

TC-U5

*AEP Model
UK Model
E Model
Canadian Model*



STEREO CASSETTE DECK

SPECIFICATIONS

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND  MARK 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 A LA SÉCURITÉ !

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE  SUR LES DIAGRAMMES SCHEMATIQUES, LES VUES EXPLODÉES 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.

GENERAL

- Power Requirements:** 120 V ac, 60 Hz (Canadian model)
110, 120, 220, 240 V ac, 50/60 Hz
(AEP, UK, E model)
- Power Consumption:** 13 W (Canadian model)
14 W (AEP, UK, E model)
- Dimensions:** Approx. 410 (w) x 145 (h) x 260 (d) mm
16 1/4 (w) x 5 3/4 (h) x 10 1/4 (d) inches
including projecting parts and controls
- Weight:** Approx. 6 kg, 13 lb 4 oz

TAPE RECORDER SECTION

- Track:** 4-track 2-channel stereo
- Fast Forward**
- Rewind Time:** Approx. 90 seconds with Sony cassette C-60

— Continued on page 2 —

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

SONY

SERVICE MANUAL

Frequency Response: DOLBY NR OFF
 With Ferri-Chrome cassette
 20–17,000 Hz (NAB)
 30–15,000 Hz ± 3 dB (NAB)
 30–15,000 Hz (DIN)
 With chromium dioxide cassette
 20–17,000 Hz (NAB)
 30–15,000 Hz ± 3 dB (NAB)
 30–15,000 Hz (DIN)
 With standard cassette
 20–14,000 Hz (NAB)
 30–13,000 Hz (DIN)

Wow and Flutter: 0.06 % WRMS (NAB)
 ± 0.16 % (DIN)

S/N Ratio: DOLBY NR OFF
 With Ferri-Chrome cassette
 58 dB at peak level (NAB)
 56 dB (DIN)
 With chromium dioxide cassette
 54 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: 105 kHz

Inputs: MIC (phone jacks) 2
 sensitivity 0.25 mV (–70 dB)
 for a low-impedance microphone
 LINE IN (phono jacks) 2
 sensitivity 77.5 mV (–20 dB)
 input impedance 50 k Ω

Outputs: LINE OUTPUT (phono jacks) 2
 output level 0.44 V (–5 dB)
 at load impedance 100 k Ω
 suitable load impedance more than
 10 k Ω
 HEADPHONES 1
 output level –28 dB
 at load impedance 8 Ω

REC/PB Jack (DIN): Input impedance less than 10 k Ω
 Output impedance less than 10 k Ω

0 dB = 0.775 V

MODEL IDENTIFICATIONS

Specification Label

Canadian model

SONY®	TAPECORDER
	MODEL NO. TC-U5
	AC 120V ~60Hz 13W
	MADE IN JAPAN
	SERIAL NO.

AEP, UK, E model

SONY®	TAPECORDER
	MODEL NO. TC-U5
	AC 110, 120, 220, 240V ~50/60Hz 14W
	MADE IN JAPAN
	SERIAL NO.

SECTION 1 OUTLINE

1-1. AMS (Automatic Music Sensor) CIRCUIT DESCRIPTION

(1) Outline

The AMS circuit counts the number of music selection recorded on a cassette tape by detecting the unrecorded segment between music selections. The AMS circuit can thus find the start of any desired selection on the tape by going either forward or in reverse to search out the unrecorded segment just ahead of the selection.

The major component in this circuit is the up-down counter (IC501—See accompanying block diagram.) which is capable of addition and subtraction operations.

IC501 memorizes the number (1 through 9) of desired selection by depressing PROGRAM button. The forward (▶) and fast forward (▶▶) buttons are depressed together to put the tape into fast forward playback mode (that is, high speed playback

of recorded programs). When a blank section is detected, a dc pulse signal is generated, resulting in the up-down counter (IC501) subtracting "1" from the preset program number. The counter will thus count backwards, reaching "0" at the beginning of the desired selection. At this point, the fast forward button (only) is released as a result of a "fast forward release" signal being passed from IC501 to the STOP solenoid.

Since the tape deck is designed to hold the forward button when the fast forward button is released, the mode changes to playback.

This function can start at any desired selection of the tape in either fast forward or rewind mode.

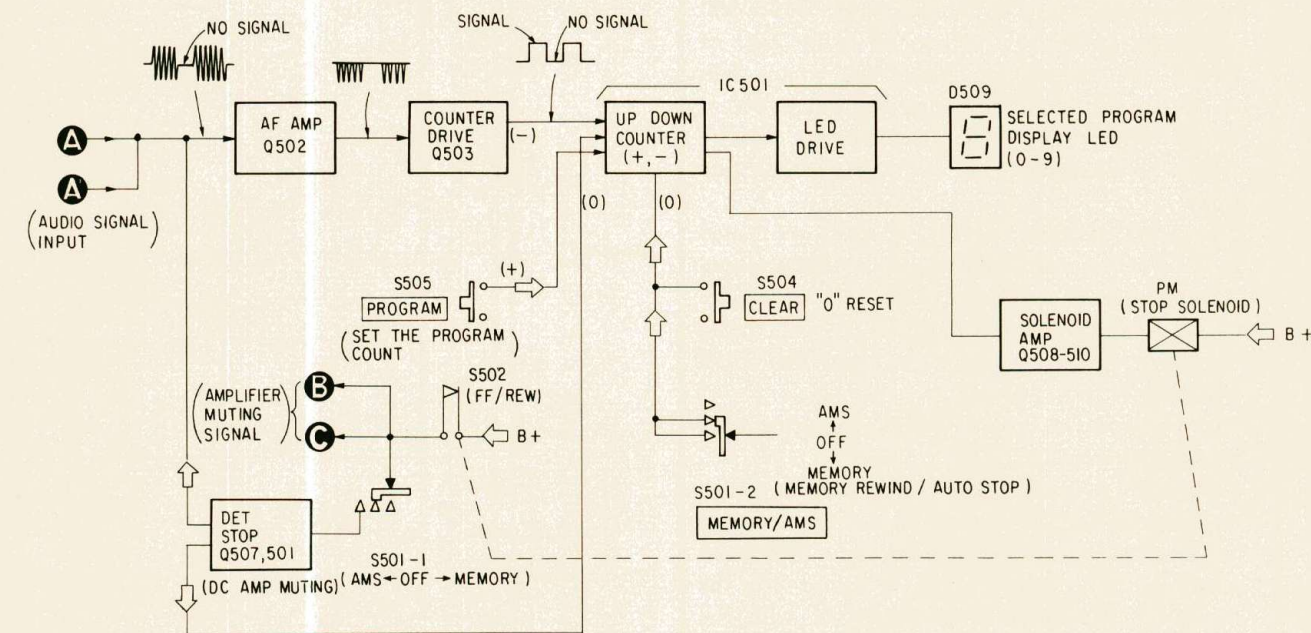
Note: During AMS mode, the bias oscillator stops automatically to prevent the erasure of any recorded portion.



(2) Block Diagram of AMS Section

This diagram outlines the program selection section. If program number is preset by S505 and S501 is preset in AMS position, and the fast forward and forward buttons are depressed together, the AMS circuit will activate.

The program number (addition) set by S505 is



reduced one by one (subtraction) by input signals (generated by the blank portion on the tape between the music selections).

When the counter counts down to "0", the tape deck will enter in stop mode, and then in playback mode.

A, A' audio signal input
B, C amplifier muting signal

(3) Circuit Operation Details

- When the MEMORY/AMS switch (S501) is in the OFF position:

In this position the AMS circuit will not operate. This is because the AMS circuit input signal A is cut off by Q501 (which is turned on by Q507 turning off). Therefore, even if the fast forward and forward buttons or the rewind and forward buttons are depressed together, the tape deck will only change to fast forward or rewind mode. That is, although the S502 leaf switch releasing AMS signal muting is on, and the muting release current is passed to Q507, the AMS input signal remains muted because S501-1 has already been turned off.

- When the MEMORY/AMS switch (S501) is in the AMS position:

The AMS circuit input signal is passed to Q502 since Q507 has been turned on and Q501 turned off. 0 (zero) is displayed in the LED display since S501-2 opens the RBI (display inhibit) terminal of IC501. The number counted up or down by IC501 is displayed in the LED display by the up-down counter drive amplifier of IC501. Note that whenever the power supply is turned on,

the IC501 counter will be reset automatically, hence resulting in the display of the number 0 (zero). IC501 resetting is effected by the reset terminal ⑦ connected to ground. As C509 is charged up, terminal (7) needs to be at ground potential for only a short time after the power switch is turned on. In other words, IC501 is cleared (reset) automatically prior to any display of figures in the LED display during AMS mode.

- Program Switch S505:

When this switch is pressed, the charge on C512 is discharged, resulting in a single "count up" input signal being applied to IC501 via the UP IN terminal ①. That number (same as shown in the LED display) is thus memorized by the counter.

When the power supply is turned on in this case, terminal ① of IC501 attains high voltage level sooner than the reset terminal. This is necessary because otherwise (i.e. if reset occurred first), a "1" rather than a "0" would be entered already.

- Clear Switch S504:

When this switch is pressed, the charge on C509 is discharged, resulting in a "reset" pulse signal being applied to the reset terminal of IC501.

- Q505 and Q506:

These two transistors, connected to the RBI (display inhibit) terminal, are employed to prevent any unstable operation when the power supply is turned on with the S501 mode switch in the AMS position. Even if the inhibit action is released during AMS mode, Q506 will turn on, and the inhibit terminal remains connected to ground until the completion of automatic reset. Q506 will remain on until C510 (connected to the base of Q505) has charged up. When this circuit fails to operate correctly, there is an easy way to detect the problem: the STOP solenoid will operate intermittently when the power supply is turned on.

- Q508-511:

The group of transistors (Q508-511) connected to the STOP solenoid (PM) constitute the solenoid drive circuit. D. OUT and PM. OUT signals are passed to this circuit from IC501, D. OUT being the solenoid drive pulse signal, and PM. OUT is the DC B+ power supply.

- Fast Forward (or Rewind) Playback During AMS Mode (Tape loaded):

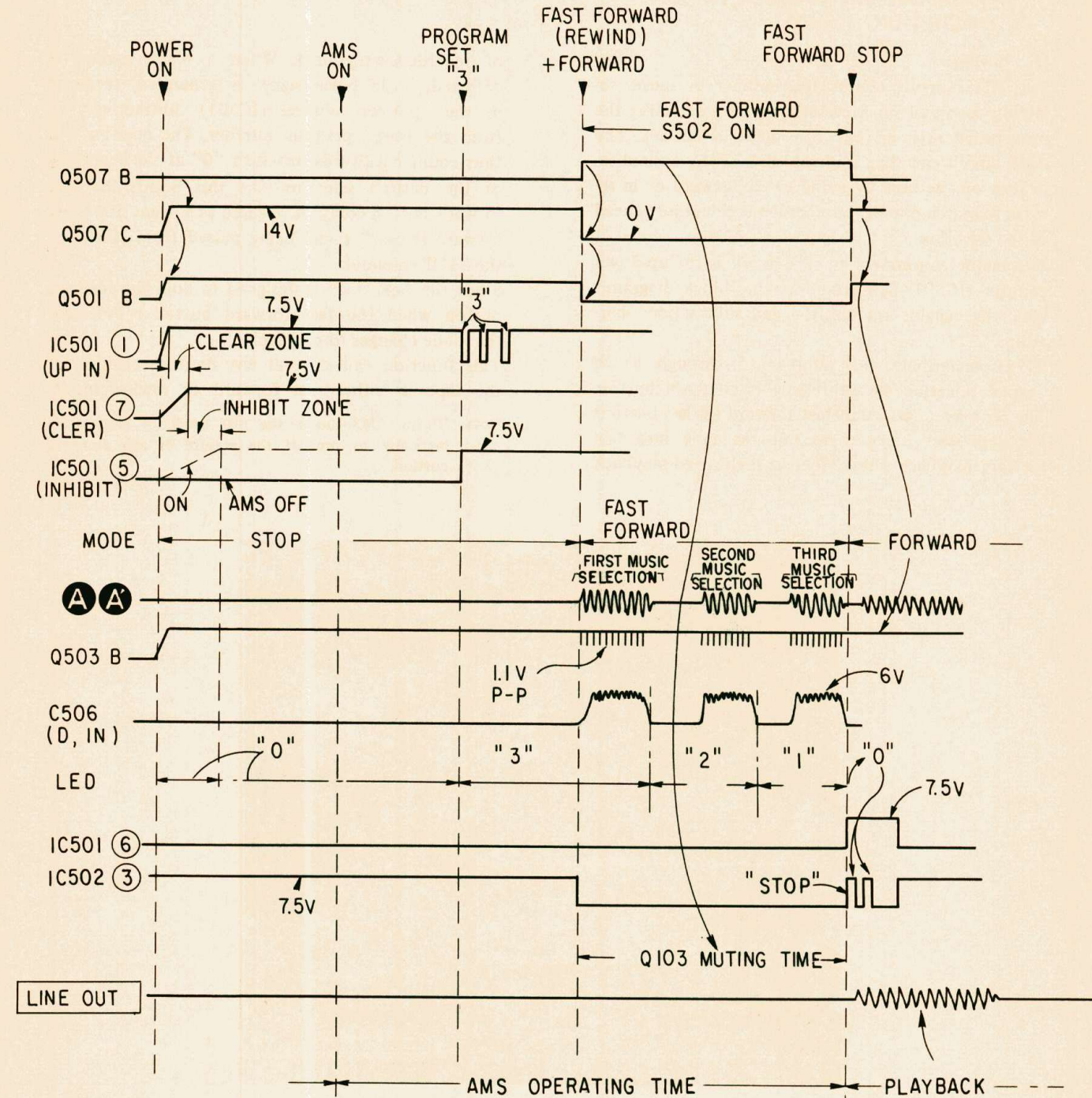
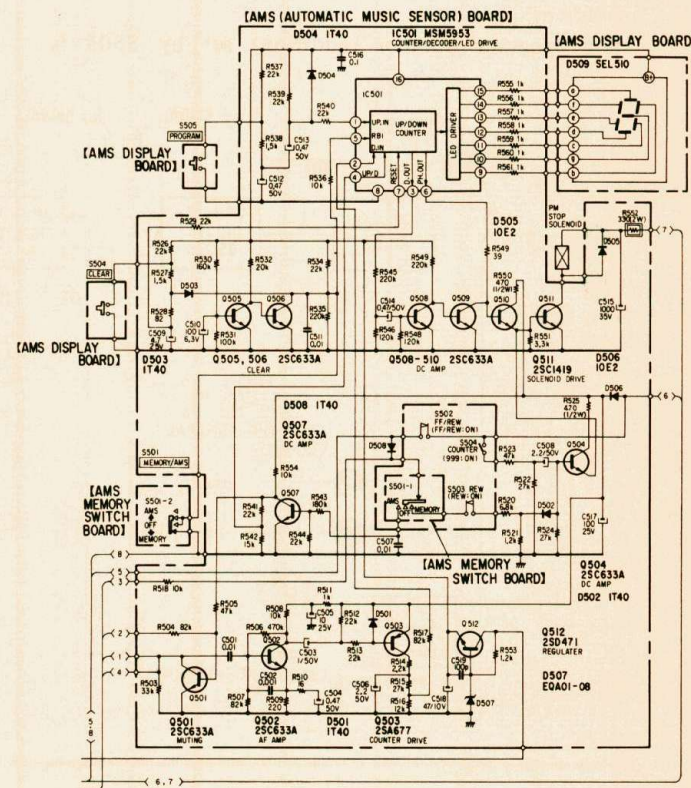
When S501 is in the AMS position, S502 is turned on, resulting in Q507 turned on and Q501 turned off, thereby putting the tape deck into high speed playback mode. Since Q501 is turned off, the playback signal is amplified by Q502, with the output (appearing at the collector) used to drive Q503. Since Q503 (PNP) requires no (+) pulses, only (-) pulses are applied to Q503 via the D501 clamping diode.

C506 is charged up by a (+) pulse output at the collector of Q503. The dc components of signal which is smoothed by C506 will consequently disappear when the audio signal ceases (at the unrecorded sections of the tape), being reduced to zero within a suitable time constant $[C506 \times (R516 + R517) = 0.1 \text{ sec}]$. This then serves as the subtraction input signal applied to IC501. In this way, the number of the preset program is reduced one by one by subtraction operations.

