US Model
Canadian Model
AEP Model
E Model
UK Model



'Dolby' and the double-D symbol are the trade marks of Dolby Laboratory Inc. Noise reduction system manufactured under license from Dolby Laboratory Inc.

STEREO CASSETTE DECK

SPECIFICATIONS

GENERAL

Power Requirements: 120 V ac, 60 Hz (US, Canadian model)

110, 120, 220 or 240 V ac, 50/60 Hz

(AEP, E, UK model)

Power Consumption: 13 W (US, Canadian model)

15 W (AEP, E, UK model)

Dimensions: 460 (w) x 155 (h) x 325 (d) mm

18 $\frac{1}{8}$ (w) x 6 $\frac{1}{8}$ (h) x 12 $\frac{7}{8}$ (d) inches

(US, Canadian model)

SAFETY-RELATED COMPONENT WARNING!

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

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE A SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLOSÉES 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 DES SUPPLÉMENTS PUBLIÉS PAR SONY.

430 (w) x 155 (h) x 325 (d) mm 17 (w) x 6 $\frac{1}{8}$ (h) x 12 $\frac{7}{8}$ (d) inches

(AEP, E, UK model)

including projecting parts and controls

Weight: Approx. 8.5 kg (18 lbs 12 oz) (US, C

Approx. 8.5 kg (18 lbs 12 oz) (US, Canadian model) Approx. 7.7 kg (17 lbs 0 oz) (AEP, E, UK model)

TAPE RECORDER SECTION

Fast Forward and Rewind Time:

4-track 2-channel stereo

Frequency Response: DOLBY

DOLBY NR OFF
*With Ferri-Chrome cassette

Approx. 90 seconds with Sony cassette C-60

20 - 18,000 Hz

30 - 16,000 Hz (± 3 dB) 30 - 16,000 Hz (DIN)

*With chromium dioxide cassette

20 - 17,000 Hz

30 - 15,000 Hz (± 3 dB) 30 - 15,000 Hz (DIN)

*With standard cassette

20 - 15,000 Hz

30 - 13,000 Hz (DIN)

- Continued on page 2 -



Wow and Flutter:

0.045 % WRMS (NAB)

±0.12 % (DIN)

S/N Ratio:

DOLBY NR OFF

*With Ferri-Chrome cassette

59 dB (NAB)

57 dB (DIN, 1975 rev.)

*With chromium dioxide cassette

55 dB (NAB) DOLBY NR ON

Improved by 5 dB at 1 kHz, 10 dB

above 5 kHz

Total Harmonic Distortion: 1.3 %

Record Bias Frequency: 1

105 kHz

Inputs:

MIC (two phone jacks)

sensitivity 0.25 mV (-70 dB) for a low-impedance microphone

LINE IN (two phono jacks) sensitivity 77.5 mV (-20 dB)

input impedance 100 k Ω

REC/PB (connector) . . . (AEP, UK, E model)

input impedance less than 10 k Ω

Outputs:

VARIABLE LINE OUT (two phono jacks)

output level 0.775 V (0 dB) at load

impedance 100 k Ω

with LINE OUT level control at "10" suitable load impedance more than 10 k Ω

FIXED LINE OUT (two phono jacks) output level 0.44 V (-5 dB) at load

impedance 100 k Ω

suitable load impedance more than 10 $k\Omega$

Headphone (binaural jack)

output level -22 to -52 dB at load

impedance 8 Ω

REC/PB (connector) . . . (AEP, UK, E model)

output impedance less than 10 k Ω

LIQUID CRYSTAL PEAK PROGRAM METERS

Response Range:

-40 dB to +5 dB

Frequency Response:

 $20 - 20,000 \text{ Hz} \pm 1.5 \text{ dB}$

Response Time:

1 millisecond

Decay Time

(from 0 dB to -20 dB):

Indicator Elements:

750 milliseconds

Overshoot:

None

33 elements for each channel

MODEL IDENTIFICATION

- Specification Label -

US, Canadian model

SONY®

TAPECORDER

MODEL NO. TC-K60 AC 120V 60Hz 13W

SERIAL NO.

MADE IN JAPAN

3-558-548-01

AEP, E, UK model

SONY®

TAPECORDER

MODEL NO. TC-K60

AC 110, 120, 220, 240 50 60Hz 15W

SERIAL NO.

MADE IN JAPAN

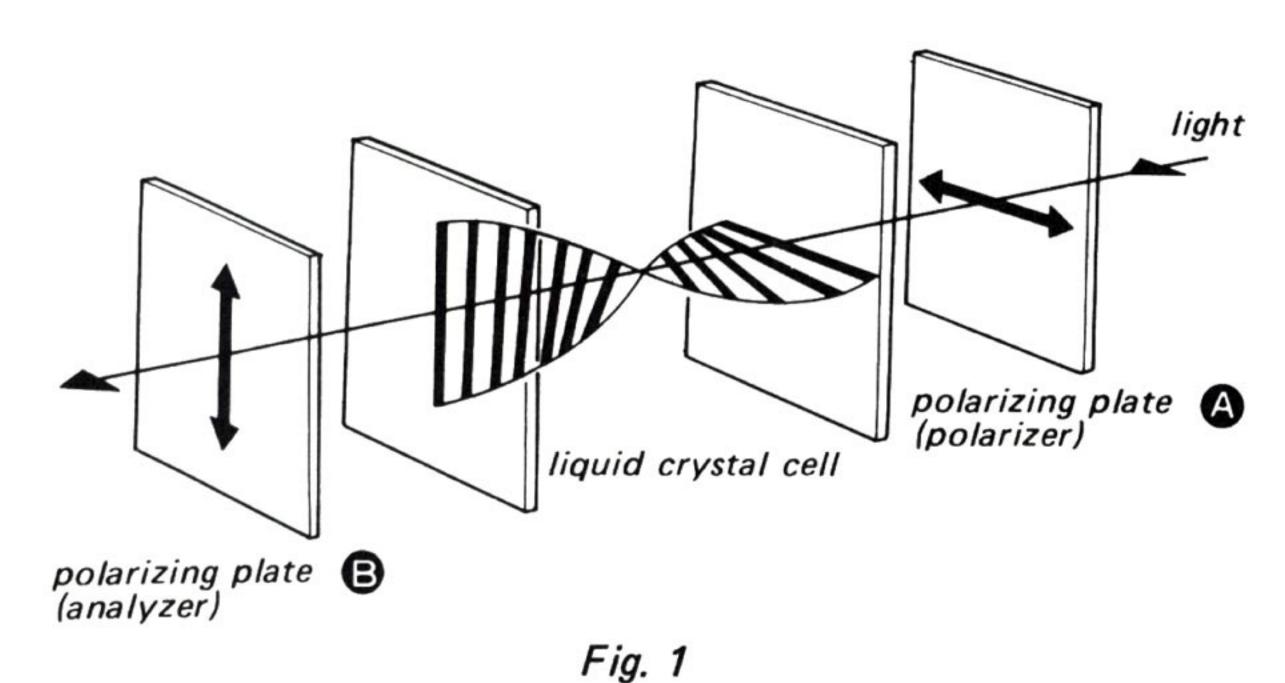
3.558.547.01

SECTION 1 OUTLINE

1-1. LIQUID CRYSTAL

The TC-K60 features the liquid crystal peak program meter. Although liquid crystal comes in various different types, the liquid crystal molecules employed here are long and slender, and line up in the direction of-an electric field. By orienting this liquid crystal parallel to the surface of a glass plate, and then setting up two such glass plates to be at right angles to a light beam, the liquid crystals within the liquid crystal cell line up as shown in Fig. 1. When two light polarizing glass plates are added to both sides of the cell, but no voltage applied across the cell, a light beam passed through polarizing plate (A) is rotated through 90° as it passes through the cell, and passed out again through polarizing plate (B)

When a voltage is then applied across the crystal cell, the liquid crystals change direction and align perpendicular to the surface of the glass plates (as shown in Fig. 2.) The polarized light is no longer rotated through 90°, and consequently fail to pass through polarizing plate **3**. Therefore, the cell appears dark. However, rather than indicating peak level by the change between light and dark, the peak program meter employed in the TC-K60 features a color display. This is achieved by using a color polarizing plate on the light source side. All colors except the desired color polarized by polarizing plate (A), resulting in this non-polarized color passing through polarizing plate (B) when all other colors are blocked out.



Liquid Crystal Cell when No Voltage is Applied.

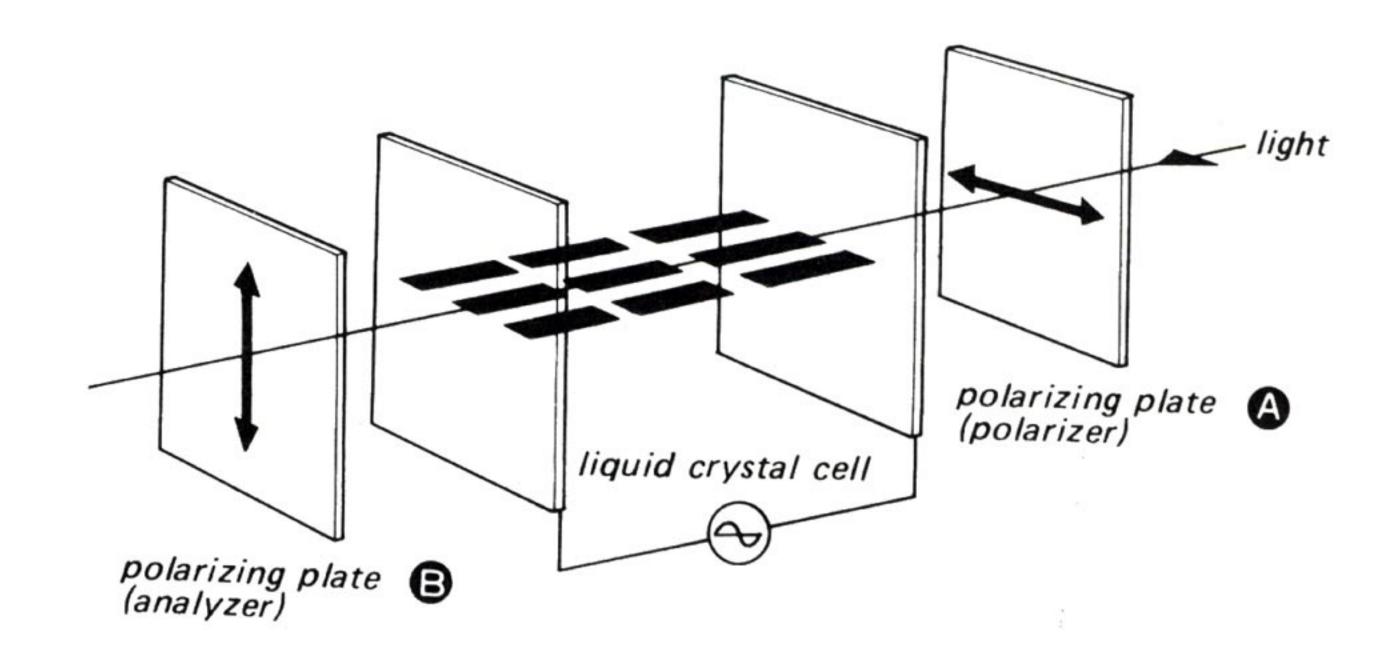
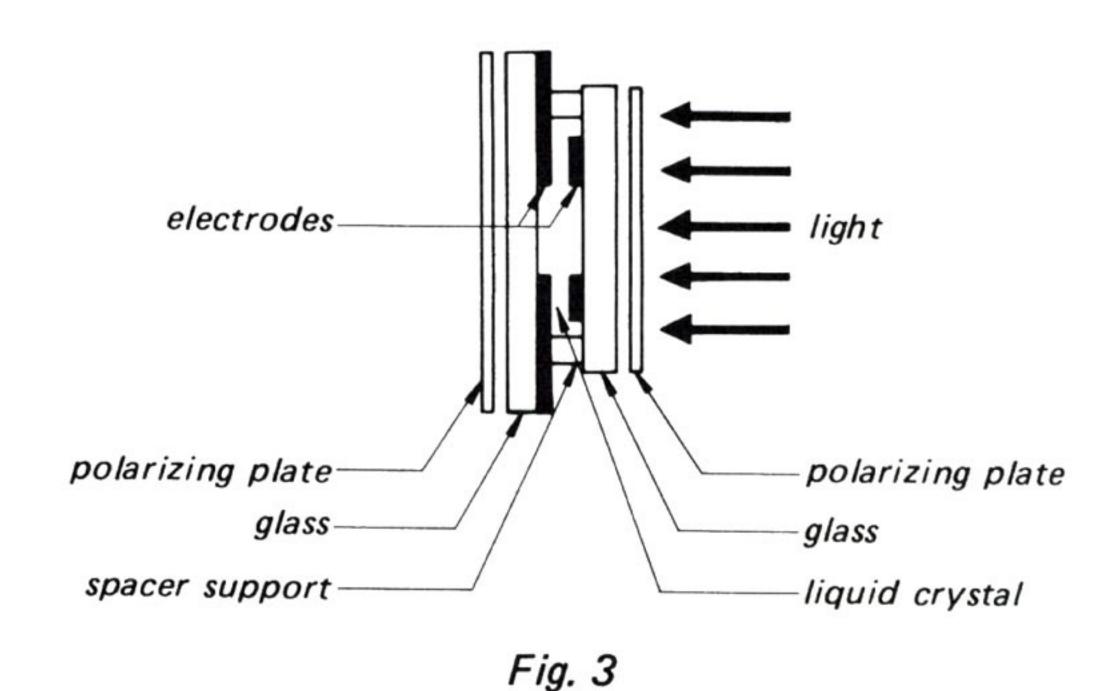


Fig. 2

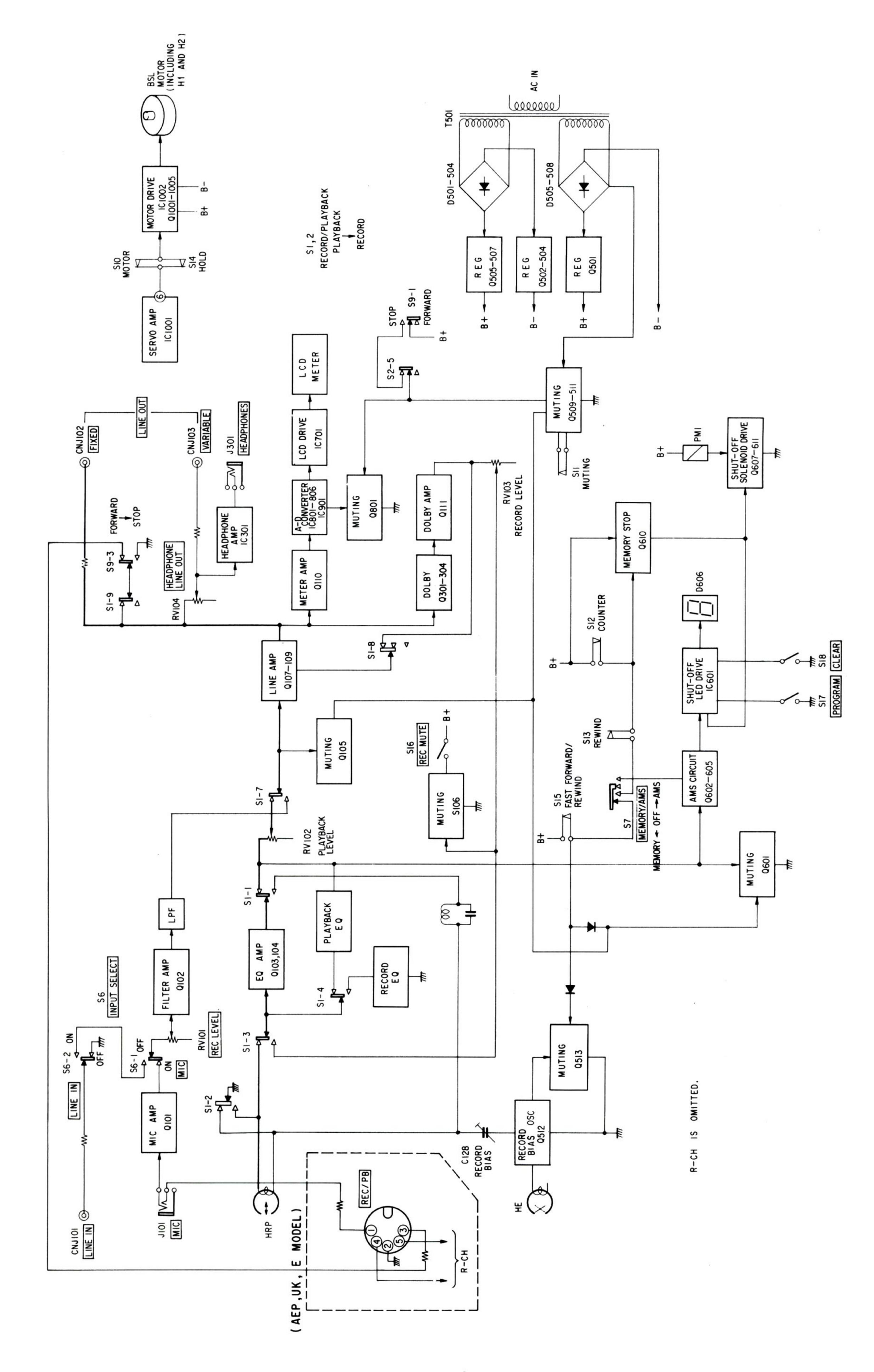
Liquid Crystal Cell with Voltage Applied.

The glass plates employed in this cell are made coated by a transparent, electrically conductive material known as nesa film (which contains indium oxide). The coating is etched to form meter scale. The two plates are separated by a spacing support, and the space between two plates is filled with liquid crystal. The voltage is applied to the electrodes mounted on the inside of the glass plates, and when viewed from the front, the meter display is colored.

The TC-K60 program meter consists of 64 separate elements in both left and right channels. The letters L and R also employ liquid crystal display. The colored polarizing plate is blue below the 0 dB level, and red above it. A fluorescent lamp has been employed as the light source because of the wide light spectrum required for the color display.



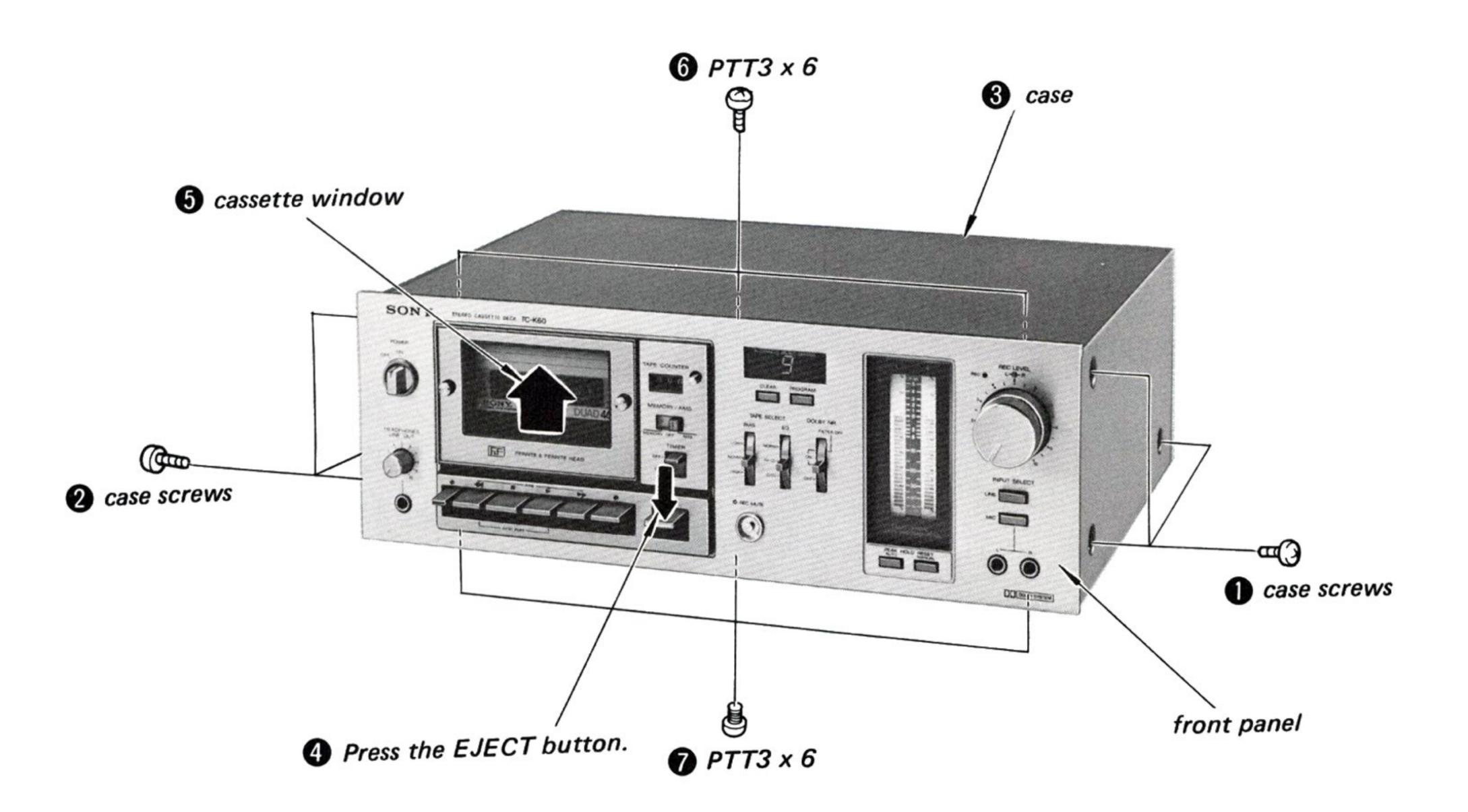
Liquid Crystal Cell Structure



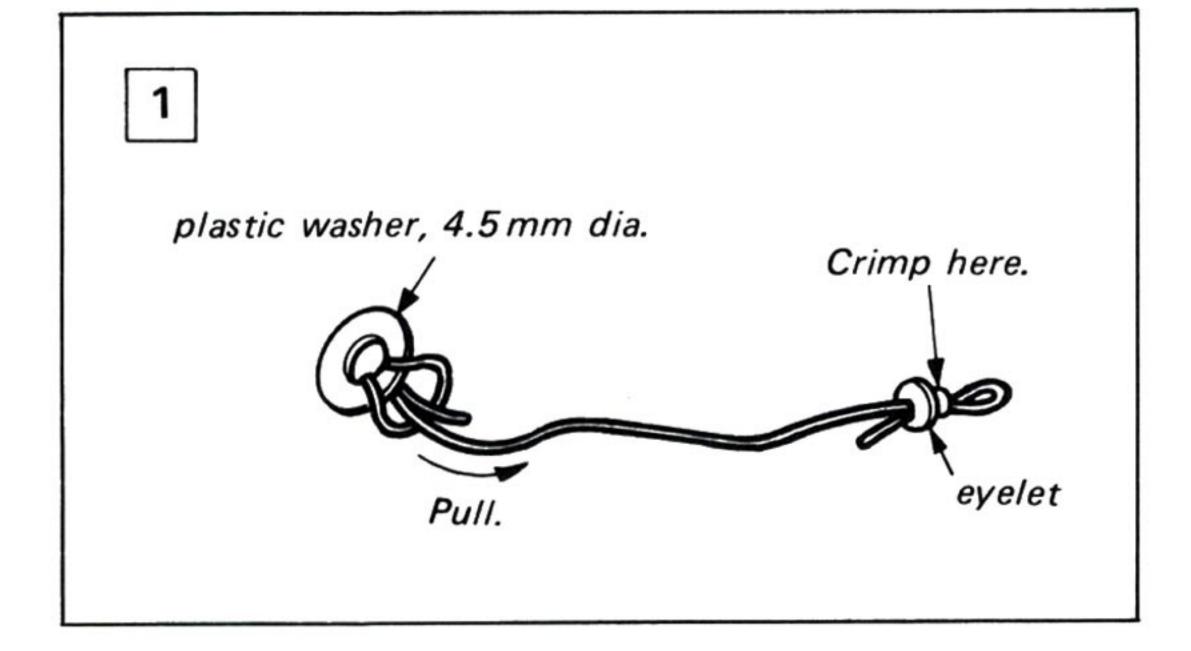
SECTION 2 DISASSEMBLY

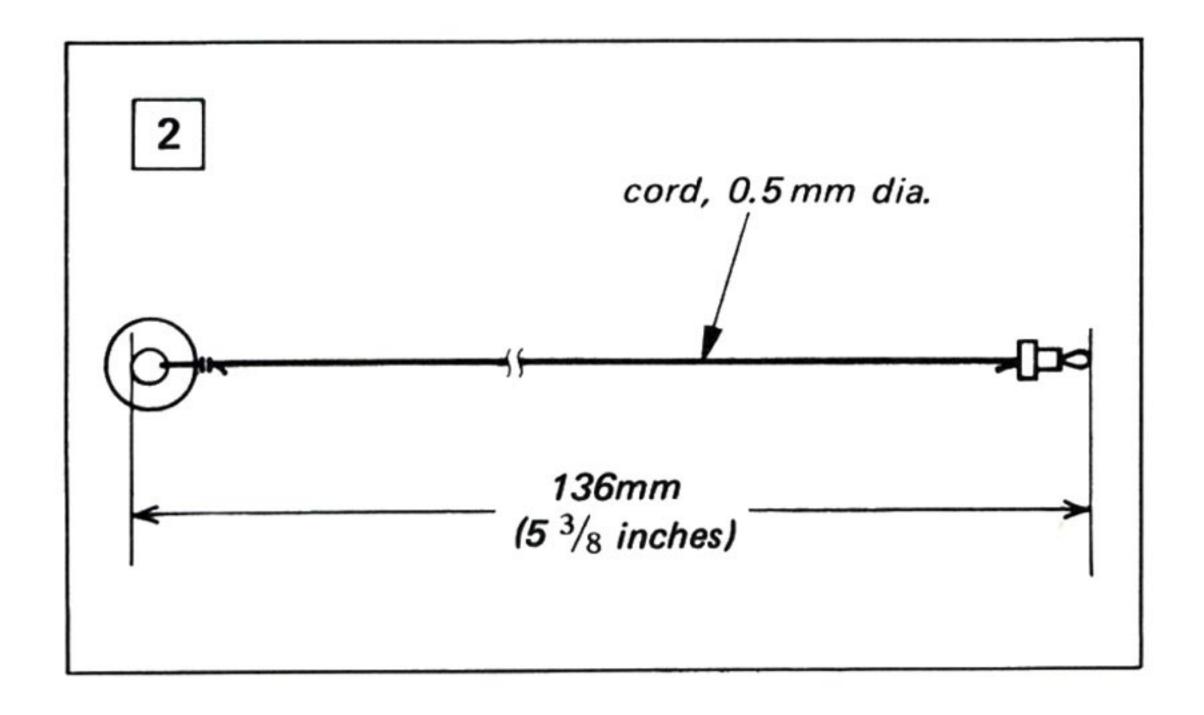
2-1. CASE/CASSETTE WINDOW/FRONT PANEL REMOVAL

