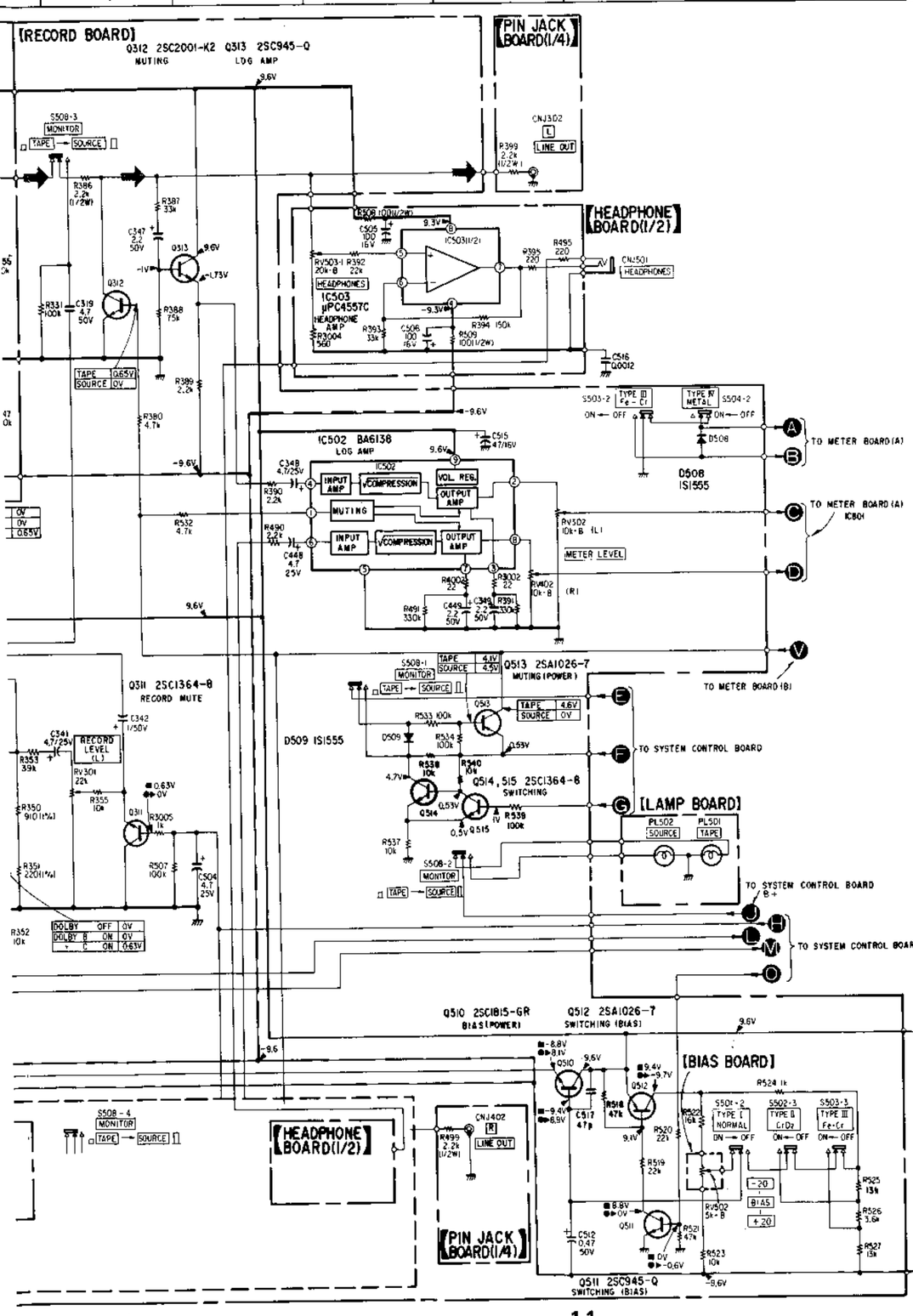


SCHEMATIC DIAGRAM

– Amp Section –

▒▒▒ --- changed portion





Note:

- ➡ : signal path
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantaiums.
- All resistors are in ohms, ¼W unlessotherwise noted. kΩ: 1000Ω, MΩ: 1000kΩ
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——: B + bus.
- – – –: B – bus.
- Readings are taken under no-signal conditions with a VOM (50kΩ/V).
- AC voltage readings in the bias oscillator with a VTVM.

Note: Voltages are measured with a VOM (50kΩ/V).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.