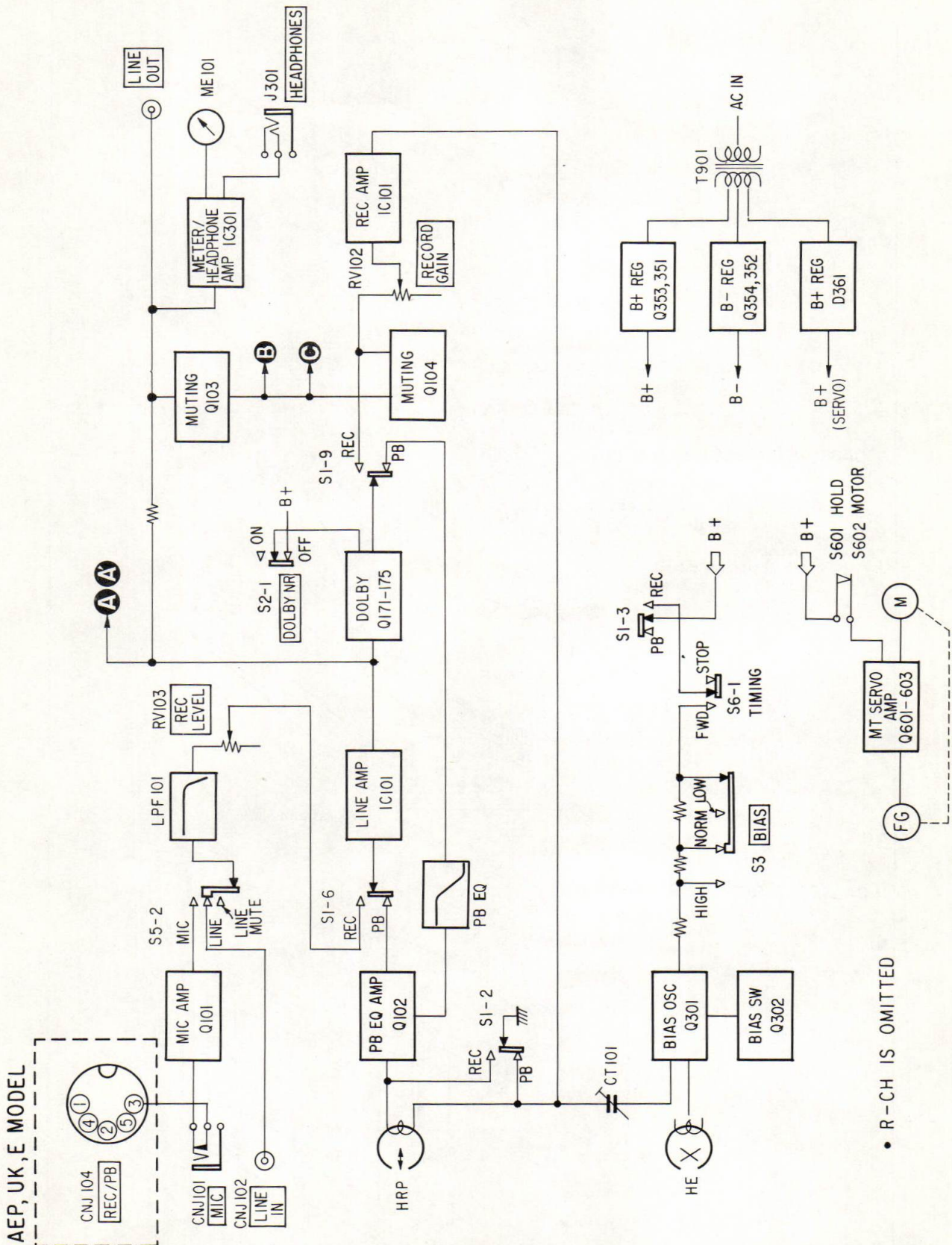
- Fast Forward (Rewind) Mode to Playback Mode

Upon completion of the subtraction operations, a B+ output signal of IC501 appears at PM. OUT, and an fast forward (rewind) release output signal appears at the same time at D. OUT. The fast forward (or rewind) mode is thus released.

- See the following diagram for the relevant time charts.

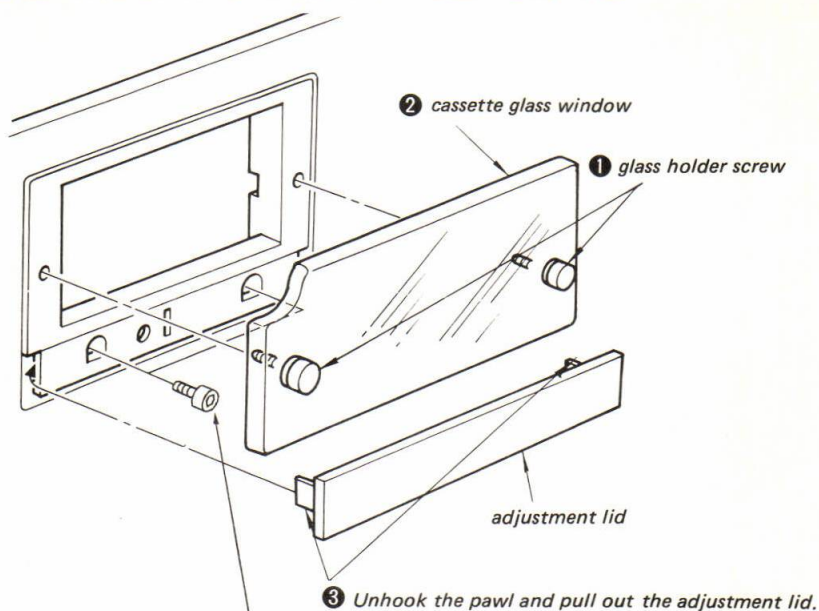


1-2. BLOCK DIAGRAM OF TAPE RECORDER SECTION

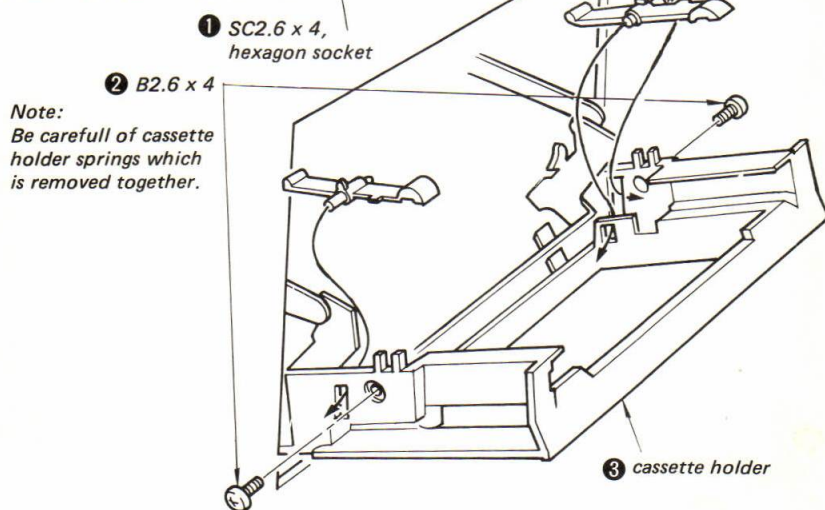


SECTION 2 DISASSEMBLY

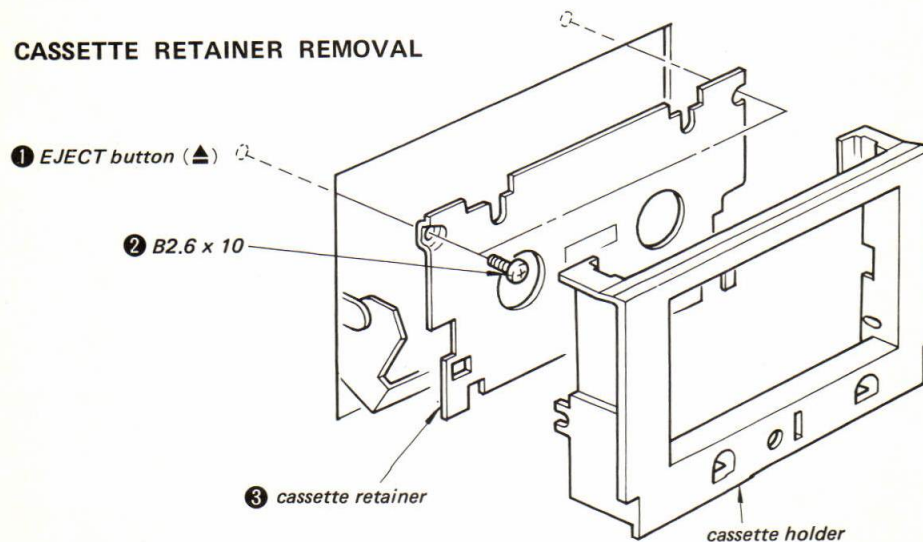
CASSETTE GLASS WINDOW AND ADJUSTMENT LID REMOVAL



CASSETTE HOLDER REMOVAL



CASSETTE RETAINER REMOVAL



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

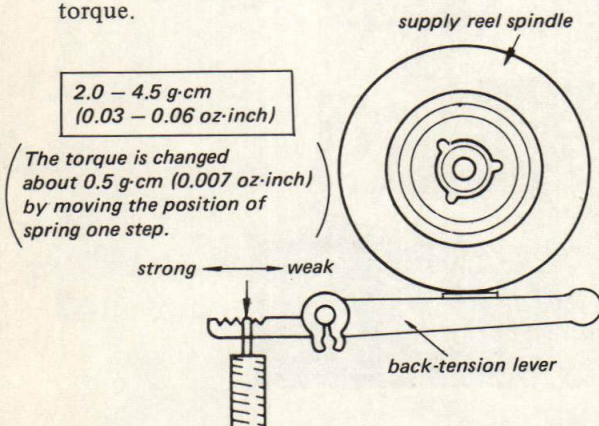
- Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply a suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Forward Back-tension Torque Adjustment

— Playback Mode —

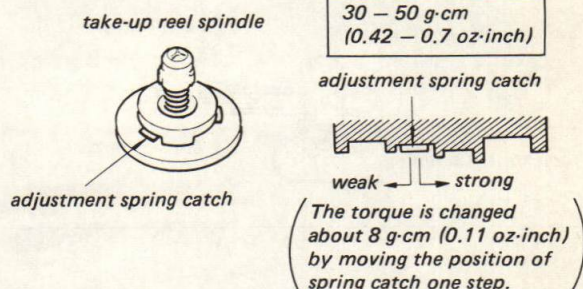
- Place the type CQ-102A cassette torque meter in the set.
- Adjust the spring-hook position for specified torque.



Forward Torque Adjustment

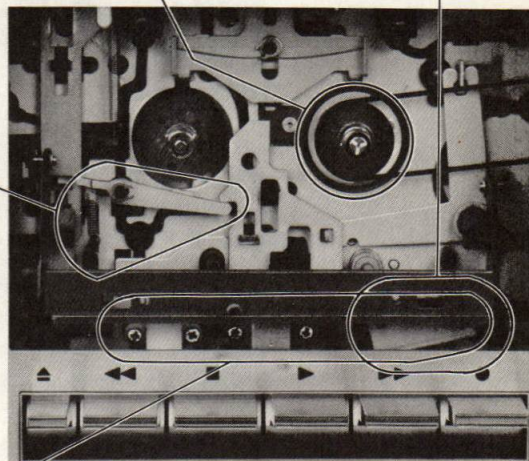
— Playback Mode —

- Place the type CQ-102A cassette torque meter in the set.
- Adjust the position of the adjustment spring catch for specified torque.



Pinch Roller Pressure Measurement

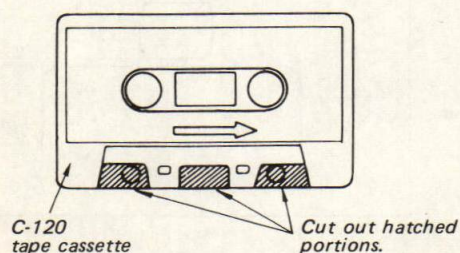
Specification: 310 - 390 g
(11 - 13.7 oz)



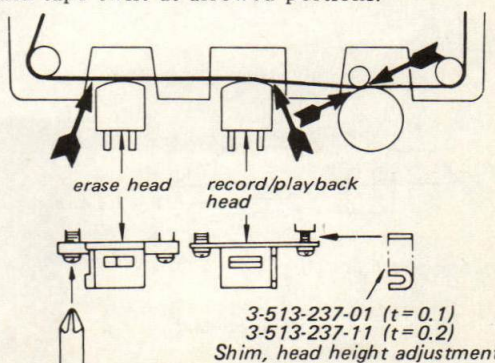
Head Height Adjustment

— Playback Mode —

- Prepare an adjustment cassette as shown below.



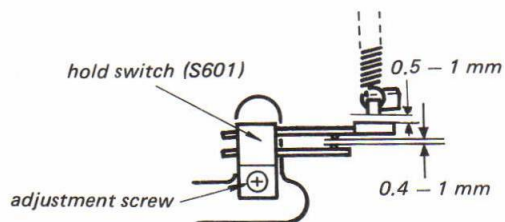
- In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at arrowed portions.



Hold Switch (S601) Position Adjustment

— Stop Mode —

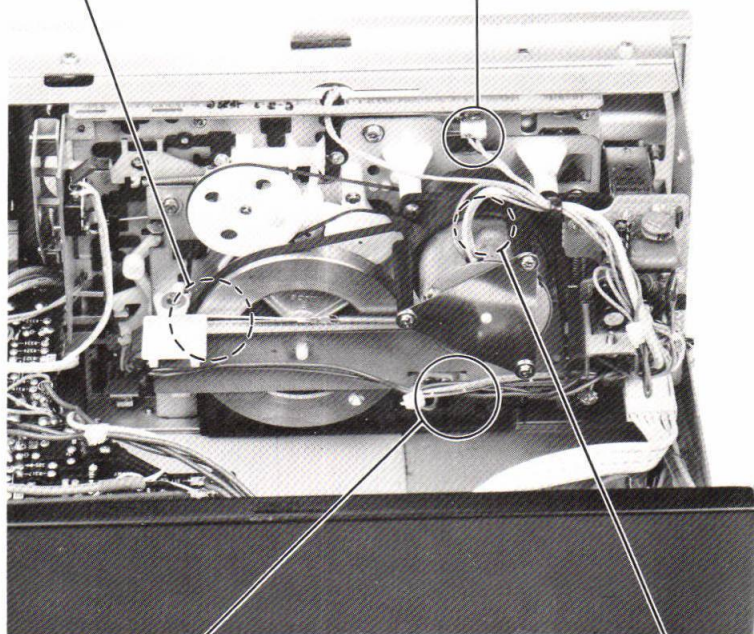
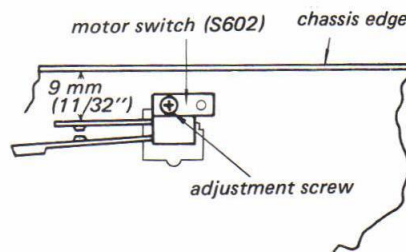
Adjust the switch position for specified clearance.



Motor Switch (S602) Position Adjustment

— Stop Mode —

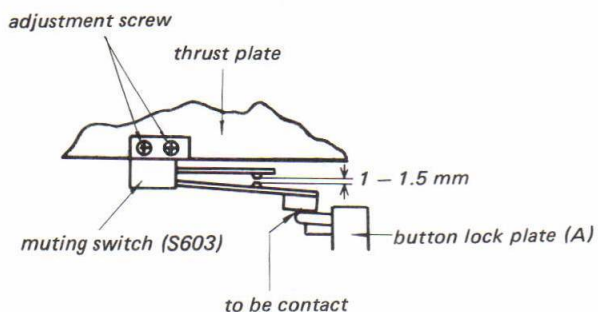
Adjust the switch angle for specified distance.



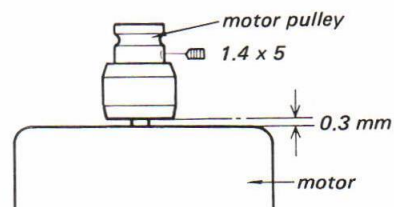
Muting Switch (S603) Position Adjustment

— Stop Mode —

Adjust the switch angle for specified clearance.



Motor Pulley Height Adjustment



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.

Tape	BIAS switch	EQ switch
CS-10 (HF)	NORMAL	NORMAL
CS-20(CrO ₂)	HIGH	CrO ₂
CS-30(Fe-Cr)	NORMAL	Fe-Cr

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

DOLBY NR switch: OFF
EQ switch: NORMAL
BIAS switch: NORMAL

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

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

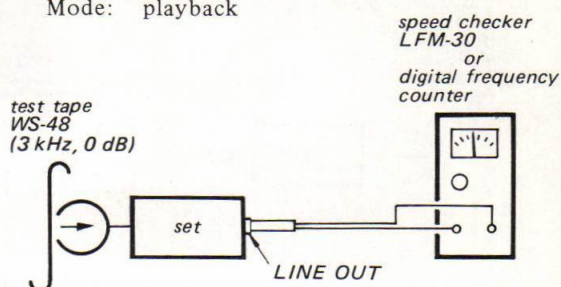
Standard Output Level

	LINE OUT	HEAD- PHONES
load impedance	100kΩ	8Ω
output level	0.44V(−5dB)	39mV(−26dB)

Tape Speed Adjustment

Procedure:

Mode: playback



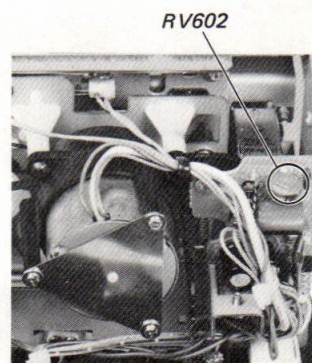
Specification:

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

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

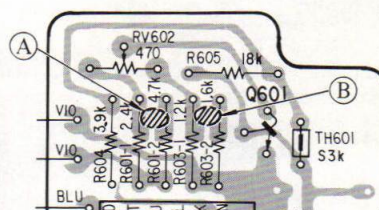
Adjustment Location:

— servo control board —



If correct tape speed can not be obtained by adjusting RV602, change solder bridge to (A) or (B)

— servo control board —



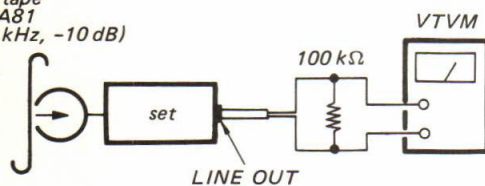
Pattern connection	Tape speed
(A)	fast
(B)	slow

Record/playback Head Azimuth Adjustment

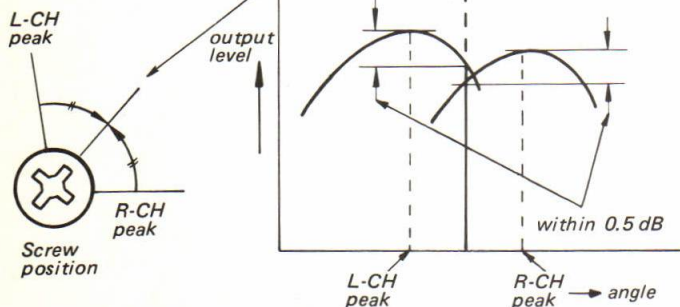
Procedure:

1. Mode: playback

test tape
P-4-A81
(6.3 kHz, -10 dB)

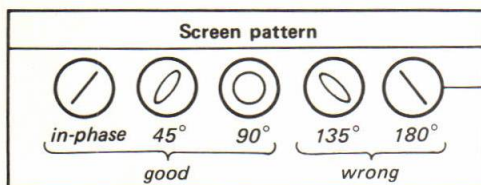
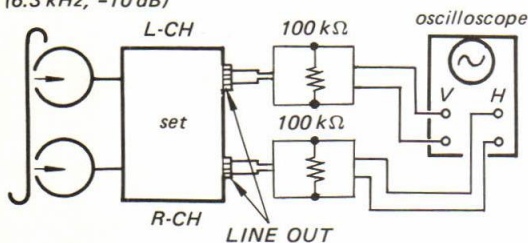


2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak positions.