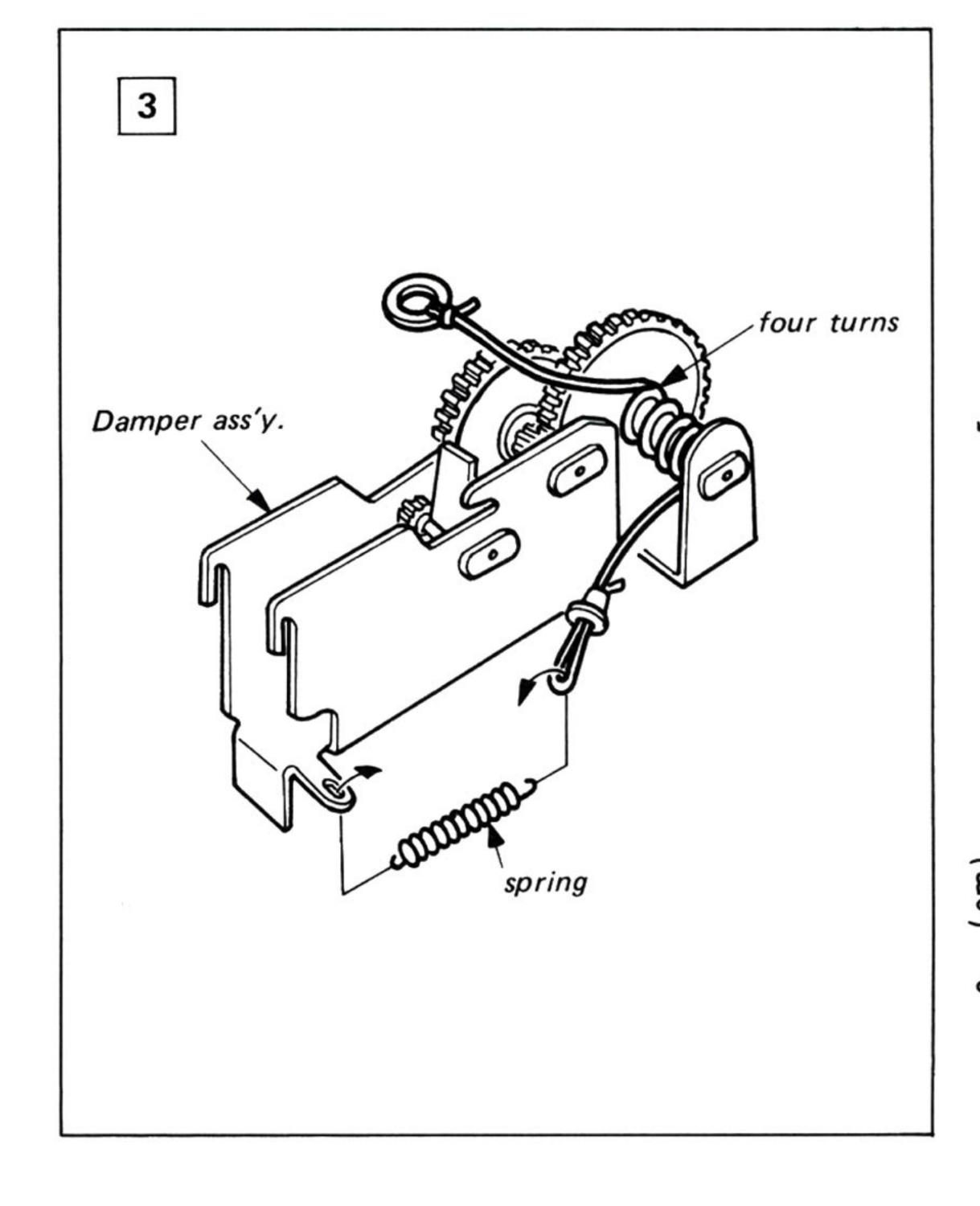
Note: Follow the disassembly procedure in the numerical order given.



2-2. CORD STRINGING OF DAMPER ASS'Y







20

SECTION 3 ADJUSTMENTS

PRECAUTION

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

record/playback head erase head

pinch roller rubber belts

capstan

idlers

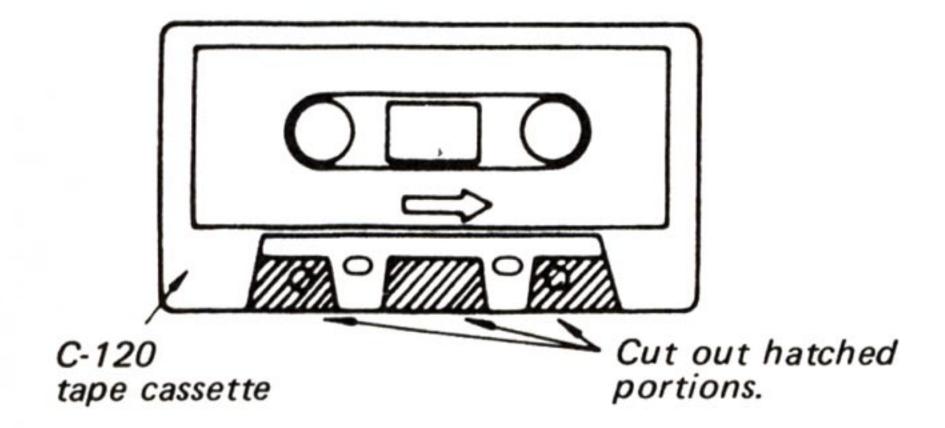
- 2. Demagnetize the record/playback head with a head demagnetizer.
- 3. Do not use a magnetized screwdriver for the adjustments.
- 4. After the adjustments, apply a suitable locking compound to the parts adjusted.
- 5. The adjustments should be performed with the rated power supply voltage unless otherwise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

3-1. MECHANICAL ADJUSTMENTS

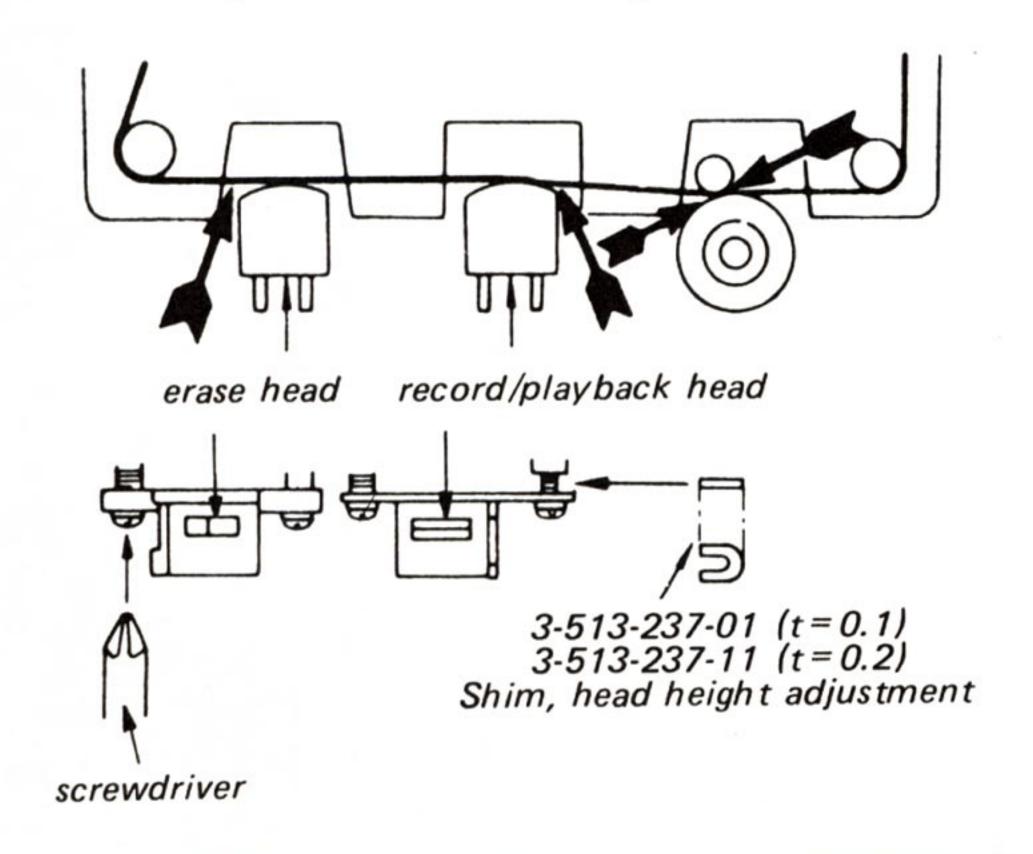
Tape Path Adjustment

- Playback Mode -

1. Make an adjustment cassette as shown below.



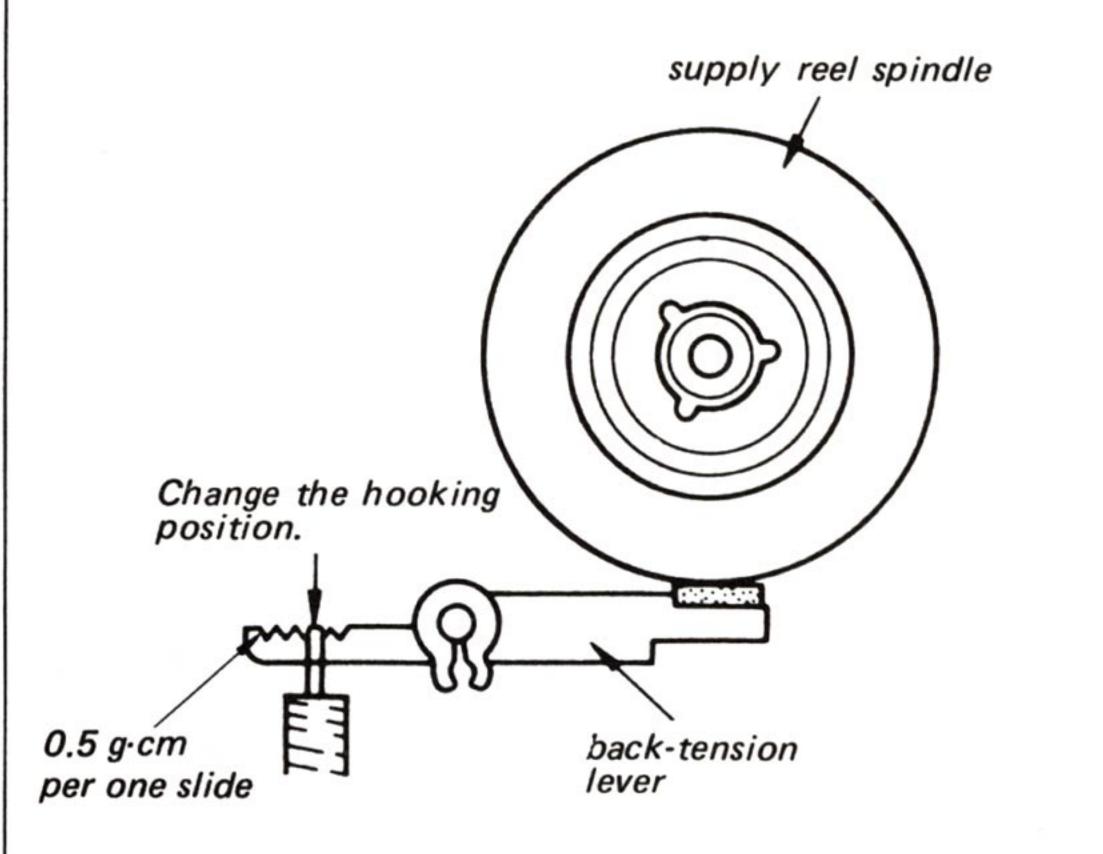
2. In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at arrowed portions.



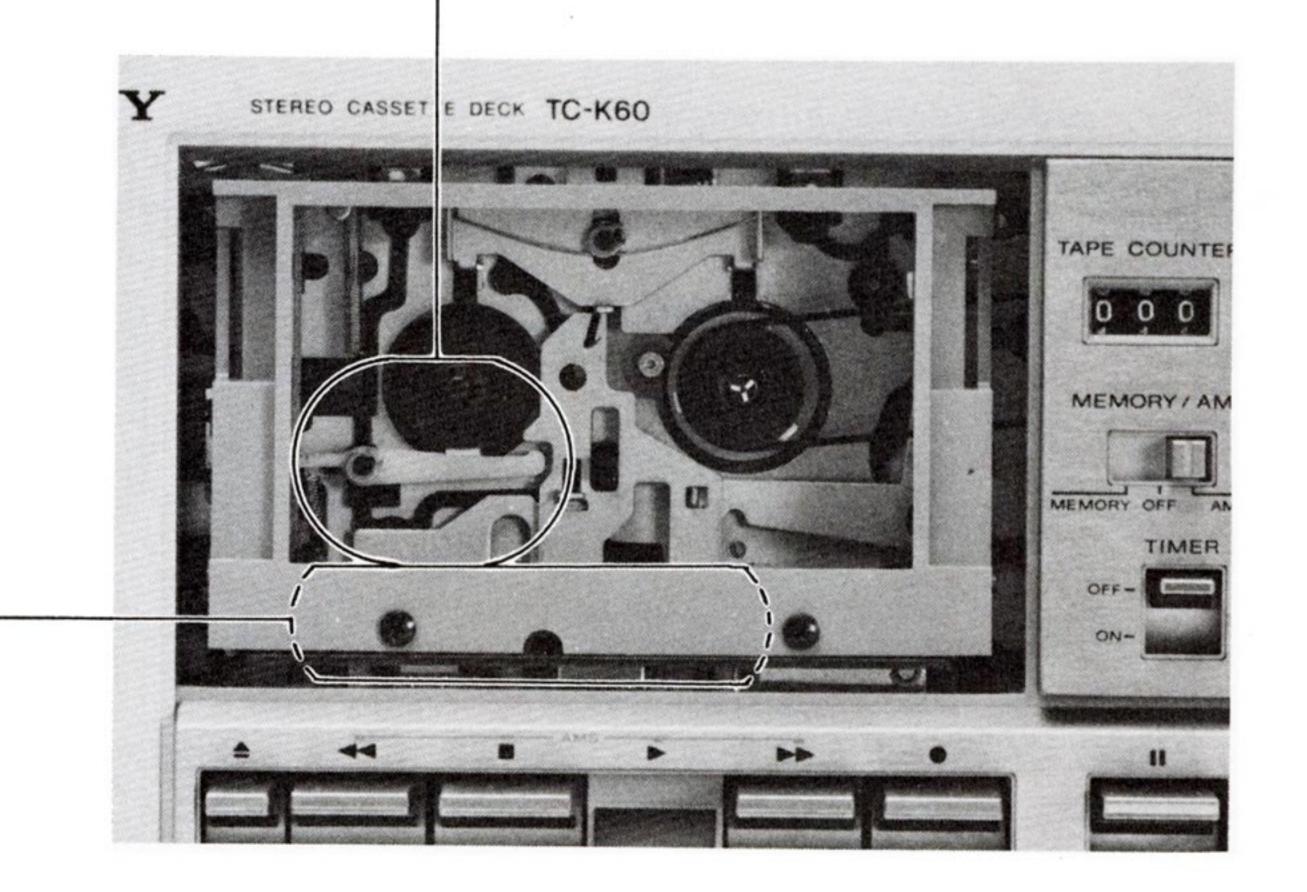
Playback Back Tension Torque Adjustment

Playback Mode –

Use the type CQ-102A cassette torque meter.



Specification: 2-4.5 g·cm (0.03-0.06 oz·inch)



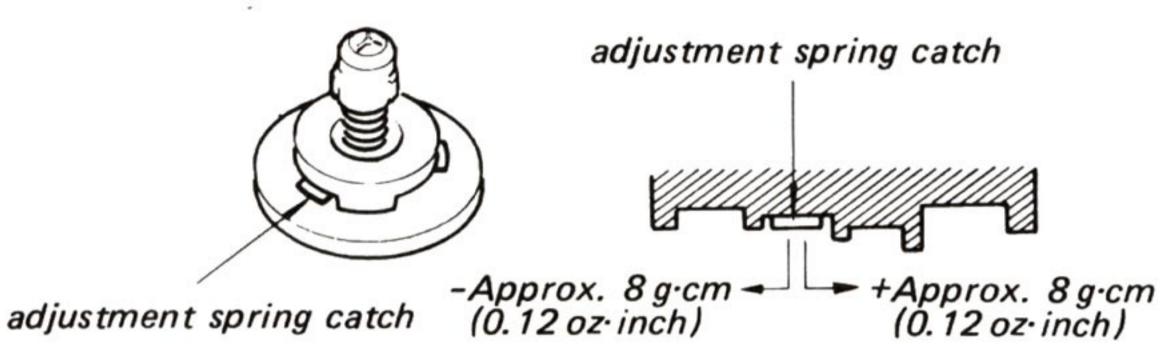
Forward Torque Adjustment

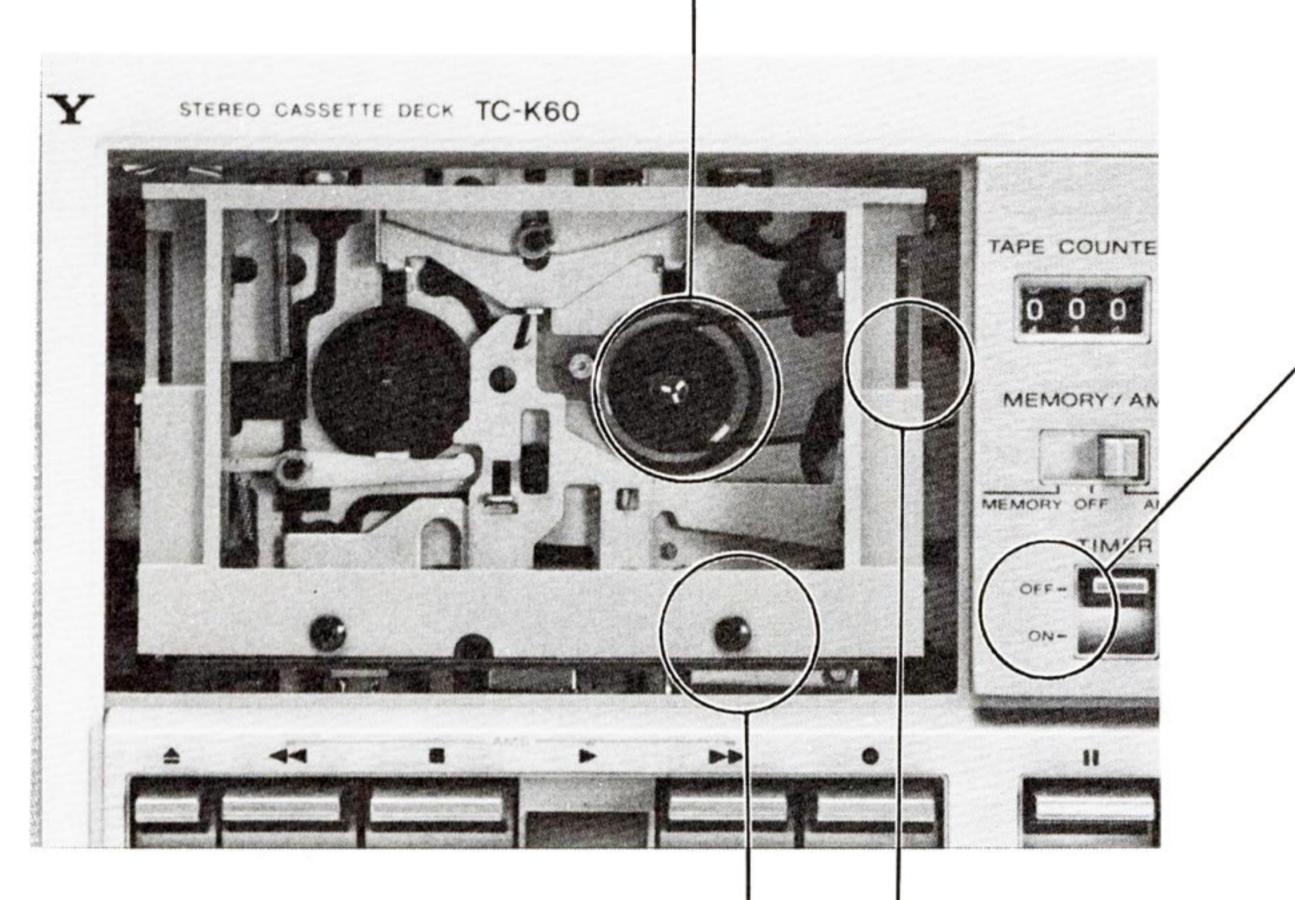
Playback Mode –

- 1. Place the type CQ-102A cassette torque meter in the set.
- 2. Change the position of the adjustment spring catch.

Specification: 28-55 g·cm (0.39-0.77 oz·inch)

take-up reel spindle

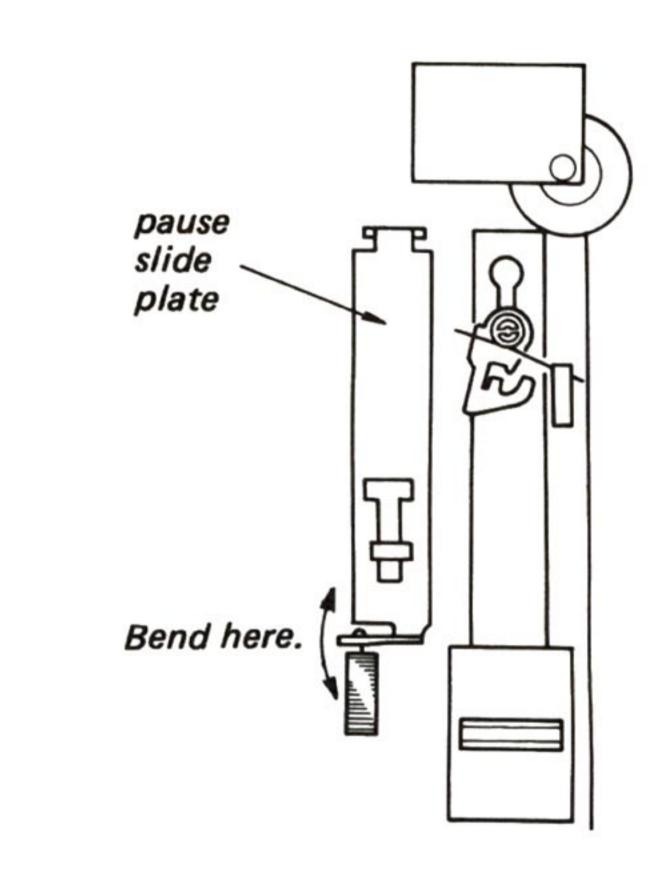




Pause Timing Adjustment

- Playback Mode -

- 1. Press the pause button slowly.
- 2. Bend the pause slide plate so that the take-up reel spindle and the take-up arm separate just when or just after the capstan and the pinch roller separate.