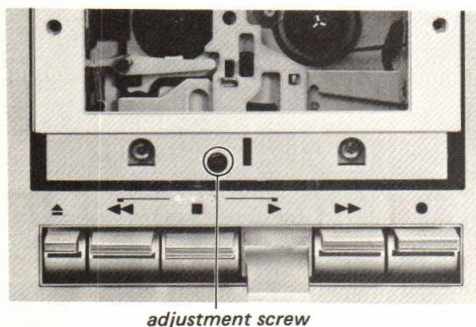


3. Mode: playback

test tape
P-4-A81
(6.3 kHz, -10 dB)



Adjustment Location:



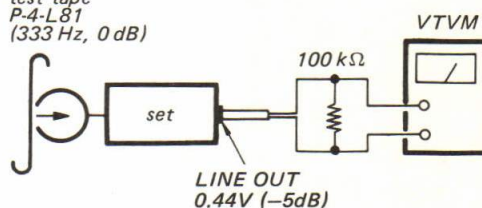
adjustment screw

Playback Level Adjustment

Procedure:

Mode: playback

test tape
P-4-L81
(333 Hz, 0 dB)



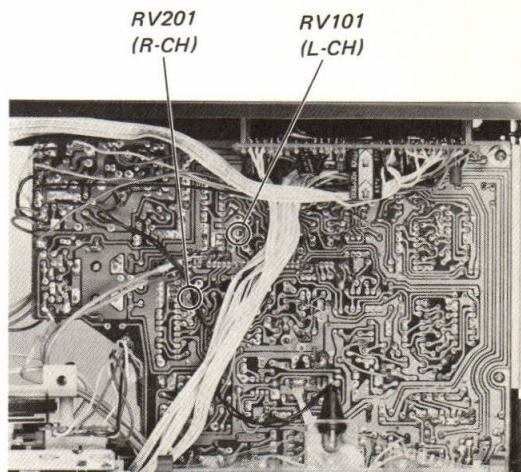
Specification:

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

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 amp board –



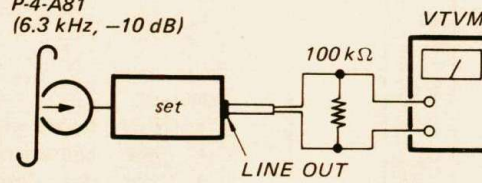
RV201
(R-CH)

RV101
(L-CH)

Playback Equalizer Adjustment

Procedure:

Mode: playback

test tape
P-4-A81
(6.3 kHz, -10 dB)

Specification:

EQ switch	LINE OUT level
NORMAL	0.17 - 0.18V (-13.2 - -12.8dB)

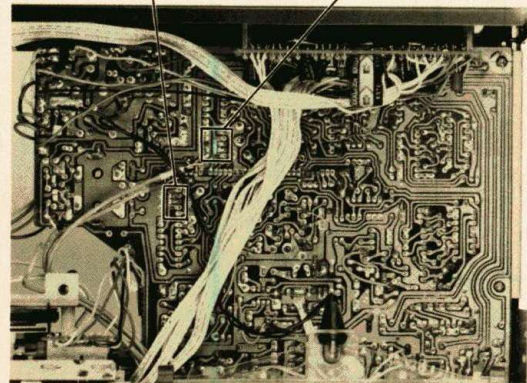
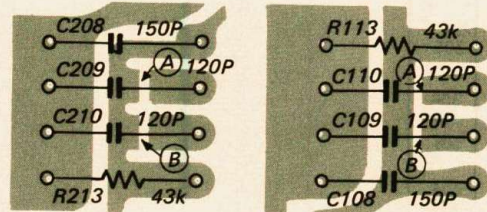
Adjustment Location:

- record/playback amp board -

Pattern connection	6.3 kHz level
(A), (B)	up
(A)	down
(open)	down

R-CH

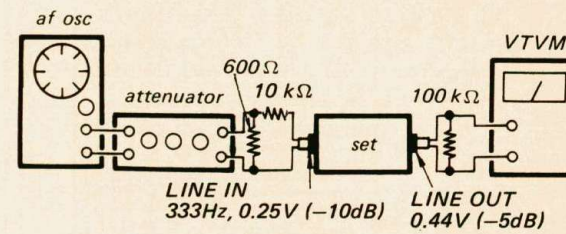
L-CH



Level Meter Calibration

Procedure:

1. Mode: record



2. Change the pattern connection for 0VU reading on the level meter.

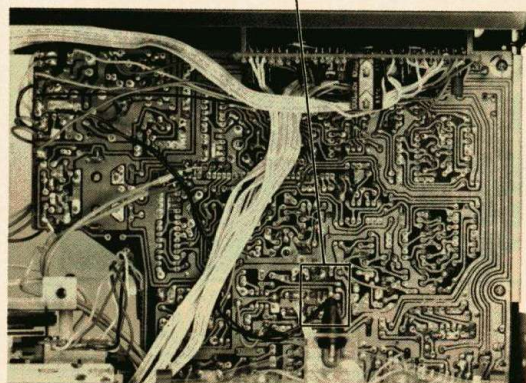
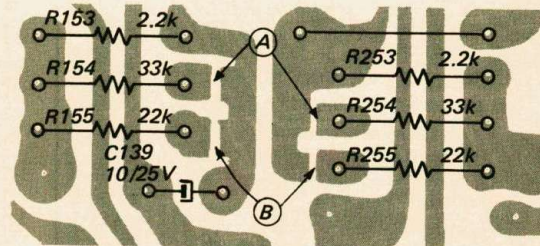
Pattern connection	LEVEL meter reading
(open)	up
(A)	down
(B)	down
(A), (B)	down

Adjustment Location:

- record/playback amp board -

L-CH

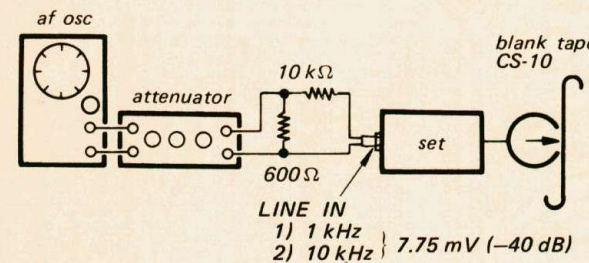
R-CH



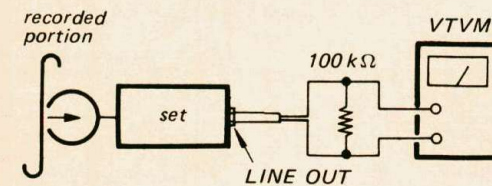
Record Bias Adjustment

Procedure:

1. Mode: standard record (See page 11)



2. Mode: playback



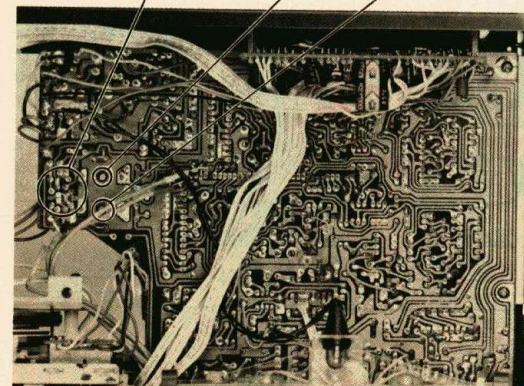
Adjust CT101 (L-CH) and CT201 (R-CH) to make 10kHz and 1kHz signal output levels equal.

Adjustment Location:

Note: If necessary, change solder bridge to (A) or (B).

- record/playback amp board -

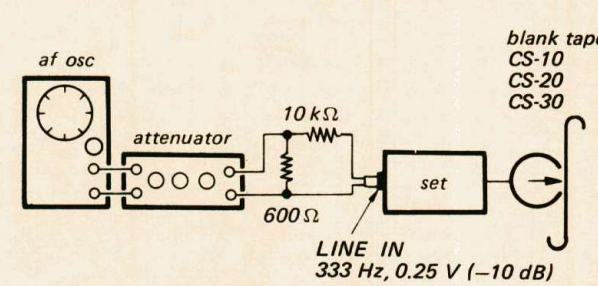
Pattern connection	VTVM reading
(A)	down
(B)	up



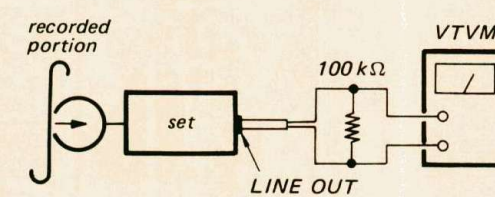
Record Level Adjustment

Procedure:

1. Mode: standard record (See page 11)



2. Mode: playback



Adjust RV102 (L-CH) and RV202 (R-CH) to obtain the specified VTVM reading.

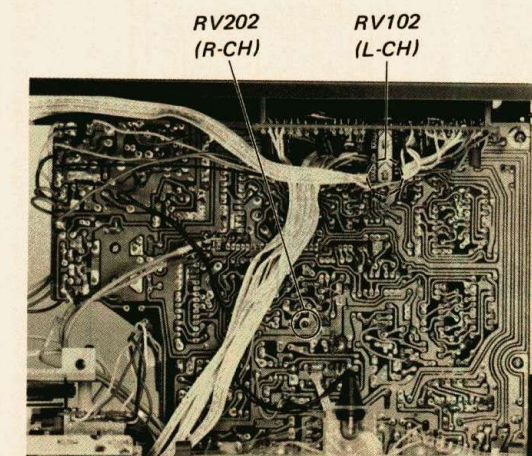
Specification:

LINE OUT level:

Tape	LINE OUT level
CS-10	0.41 - 0.46V (-5.5 - -4.5dB)
CS-20	0.31 - 0.44V (-8 - -5dB)
CS-30	0.39 - 0.49V (-6 - -4dB)

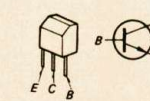
Adjustment Location:

- record/playback amp board -

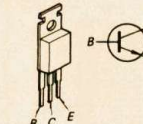


Replacement Semiconductors

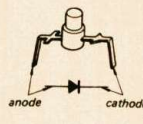
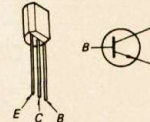
For replacement, use semiconductors except in ().

Q101, 102, 171
Q201, 202, 272 : 2SC1345

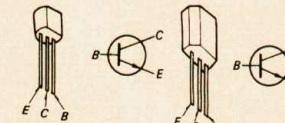
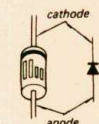
Q511: 2SC1061 (2SC1419)



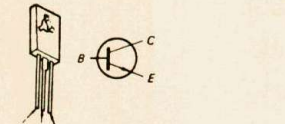
D301: SEL103R

Q103, 104, 172-175
Q203, 204, 272-275 : 2SC1364
Q305

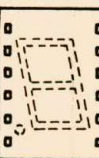
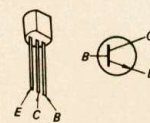
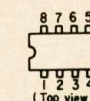
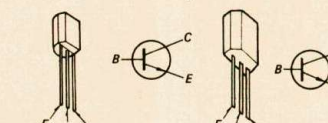
Q512: 2SC1474 (2SD471)

D306, 357, 358 : EQB01-06 (EQA01-06)
D361 : EQB01-21 (EQA01-21)
D507 : EQB01-08 (EQA01-08)

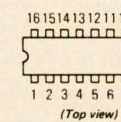
Q603: 2SD414



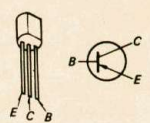
D509: SEL510

Q301: 2SC1474 (2SC1318)
Q351: 2SC1475IC101, 201 : μPC4558C (μPC4558)
IC301Q302, 353, 501
Q502, 504-510 : 2SC1364 (2SC633A)
Q601, 602

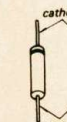
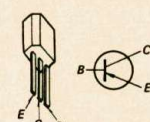
IC501: MSM5953



Q352: 2SA684 (2SA773)

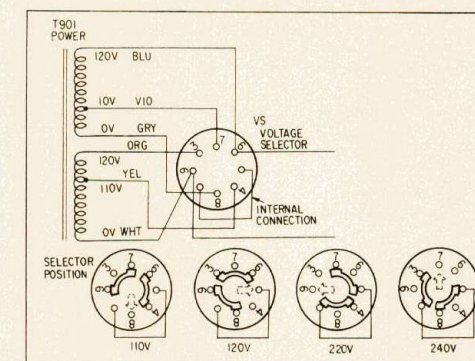
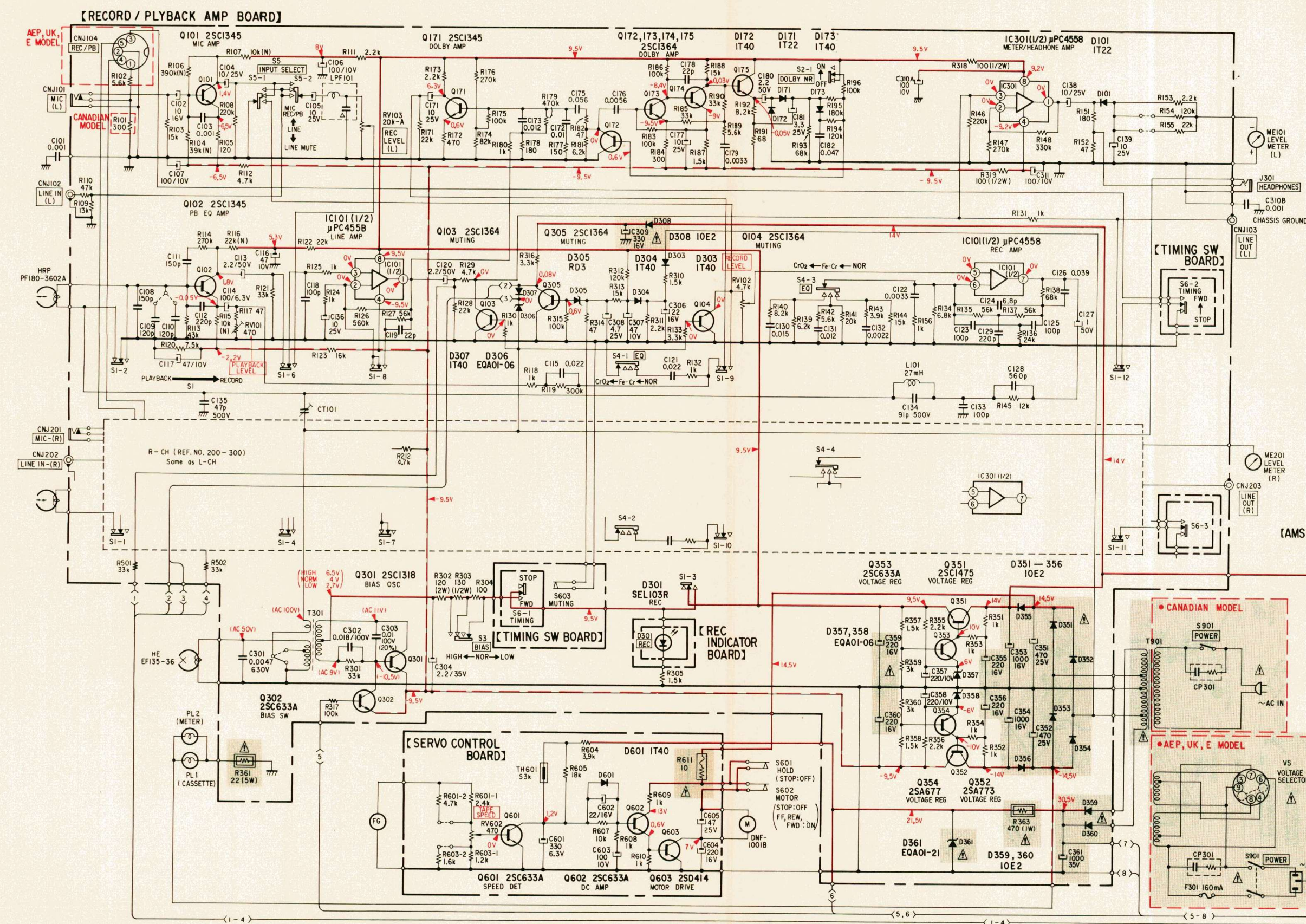
D101, 171, 201, 271: 1T22AM (1T22)
D172, 173, 272, 273 : 1S1555 (1T40)
D303, 304, 307 : RD3A (RD3)
D501-504, 508, 601 : 10E2
D308, 351-356 : RD3A (RD3)
D359, 360, 505, 506 : 10E2

Q354, 503: 2SA678 (2SA677)



—18—

4-2. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics. $\text{pF} = \mu\text{F}$, elect = electrolytic
- All resistors are in ohms, $\frac{1}{2}\text{W}$ unless otherwise noted. $\text{k}\Omega : 1000\Omega$, $\text{M}\Omega : 1000\text{k}\Omega$
-  : nonflammable resistor.
-  : fusible resistor.
-  : panel designation.
-  : direct connection to points marked  on the chassis

- Voltages are dc with respect to ground unless otherwise noted.

- Readings are taken with a 20,000-ohm-per-volt VOM.
- (V) : REC
- Voltage readings in the AMS board are taken under stop conditions and set S501 to off position.
- Voltage variations may be noted due to normal production tolerances.

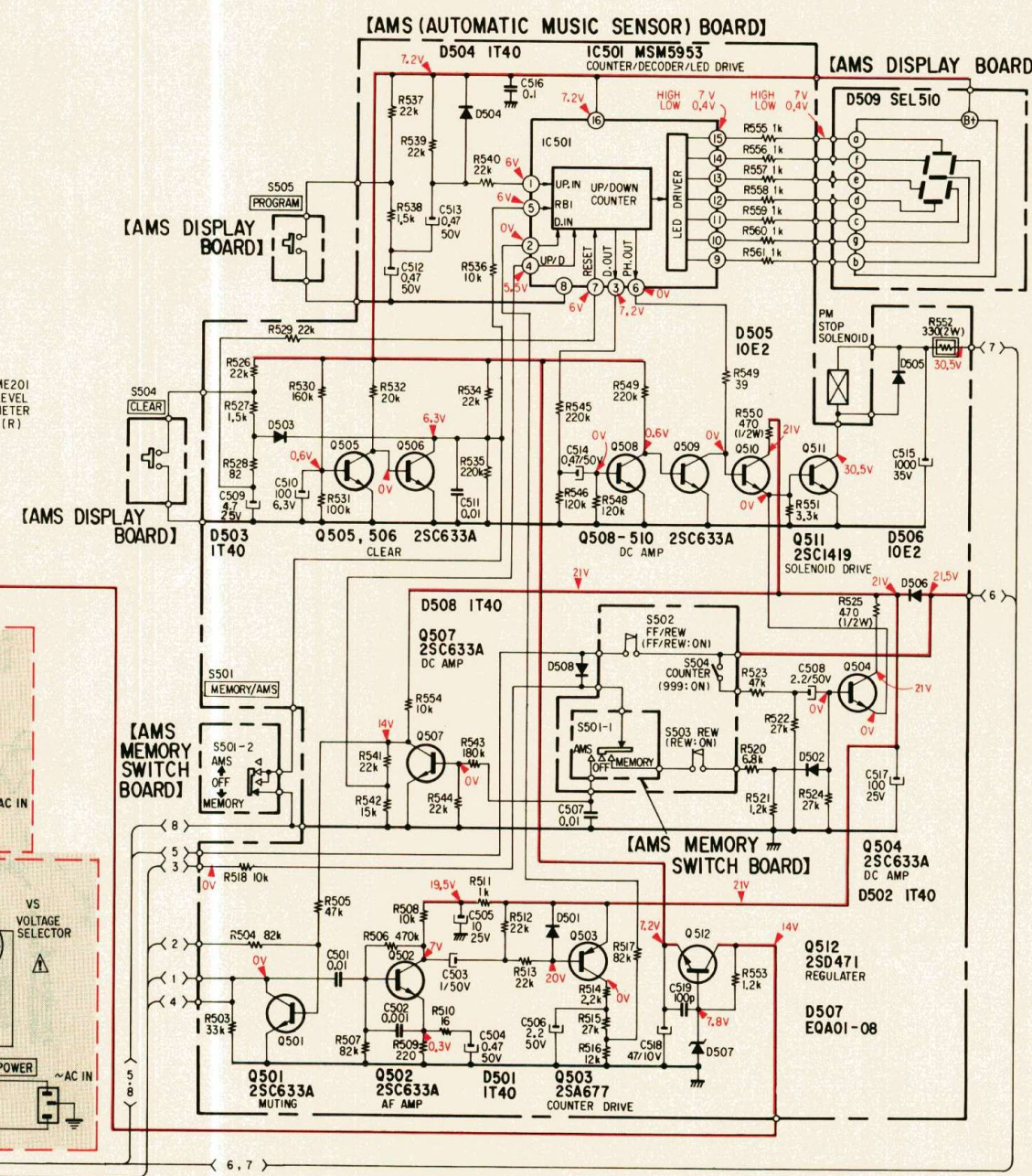
- : adjustment for repair.
-  : B+ bus.
-  : B- bus.

- Switch

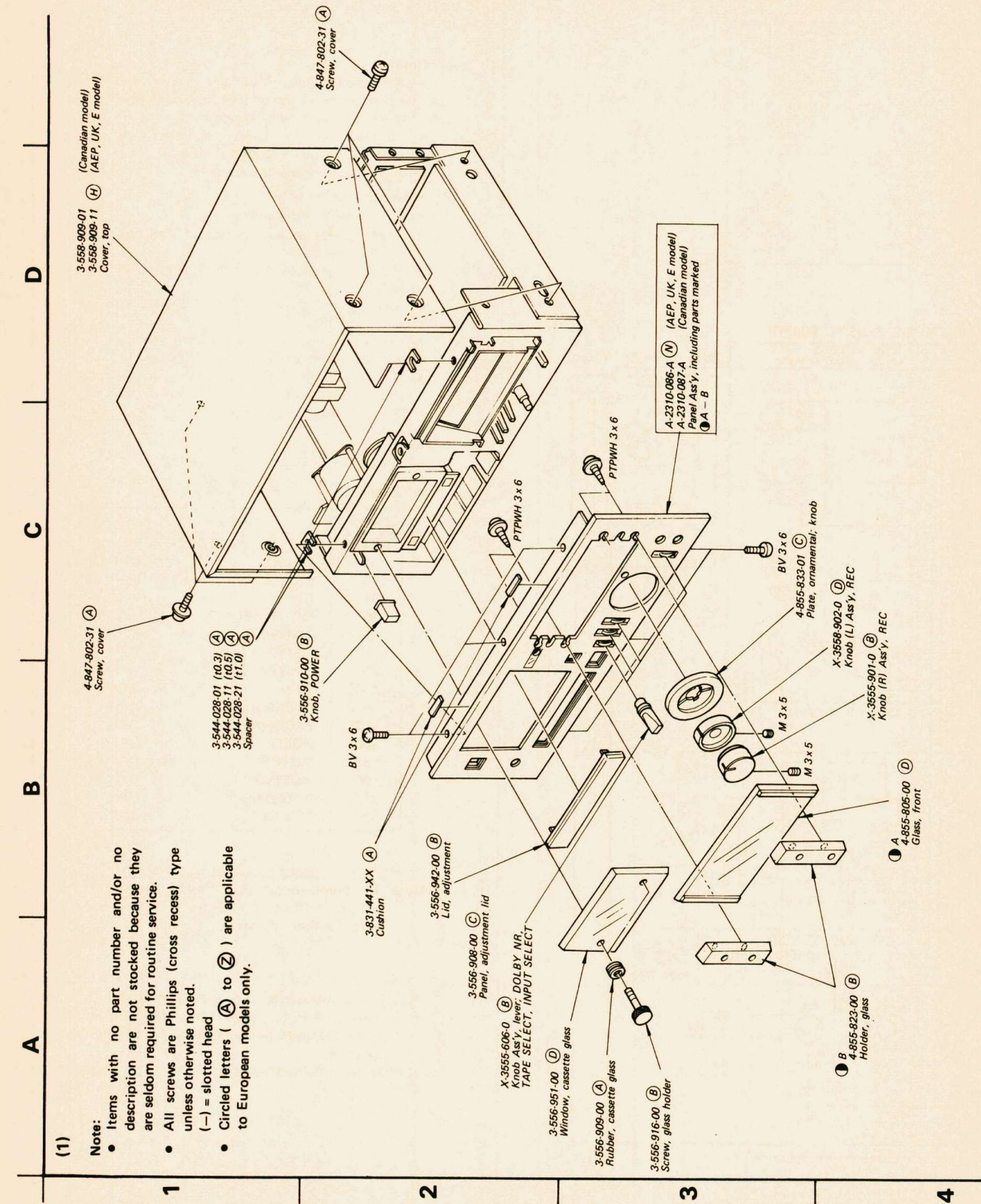
Ref. No.	Switch	Position
S1	RECORD/PLAYBACK	PB
S2	DOLBY	OFF
S3	BIAS	NOR
S4	EQ	LOW
S5	INPUT SELECT	LINE
S6	TIMING	STOP
S501	MEMORY/AMS	OFF
S502	FF/REW	OFF
S503	REW	OFF
S504	CLEAR	OFF
S505	PROGRAM	OFF
S601	HOLD	OFF
S602	MOTOR	OFF
S603	MUTING	OFF
S604	COUNTER	OFF
S901	POWER	OFF

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

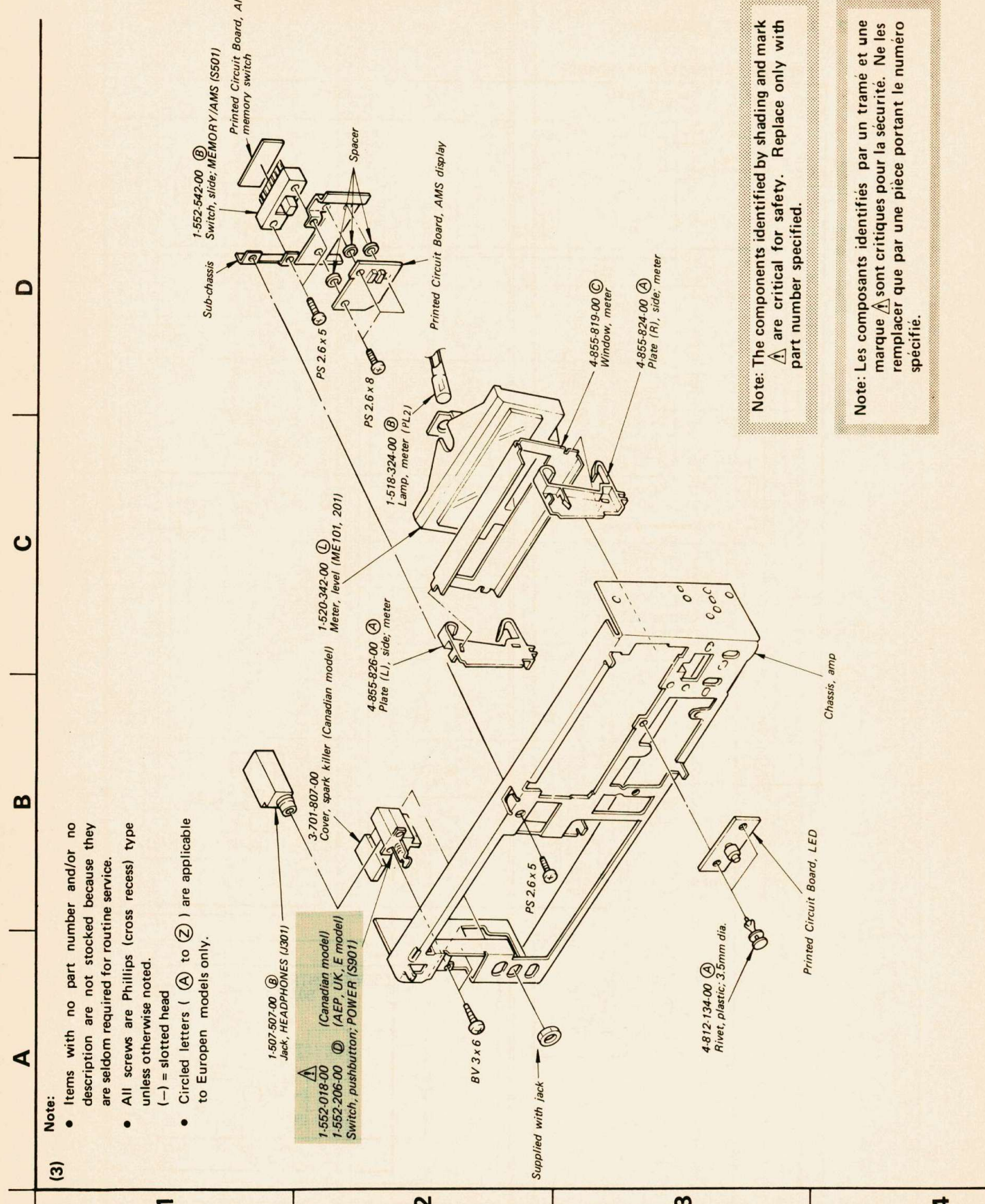
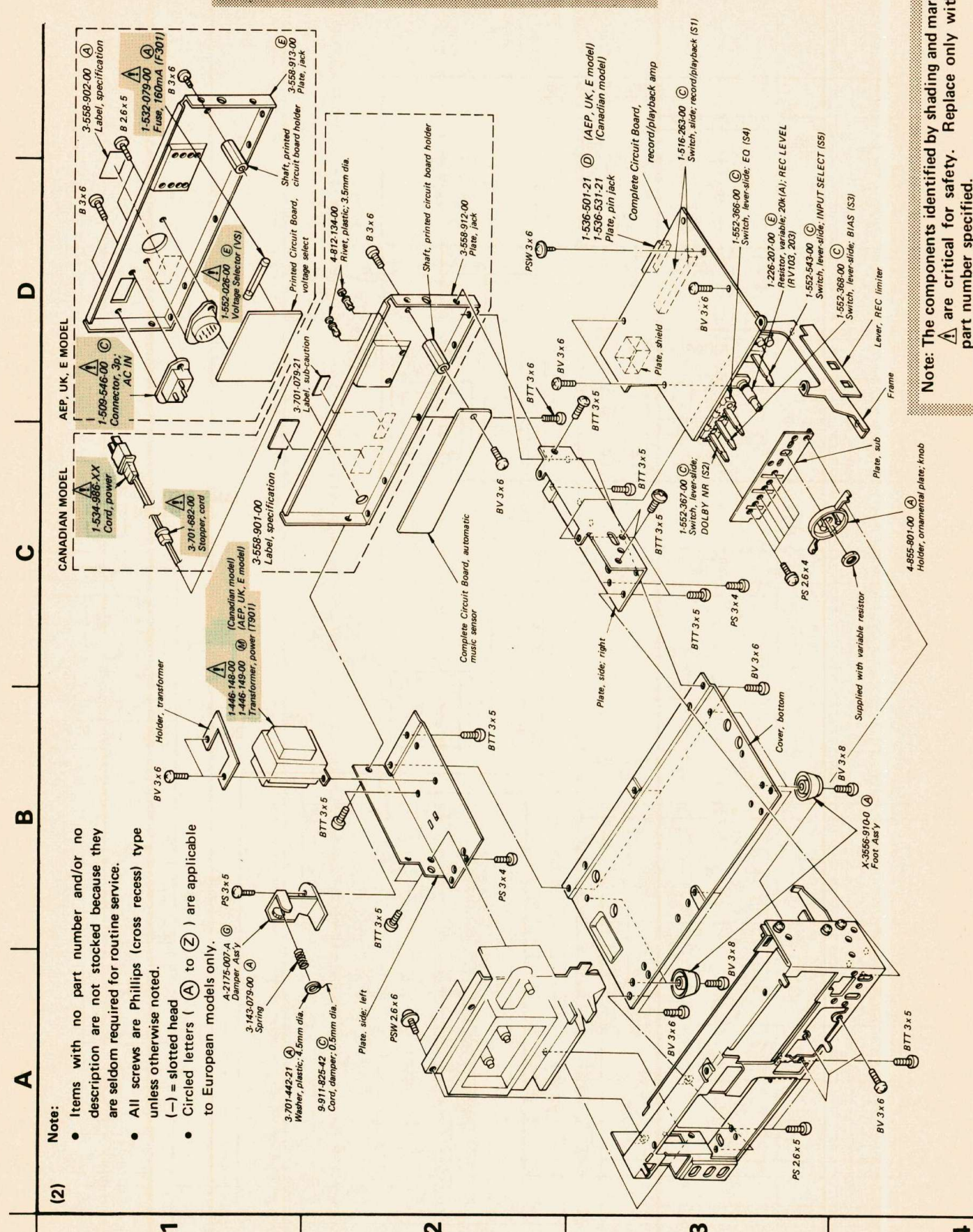
Note: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



SECTION 5 EXPLODED VIEWS



Note: Les composants identifiés par un 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

(4)

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
- (□□T) shows the number of coils in spring.
- Circled letters (A to Z) are applicable to European models only.