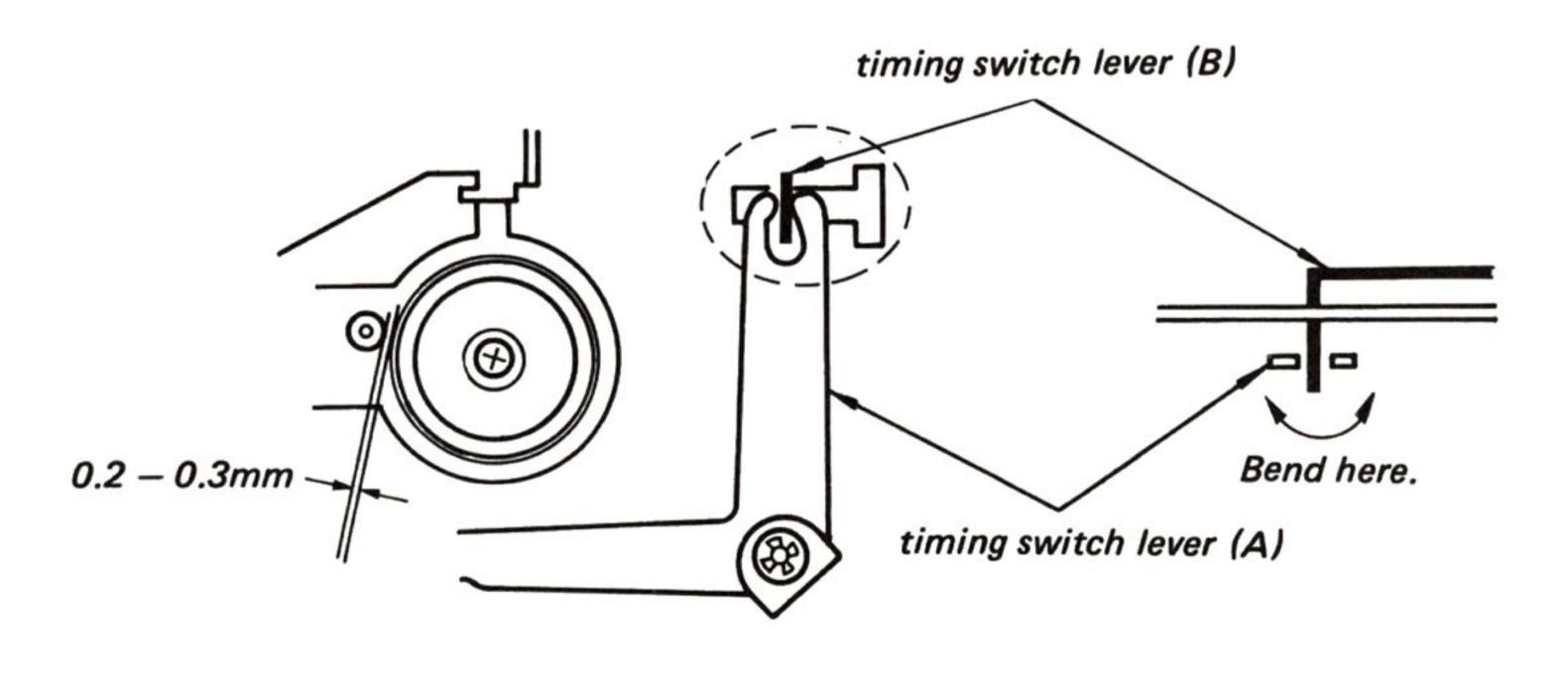


Reference Data

Pinch Roller Pressure: 310-390 g (11-14 oz)

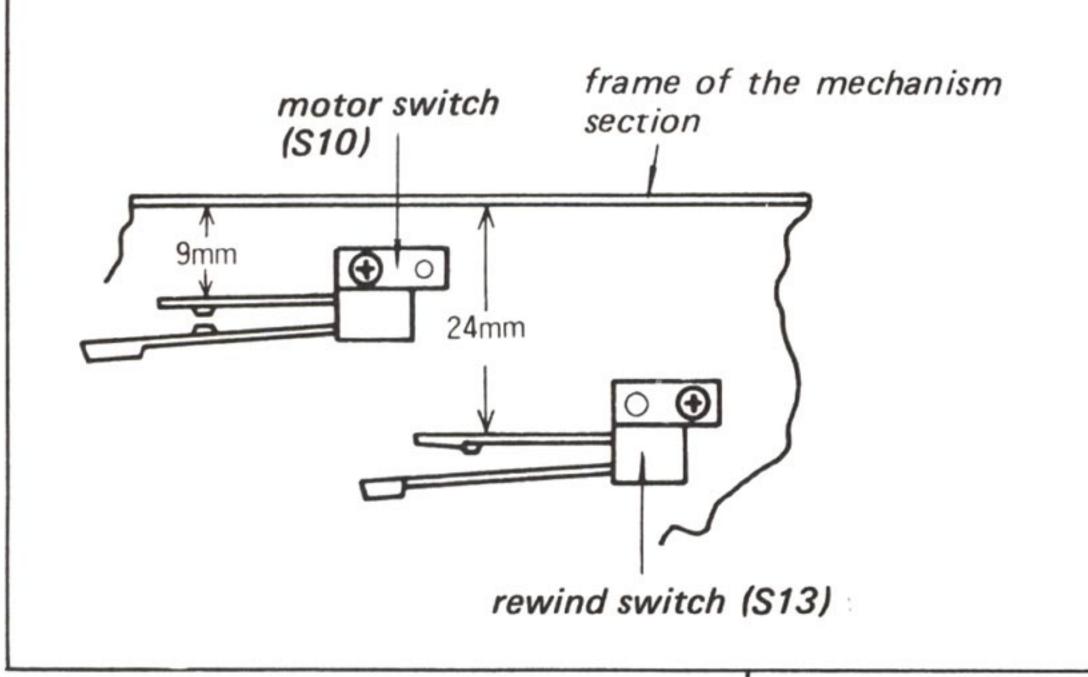
Timing Lever Adjustment

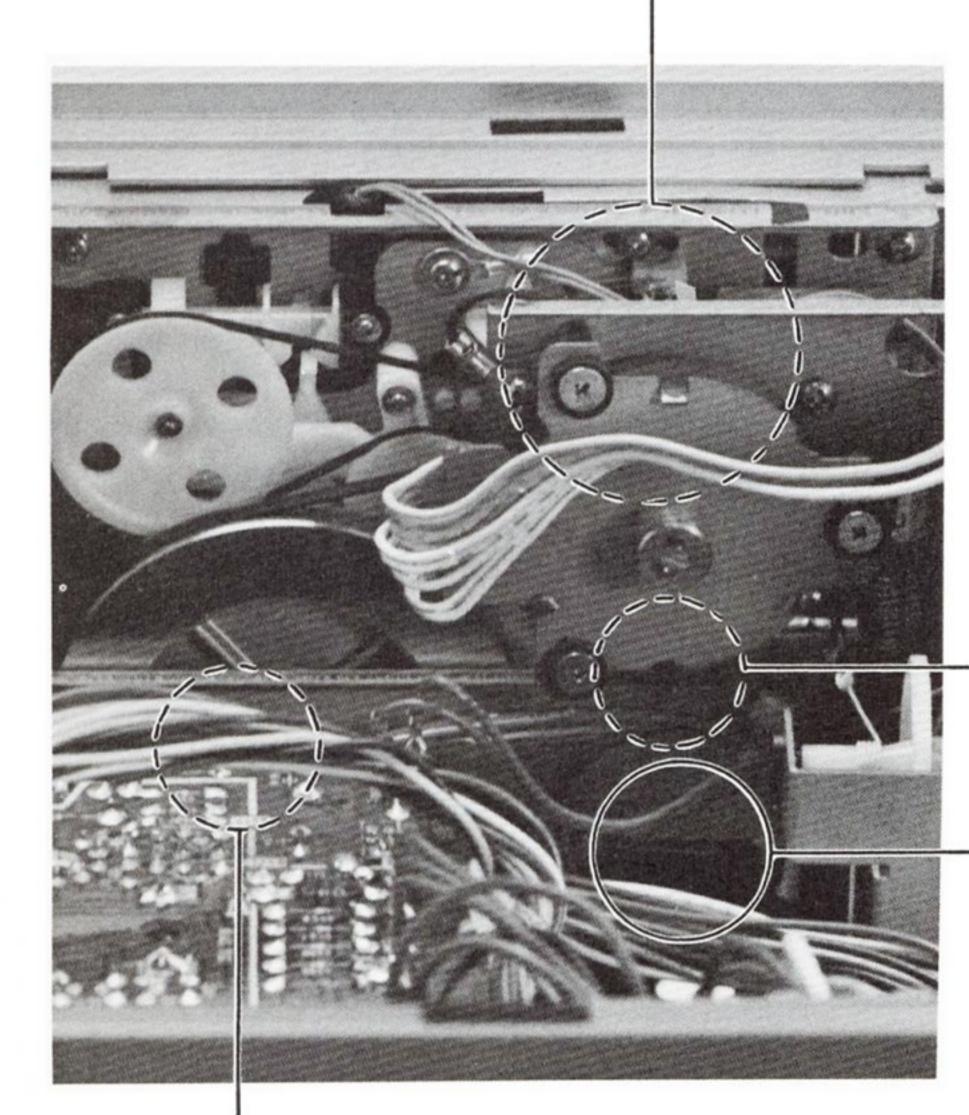
- 1. Press the fast forward and forward buttons together.
- 2. Bend the timing switch lever (B) for the clearance.



Motor Switch (S10) and Rewind Switch (S13) Position Adjustment

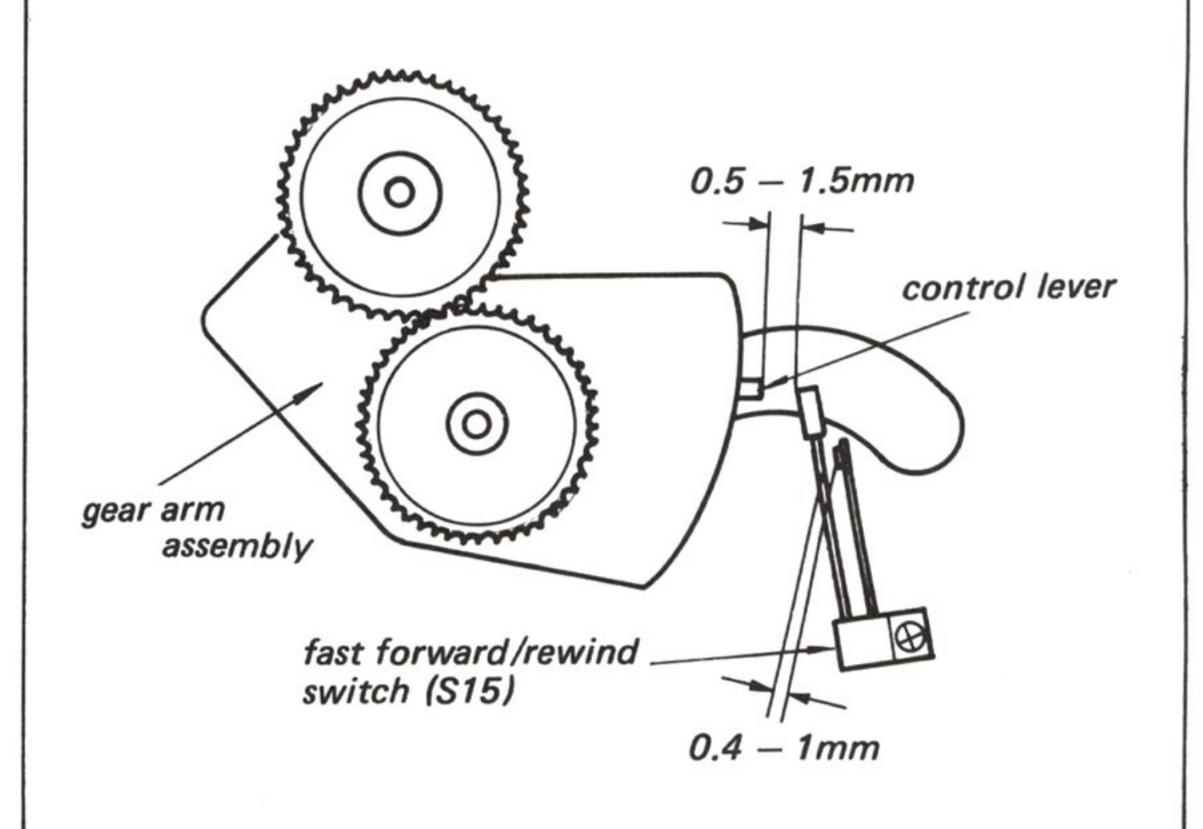
Adjust the positions of switches.





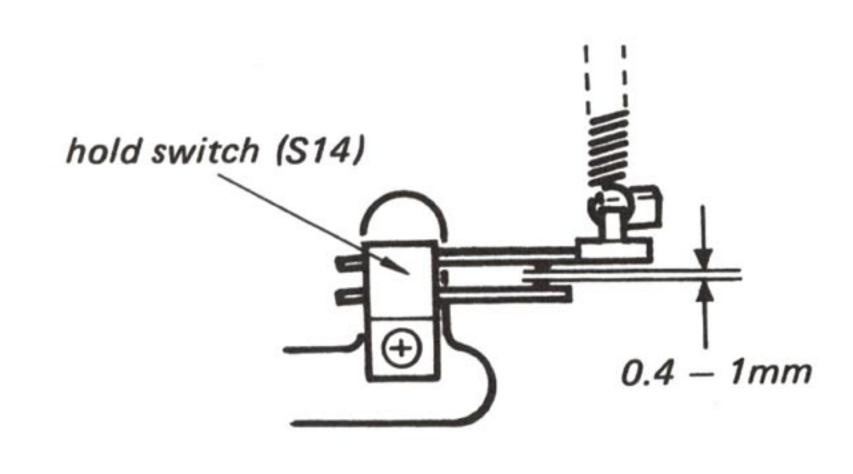
Fast Forward/Rewind Switch (S15) Position Adjustment

Adjust the position of the fast forward/rewind switch (S15).



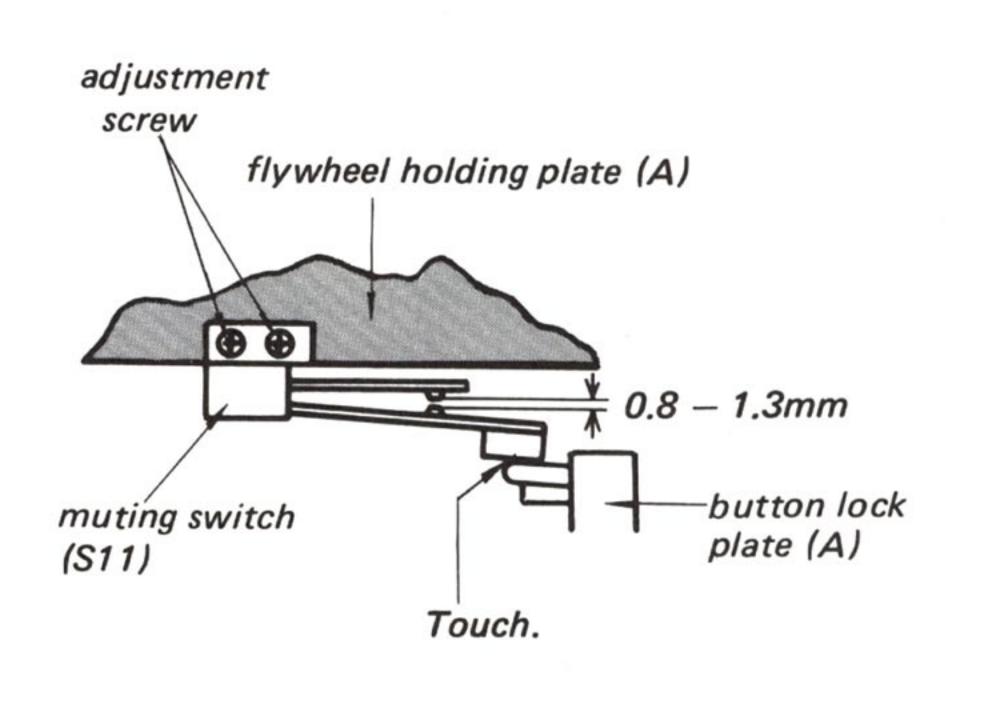
Hold Switch (S14) Position Adjustment

Adjust the position of the hold switch (S14).



Muting Switch (S11) Position Adjustment — stop mode —

Adjust the position of the muting switch (S11).



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.

BIAS and EQ switch settings in accordance with tape used are as follows.

Таре	BIAS switch	EQ switch
CS-10	NORMAL	NORMAL
CS-20	HIGH	CrO2
CS-30	NORMAL	Fe-Cr

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

DOLBY NR switch:

OFF

EQ switch:

NORMAL

BIAS switch:

NORMAL

HEADPHONES/LINE OUT: MAX TIMER switch:

OFF

MEMORY/AMS switch:

OFF

REC MUTE switch:

OFF

Standard Record:

Deliver the standard input signal level to the input jack and set the REC LEVEL controls to obtain the standard output signal level.

Standard Input Level

	MIC	LINE IN
source impedance	300Ω	10kΩ
input level	0.77mV (-60dB)	0.25V (-10dB)

Standard Output Level

	LINE OUT (FIXED)	HEAD- PHONES
load impedance	100kΩ	8Ω
output level	0.44V (-5dB)	62mV (-22dB)

Motor Offset/Gain Adjustment

Setting:

POWER switch:

on

Procedure:

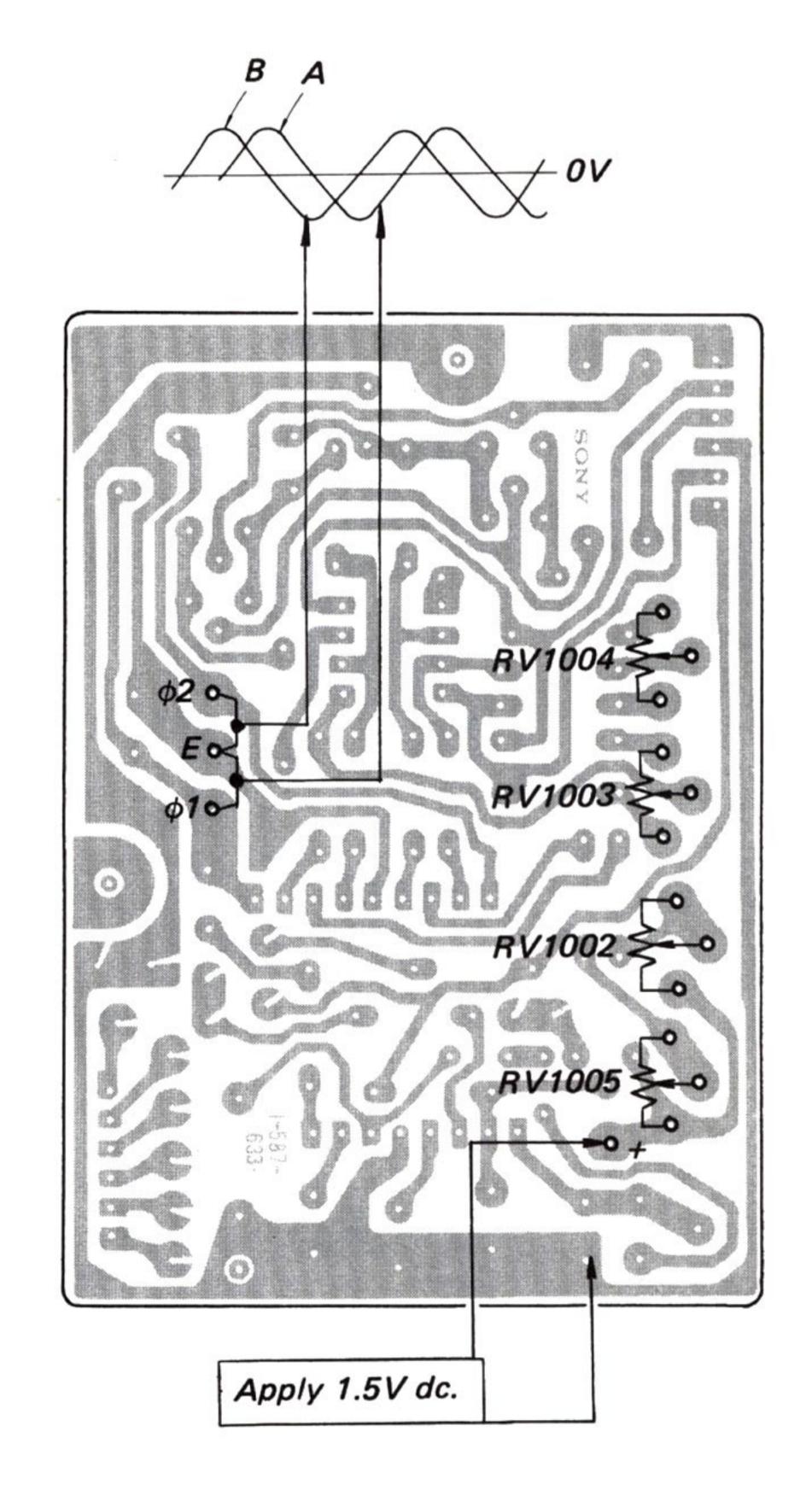
Mode: stop

- 1. Apply 1.5V dc as shown below.
- 2. Adjust RV1003 (for the waveform A) and RV1004 (for the waveform B) for the waveforms as shown below.