Shaft, button

3-555-042-11 (C)
Button, stop (■)

3-555-040-11 (B)
Button, eject (▲)

3-555-041-21 (C)
Button, fast-forward, forward, rewind
(▶▶▶▶◀◀)

3-555-041-31 (C)
Button, record (●)

3-555-043-11 (C)
Button, pause (■)

3-555-044-00 (B)
Spring, button

3-555-072-00 (A)
Plate (B), button lock

3-555-074-00 (A)
Spring

3-555-073-00 (A)
Spring

3-555-005-00 (B)
Plate (A), button lock

3-630-595-XX (A)
Spring (35T)

(5)

A

B

C

D

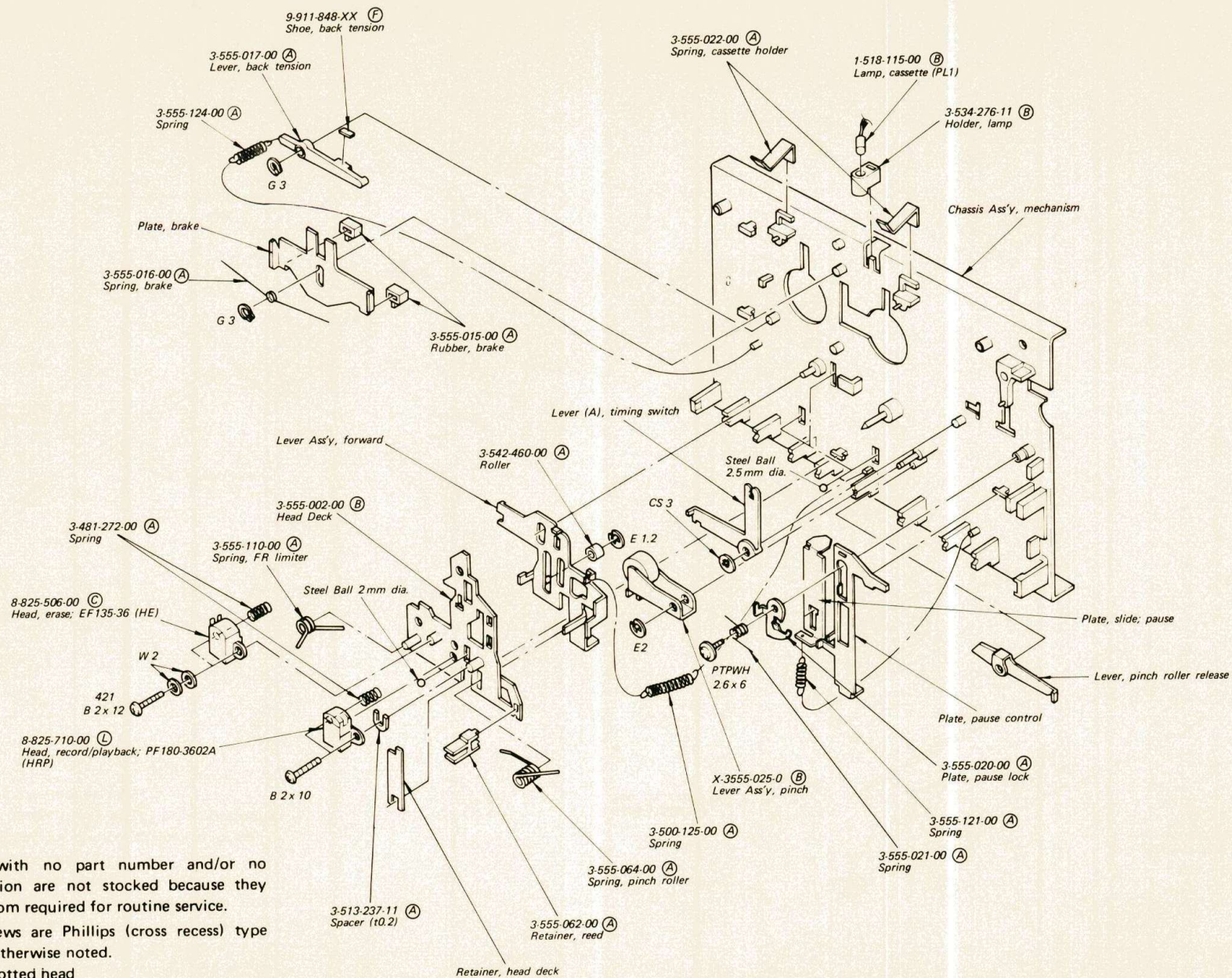
E

1

2

3

4



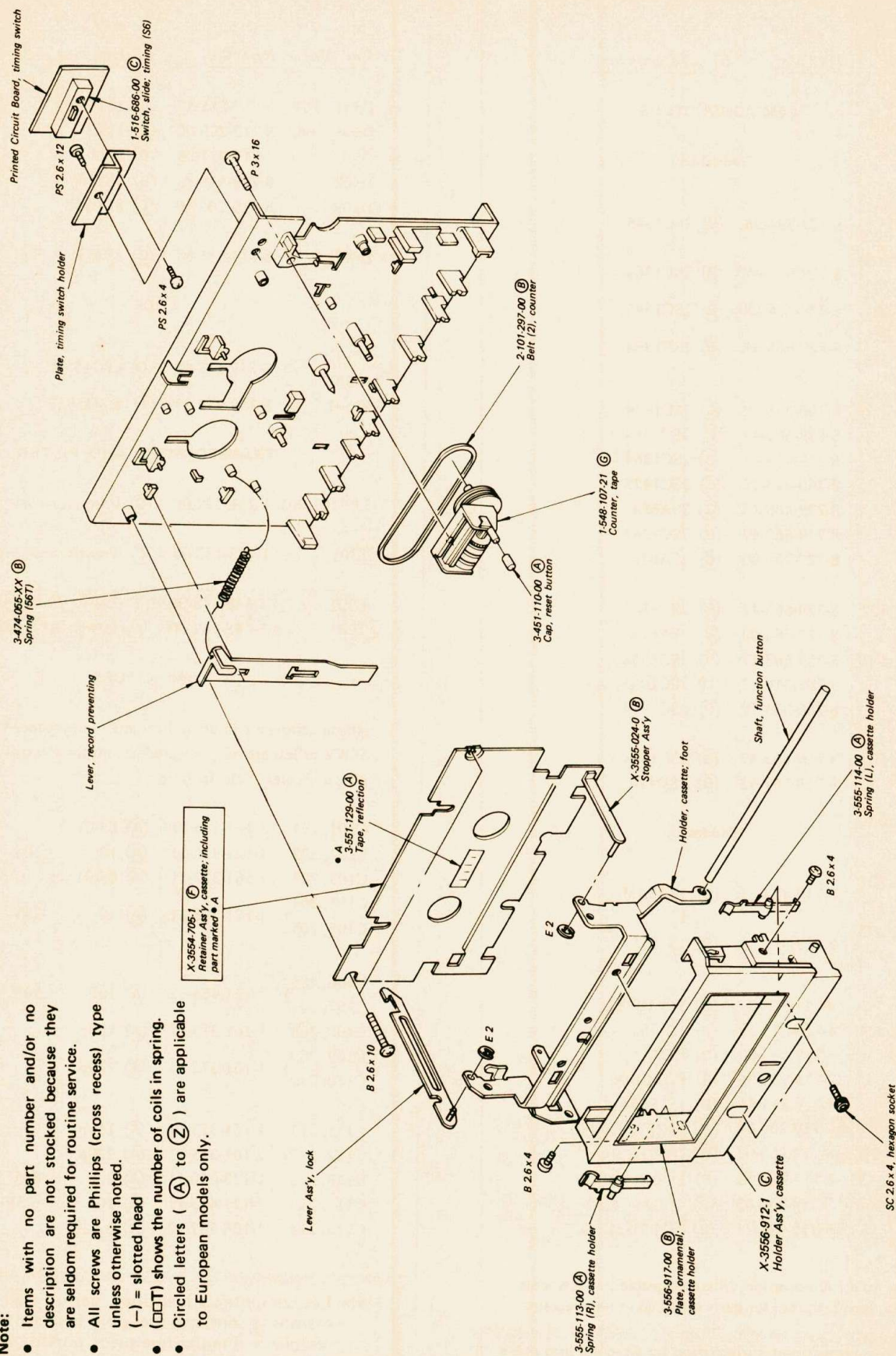
Note:

- 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
- Circled letters (A to Z) are applicable to European models only.

(9)

Note:

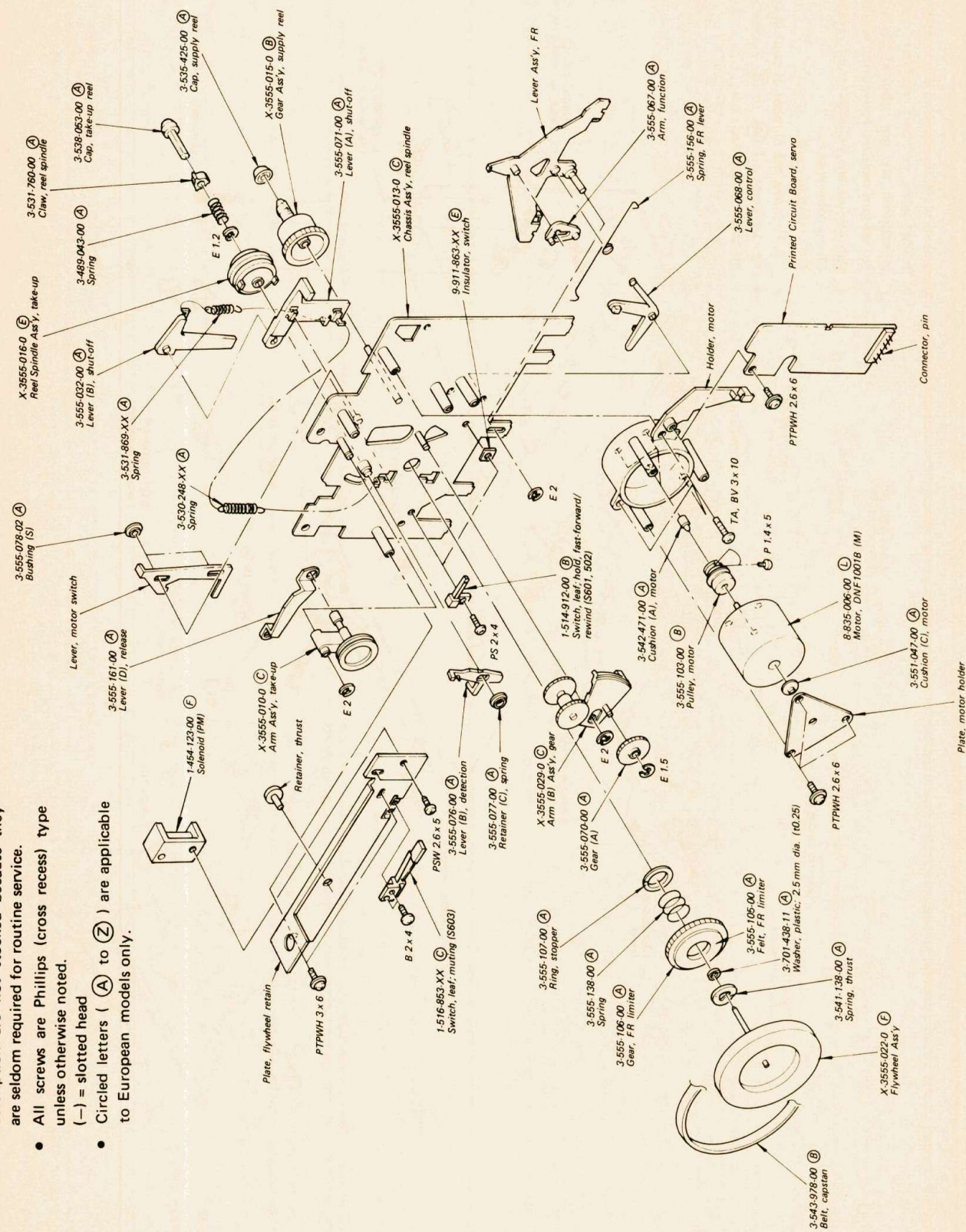
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (—) = slotted head
(□□T) shows the number of coils in spring.
- Circled letters ($\textcircled{A}$ to $\textcircled{Z}$) are applicable to European models only.



(7)

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
- Circled letters (**A**) to (**Z**) are applicable to European models only.



- Circled letters (A to Z) are applicable to European models only.

Ref. No.	Part No.	Description
C116, 216 C117, 217	1-121-352-11	(A) 47 10V elect
C118, 218	1-161-271-11	(A) 100p
C119, 219	1-161-263-11	(A) 22p
C120, 220	1-121-450-11	(A) 2.2 50V elect
C121, 221	1-108-587-12	(A) 0.022 mylar
C122, 222	1-161-327-11	(A) 0.0033
C123, 223	1-161-271-11	(A) 100p
C124, 224	1-161-257-11	(A) 6.8p
C125, 225	1-161-271-11	(A) 100p
C126, 226	1-108-593-12	(A) 0.039 mylar
C127, 227	1-121-391-11	(A) 1 50V elect
C128, 228	1-161-320-11	(A) 560p
C129, 229	1-161-315-11	(A) 220p
C130, 230	1-108-583-12	(A) 0.015 mylar
C131, 231	1-108-581-12	(A) 0.012 mylar
C132, 232	1-108-563-12	(A) 0.0022 mylar
C133, 233	1-161-271-11	(A) 100p
C134, 234	1-107-168-11	(A) 91p 500V mica
C135, 235	1-107-163-11	(A) 47p 500V mica
C136, 236 C138, 238 C139, 239 C171, 271	1-121-398-11	(A) 10 25V elect
C172, 272	1-108-579-12	(A) 0.01 mylar
C173, 273	1-108-581-12	(A) 0.012 mylar
C175, 275	1-108-597-12	(A) 0.056 mylar
C176, 276	1-108-573-12	(A) 0.0056 mylar
C177, 277	1-121-398-11	(A) 10 25V elect
C178, 278	1-161-263-11	(A) 22p
C179, 279	1-108-567-12	(A) 0.0033 mylar
C180, 280	1-121-986-11	(A) 2.2 50V elect
C181, 281	1-121-960-11	(A) 3.3 25V elect
C182, 282	1-108-595-12	(A) 0.047 mylar
C301	1-129-710-11	(A) 0.0047 630V polyethylene
C302	1-106-202-12	(A) 0.018 100V mylar
C303	1-129-701-11	(B) 0.01 ± 2% 100V polyethylene
C304	1-131-217-11	(B) 2.2 35V elect
C306	1-121-479-11	(A) 22 16V elect

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

Ref. No.	Part No.	Description
C307	1-121-352-11	(A) 47 10V elect
C308	1-121-395-11	(A) 4.7 25V elect
C309	 1-121-521-11	(B) 330 16V elect
C310B	1-102-074-11	(A) 0.001
C310A, 311	1-121-414-11	(A) 100 10V elect
C351,352	 1-123-336-11	(B) 470 25V elect
C353,354	 1-123-324-11	(B) 1000 16V elect
C355,356	 1-123-321-11	(A) 220 16V elect
C357,358	1-123-308-11	(A) 220 10V elect
C359,360	 1-123-321-11	(A) 220 16V elect
C361	 1-123-349-11	(B) 1000 35V elect
C501	1-108-579-12	(A) 0.01
C503	1-121-391-11	(A) 1 50V elect
C504	1-121-726-11	(A) 0.47 50V elect
C505	1-121-398-11	(A) 10 25V elect
C506	1-121-986-11	(A) 2.2 50V elect
C507	1-108-579-11	(A) 0.01 mylar
C508	1-121-986-11	(A) 2.2 50V elect
C509	1-121-395-11	(A) 4.7 25V elect
C510	1-121-413-11	(A) 100 6.3V elect
C511	1-108-579-12	(A) 0.01 mylar
C512	1-121-726-11	(A) 0.47 50V elect
C513, 514	1-121-951-11	(A) 0.47 50V elect
C515	1-121-388-11	(C) 1000 35V elect
C516	1-108-603-12	(B) 0.1 mylar
C517	1-121-416-11	(A) 100 25V elect
C518	1-121-352-11	(A) 47 10V elect
C601	1-121-751-11	(B) 330 6.3V elect
C602	1-121-479-11	(A) 22 16V elect
C603	1-121-414-11	(A) 100 10V elect
C604	1-121-421-11	(B) 220 16V elect
C605	1-121-410-11	(A) 47 25V elect
CT101,201	1-141-010-XX	(B) Trimmer

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

- Circled letters (A to Z) are applicable to European models only.

Ref. No.	Part No.	Description
RESISTORS		
All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on the last page for their part numbers.		
R302	1-217-225-11	(B) 120 2W wirewound (nonflammable)
R303	1-244-852-11	(A) 130 ½W carbon
R318, 319	1-244-849-11	(A) 100 ½W carbon
R361	 1-206-566-11	(B) 22 5W metal oxide (nonflammable)
R363	 1-213-139-11	(A) 470 1W metal oxide (nonflammable)
R525, 550	1-244-865-11	(A) 470 ½W carbon
R552	1-206-652-11	(A) 330 2W metal oxide (nonflammable)
R611	 1-217-387-11	(B) 10 ¼W fusible (nonflammable)
RV101, 201	1-224-641-XX	(B) 470, adjustable; playback level
RV102, 202	1-224-644-XX	(B) 4.7k, adjustable; record level
RV103, 203	1-226-207-00	(E) 20k(A), variable; REC LEVEL
RV602	1-224-630-00	(B) 470, adjustable; tape speed
SWITCHES		
S1	1-516-263-00	(C) Slide, record/playback
S2	1-552-367-00	(C) Lever-slide, DOLBY NR
S3	1-552-368-00	(C) Lever-slide, BIAS
S4	1-552-366-00	(C) Lever-slide, EQ
S5	1-552-543-00	(C) Lever-slide, INPUT SELECT
S6	1-516-686-00	(C) Slide, TIMING
S501	1-552-542-00	(B) Slide, MEMORY/AMS
S502	1-514-912-00	(B) Leaf, fast forward-rewind
S503	1-516-853-XX	(C) Leaf, rewind
S504, 505	1-552-541-21	(B) Push, PROGRAM, CLEAR
S601	1-514-912-00	(B) Leaf, hold
S602	1-516-853-XX	(C) Leaf, motor
S603	1-516-853-XX	(C) Leaf, muting

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

Ref. No.	Part No.	Description
S901	 1-552-018-00	Pushbutton, POWER (Canadian model)
S901	 1-552-206-00	(D) Pushbutton, POWER (AEP, UK, E model)
MISCELLANEOUS		
CNJ101,201	1-507-525-00	(C) Jack, MIC
CP301	 1-231-057-31	(B) CR Encapsulated Component (AEP, UK, E model)
CP301	 1-231-341-21	CR Encapsulated Component (Canadian model)
F301	 1-532-079-00	(A) Fuse, 160mA (AEP, UK, E model)
HE	8-825-506-00	(C) Head, erase; EF135-36
HRP	8-825-710-00	(L) Head, record/playback; PF180-3602A
J301	1-507-507-00	(B) Jack, HEADPHONES
L101, 201	1-407-211-XX	(B) Microinductor 27mH
M	8-835-006-00	(L) Motor, DNF-1001B
ME101,201	1-520-342-00	(L) Meter, level
PL1	1-518-115-00	(B) Lamp, 8V 5mA; cassette
PL2	1-518-324-00	(B) Lamp, 8V 300mA; METER
PM	1-454-123-00	(F) Solenoid
TH601	1-800-200-00	(A) Thermistor, S-3K
VS	 1-552-026-00	(E) Voltage Selector (AEP, UK, E model)
	1-507-531-21	Pin Jack (Canadian model)
	 1-509-546-00	(C) Connector, 3p; AC IN (AEP, UK, E model)
	1-536-501-21	(D) Plate, pin jack (AEP, UK, E model)
	1-536-531-21	Plate, pin jack (Canadian model)
	 1-534-986-XX	Cord, power (Canadian model)

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

- Circled letters (A to Z) are applicable to European models only.