3. Adjust RV1002 (for the waveform A) and RV1005 (for the waveform B) to obtain 10V p-p of each waveform.

Adjustment Location:

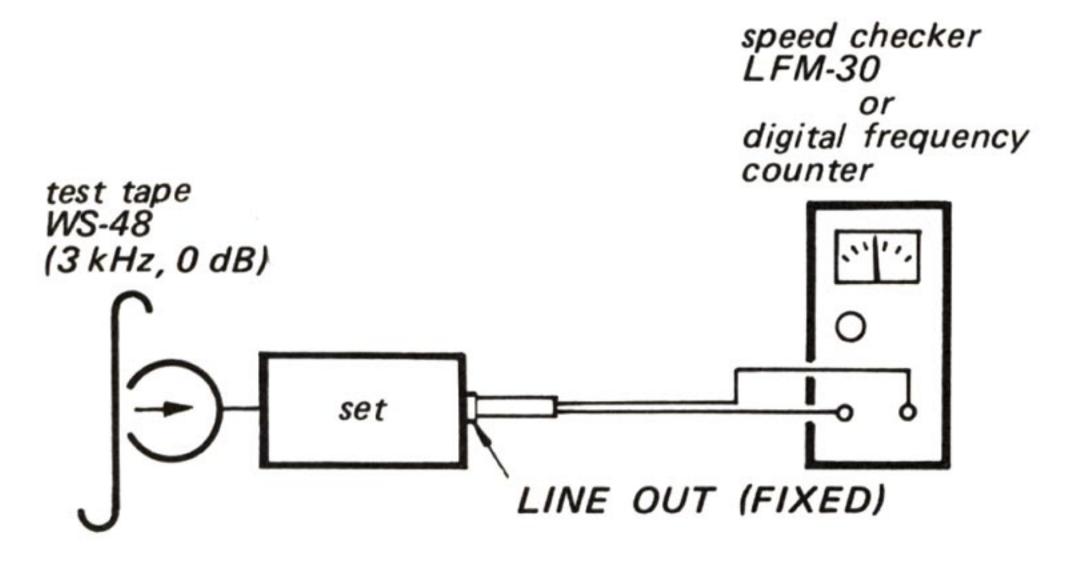
servo amp board —



Tape Speed Adjustment

Procedure:

Mode: playback



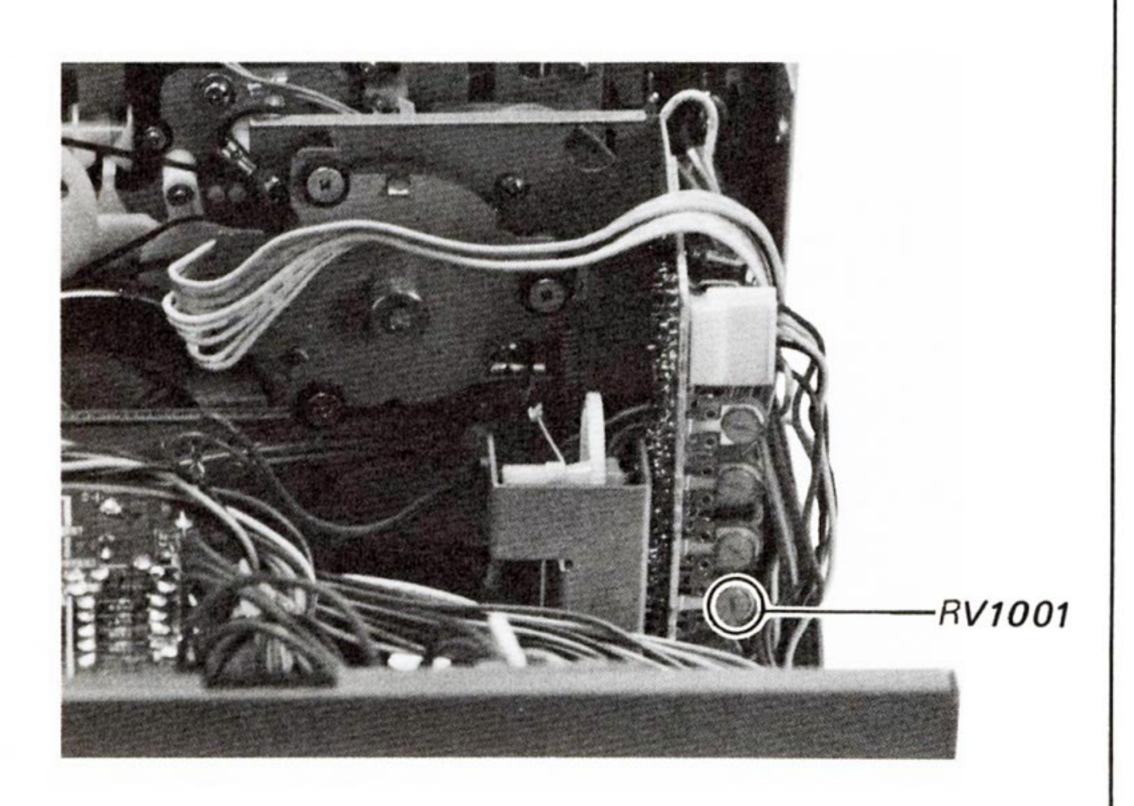
Specification:

Speed checker	Digital frequency counter		
-0.7 - +0.7 %	2,980 - 3,020 Hz		

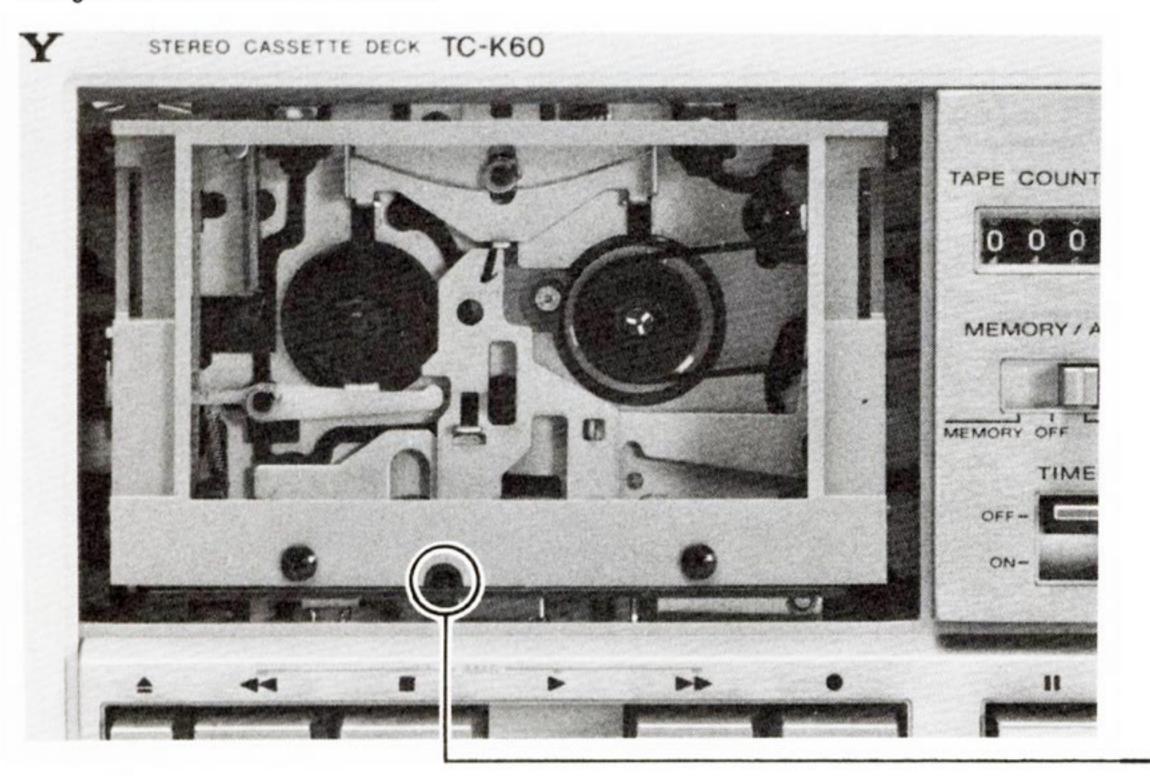
Frequency difference between beginning and end of tape should be within 0.7 % (20 Hz).

Adjustment Location:

- servo amp board -



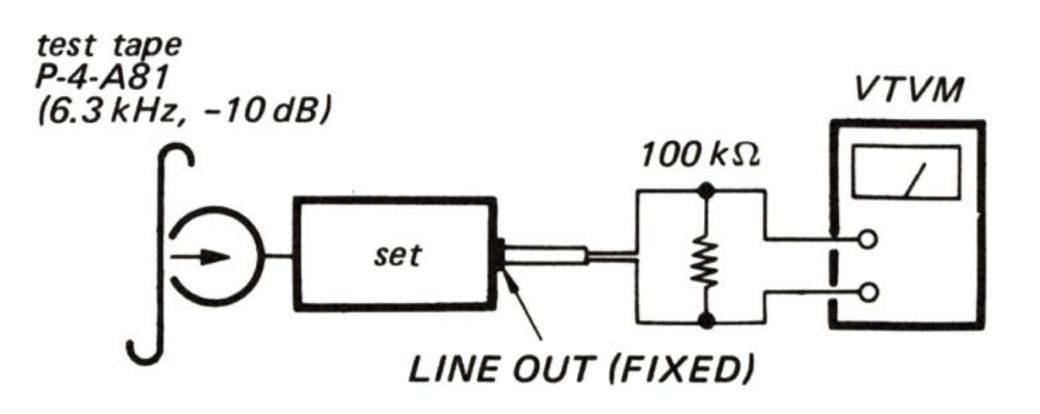
Adjustment Location:



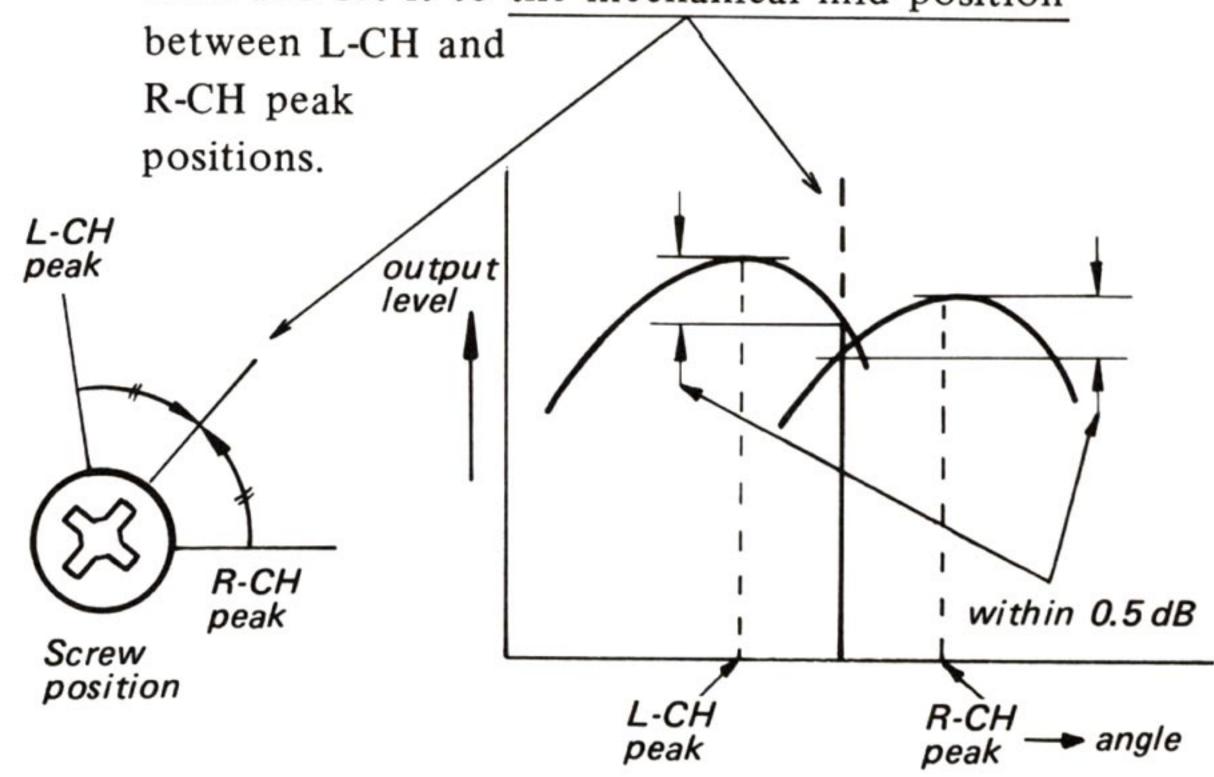
Record/playback Head Azimuth Adjustment

Procedure:

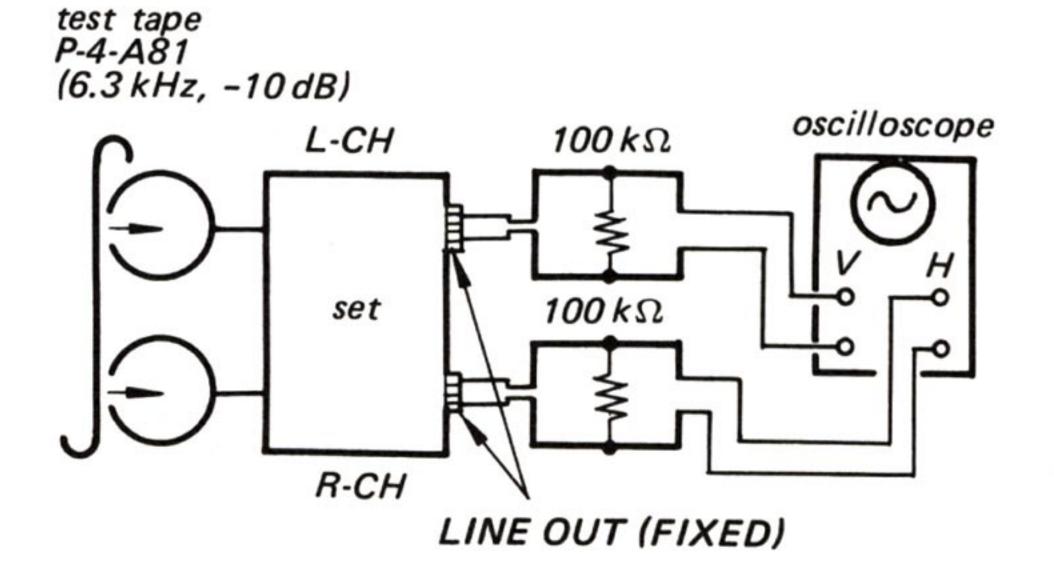
1. Mode: playback

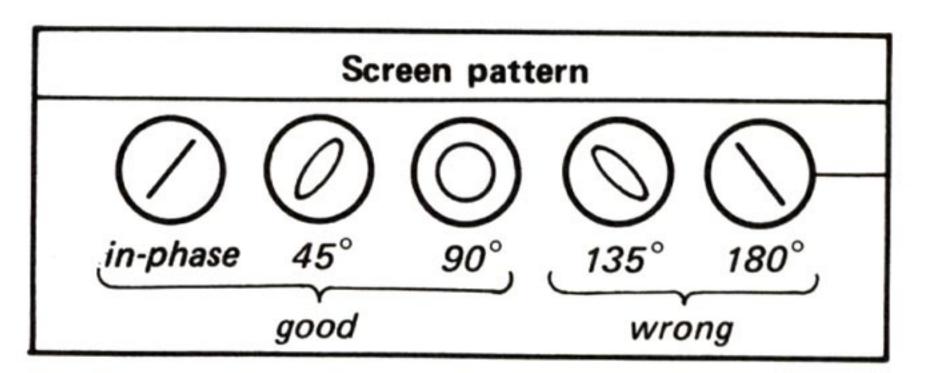


2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position



3. Mode: playback



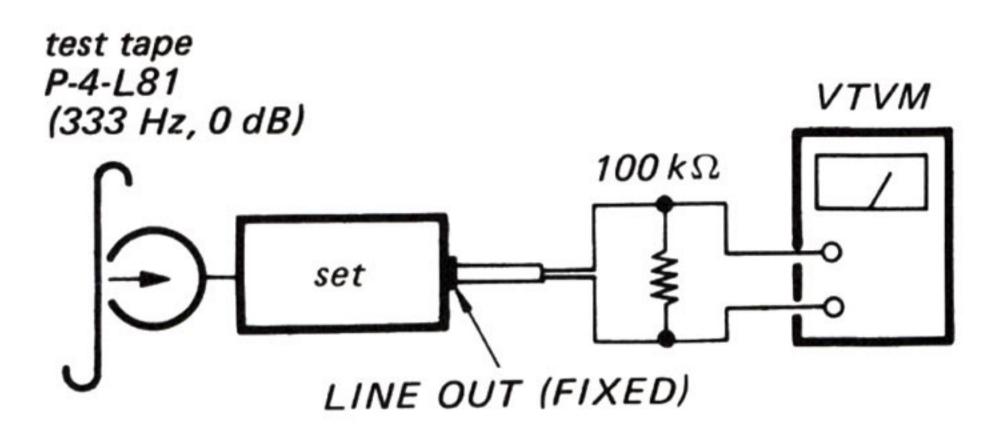


adjustment screw

Playback Level Adjustment

Procedure:

Mode: playback



Specification:

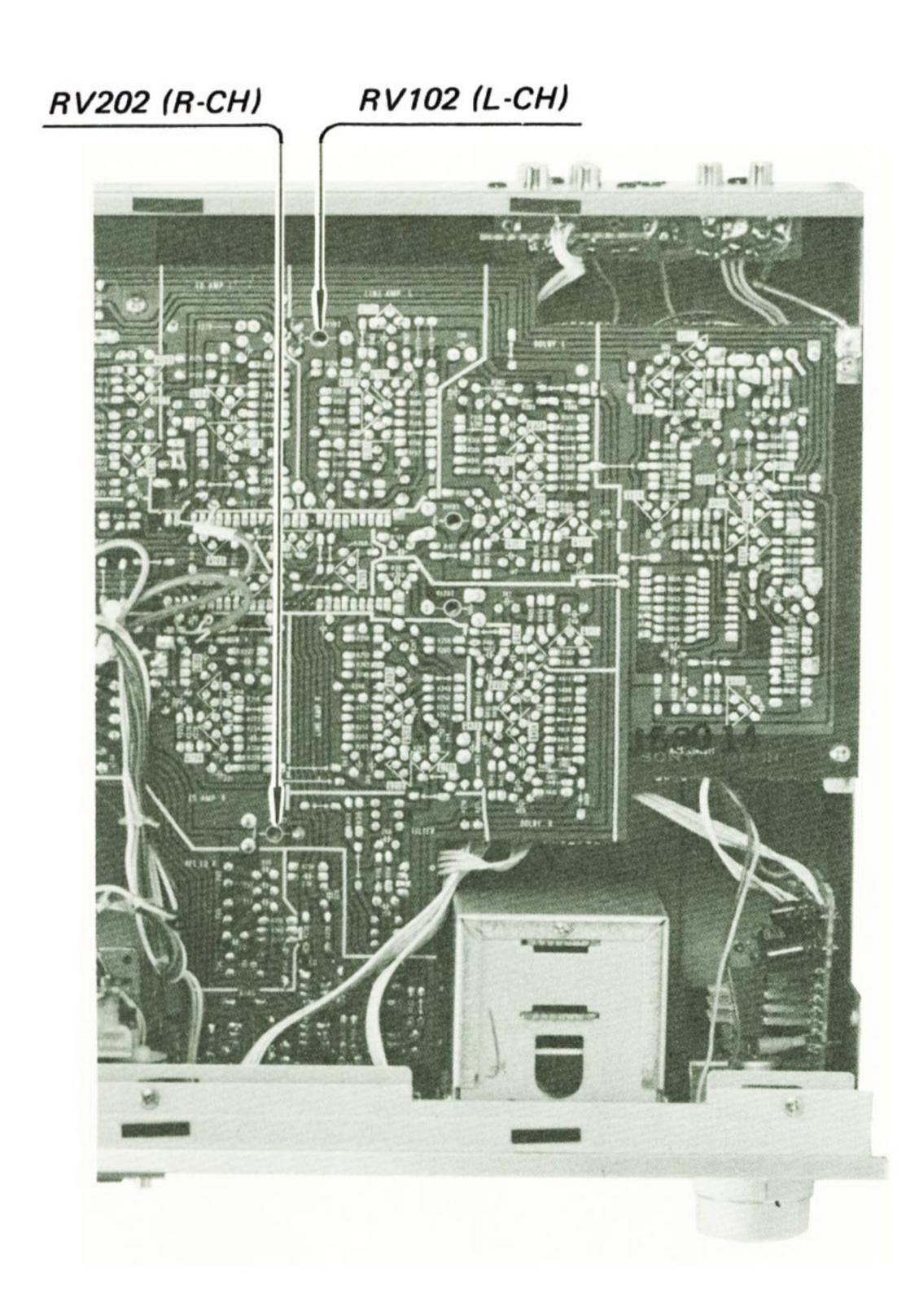
LINE OUT (FIXED) level: 0.52 - 0.59 V

(-3.5 - -2.5 dB)

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

Adjustment Location:

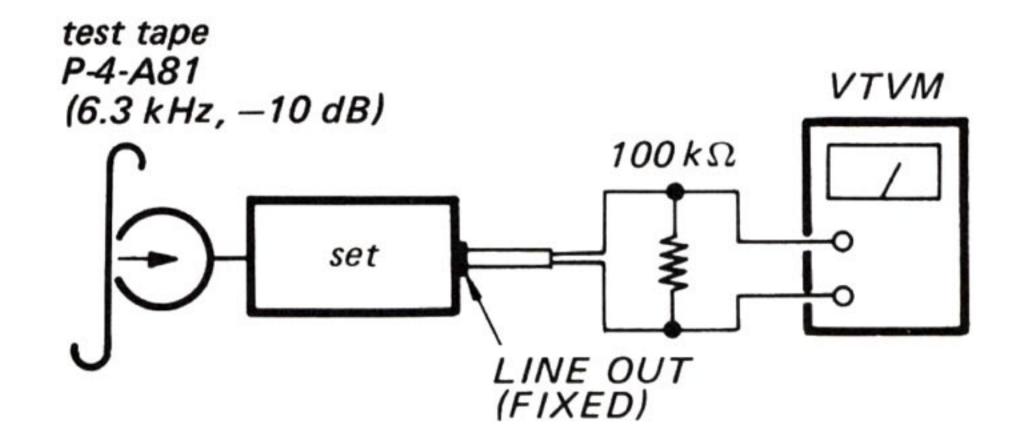
record/playback board —



Playback Equalizer Adjustment

Procedure:

Mode: playback



Specification:

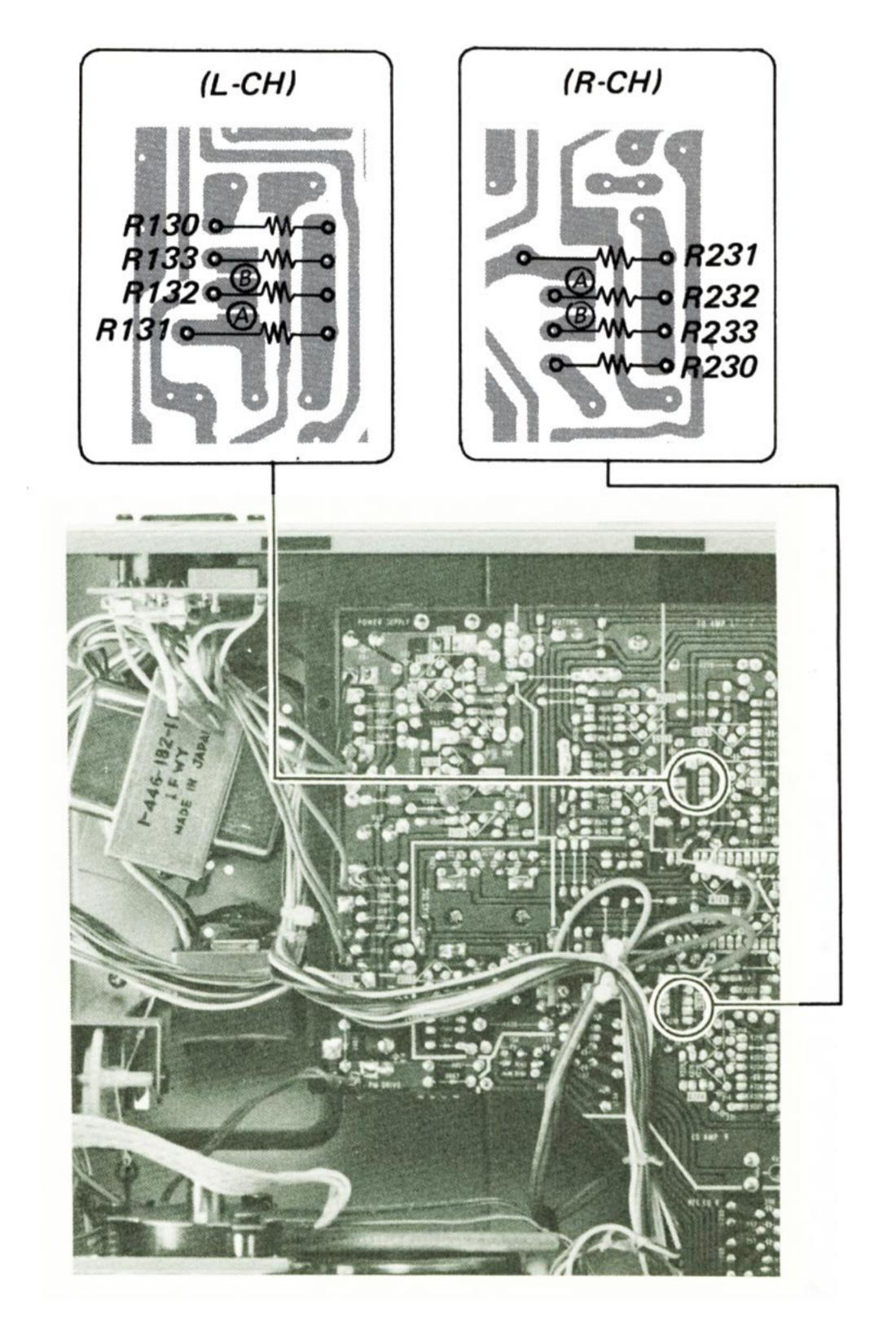
LINE OUT (FIXED) level: 0.15 - 0.19 V

(-14 - -12 dB)

Adjustment Location:

record/playback board —

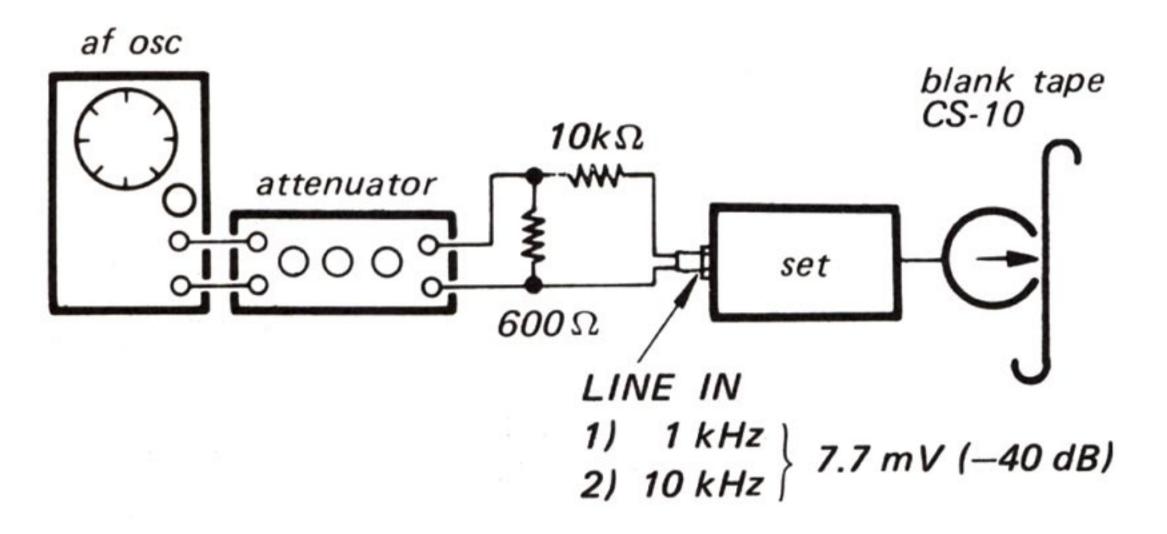
Bridge patterns	High frequency level
(open)	up
A	1
(A) and (B)	down



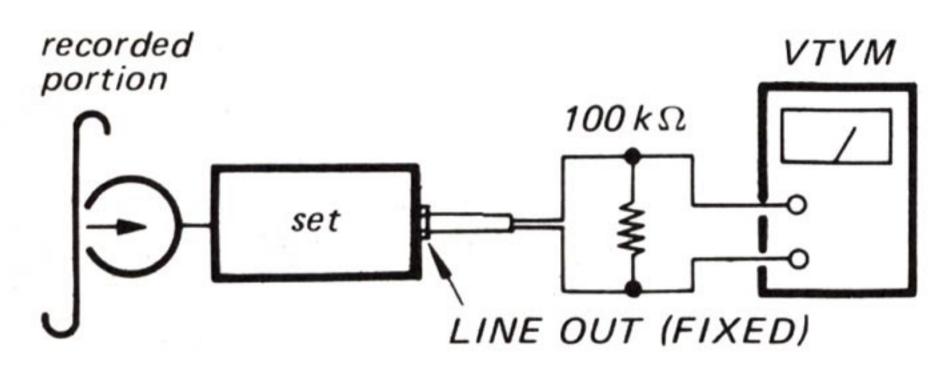
Record Bias Adjustment

Procedure:

1. Mode: standard record (See page 9.)



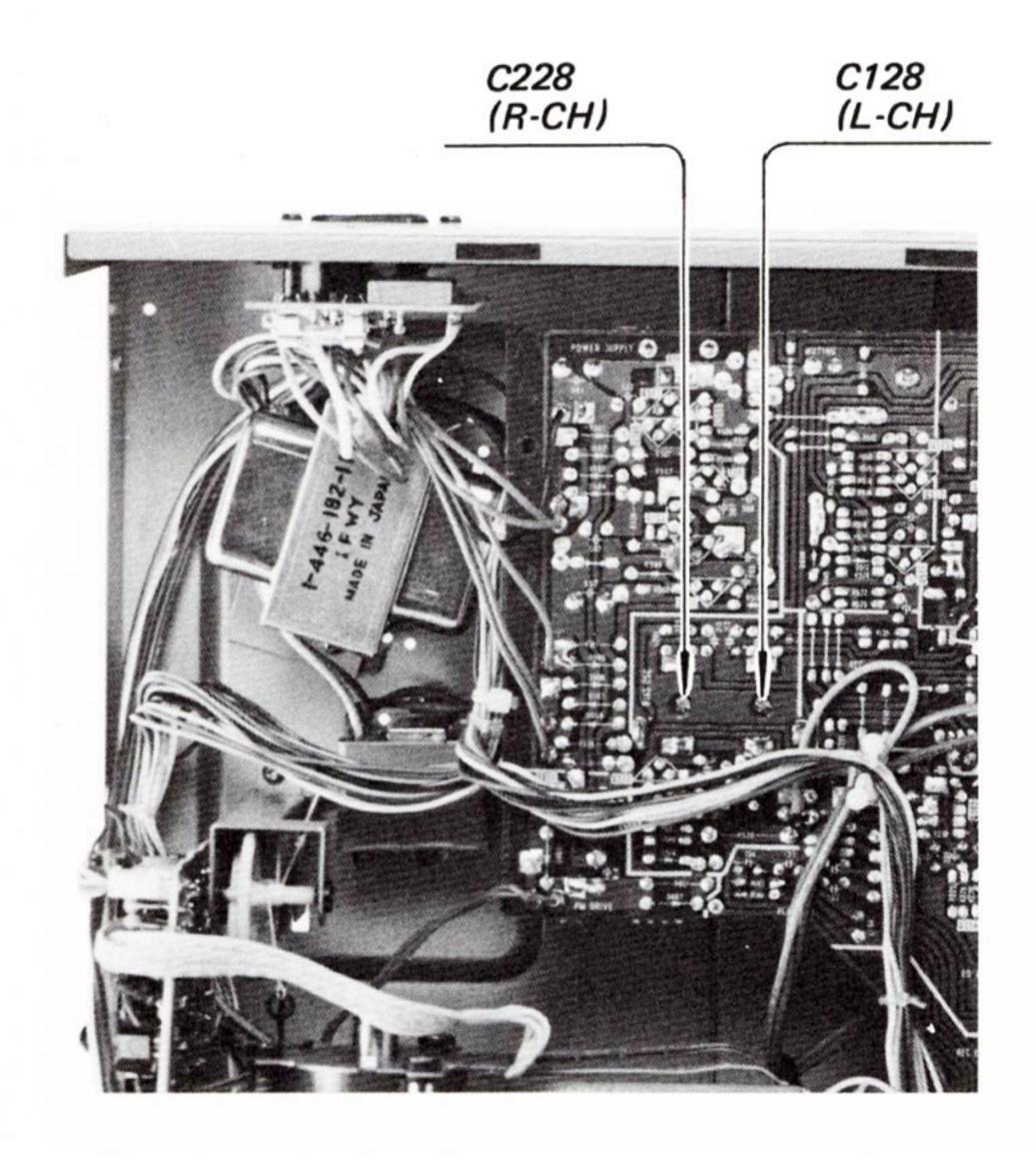
2. Mode: playback



Adjust C128 (L-CH) and C228 (R-CH) to make 1kHz and 10kHz signal output levels equal.

Adjustment Location:

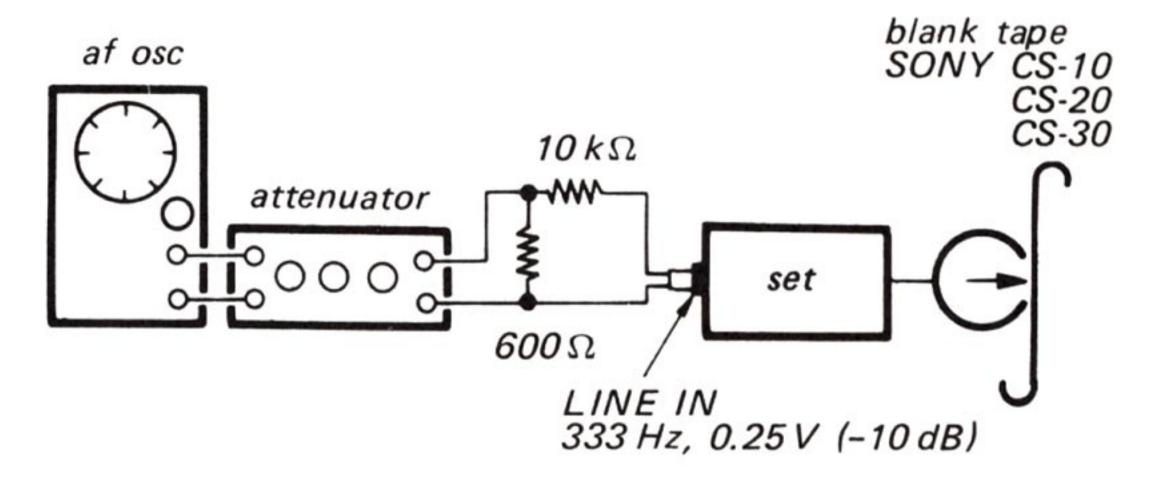
- record/playback board -



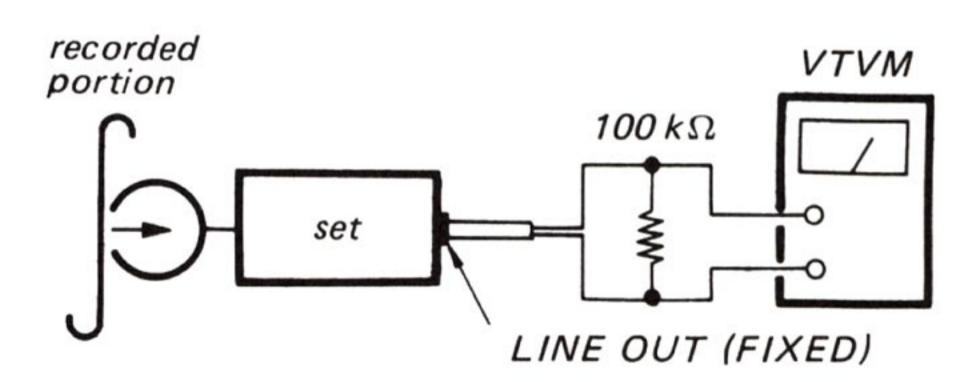
Record Level Adjustment

Procedure:

1. Mode: Standard record (See page 9.)



2. Mode: Playback

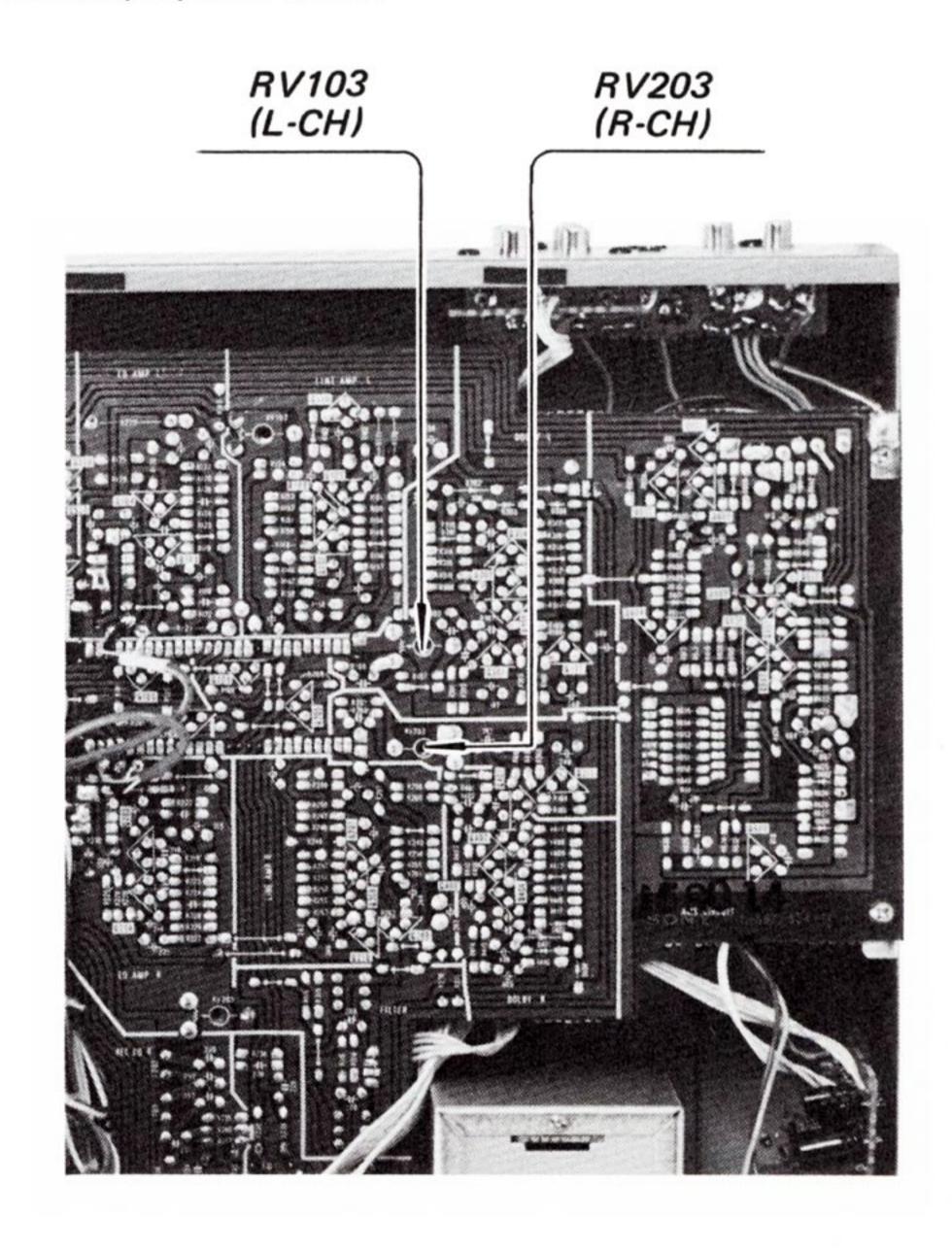


Specification:

Blank Tape	LINE OUT Level			
CS-10	0.41 - 0.46V (-5.5 \sim -4.5dB)			
CS-20 CS-30	0.37 - 0.52V (-6.5 ~ -3.5dB)			

Adjustment Location

- record/playback board -

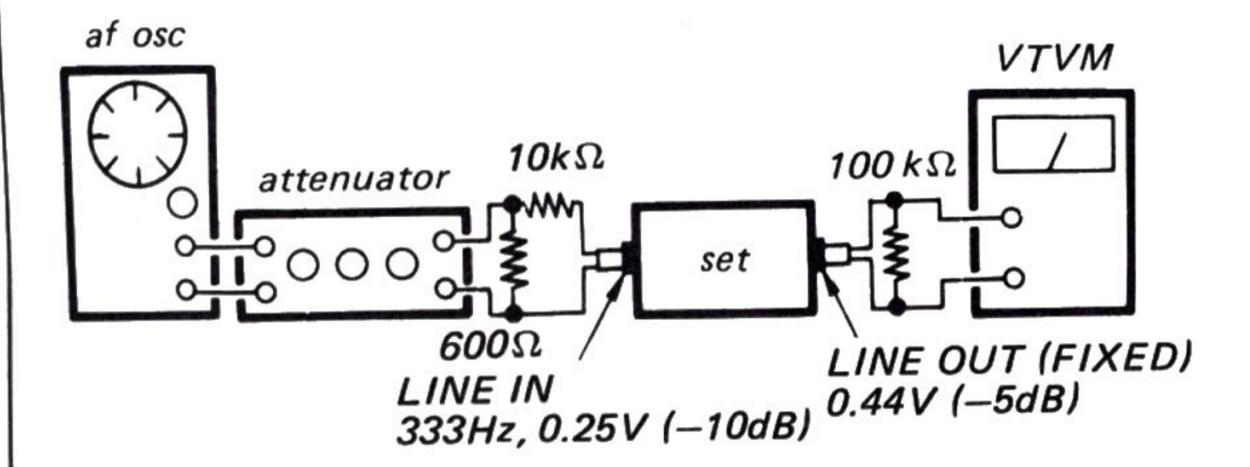


LCD Meter Offset/Gain Adjustment

Procedure:

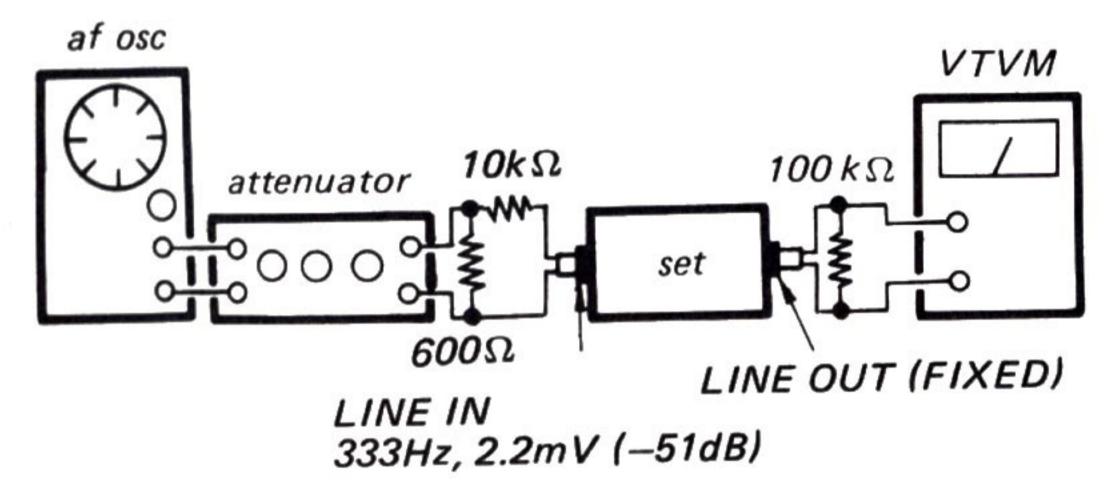
Mode: standard record (See page 9.)

1.



Adjust RV902 (L-CH) and RV903 (R-CH) so that the LCD meter indicates -4dB.

2.

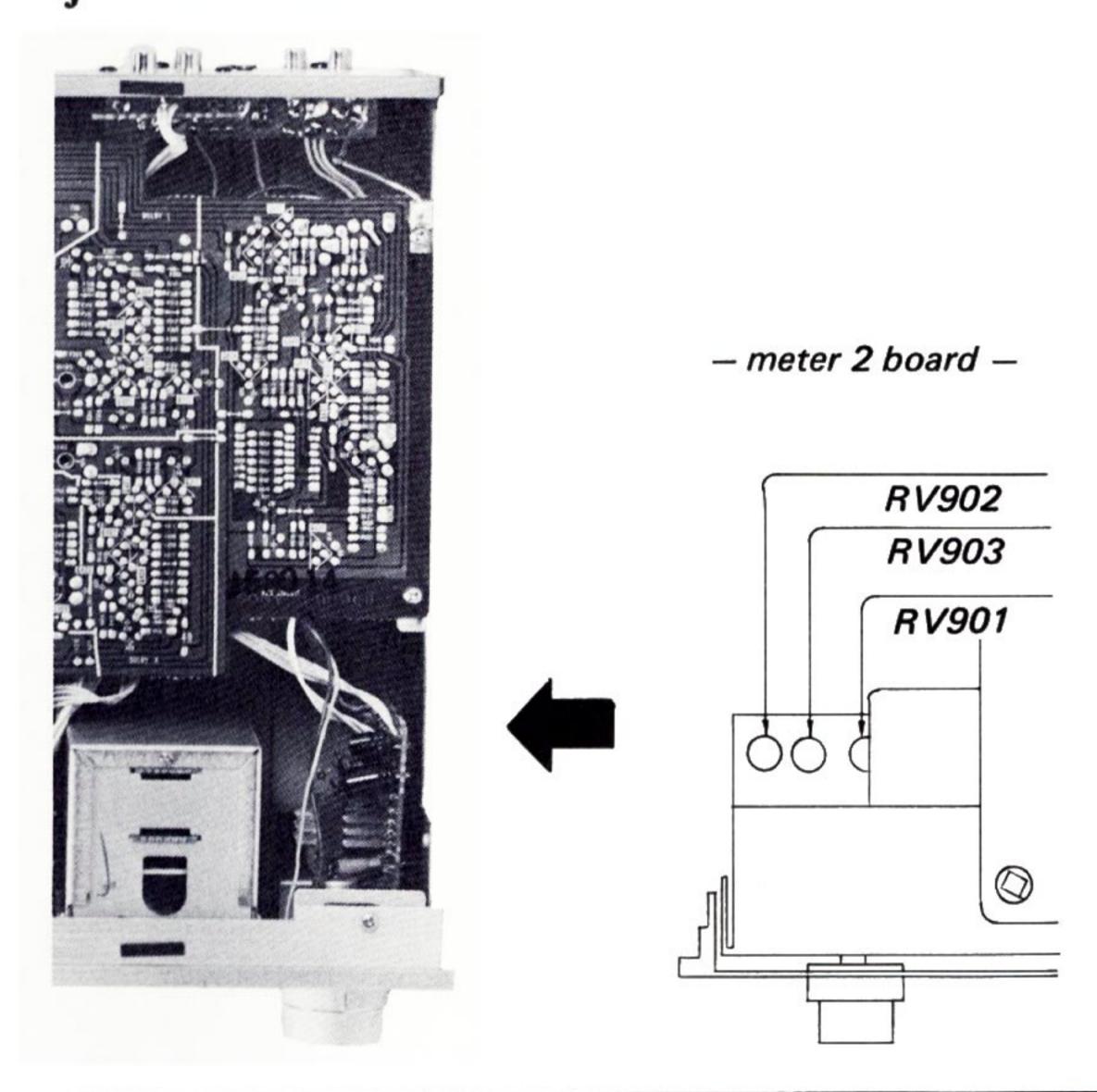


Adjust RV901 so that two elements at the bottom of the scale (for both channel) are illuminated.

Note:

Each adjustable resistor should be turned so that illuminated elements decrease. Then, stop the adjustable resistor just when an element goes out.

Adjustment Location:



.......,...

-15-

0

SECTION 4 DIAGRAMS

Replacement Semiconductors

For replacement, use semiconductors except in (

Q101 — 104, 107, 111 Q201 — 204, 207, 211

Q1003, 1004: 2SA684

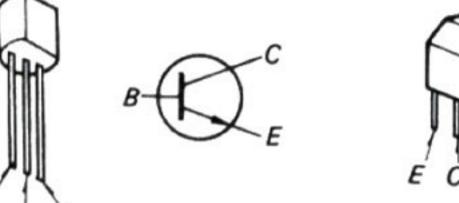
(2SB564)

IC601: MSM5953

16 15 14 13 12 11 10 9 1 2 3 4 5 6 7 8

Q105, 205: 2SC1474

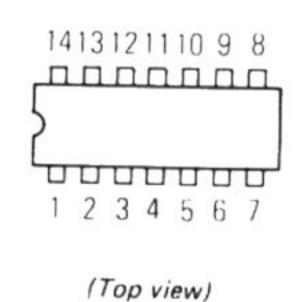
(2SD773)



μPC4557C IC301: **μPC4558C** IC801 - 803, 1002: IC804:

μPC1458C 8 7 6 5 (Top view)

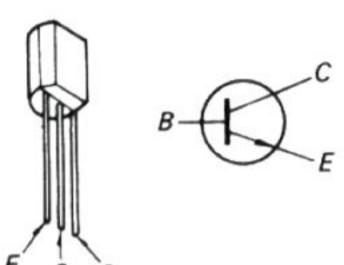
IC805: μPC339C

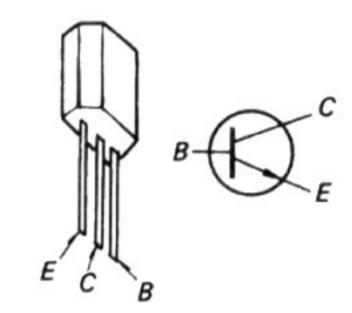


Q106, 206, 301, 401, 509 - 511, 513 Q601, 609, 610, 801, 851, 901, 1001

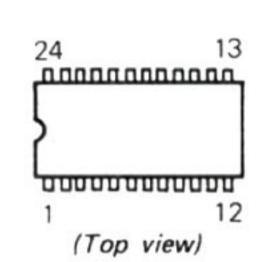
: 2SC1364

(2SC633A)

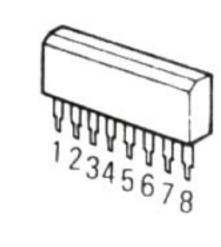




IC901: CX767



IC1001: CX065A



D513: SEL103R

cathode

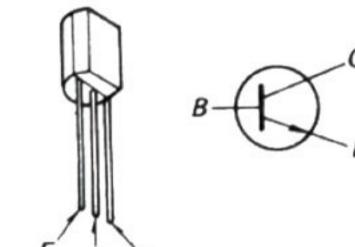
Q108 - 110, 208 - 210, 302 - 304

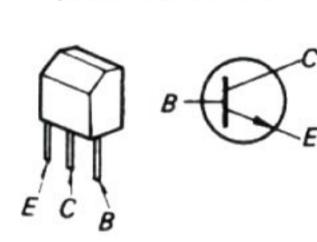
Q402 - 404, 504, 507, 508, 602

Q603, 605, 607, 608

: 2SC1364

(2SC458A)





D301, 303, 304, 401

D403, 404, 511, 512

D514, 601 - 604, 608

D302, 402

D501 - 508, 605, 607

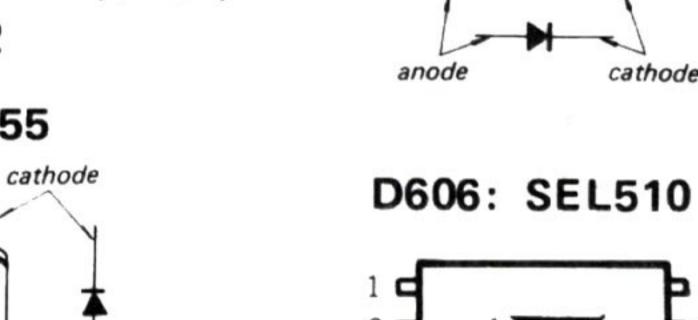
D801 - 805, 851 - 855 D901

: 1S1555 (1T40)

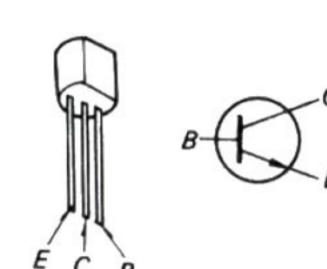
anode

: 1T22AM (1T22) : 10E2

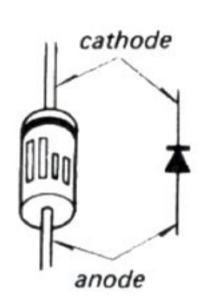
: 1S1555



Q501, 512: 2SC1475 (2SC1318)