ACCESSORY & PACKING MATERIALS

Part No. *Description*

X-3701-105-0	(A) Tips Ass'y, head cleaning
1-534-049-31	(F) Cord, connection; RK-74H
1-534-819-00	(G) Cord, power (UK model)
3-550-770-00	(B) Cushion (A), lower
3-552-147-00	(B) Cushion (A)
3-552-148-00	(B) Cushion (B)
3-558-914-00	(D) Carton
3-701-630-00	(A) Bag, polyethylene
3-701-684-11	(A) Card, voltage indication (AEP, UK, E model)
3-770-570-11	(D) Manual, instruction
3-793-828-11	(A) Card, caution
3-793-956-31	Warranty Card (Canadian model)
4-891-037-00	(B) Bag, polyethylene

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

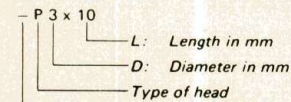
Note: Les composants identifiés par un tramé et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

1/4 WATT CARBON RESISTORS

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	10k	1-244-697-11	100k	1-244-721-11
1.1	1-244-602-11	11	1-244-626-11	110	1-244-650-11	1.1k	1-244-674-11	11k	1-244-698-11	110k	1-244-722-11
1.2	1-244-603-11	12	1-244-627-11	120	1-244-651-11	1.2k	1-244-675-11	12k	1-244-699-11	120k	1-244-723-11
1.3	1-244-604-11	13	1-244-628-11	130	1-244-652-11	1.3k	1-244-676-11	13k	1-244-700-11	130k	1-244-724-11
1.5	1-244-605-11	15	1-244-629-11	150	1-244-653-11	1.5k	1-244-677-11	15k	1-244-701-11	150k	1-244-725-11
1.6	1-244-606-11	16	1-244-630-11	160	1-244-654-11	1.6k	1-244-678-11	16k	1-244-702-11	160k	1-244-726-11
1.8	1-244-607-11	18	1-244-631-11	180	1-244-655-11	1.8k	1-244-679-11	18k	1-244-703-11	180k	1-244-727-11
2.0	1-244-608-11	20	1-244-632-11	200	1-244-656-11	2.0k	1-244-680-11	20k	1-244-704-11	200k	1-244-728-11
2.2	1-244-609-11	22	1-244-633-11	220	1-244-657-11	2.2k	1-244-681-11	22k	1-244-705-11	220k	1-244-729-11
2.4	1-244-610-11	24	1-244-634-11	240	1-244-658-11	2.4k	1-244-682-11	24k	1-244-706-11	240k	1-244-730-11
2.7	1-244-611-11	27	1-244-635-11	270	1-244-659-11	2.7k	1-244-683-11	27k	1-244-707-11	270k	1-244-731-11
3.0	1-244-612-11	30	1-244-636-11	300	1-244-660-11	3.0k	1-244-684-11	30k	1-244-708-11	300k	1-244-732-11
3.3	1-244-613-11	33	1-244-637-11	330	1-244-661-11	3.3k	1-244-685-11	33k	1-244-709-11	330k	1-244-733-11
3.6	1-244-614-11	36	1-244-638-11	360	1-244-662-11	3.6k	1-244-686-11	36k	1-244-710-11	360k	1-244-734-11
3.9	1-244-615-11	39	1-244-639-11	390	1-244-663-11	3.9k	1-244-687-11	39k	1-244-711-11	390k	1-244-735-11
4.3	1-244-616-11	43	1-244-640-11	430	1-244-664-11	4.3k	1-244-688-11	43k	1-244-712-11	430k	1-244-736-11
4.7	1-244-617-11	47	1-244-641-11	470	1-244-665-11	4.7k	1-244-689-11	47k	1-244-713-11	470k	1-244-737-11
5.1	1-244-618-11	51	1-244-642-11	510	1-244-666-11	5.1k	1-244-690-11	51k	1-244-714-11	510k	1-244-738-11
5.6	1-244-619-11	56	1-244-643-11	560	1-244-667-11	5.6k	1-244-691-11	56k	1-244-715-11	560k	1-244-739-11
6.2	1-244-620-11	62	1-244-644-11	620	1-244-668-11	6.2k	1-244-692-11	62k	1-244-716-11	620k	1-244-740-11
6.8	1-244-621-11	68	1-244-645-11	680	1-244-669-11	6.8k	1-244-693-11	68k	1-244-717-11	680k	1-244-741-11
7.5	1-244-622-11	75	1-244-646-11	750	1-244-670-11	7.5k	1-244-694-11	75k	1-244-718-11	750k	1-244-742-11
8.2	1-244-623-11	82	1-244-647-11	820	1-244-671-11	8.2k	1-244-695-11	82k	1-244-719-11	820k	1-244-743-11
9.1	1-244-624-11	91	1-244-648-11	910	1-244-672-11	9.1k	1-244-696-11	91k	1-244-720-11	910k	1-244-744-11

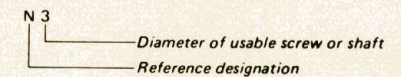
HARDWARE NOMENCLATURE

Screw:



Indicated slotted-head only.
Unless otherwise indicated, it means
cross-recessed head (Phillips type).

Nut, Washer, Retaining ring:



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		braizer-head screw	

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	

Sony Corporation

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9-954-674-01

7810483-1
Printed in Japan

TC-U5

TC-U5

TC-U5

PRELIMINARY

AEP Model
UK Model
E Model
Canadian Model



STEREO CASSETTE DECK

SPECIFICATIONS

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK 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.

GENERAL

Power Requirements:	120 V ac, 60 Hz (Canadian model) 110, 120, 220, 240 V ac, 50/60 Hz (AEP, E, UK model)
Power Consumption:	14 W ac
Dimensions:	Approx. 410 (w) x 145 (h) x 260 (d) mm 16 1/4 (w) x 5 3/4 (h) x 10 1/4 (d) inches including projecting parts and controls
Weight:	Approx. 6 kg, 13 lb 4 oz

TAPE RECORDER SECTION

Track:	4-track 2-channel stereo
Fast Forward	
Rewind Time:	Approx. 90 seconds with Sony cassette C-60

— Continued on page 2 —

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ !

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE  SUR LES DIAGRAMMES SCHEMATIQUES, 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.

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

SONY
 SERVICE MANUAL

Frequency Response:	DOLBY NR OFF With Ferri-Chrome cassette 20–17,000 Hz (NAB) 30–15,000 Hz ± 3 dB (NAB) 30–15,000 Hz (DIN) With chromium dioxide cassette 20–17,000 Hz (NAB) 30–15,000 Hz ± 3 dB (NAB) 30–15,000 Hz (DIN) With standard cassette 20–14,000 Hz (NAB) 30–13,000 Hz (DIN)
Wow and Flutter:	0.06 % WRMS (NAB) ± 0.16 % (DIN)
S/N Ratio:	DOLBY NR OFF With Ferri-Chrome cassette 58 dB at peak level (NAB) 56 dB (DIN) With chromium dioxide cassette 54 dB (NAB) DOLBY NR ON Improved by 5 dB at 1 kHz, 10 dB above 5 kHz

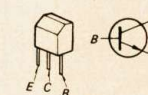
Total Harmonic Distortion:	1.3 %
Record Bias Frequency:	105 kHz
Inputs:	MIC (phone jacks) 2 sensitivity 0.25 mV (-70 dB) for a low-impedance microphone LINE IN (phono jacks) 2 sensitivity 77.5 mV (-20 dB) input impedance 50 k Ω
Outputs:	LINE OUTPUT (phono jacks) 2 output level 0.435 V (-5 dB) at load impedance 100 k Ω suitable load impedance more than 10 k Ω HEADPHONES 1 output level -28 dB at load impedance 8 Ω
REC/PB Jack (DIN):	Input impedance less than 10 k Ω Output impedance less than 10 k Ω

0 dB = 0.775 V

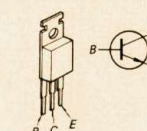
• Replacement Semiconductors

For replacement, use semiconductors except in ().

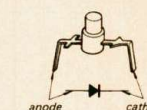
Q101, 102, 171, 201, 202, 272 : 2SC1345



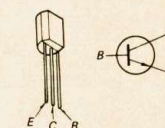
Q511: 2SC1061 (2SC1419)



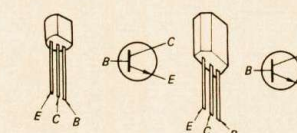
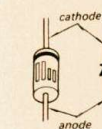
D301: SEL103R



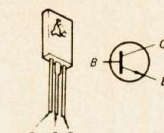
Q103, 104, 172–175, 203, 204, 272–275, Q305 : 2SC1364



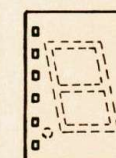
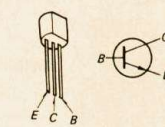
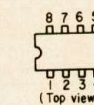
Q512: 2SC1474 (2SD471)

D306, 357, 358 : EQB01-06 (EQA01-06)
D361 : EQB01-21 (EQA01-21)
D507 : EQB01-08 (EQA01-08)

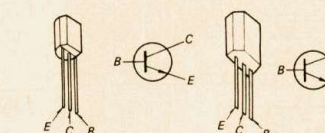
Q603: 2SD414



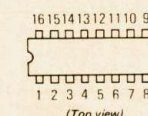
D509: SEL510

Q301: 2SC1474 (2SC1318)
Q351: 2SC1475IC101, 201 : μ PC4558C (μ PC4558)
IC301

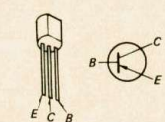
Q302, 353, 501, Q502, 504–510, Q601, 602 : 2SC1364 (2SC633A)



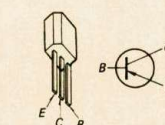
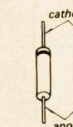
IC501: MSM5953



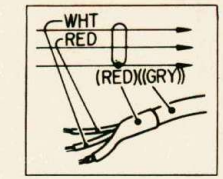
Q352: 2SA684 (2SA773)

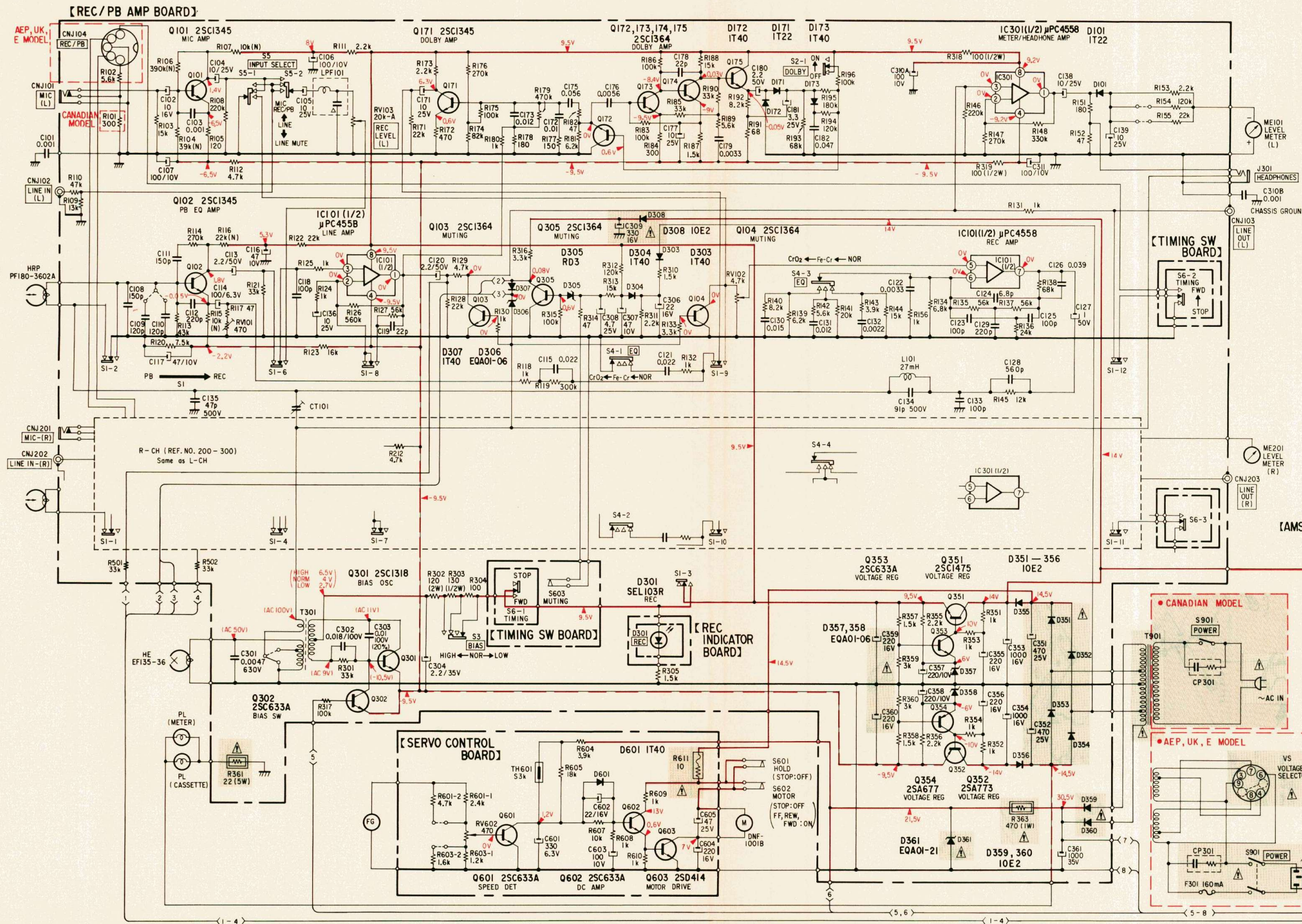


Q354, 503: 2SA678 (2SA677)

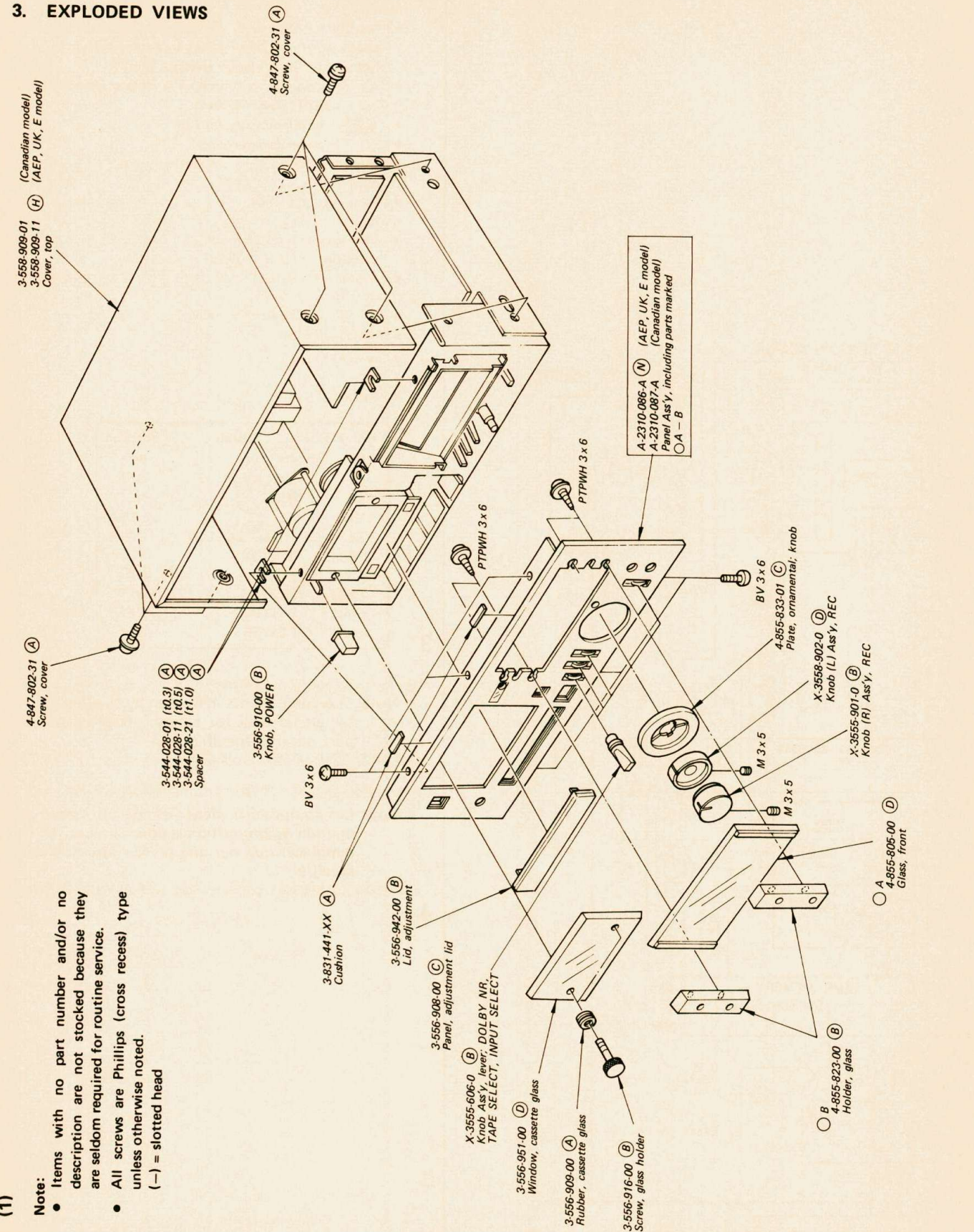
D101, 171, 201, 271: 1T22AM (1T22)
D172, 173, 272, 273 : 1S1555 (1T40)
D303, 304, 307 : RD3A (RD3)
D305 : 10E2
D308, 351–356 : 10E2
D359, 360, 505, 506