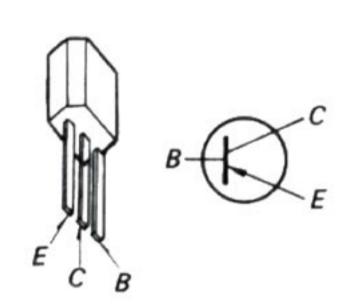


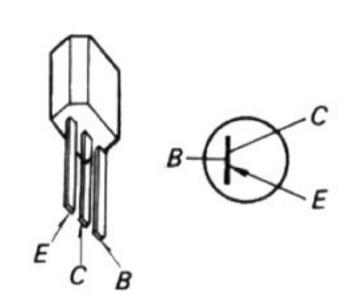
D509: EQB01-08 (EQA01-08R) D510: EQB01-15 (EQA01-15R)



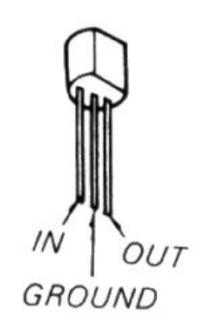
Q502, 503, 604: 2SA678

(2SA844)

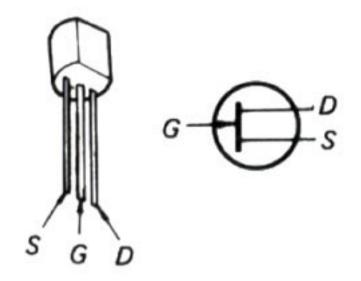




IC806: TA78L010

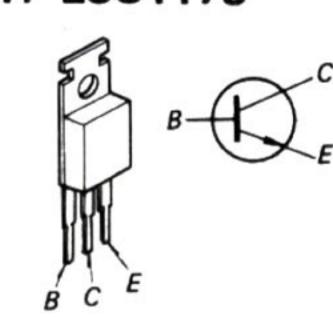


Q505: 2SK30A



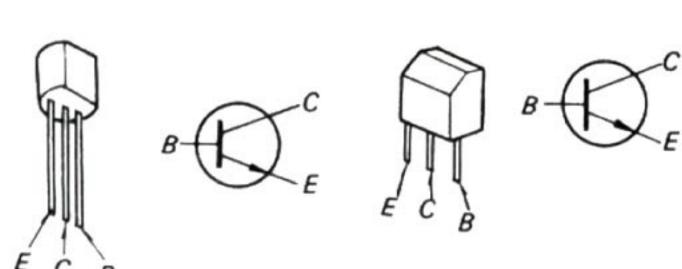
Q506: 2SC1061 (2SC1419)

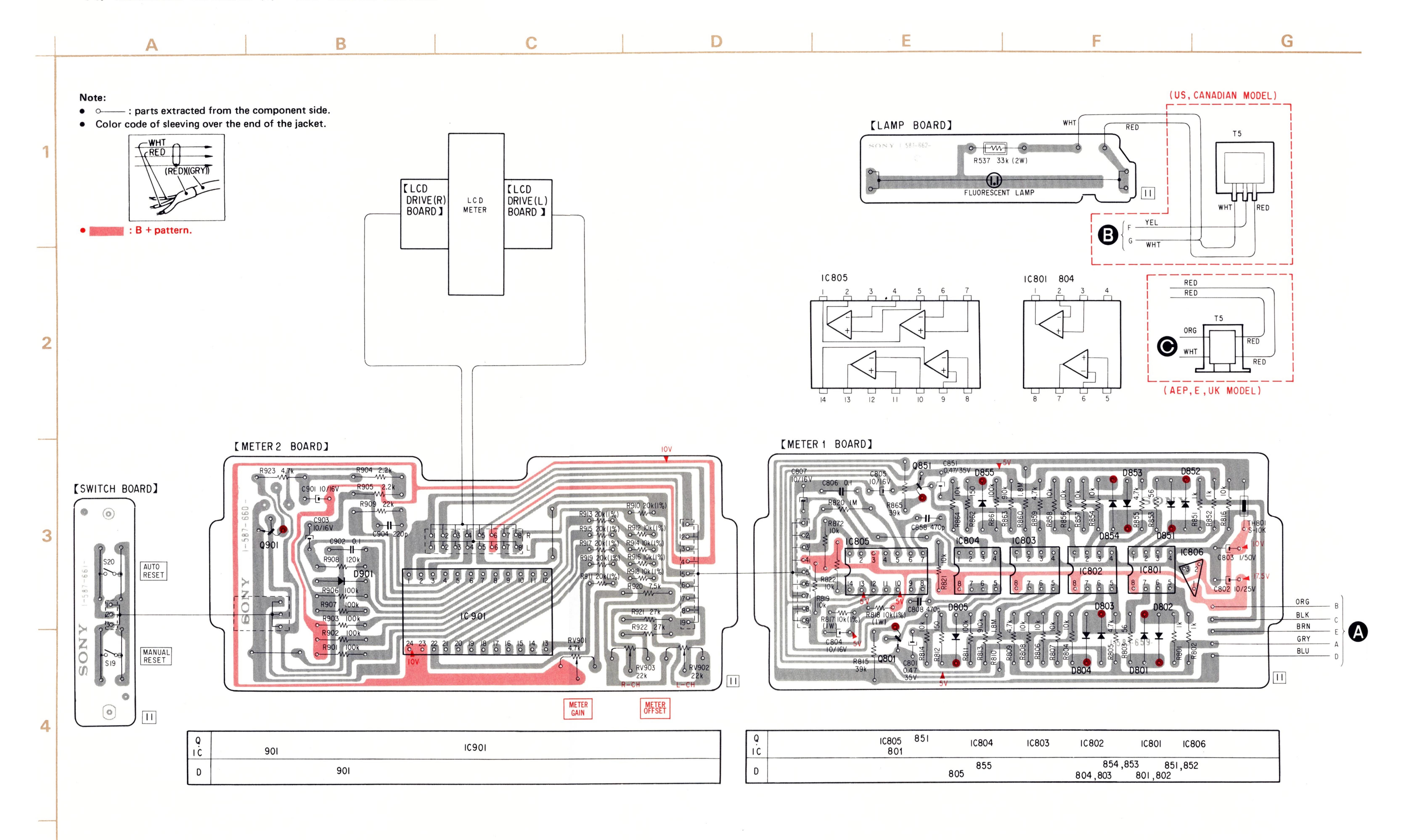
Q611: 2SC1173

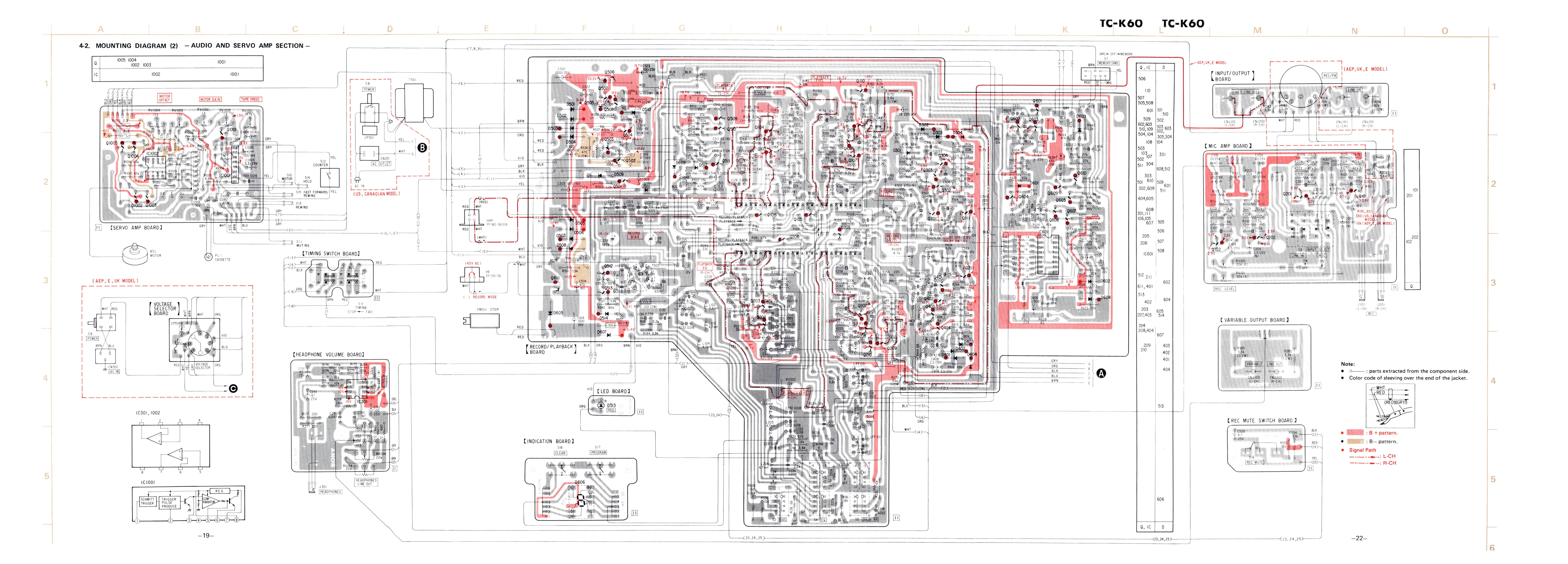


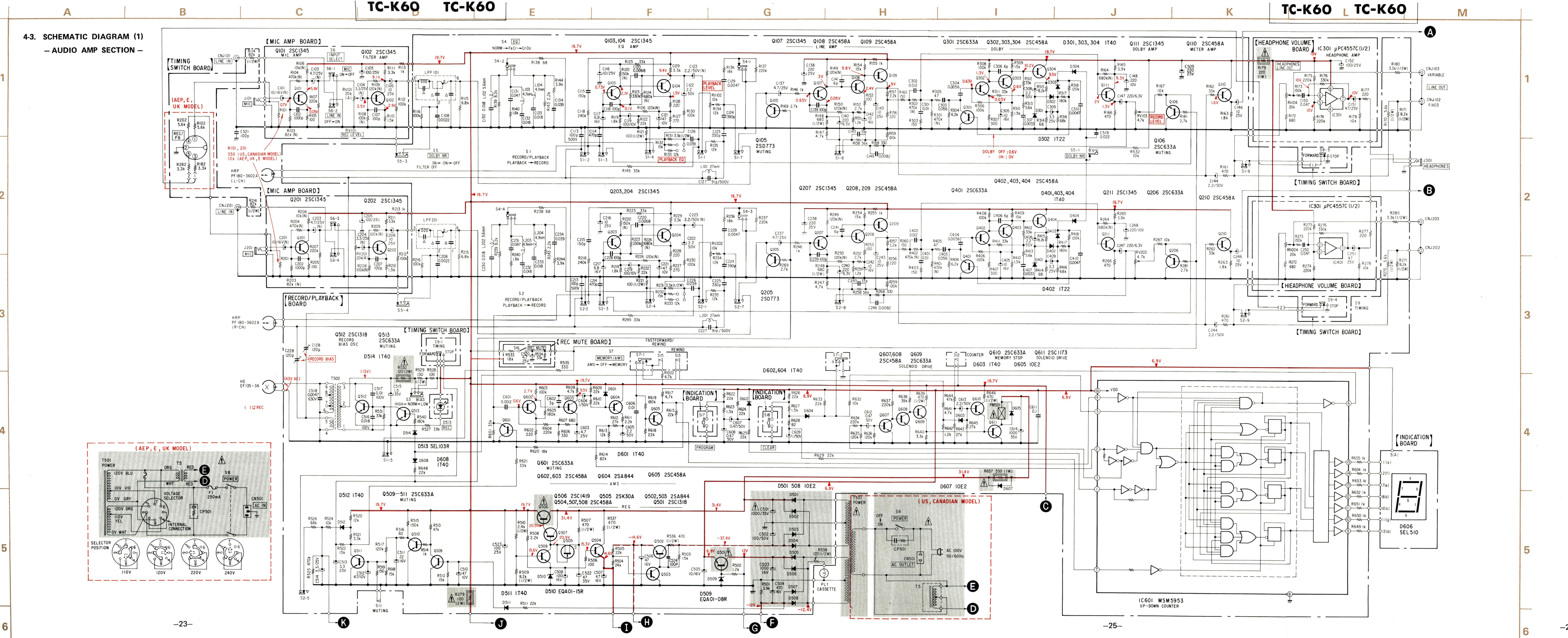
Q1002, 1005: 2SC1474

(2SD471)










- - All resistors are in ohms, ¼W unless otherwise noted. $k\Omega:1000\Omega;M\Omega:1000k\Omega$
- Voltages are dc with respect to ground unless otherwise
- Voltage variations may be noted due to normal production tolerances.

- All variable and adjustable resistors have characteristic
- curve B, unless otherwise noted.
- AC voltage readings in the bias oscillator circuit are taken with a VTVM.
- Readings are taken in stop mode with a VOM (20k Ω /V).
- () : record.
- : B+ bus.
- Switch

Ref. No.	Position		
S1	RECORD/PLAYBACK (L-CH)	PLAYBACK	
S2	RECORD/PLAYBACK (R-CH)	PLAYBACK	
S3	BIAS	LOW	
S4	EQ	NORM	
S5	DOLBY NR	OFF	
S6	INPUT SELECT	MIC	
S7	MEMORY/AMS	AMS	
S8	POWER	OFF	
S9	TIMING	FORWARD	
S11	MUTING	OFF	
S12	COUNTER	OFF	
S13	REWIND	OFF	
S15	FAST FORWARD/ REWIND	OFF	
S16	REC MUTE	OFF	
S17	PROGRAM	OFF	
S18	CLEAR	OFF	

Note: The components identified by shading and mark nare critical for safety. Replace only with



Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted. $k\Omega:1000\Omega; M\Omega:1000k\Omega$
- Voltages are dc with respect to ground unless otherwise
- Voltage variations may be noted due to normal production tolerances.
- : fusible resistor.
- panel designation
- Codiustment for re
- AC voltage readings in the bias oscillator circuit are taken with a VTVM.
- Readings are taken in stop mode with a VOM (20kΩ/V).
- : B+ bus
- 1% indicates component tolerance.
- Switch

Ref. No.	Switch	Position
S10	MOTOR	OFF
S14	HOLD	OFF
S19	MANUAL RESET	OFF
S20	AUTO RESET	OFF

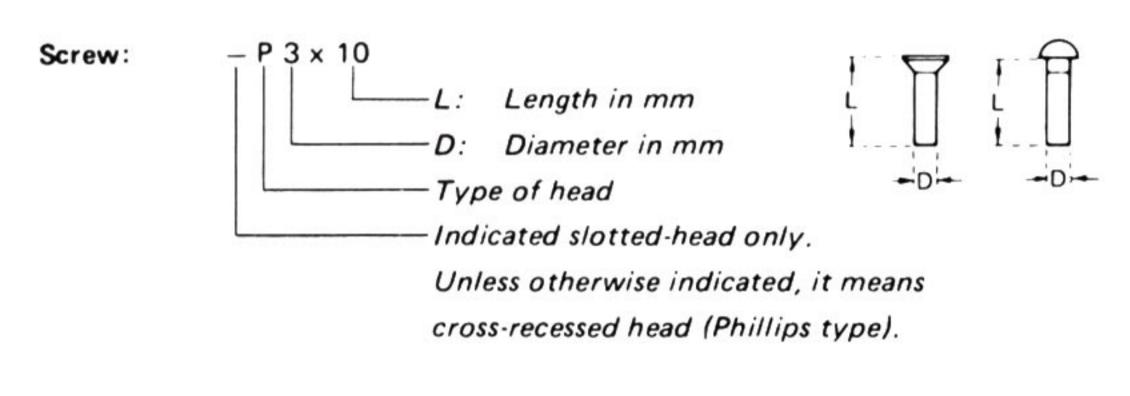
Note: The components identified by shading and mark

A are critical for safety. Replace only with part number specified.

1/4 WATT CARBON RESISTORS (A)

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-244-601-11	10	1-244-625-11	100	1-244-649-11	1.0k	1-244-673-11	10 k	1-244-697-11	100 k	1-244-721-11	1.0M	1-244-745-11
1.1	1-244-602-11	11	1-244-626-11	110	1-244-650-11	1.1k	1-244-674-11	11 k	1-244-698-11	110 k	1-244-722-11	1.1M	1-244-746-11
1.2	1-244-603-11	12	1-244-627-11	120	1-244-651-11	1.2k	1-244-675-11	12 k	1-244-699-11	120 k	1-244-723-11	1.2M	1-244-747-11
1.3	1-244-604-11	13	1-244-628-11	130	1-244-652-11	1.3k	1-244-676-11	13 k	1-244-700-11	130 k	1-244-724-11	1.3M	1-244-748-11
1.5	1-244-605-11	15	1-244-629-11	150	1-244-653-11	1.5k	1-244-677-11	15 k	1-244-701-11	150 k	1-244-725-11	1.5M	1-244-749-11
1.6	1-244-606-11	16	1-244-630-11	160	1-244-654-11	1 64	1-244-678-11	16 k	1-244-702-11	160k	1-244-726-11	1 6M	1-244-750-11
1.6	1-244-606-11	10000		P000000000			1-244-679-11	18 k	1-244-703-11		1-244-737-11		
1.8	1-244-607-11	18	1-244-631-11	180	1-244-656-11			20 k	1-244-704-11	200 k			
2.0	1-244-608-11	20	1-244-632-11	200	1-244-657-11	2.0k		20 k	1-244-705-11	220 k			1-244-753-11
2.2	1-244-609-11	22	1-244-633-11	240	1-244-658-11	2.4k		24 k	1-244-706-11	240 k			1-244-754-11
2.4	1-244-610-11	24	1-244-034-11	240	1-244-036-11	2.4K	1 244 002 11	24 K	1 244 700 11	240K	1 244 730 11	2.4101	1 244 754 11
2.7	1-244-611-11	27	1-244-635-11	270	1-244-659-11	2.7k	1-244-683-11	27 k	1-244-707-11	270 k	1-244-731-11	2.7M	1-244-755-11
3.0	1-244-612-11	30	1-244-636-11	300	1-244-660-11	3.0k	1-244-684-11	30 k	1-244-708-11	300 k	1-244-732-11	3.0M	1-244-756-11
3.3	1-244-613-11	33	1-244-637-11	330	1-244-661-11	3.3k	1-244-685-11	33 k	1-244-709-11	330 k	1-244-733-11	3.3M	1-244-757-11
3.6	1-244-614-11	36	1-244-638-11	360	1-244-662-11	3.6k	1-244-686-11	36 k	1-244-710-11	360 k	1-244-734-11	3.6M	1-244-758-11
3.9	1-244-615-11	39	1-244-639-11	390	1-244-663-11	3.9k	1-244-687-11	39 k	1-244-711-11	390 k	1-244-735-11	3.9M	1-244-759-11
4 3	1-244-616-11	43	1-244-640-11	430	1-244-664-11	4 3 k	1-244-688-11	43 k	1-244-712-11	430 k	1-244-736-11	4.3M	1-244-760-11
	1-244-617-11		1-244-641-11		1-244-665-11		63 NOTES 10 10 10 10 10 10 10 10 10 10 10 10 10		1-244-713-11	V-1000000000000000000000000000000000000	10 A. SANGER		100 100 100 100 100 100 100 100 100 100
5.1			1-244-642-11	1 1000 1000 1000 1000 1000 1000 1000 1	1-244-666-11	200000000000000000000000000000000000000		576 003	1-244-714-11				1000
5.6		56	1-244-643-11		1-244-667-11				1-244-715-11				
	1-244-620-11	62	1-244-644-11	07-67-6300 003-6060			1-244-692-11	1 State 15.3	1-244-716-11				
0.2													
6.8	1-244-621-11	68	1-244-645-11						1-244-717-11				
7.5	1-244-622-11	75	1-244-646-11		4-40 F	-	1 ha 024.024.03 heightford 420.035		1-244-718-11	Tarrana and Tarrana			
8.2	1-244-623-11	82	1-244-647-11	2000000	to provide the second cases		1-244-695-11		1-244-719-11			l l	
9.1	1-244-624-11	91	1-244-648-11	910	1-244-672-11	9.1k	1-244-696-11	91 k	1-244-720-11	910 k	1-244-744-11		
												1	

HARDWARE NOMENCLATURE



Nut, Washer, Retaining ring:

Diameter of usable screw or shaft

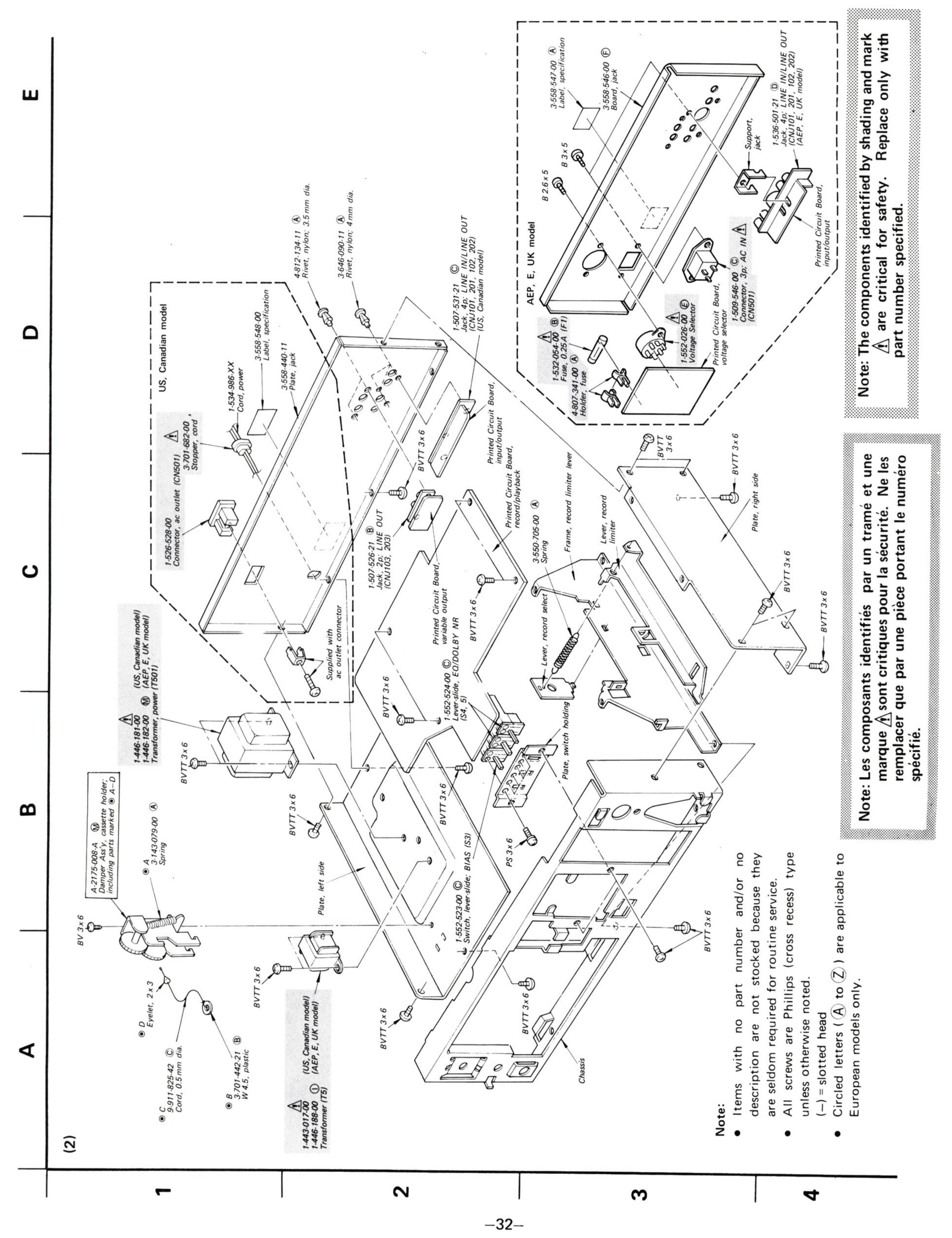
Reference designation

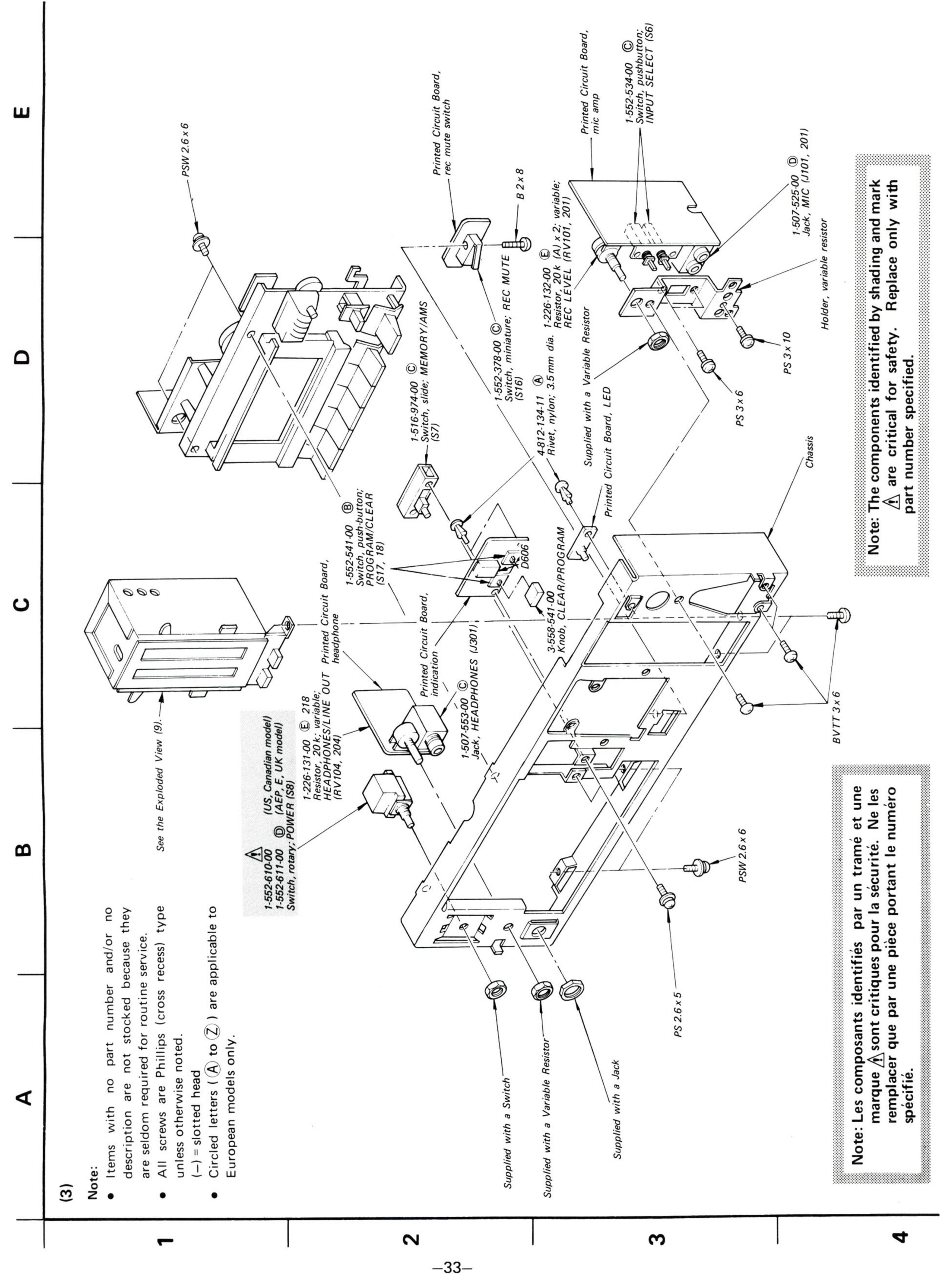
Reference Designation	Shape	Description	Remarks					
SCREWS								
Р	₽	pan-head screw	binding-head (B) screw for replacement					
PWH	₽	pan-head screw with washer face	binding-head (B) screw and flat washer for replacement					
PS PSP	}	pan-head screw with spring washer	binding-head (B) screw and spring washer for replace- ment					
PSW PSPW	8#P	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	Þ	flat-countersunk-head screw						
RK	€⊃	oval-countersunk-head screw						
В	₽	binding-head screw						
Т	P	truss-head screw	binding-head (B) screw for replacement					
F	B	flat-fillister-head screw						
RF	€	fillister-head screw						
BV	₽	braizer-head screw						