J





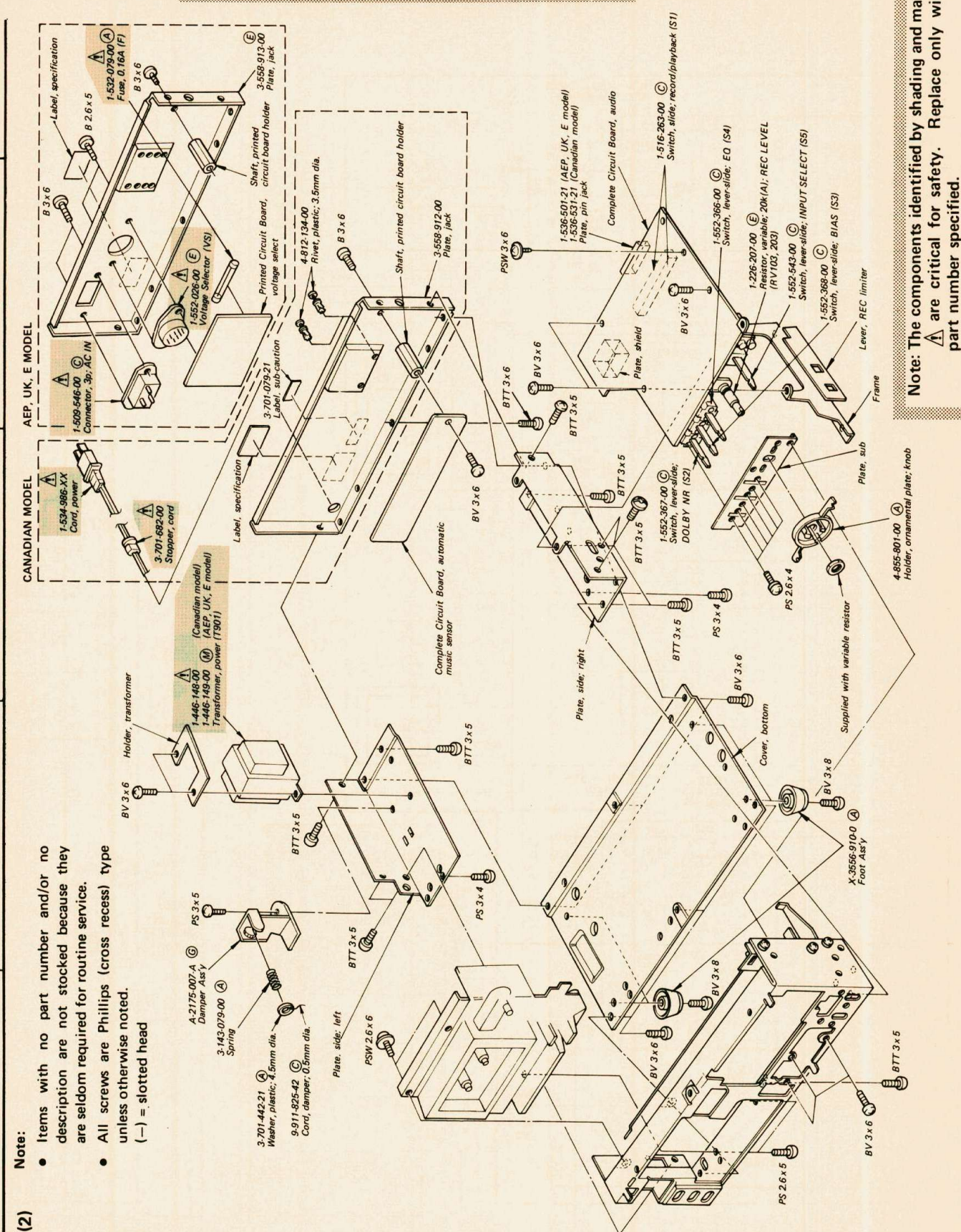
3. EXPLODED VIEWS



—10—

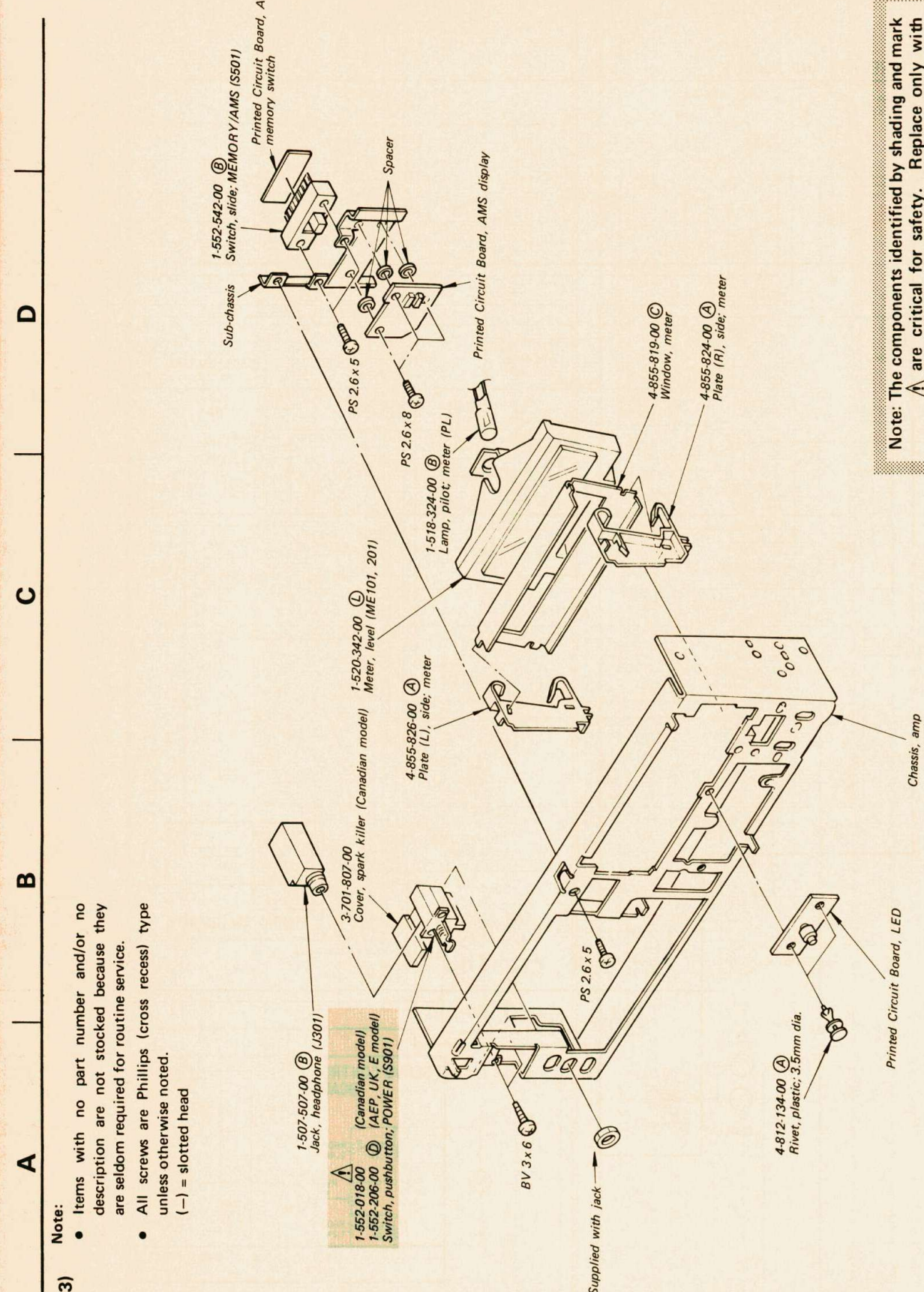
Note: Les composants identifiés par un tramé et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(2)



—11—

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



-12-

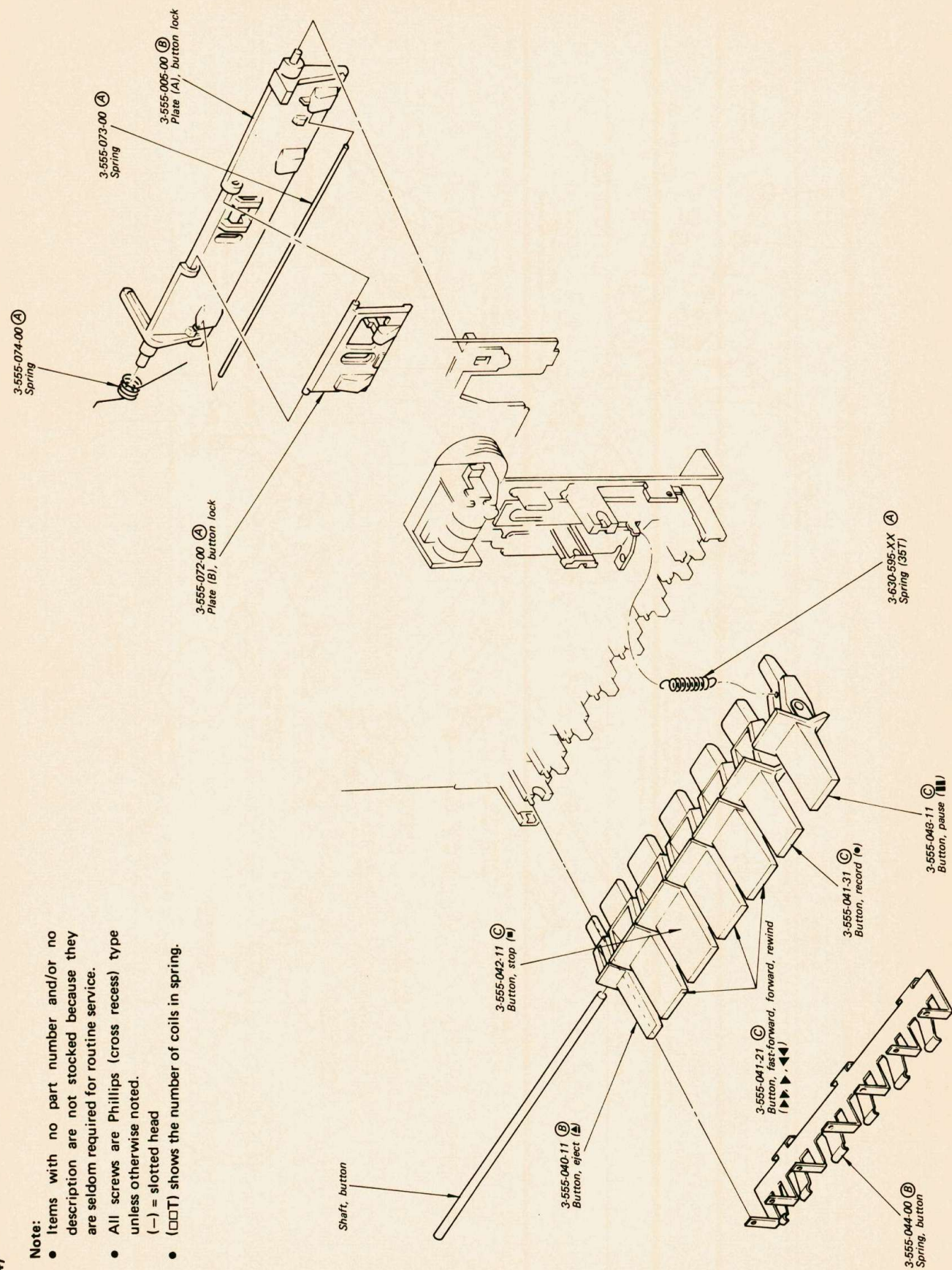
Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

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

(4)

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
- (□□T) shows the number of coils in spring.



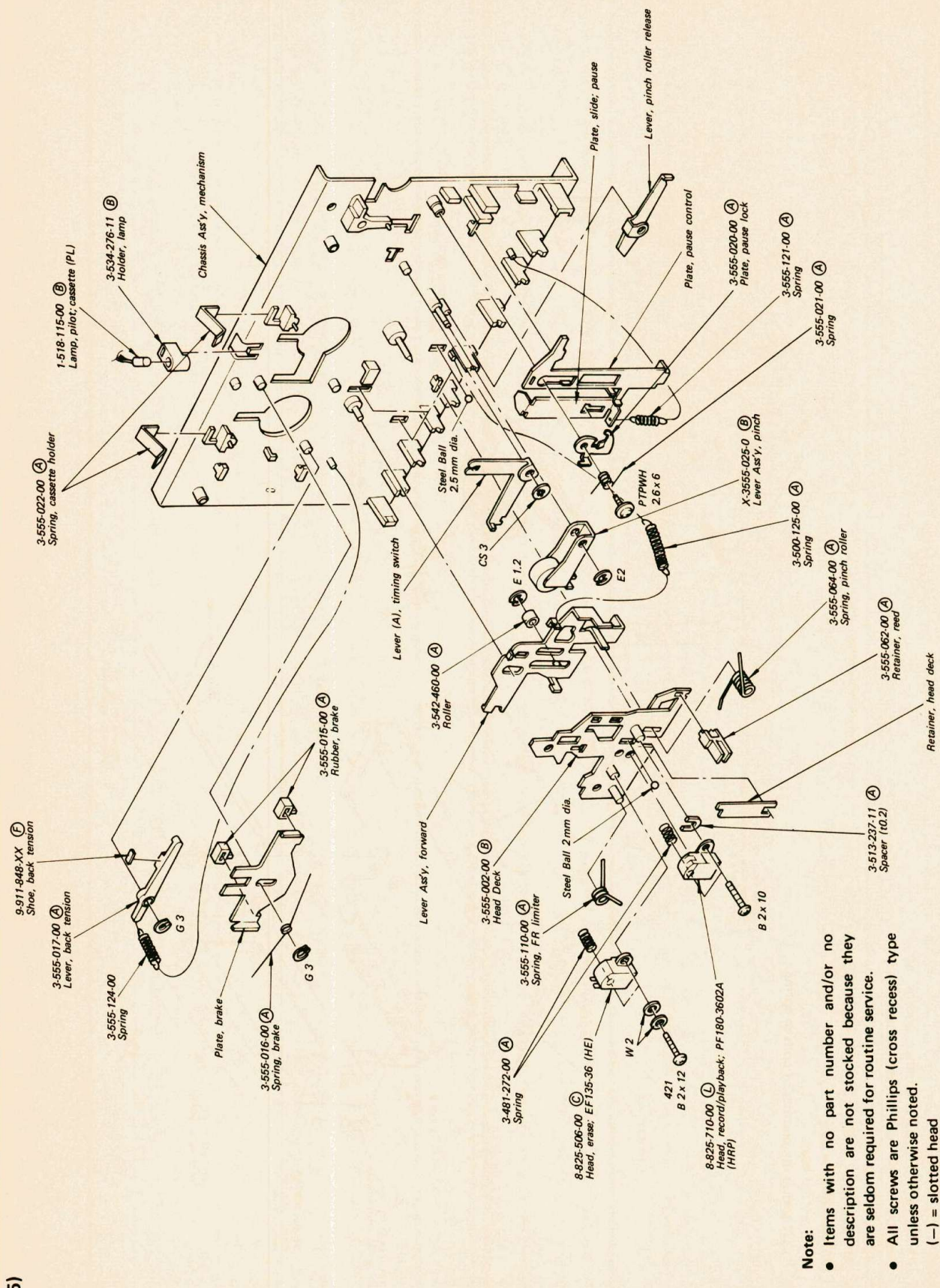
—13—

(5)

A

U

W



-14-

Note:

- 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

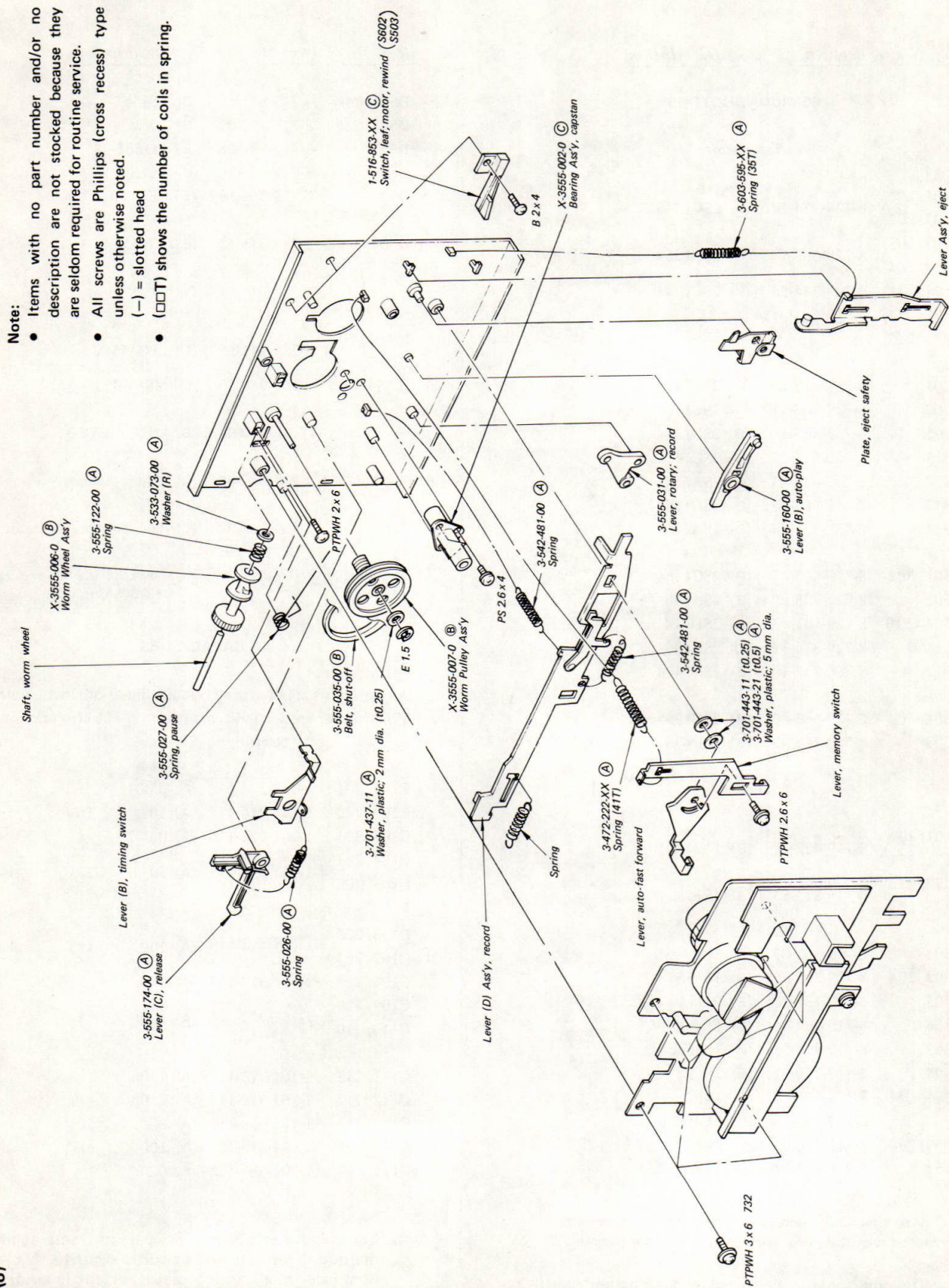
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (—) = slotted head
(□□T) shows the number of coils in spring.