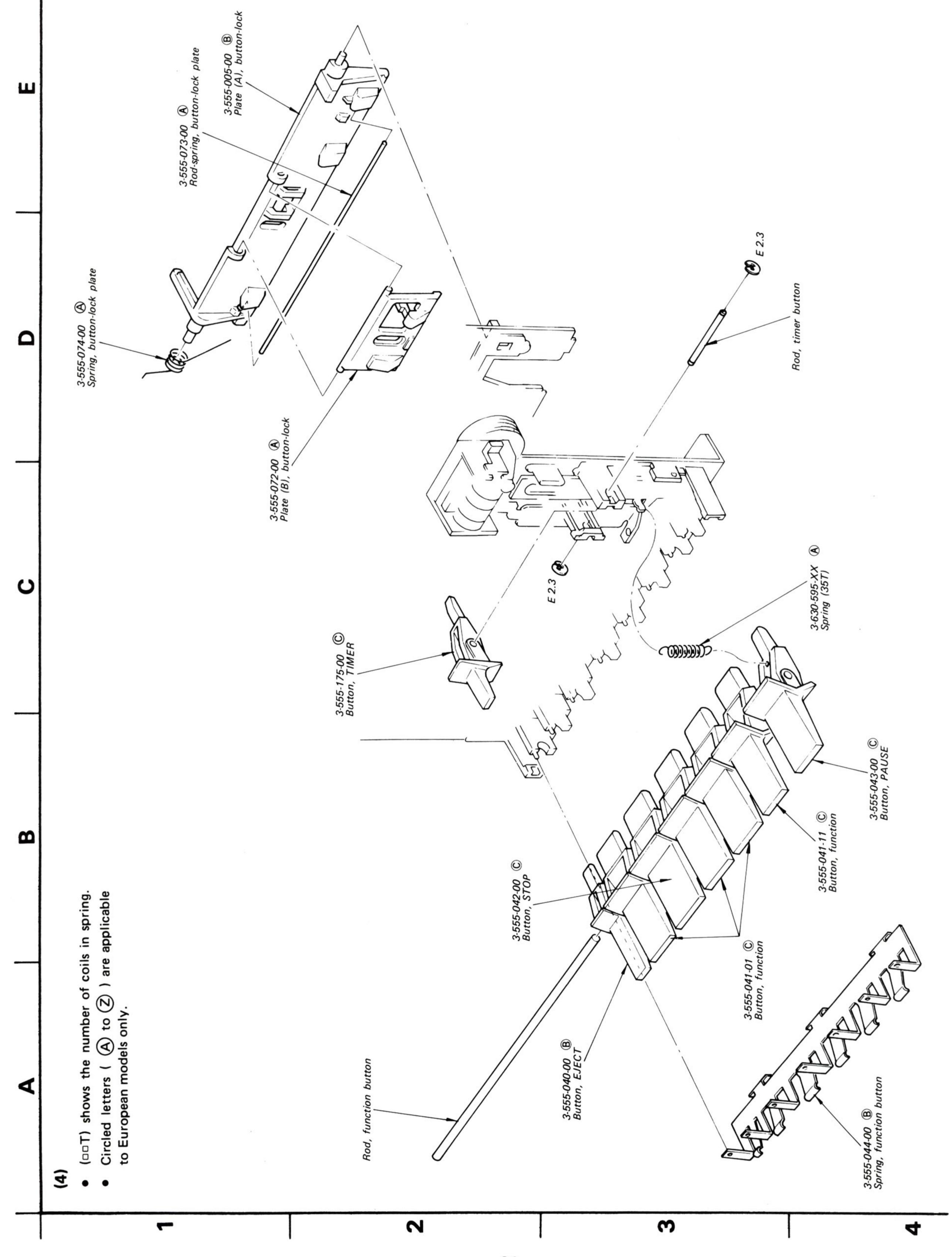
Reference Designation	Shape	Description	Remarks						
	SELF-TAPPING SCREWS								
TA		self-tapping screw	ex: TA, P 3 x 10						
PTP	8==>	pan-head self-tapping screw	binding-head self- tapping (TA, B) screw for replacement						
PTPWH	\bar{1}	pan-head self-tapping screw with washer face	binding-head 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	E	set screw							
SC	©	hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket						
+		NUT							
N		nut							
		WASHERS							
W	0	flat washer							
SW	⊘ %	spring washer							
LW		internal-tooth lock washer	ex: LW3, internal						
LW	©	external-tooth lock washer	ex: LW3, external						
10		RETAINING RINGS							
E	0	retaining ring							
G	8	grip-type retaining ring							

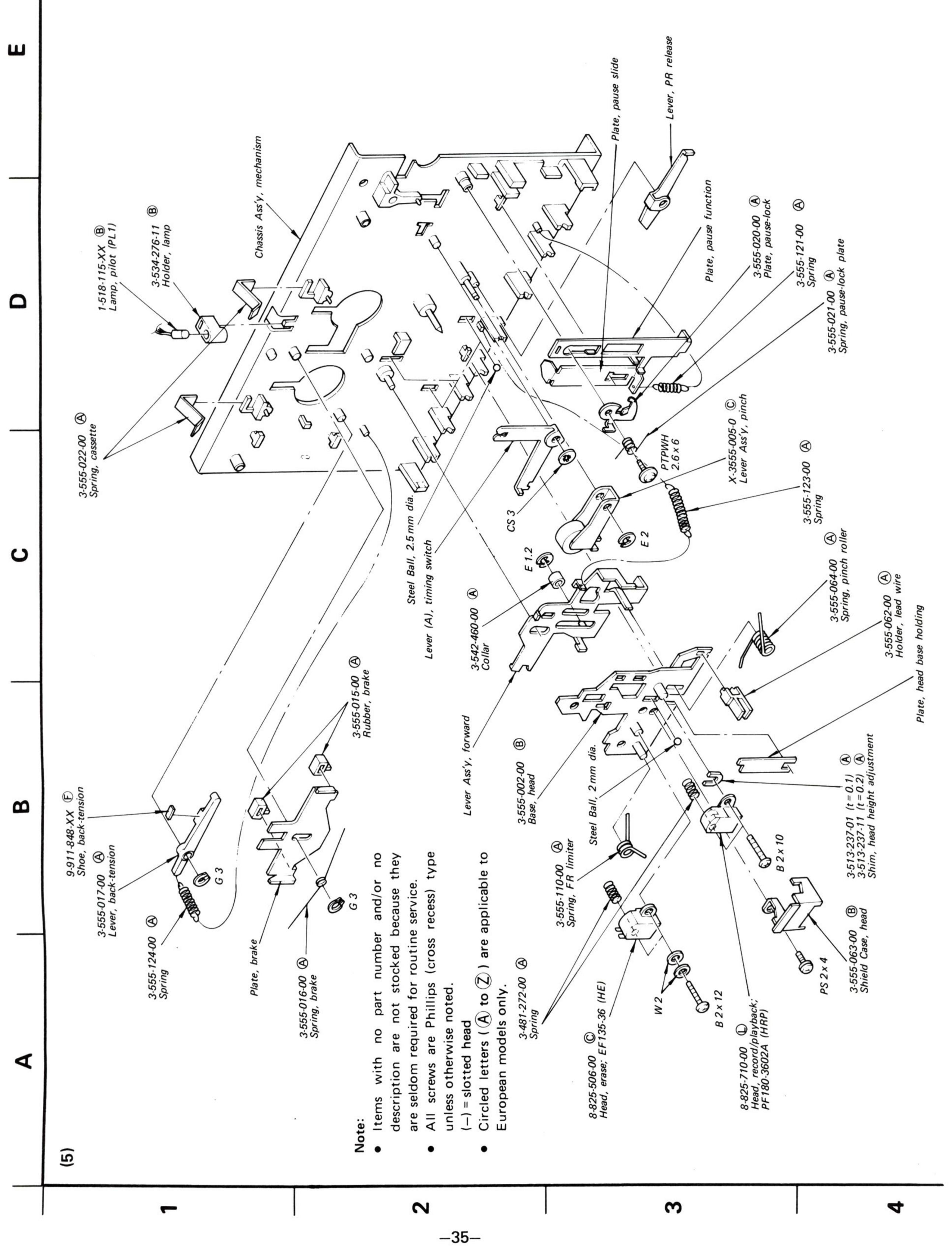
EXPLODED VIEWS ш X-3558-507-0 Panel Ass'y, right side (US, Canadian model) E/3 X-3556-910-0 (A) Foot Ass'y 3-558-524-00 Escutcheon, n A-2310-081-A (Panel Ass'y, front; including parts marked ■ A-G 3-558-428-00 (B) Knob, MEMORY/AMS • D 3-558-512-00 (Window, meter Stopper E 2 X-3558-502-0 (D) Knob Ass'y, REC LEVEL (I including part marked ● A X-3558-506-0 Panel Ass'y, left side (US, Canadian model) ■ E 3-558-515-00 (B) Window (B), display ■ F 3-558-522-00 Window (A), 3-701-851-00 BW 4 × 22 (US, Canadian 4-820-330-00 ± BW 4× 12 (AEP, E, UK • A 3-701-511-00 (A) SCM 4 x 6, hexagon socket 8 0 9-911-837-XX Cushion ■ C / 3-551-028-00 (B) Button, REC MUTE X-3558-501-0 (D) Knob Ass'y, REC LEVEL (R), including part marked ● A are applicable to they 3-551-004-00 (Guide, switch 3-537-215-00 (A)_Spring and/or service. because 3x6 routine number (cross stocked 3-556-909-00 (A) Rubber, cassette window Circled letters (A to D) X-3558-318-0 ⑥ Knob Ass'y, POWER, including part marked ✓ A seldom required for **Phillips** unless otherwise noted. European models only. not X-3558-317-0 © Knob Ass'y, HEADPHONES/ LINE OUT, including part marked ▲ A -) = slotted head are are 3-558-520-00 (B) Screw, cassette window © cassette description screws 3-701-505-00 (A) SCM 3 x 3, hexagon socket ~ Items 3-558-536-00 (E) Window, cassette are Ę Note: 2 3 -31-