- 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



(8)



4. ELECTRICAL PASTS LIST

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
SEMICONDUCTORS		
Transistors		
Q101, 201 Q102, 202	8-729-334-58	(B) 2SC1345
Q103, 203 Q104, 204	8-729-663-47	(B) 2SC1364
Q171, 271 Q172, 272	8-729-334-58	(B) 2SC1345
Q175, 275	8-729-663-47	(B) 2SC1364
⇒ Q301	8-760-413-10	(C) 2SC1475
⇒ Q302	8-729-663-47	(B) 2SC1364
Q305	8-729-663-47	(B) 2SC1364
Q351	8-760-413-10	(C) 2SC1475
⇒ Q352	8-729-468-43	(C) 2SA684
⇒ Q353	8-729-663-47	(B) 2SC1364
⇒ Q354	8-727-788-00	(B) 2SA678
⇒ Q501, 502	8-729-663-47	(B) 2SC1364
⇒ Q503	8-727-788-00	(B) 2SA678
Q504-510	8-729-141-43	(B) 2SD414
⇒ Q511	8-729-316-12	(D) 2SC1061
⇒ Q512	8-760-335-10	(B) 2SC1474
⇒ Q601, 602	8-729-663-47	(B) 2SC1364
Q603	8-729-141-43	(B) 2SD414
Diodes		
⇒ D101, 201 D171, 271	8-719-422-21	(B) 1T22AM
⇒ D172, 272 D173, 273	8-719-815-55	(B) 1S1555
D301	8-719-301-03	(B) SEL103R
⇒ D303, 304	8-719-815-55	(B) 1S1555
⇒ D305	8-719-133-00	(B) RD3A
⇒ D306	8-719-931-06	(B) EQB01-06
⇒ D307	8-719-815-55	(B) 1S1555
D308	8-719-200-02	(B) 10E2
D351-356	8-719-200-02	(B) 10E2
⇒ D357, 358	8-719-931-06	(B) EQB01-06
D359, 360	8-719-200-02	(B) 10E2
⇒ D361	8-719-931-21	(B) EQB01-21

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

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
⇒ D501-504	8-719-815-55	(B) 1S1555
D505, 506	8-719-200-02	(B) 10E2
⇒ D507	8-719-931-08	(B) EQB01-08
⇒ D508	8-719-815-55	(B) 1S1555
D509	8-719-305-10	(E) SEL510
⇒ D601	8-719-815-55	(B) 1S1555

ICs

⇒ IC101, 201 IC301	8-759-145-58	(D) μ PC4558C
IC501	8-759-959-53	(I) MSM5953

TRANSFORMERS AND FILTER

LPF101,201	1-231-372-00	(C) Filter, lowpass
T301	1-433-132-00	(C) Transformer, oscillator

T901		Power (Canadian model)
T901		Power (AEP, UK, E model)

CAPACITORS

All capacitors are in μ F and ceramic unless otherwise noted.
50WV or less are not indicated except for electrolytics.
pF : μ F, elect : electrolytic

C101, 201	1-161-323-11	(A) 0.001		
C102, 202	1-121-916-11	(A) 10	16V	elect
C103, 203	1-161-323-11	(A) 0.001		
C104, 204 C105, 205	1-121-398-11	(A) 10	25V	elect
C106, 206 C107, 207	1-121-414-11	(A) 100	10V	elect
C108, 208	1-161-313-11	(A) 150p		
C109, 209 C110, 210	1-161-272-11	(A) 120p		
C111, 211	1-161-313-11	(A) 150p		
C112, 212	1-161-315-11	(A) 220p		
C113, 213	1-123-050-11	(A) 2.2	50V	elect
C114, 214	1-121-413-11	(A) 100	6.3V	elect
C115, 215	1-108-587-12	(A) 0.022		mylar

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				
C116, 216 C117, 217	1-121-352-11	(A) 47	10V	elect		
C118, 218	1-161-271-11	(A) 100p				
C119, 219	1-161-263-11	(A) 22p				
C120, 220	1-121-450-11	(A) 2.2	50V	elect		
C121, 221	1-108-587-12	(A) 0.022		mylar		
C122, 222	1-161-327-11	(A) 0.0033				
C123, 223	1-161-271-11	(A) 100p				
C124, 224	1-161-257-11	(A) 6.8p				
C125, 225	1-161-271-11	(A) 100p				
C126, 226	1-108-593-12	(A) 0.039		mylar		
C127, 227	1-121-391-11	(A) 1	50V	elect		
C128, 228	1-161-320-11	(A) 560p				
C129, 229	1-161-315-11	(A) 220p				
C130, 230	1-108-583-12	(A) 0.015		mylar		
C131, 231	1-108-581-12	(A) 0.012		mylar		
C132, 232	1-108-563-12	(A) 0.0022		mylar		
C133, 233	1-161-271-11	(A) 100p				
C134, 234	1-107-168-11	(A) 91p	500V	mica		
C135, 235	1-107-163-11	(A) 47p	500V	mica		
C136, 236 C138, 238 C139, 239 C171, 271	1-121-398-11	(A) 10	25V	elect		
C172, 272	1-108-579-12	(A) 0.01		mylar		
C173, 273	1-108-581-12	(A) 0.012		mylar		
C175, 275	1-108-597-12	(A) 0.056		mylar		
C176, 276	1-108-573-12	(A) 0.0056		mylar		
C177, 277	1-121-398-11	(A) 10	25V	elect		
C178, 278	1-161-263-11	(A) 22p				
C179, 279	1-108-567-12	(A) 0.0033		mylar		
C180, 280	1-121-986-11	(A) 2.2	50V	elect		
C181, 281	1-121-960-11	(A) 3.3	25V	elect		
C182, 282	1-108-595-12	(A) 0.047		mylar		
C301	1-129-710-11	(A) 0.0047	630V	polyethylene		
C302	1-106-202-12	(A) 0.018	100V	mylar		
C303	1-129-701-11	(B) 0.01 $\pm$ 2%	100V	polyethylene		
C304	1-131-217-11	(B) 2.2	35V	elect		
C306	1-121-479-11	(A) 22	16V	elect		
C307	1-121-352-11	(A) 47	10V	elect		
C308	1-121-395-11	(A) 4.7	25V	elect		
C309	(A) 1-121-521-11	(B) 330	16V	elect		
C310B	1-102-074-11	(A) 0.001				
C310A, 311	1-121-414-11	(A) 100	10V	elect		
C351, 352	(A) 1-123-336-11	(B) 470	25V	elect		
C353, 354	(A) 1-123-324-11	(B) 1000	16V	elect		
C355, 356	(A) 1-123-321-11	(A) 220	16V	elect		
C357, 358	1-123-308-11	(A) 220	10V	elect		
C359, 360	(A) 1-123-321-11	(A) 220	16V	elect		
C361	(A) 1-123-349-11	(B) 1000	35V	elect		
C501	1-108-579-12	(A) 0.01				
C503	1-121-391-11	(A) 1	50V	elect		
C504	1-121-726-11	(A) 0.47	50V	elect		
C505	1-121-398-11	(A) 10	25V	elect		
C506	1-121-986-11	(A) 2.2	50V	elect		
C507	1-108-579-11	(A) 0.01		mylar		
C508	1-121-986-11	(A) 2.2	50V	elect		
C509	1-121-395-11	(A) 4.7	25V	elect		
C510	1-121-413-11	(A) 100	6.3V	elect		
C511	1-108-579-12	(A) 0.01		mylar		
C512	1-121-726-11	(A) 0.47	50V	elect		
C513, 514	1-121-951-11	(A) 0.47	50V	elect		
C515	1-121-388-11	(C) 1000	35V	elect		
C516	1-108-603-12	(B) 0.1		mylar		
C517	1-121-416-11	(A) 100	25V	elect		
C518	1-121-352-11	(A) 47	10V	elect		
C601	1-121-751-11	(B) 330	6.3V	elect		
C602	1-121-479-11	(A) 22	16V	elect		
C603	1-121-414-11	(A) 100	10V	elect		
C604	1-121-421-11	(B) 220	16V	elect		
C605	1-121-410-11	(A) 47	25V	elect		
CT101,201	1-141-010-XX	(B) Trimmer				

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

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

Ref. No. Part No. Description

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on the last page for their part numbers.

R302	1-217-225-11	(B)	120	2W	wirewound (nonflammable)
R303	1-244-852-11	(A)	130	½W	carbon
R318, 319	1-244-849-11	(A)	100	½W	carbon
R361	⚠ 1-206-566-11	(B)	22	5W	metal oxide (nonflammable)
R363	⚠ 1-213-139-11	(A)	470	1W	metal oxide (nonflammable)
R525, 550	1-244-865-11	(A)	470	½W	carbon
R552	1-206-652-11	(A)	330	2W	metal oxide (nonflammable)
R611	⚠ 1-217-387-11	(B)	10	¼W	fusible (nonflammable)

RV101, 201	1-224-641-XX	(B)	470, adjustable; playback gain
RV102, 202	1-224-644-XX	(B)	4.7k, adjustable; record gain
RV103, 203	1-226-207-00	(E)	20k(A), variable; REC LEVEL
RV602	1-224-630-00	(B)	470, adjustable; tape speed

SWITCHES

S1	1-516-263-00	(C)	Slide, record/playback
S2	1-552-367-00	(C)	Lever-slide, DOLBY NR
S3	1-552-368-00	(C)	Lever-slide, BIAS
S4	1-552-366-00	(C)	Lever-slide, EQ
S5	1-552-543-00	(C)	Lever-slide, INPUT SELECT
S6	1-516-686-00	(C)	Slide, TIMING
S501	1-552-542-00	(B)	Slide, MEMORY/AMS
S502	1-514-912-00	(B)	Leaf, fast forward-rewind
S503	1-516-853-XX	(C)	Leaf, rewind
S504, 505	1-552-541-21	(B)	Push, PROGRAM CLEAR
S601	1-514-912-00	(B)	Leaf, hold
S602	1-516-853-XX	(C)	Leaf, motor
S603	1-516-853-XX	(C)	Leaf, muting

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

Ref. No. Part No. Description

S901	⚠ 1-552-018-00	(C)	Pushbutton, POWER (Canadian model)
S901	⚠ 1-552-206-00	(D)	Pushbutton, POWER (AEP, UK, E model)

MISCELLANEOUS

CNJ101,201	1-507-525-00	(C)	Jack, mic
CP301	⚠ 1-231-057-31	(B)	CR Encapsulated Component (AEP, UK model)
CP301	⚠ 1-231-341-21		CR Encapsulated Component (Canadian model)
F	⚠ 1-532-079-00	(A)	Fuse, 0.16A
HE	8-825-506-00	(C)	Head, erase; EF135-36
HRP	8-825-710-00	(L)	Head, record/playback; PF180-3602A
J301	1-507-507-00	(B)	Jack, headphone
L101, 201	1-407-211-XX	(B)	Microinductor 27mH
M	8-835-006-00	(L)	Motor, DNF-1001B
ME101,201	1-520-342-00	(L)	Meter, level
PL	1-518-115-00	(B)	Lamp, pilot; 8V 5mA; cassette
PL	1-518-324-00	(B)	Lamp, pilot; 8V 300mA; METER
PM	1-454-123-00	(F)	Solenoid
TH601	1-800-200-00	(A)	Thermistor, S-3K
VS	⚠ 1-552-026-00	(E)	Voltage Selector (AEP, UK, E model)
	1-507-531-21	(C)	Pin Jack (Canadian model)
	⚠ 1-509-546-00	(C)	Connector, 3p; AC IN (AEP, UK, E model)
	1-536-501-21	(D)	Plate, pin jack (AEP, UK, E model)
	1-536-531-21		Plate, pin jack (Canadian model)
	⚠ 1-534-986-XX		Cord, power (Canadian model)

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

ACCESSORY & PACKING MATERIALS

<u>Part No.</u>	<u>Description</u>
X-3701-105-0	(A) Tips Ass'y, head cleaning
1-534-049-31	(F) Cord, connection; RK-74H
1-534-819-00	(A) (G) Cord, power (UK model)
3-550-770-00	(B) Cushion (A), lower
3-552-147-00	(B) Cushion (A)
3-552-148-00	(B) Cushion (B)
3-558-914-00	(D) Carton
3-701-630-00	(A) Bag, polyethylene
3-701-684-11	(A) Card, voltage indication (AEP, UK, E model)
3-770-570-11	(D) Manual, instruction
3-793-828-11	(A) Card, caution
3-793-956-31	Warranty Card (Canadian model)
4-891-037-00	(B) Bag, polyethylene

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

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

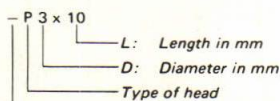
1/4 WATT CARBON RESISTORS (A)

Note: Circled letter (A) is applicable to European models only.

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	10k	1-244-697-11	100k	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	11k	1-244-698-11	110k	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	12k	1-244-699-11	120k	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	13k	1-244-700-11	130k	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	15k	1-244-701-11	150k	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	1.6k	1-244-678-11	16k	1-244-702-11	160k	1-244-726-11	1.6M	1-244-750-11
1.8	1-244-607-11	18	1-244-631-11	180	1-244-655-11	1.8k	1-244-679-11	18k	1-244-703-11	180k	1-244-727-11	1.8M	1-244-751-11
2.0	1-244-608-11	20	1-244-632-11	200	1-244-656-11	2.0k	1-244-680-11	20k	1-244-704-11	200k	1-244-728-11	2.0M	1-244-752-11
2.2	1-244-609-11	22	1-244-633-11	220	1-244-657-11	2.2k	1-244-681-11	22k	1-244-705-11	220k	1-244-729-11	2.2M	1-244-753-11
2.4	1-244-610-11	24	1-244-634-11	240	1-244-658-11	2.4k	1-244-682-11	24k	1-244-706-11	240k	1-244-730-11	2.4M	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	27k	1-244-707-11	270k	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	30k	1-244-708-11	300k	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	33k	1-244-709-11	330k	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	36k	1-244-710-11	360k	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	39k	1-244-711-11	390k	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	4.3k	1-244-688-11	43k	1-244-712-11	430k	1-244-736-11	4.3M	1-244-760-11
4.7	1-244-617-11	47	1-244-641-11	470	1-244-665-11	4.7k	1-244-689-11	47k	1-244-713-11	470k	1-244-737-11	4.7M	1-244-761-11
5.1	1-244-618-11	51	1-244-642-11	510	1-244-666-11	5.1k	1-244-690-11	51k	1-244-714-11	510k	1-244-738-11	5.1M	1-244-762-11
5.6	1-244-619-11	56	1-244-643-11	560	1-244-667-11	5.6k	1-244-691-11	56k	1-244-715-11	560k	1-244-739-11		
6.2	1-244-620-11	62	1-244-644-11	620	1-244-668-11	6.2k	1-244-692-11	62k	1-244-716-11	620k	1-244-740-11		
6.8	1-244-621-11	68	1-244-645-11	680	1-244-669-11	6.8k	1-244-693-11	68k	1-244-717-11	680k	1-244-741-11		
7.5	1-244-622-11	75	1-244-646-11	750	1-244-670-11	7.5k	1-244-694-11	75k	1-244-718-11	750k	1-244-742-11		
8.2	1-244-623-11	82	1-244-647-11	820	1-244-671-11	8.2k	1-244-695-11	82k	1-244-719-11	820k	1-244-743-11		
9.1	1-244-624-11	91	1-244-648-11	910	1-244-672-11	9.1k	1-244-696-11	91k	1-244-720-11	910k	1-244-744-11		

HARDWARE NOMENCLATURE

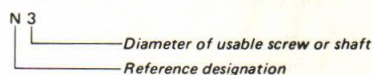
Screw:



Indicated slotted-head only.

Unless otherwise indicated, it means cross-recessed head (Phillips type).

Nut, Washer, Retaining ring:



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		brazer-head screw	

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	

Sony Corporation