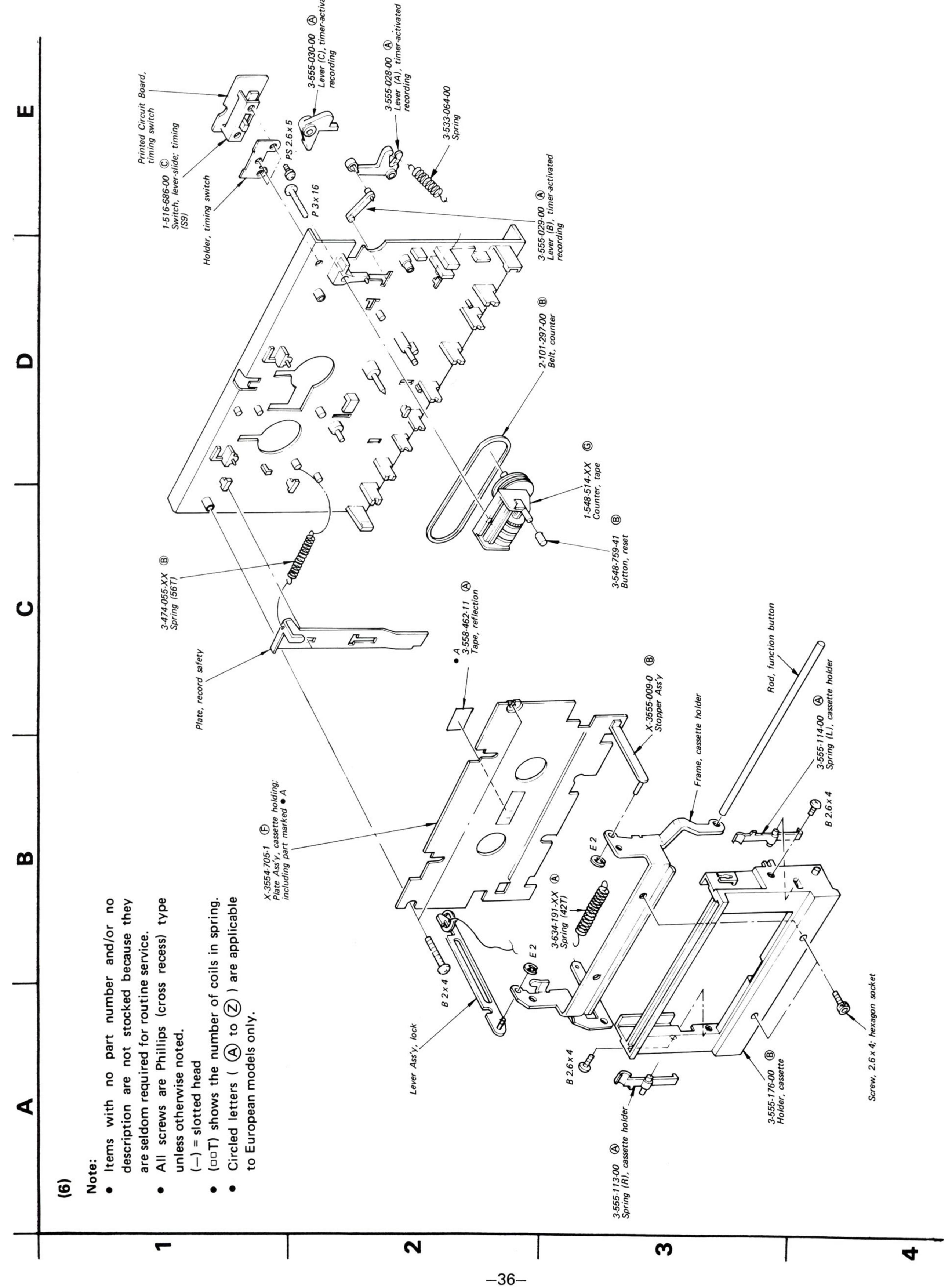
SECTION 5

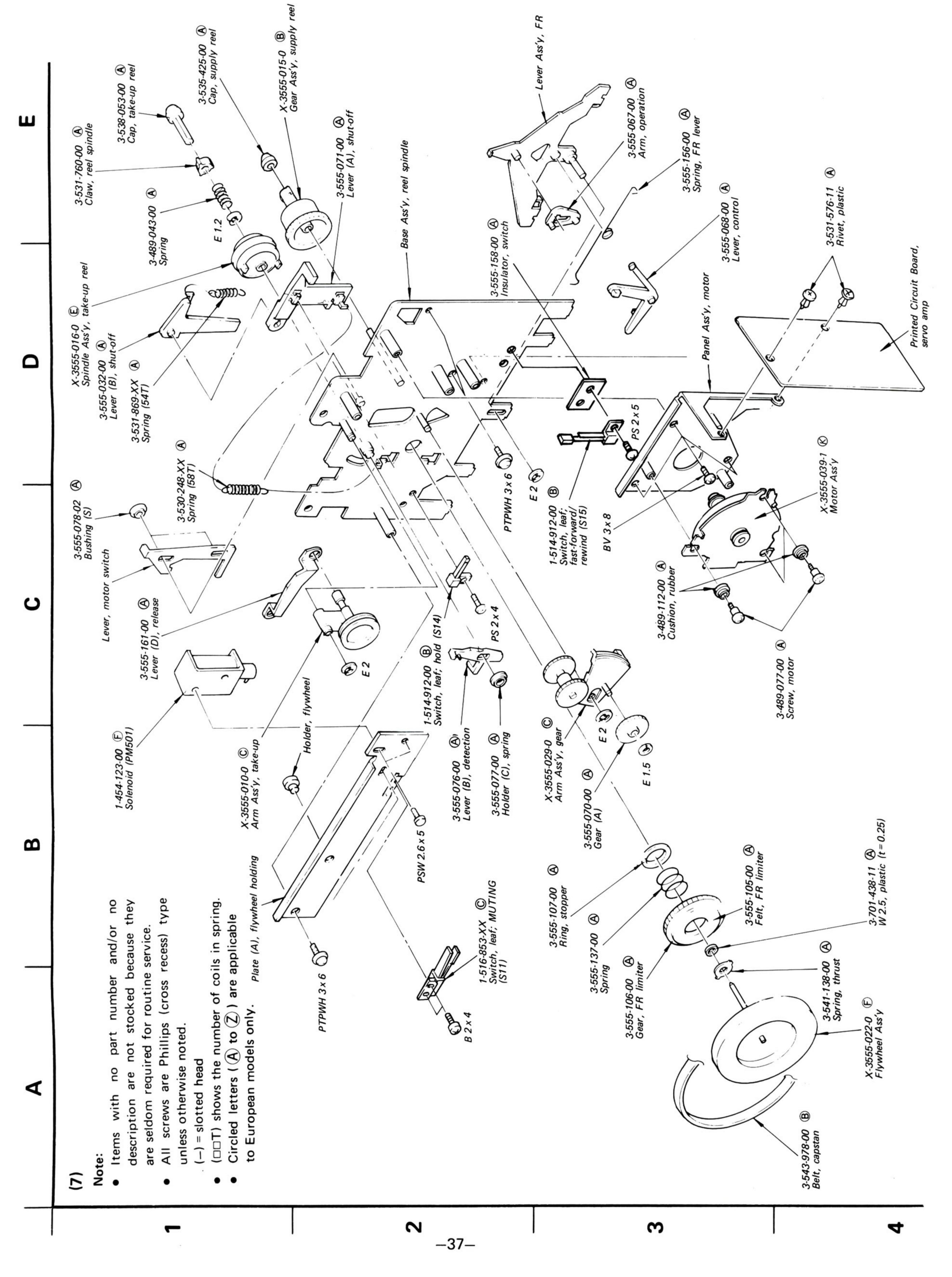


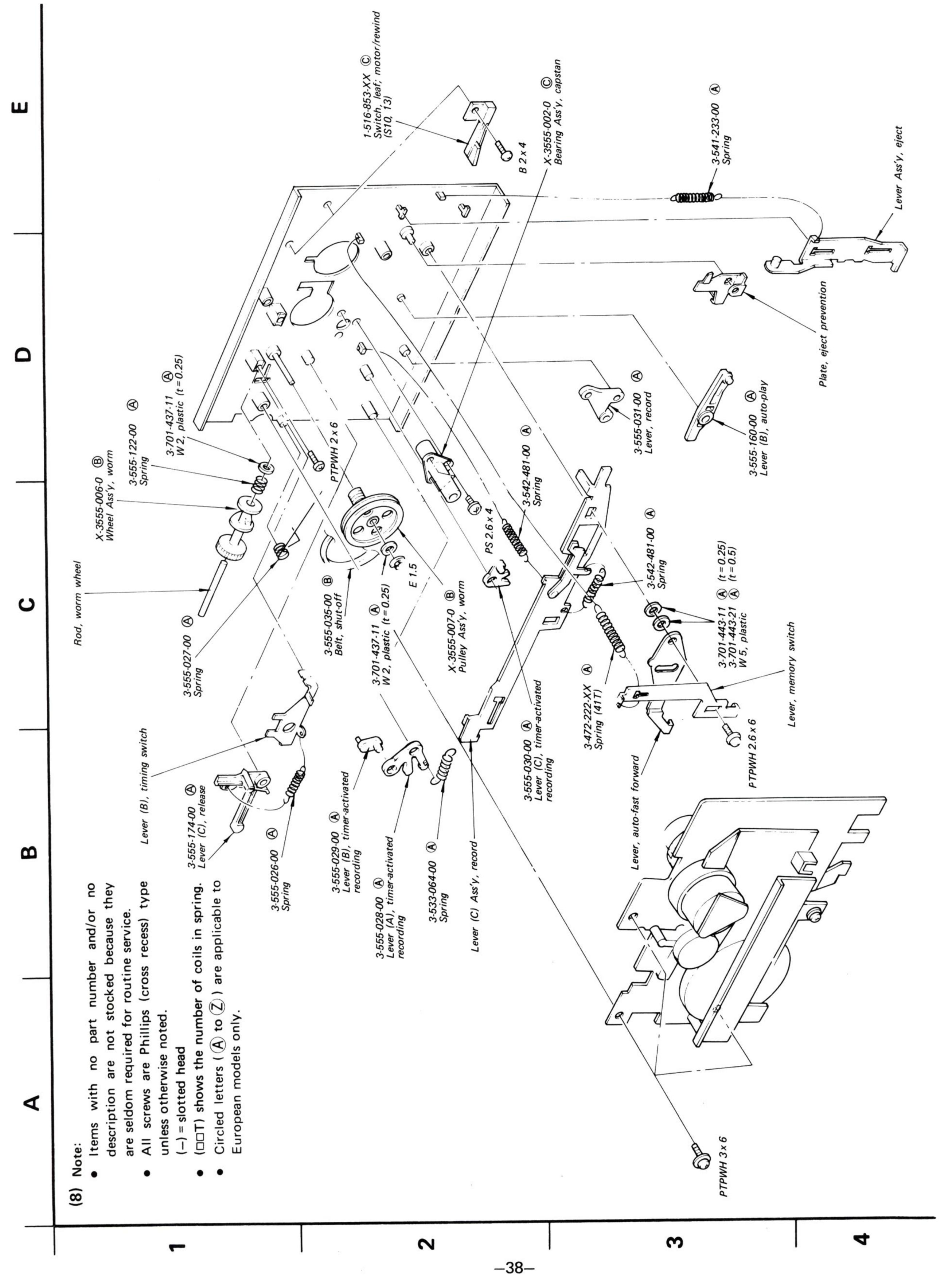












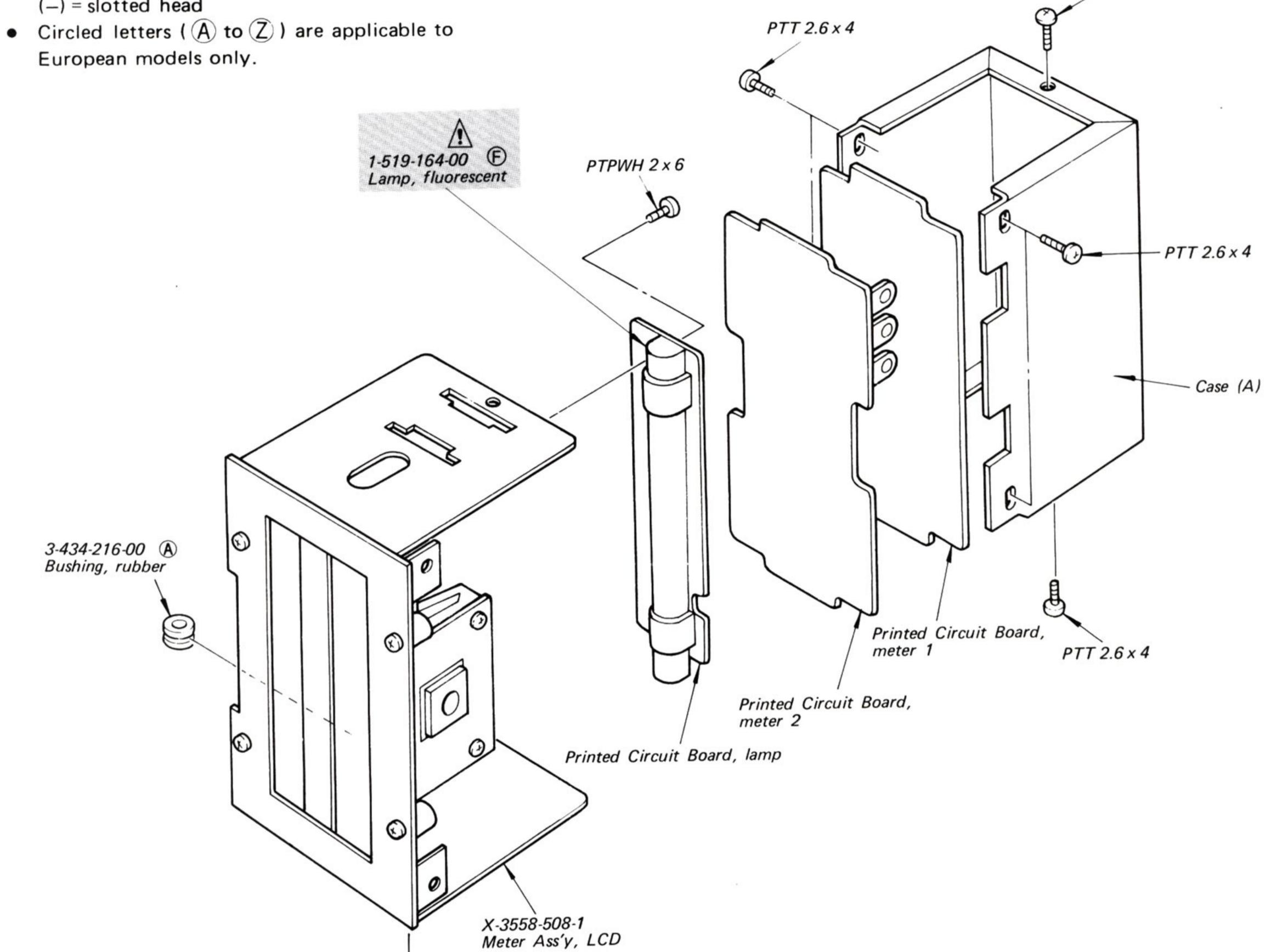
PTT 2.6 x 4

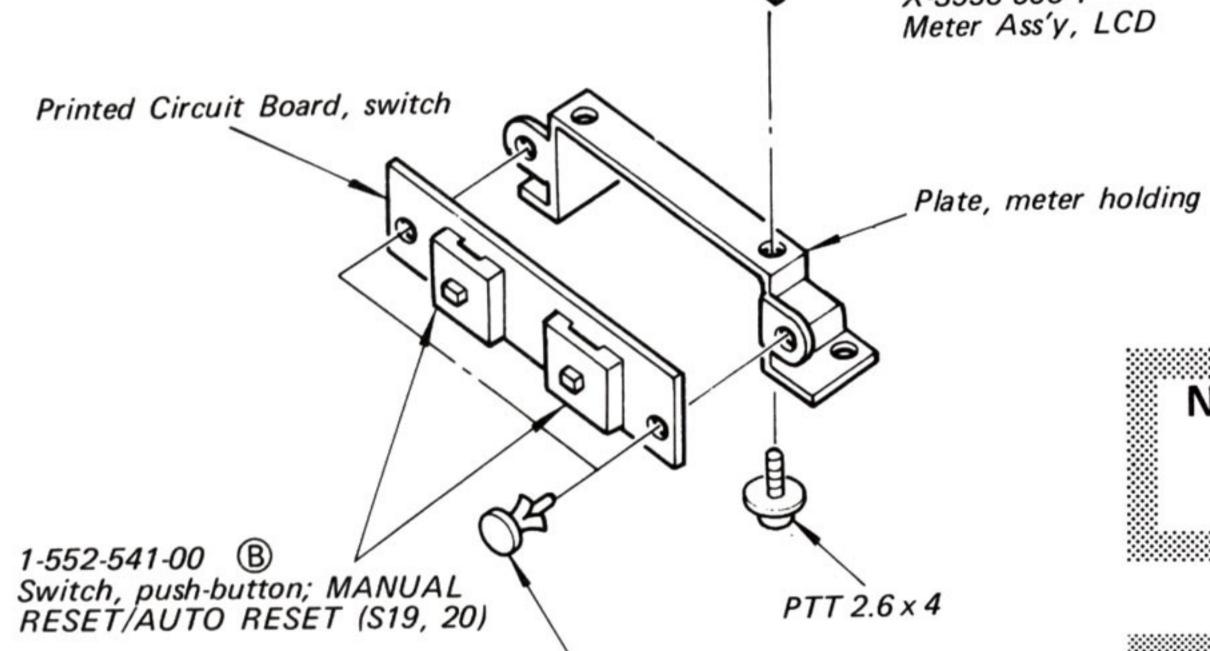
(9)

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.

(-) = slotted head





4-812-134-11 (A) Rivet, nylon; 3.5 mm dia.

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

SECTION 6 ELECTRICAL PARTS LIST

Ref. No.	Part No.	Descr	ription	Ref. No.	Part No.	Description
	SEMI	CONDUCTORS		IC711	8-740-000-19	E BX347
		Transistors		IC801-803	8-759-145-58	D μPC4558C
				IC804		D μPC1458C
O101-104				IC805		F μPC339C
Q101-104 $Q201-204$	8-729-334-58	(B) 2SC1345		IC806		© TA78L010
\Rightarrow Q105,205	8-760-335-10	B 2SC1474				
				IC901	8-759-907-67	(H) CX767
	8-729-334-58					
				IC1001	8-759-600-65	© CX065A
\Rightarrow Q108-110		(C) 2001261		IC1002	8-759-145-58	D μPC4558C
$\Rightarrow Q108-110$ $\Rightarrow Q208-210$	8-729-663-47	(B) 2SC1364				
	8-729-334-58	B 2SC1345				Diodes
⇒ Q301,401				⇒ D301	8-719-815-55	(B) 1S1555
\Rightarrow Q302-304	8-729-663-47	(B) 2SC1364		⇒ D302	8-719-422-21	
$\Rightarrow Q402-404$			*	⇒ D303,304	8-719-815-55	
Q.102						
⇒ Q501	8-760-413-10	B) 2SC1475		⇒ D401	8-719-815-55	B 1S1555
⇒ Q502,503	8-727-788-00	Charles de la company de la charle de la cha	Charles and again that the other	⇒ D402	8-719-422-21	B 1T22AM
⇒ Q504	8-729-663-47	B 2SC1364		⇒ D403,404	8-719-815-55	B 1S1555
Q505	8-729-203-04	B 2SK30A				
⇒ Q506	8-729-316-12	E 2SC1061		D501-508	8-719-200-02	B 10E2
				⇒ D509		B EQB01-08
\Rightarrow Q507-511	8-729-663-47	B 2SC1364		⇒ D510		B EQB01-15
⇒ Q512	8-760-413-10	B 2SC1475		\Rightarrow D511,512	8-719-815-55	
\Rightarrow Q513	8-729-663-47	B 2SC1364		D513	8-719-301-03	B SEL103R
. 0601 602	0.730 ((2.47	B 2SC1364		D514	8-719-931-55	B 1S1555
$\Rightarrow Q601 - 603$ $\Rightarrow Q604$	8-729-663-47	•		\Rightarrow D601-604	8-719-815-55	B 1S1555
		200		D605	8-719-200-02	B 10E2
$\Rightarrow Q605$ $\Rightarrow Q607 - 610$	8-729-663-47	B 2SC1364		D606	8-719-305-10	© SEL510
	8-729-217-33	© 2SC1173		D607	8-719-200-02	B 10E2
20				D801-805		O 404555
⇒ O801, 851		O		D851-855)	8-719-815-55	(B) 181222
$\Rightarrow Q801, 851$ $\Rightarrow Q901, 1001$	8-729-663-47	(B) 2SC1364		×.		
⇒ Q1002		B 2SC1474		D901	8-719-815-55	B 1S1555
⇒ Q1003,1004						
⇒ Q1005		B 2SC1474				Thermister
		ICs		TH801	1-800-202-XX	(A) S-10K
IC301	8-759-145-57	D μPC4557C				
		O				COILS
IC601	8-759-959-53	① MSM5953		T 404 304	1 407 211 777	(D) Minner 1 - 1 - 27 - 11
70501	0.740.000.10	(F) DV346		L101,201		(A) Microinductor, 27 mH (A) Microinductor, 5.6 mH
IC701	8-740-000-18	(F) BX346	,	L102,202	1-40/-203-XX	Micromudetor, 3.6 mm

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Ref. No.	Part No.		Descripti	on_	Ref. No.	Part No.	<u>I</u>	Descripti	on
L103,203	1 407 202 3737	@ M: :	1 4	4.7	C127,227	1-107-168-00	A) 91 p	500V	mica
L104,203	1-407-202-XX	(B) Microine	ductor,	4.7 mH	C128,228	1-141-010-XX	B 120p		trimmer
					C129,229	1-108-234-00	(A) 0.0047	50V	mylar
					C130,230	1-108-358-00	(A) 0.018	50V	mylar
	TRA	NSFORMER	S		C131,231	1-108-595-00	A 0.047	50 V	mylar
T5	<u>1-443-017-00</u>	(US, Ca	nadian 1	model)	C132,232	1 100 250 00	O 010	5037	1
T5	<u>1-446-188-00</u>	(I) (AEP, E	UK m	odel)	C133,233	1-108-358-00	(A) 0.018	50 V	mylar
					C134,234	1-108-360-00	(A) 0.039	50V	mylar
T501	<u>1-446-181-00</u>	Power (US, Car	adian model)	C137,237	1-121-395-00	A 4.7	25 V	
	1-446-182-00 1-433-132-11	Commence of the contract of th	AEP, E,	UK model)	C138,238	1-121-422-00	B 220	25 V	
T502	1-433-132-11	(B) Osc			C139,239	1-102-106-00	(A) 100 p		ceramic
					C140,240	1-121-419-00	B 220	6.3 V	
	C	APACITORS			C141,241	1-102-943-00	(A) 6 p		ceramic
	C,	APACITONS			C142,242	1-121-651-00	A 10	16 V	
Α	ll capacitors are	in µF and ele	ectrolyti	c unless	C143,243	1-121-398-00	A 10	25 V	
	therwise noted. OWV or less are	not indicated	excent	for	C144,244	1-121-450-00	(A) 2.2	50V	
	ectrolytics. $p: \mu$		скоорт	101	C145,245	1-102-963-00	_		ceramic
					C146,246	1-121-398-00	_	25 V	
C101,201	1-121-651-00	(B) 10	16 V		C147,247	1-121-419-00	$\overline{}$	6.3 V	
C102,202	1-102-074-00	(A) 0.001		ceramic	C148,248	1-121-420-00	A 220	10 V	
C103,203	1-121-410-00	B 4.7	25 V		87				
C104,204	1-121-392-00	(A) 3.3	25 V		C149,249	1-108-356-00	(A) 0.0082	50 V	mylar
C105,205	1-121-416-00	B 100	25 V		C150,250	1-161-021-00	A 0.047		ceramic
					C151,251	1-121-410-00	B 47	25 V	
C106,206	1-121-398-00	A 10	25 V		C152	1-121-416-00	® 100	25 V	
C107,207	1-102-106-00	A 100p		ceramic					
C108,208	1-108-230-00	(A) 0.0022	50 V	mylar	C301,401	1-108-239-00	(A) 0.01	50V	mylar
C113,213	1-107-169-00	A 100 p	500 V	silvered mica	C302,402	1-108-581-00	A 0.012	50V	mylar
C114,214	1-161-319-00	(A) 470 p		ceramic	C303,403	1-108-361-00	$\overline{}$	50V	mylar
					C304,404	1-108-355-00	$\overline{}$	50V	mylar
C115,215	1-161-313-00	_		ceramic	C305,405	1-121-651-00	A) 10	16 V	
C116,216	1-121-398-00	_	25 V						
C117,217	1-131-370-00		16 V	tantalum	C306,406	1-102-943-00	_ `		ceramic
C118,218	1-102-106-00	_	50 V	ceramic	C307,407	1-108-567-00	_		mylar
C119,219	1-121-414-00	(A) 100	10V		C308,408	1-121-450-00	_	50 V	
		O			C309,409	1-121-392-00	_	25 V	
C120,220	1-108-237-00	_		mylar	C310,410	1-108-234-00	(A) 0.0047	50V	mylar
C121,221	1-121-352-00	(A) 47	10 V		建多度集新原始	Δ	@ 1000		
C122,222 C123,223	1-121-450-00	A 2.2	50 V		C501 C502	1-121-388-00 1-121-417-00		35 V 50 V	
C124,224	1-102-113-00	(A) 390 p		ceramic	C503	1-121-245-00		16V	
					C504	1-121-426-00		16V	
C125,225	1-102-112-00	(A) 330 p		ceramic	C505	1-121-651-00	A CONTRACTOR OF THE PARTY OF TH	16 V	
C126,226	1-130-190-00	_	100 V	polyethylene	C506,507	1-121-409-00	_	16 V	

Ref. No.	Part No.	\underline{D})escripti	<u>on</u>	Ref. No.	Part No.		Descripti	ion
C508	1-121-415-00	(A) 100	16 V		C1001	1-108-240-00	(A) 0.015	50 V	mylar
C509	1-121-422-00		25 V		C1002	1-130-134-00	_	100V	polyethylene
C510	1-121-352-00	_	10 V		C1003	1-121-392-00		25 V	1 , ,
C511	1-121-479-00	_	16 V		C1004	1-121-651-00	_	16 V	
C512	1-121-352-00	_	10 V		C1005	1-121-415-00	_	16 V	
	1 121 002 00				C1008	1-123-228-00	$\stackrel{\smile}{=}$	50 V	(bipoler)
C513,514	1-121-392-00	(A) 3.3	25 V						
C515	1-131-348-00		35 V	tantalum					
C516	1-130-189-00	<u> </u>	100V	polyethylene			PECICTORS		
C517	1-129-701-00		100 V	polyethylene			RESISTORS		
C518	1-129-710-00		630V	polyethylene			C1/	X V1	
	1 127 /10 00					istors are in ohms.			
C519	1-161-017-00	(A) 0.022	25 V	semiconductor	omitte	d. Refer to the lis	st on page 30	for their	r part numbers.
C520	1-121-395-00		25 V						
C5 21	1-102-106-00			ceramic	R114,214	1-244-919-00	(A) 82 k	½ W	carbon
C522	1-121-653-00		35 V		R121,221	1-244-849-00	~	½ W	carbon
C523	1-121-416-00		25 V		R131,231	1-244-885-00	~	½ W	carbon
C5 24	1-102-106-00	<u> </u>		ceramic	R148,248	1-244-869-00	(A) 680	1/2 W	carbon
0324	1-102-100-00	G roop			R170,270		_	1/2 W	carbon
C601	1-102-118-00	\bigcirc 0.0012		ceramic		1 211 071 00		,	
C602	1-102-110-00	_		ceramic	R171,271	1-244-895-00	A) 8.2 k	½ W	carbon
C603	1-102-340-00	_	25 V	CCTATITIC	R179	1 -213-135-00	the same of the same of the same of	1 W	metal oxide
C604	1-121-391-00	_	50 V			<u></u>			(nonflammable)
C605	1-121-351-00	0	50 V		R180,280	1-244-885-00	(A) 33k	½ W	carbon
C003	1-121-430-00	(1) 2.2	30 1		R279	1-206-640-00	0	2 W	metal oxide
C606	1-161-013-00	\bigcirc 0.01	25 V	semiconductor	1,275	Z.XI 200 040 00	(A) 100		(nonflammable)
C607,608	1-101-013-00	$\overline{}$	50 V	sciliconductor					(Homiaminable)
C609	1-121-720-00	_	50 V		R507	1-244-865-00	(A) 470	½ W	carbon
	1-121-371-00	_	25 V	semiconductor	R509	1-244-895-00	_	½ W	carbon
C611	1-101-023-00	_	50 V	semiconductor	100 P 21 100 pet 100 20	1-244-893-00	_	TECT/2013 84-01	
C612	1-121-720-00	(A) 0.47	30 V		R510	1-244-852-00	0	½ W	carbon
0(12	1-121-450-00	(A) 2.2	50 V		R529	1-244-832-00	_	1/2 W	carbon
C613	1-121-430-00	\sim	50 V 35 V		R530	<u>/!\</u> 1-200-042-00	(A) 120	2W	metal oxide
C614	1-121-300-00	(B) 1000	33 V						(nonflammable)
C901	1-131-406-00	® 0.47	35 V	tantalum	D 5 2 6 5 2 7	1-244-865-00	A 170	½ W	carbon
C801 C802	1-131-400-00		25 V	tantalum	R536,537 R538	1-244-863-00	_	½ W	carbon
	1-121-393-00	$\overline{}$	50 V			1-206-700-00		2 W	
C803	1-121-391-00	\circ	16 V		R539	<u>/!\</u> 1-200-700-00	(A) 33 K	2 W	metal oxide
C804,805	1-121-051-00			mylar					(nonflammable)
C806	1-106-231-00	(A) 0.1	30 V	myiai	D 6 2 0 6 4 6	1 244 065 00	A 170	1/. W/	aar b an
C907	1 121 651 00	(A) 10	16 V		R639,646	the fifth and laborates and take the fifth are the	tion will the trust tipe and the s	½ W	carbon motal avida
C807	1-121-651-00 1-131-406-00	_	16 V 35 V	tantalum	R657	<u>1</u> 1-213-137-00	(A) 330	1W	metal oxide
C851	1-131-400-00	(B) 0.47	33 V	tantalum					(nonflammable)
C001	1 121 651 00	(A) 10	1637		D 017 010	1 214 157 00	A 101-	1 337	motal and a (100)
C901	1-121-651-00	_	16 V	mylor	R817,818	1-214-156-00	(A) 10 k	1 W	metal oxide (1%)
C902	1-108-251-00	_	50 V	mylar	D010.011	1 214 162 00	A 201	1/357	
C903	1-121-651-00	\sim	16 V	ooromi o	R910,911	1-214-163-00	_	1/4 W	metal oxide (1%)
C904	1-102-110-00	(A) 220 p		ceramic	R912	1-214-156-00	(A) 10 k	1/4 W	metal oxide (1%)

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

Ref. No.	Part No.	Description		Ref. No.	Part No.		Description
R913	1-214-163-00	(A) 20 k ¼W	metal oxide (1%)	S17-20	1-552-541-00	B	Push-button, PROGRAM/CLEAR/
R914		(A) 10 k ¼W	metal oxide (1%)				MANUAL RESET/AUTO RESET
R915		(A) 20 k ¼ W	metal oxide (1%)				
R916		(A) 10 k ¼W	metal oxide (1%)				
R917		(A) 20 k ¼W	metal oxide (1%)			JA	CKS
R918	1-214-156-00	(A) 10 k 1/4 W	metal oxide (1%)	CNJ101,201	(1-507-531-21		4p, LINE IN/LINE OUT
R919	1-214-163-00		metal oxide (1%)	CNJ101,201	,) {		(US, Canadian model) 4p, LINE IN/LINE OUT
R1002	1-214-176-00	(A) 68 k ¹ / ₄ W	metal oxide (1%)			_	(AEP, UK, E model)
R1012,1013	<u>1</u> 1-217-379-00	B 2.2 1W	fusible	CNJ103,203	3 1-507-526-21	B	2p, LINE OUT
RV101,201	1-226-132-00	\bigcirc 20 k (A) × 2, va	riable; REC LEVEL	J101,201	1-507-525-00	$^{\odot}$	MIC
RV102,202	1-224-645-XX	B 10k, adjustable	10 k, adjustable; playback level		1-507-553-00	$^{\circ}$	HEADPHONES
RV103,203	1-224-644-XX	B 4.7 k, adjustab	le; record level				
RV104,204	1-226-131-00	© 20 k, variable;	HEADPHONES/				
		LINE OUT			MISC	ELL	ANEOUS
RV901	1-224-633-00	B 4.7 k, adjustab	le; gain	CN501	<u>1-509-546-00</u>	©	Connector, 3p; AC IN
RV902,903	1-224-646-XX	B 22 k, adjustable	e; off-set				(AEP, E, UK model)
D	1 224 ((1 00	(P) 471	4	CN501	<u>1-526-528-00</u>		Connector, ac outlet
RV1001		B 47 k, variable;		CD501	A 1 221 057 21	6	(US, Canadian model)
RV1002		B 1 k, variable; n		CP501	1-231-057-31	®	Encapsulated Component
RV1003,1004		(B) 10 k, variable;(B) 1 k, variable; n		CD501	1-231-326-00		(AEP, E, UK model)
RV1005	1-224-642-XX	(B) I k, variable, ii	lotor gain	CP501			Encapsulated Component (US model)
				CP501	1-231-341-00		Encapsulated Component
	•	SWITCHES					(Canadian model)
S1,2		© Slide, record/p		F1	<u>1-532-054-00</u>	$^{\odot}$	Fuse, 0.25 A (AEP, E, UK model)
S3		© Lever-slide; BI				_	
S4,5		C Lever-slide; EQ		HE		_	Head, erase; EF135-36
S6 S7		© Push-button, II		HRP	8-825-710-00	(T)	Head, record/playback; PF180-3602A
	101077.00			LPF101,20	1 1-231-388-00	©	Filter, low-pass
<u>^</u>	1-552-610-00	Rotary, POWE	R				
S8 .	}	(US, Canadian	model)	PL1	1-518-115-XX		
<u>^</u>	1-552-611-00	Rotary, POWE	R	PM501	<u>1-454-123-00</u>	$\tilde{}$	
		(AEP, E, UK r			X-3555-039-1	(K)	Motor Ass'y
S9	1-516-686-00	C Lever-slide, tin	ning		X-3558-508-1		Meter Ass'y, LCD
S10,11	1-516-853-XX	C Leaf, motor/m	uting		1-519-164-00	E	Lamp, fluorescent
S12		included in tag	e counter		1-534-986-XX	_	Cord, power (US, Canadian model)
						_	Voltage Selector (AEP, E, UK model)
S13		C Leaf, rewind			1-560-064-00	(A)	Pin, connector
S14		B Leaf, hold					
S15		B Leaf, fast forw					
S16	1-552-378-00	Miniature, RE	C MUTE				

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

ACCESSORIES AND PACKING MATERIALS					
Part No.	Description				
X-3701-105-0	A Tips Ass'y, head cleaning				
1-534-049-31	E Cord, connection; RK-74H				
1-534-754-00 1-534-754-00	(E) Cord, power; parallel-blade plug (E model)				
<u>1-534-819-00</u>	G Cord, power (UK model)				
<u>1-551-216-00</u>	(H) Cord, power; euro-plug (E model)				
3-429-126-00	B Bag, plastic; for set				
3-558-465-00	B Cushion (AEP, E, UK model)				
3-558-478-00	Cushion (US, Canadian model)				
3-558-550-00	D Carton (AEP, E, UK model)				
3-558-551-00	Carton (US, Canadian model)				
3-701-630-00	(A) Bag, plastic				
3-701-684-11	B) Card, voltage indication (AEP, E model)				
3-770-563-11	(G) Manual, instruction (AEP, E, UK model)				
3-770-563-21	Manual, instruction (US model)				
3-770-563-21	Manual, instruction (Canadian model)				

3-794-306-31

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