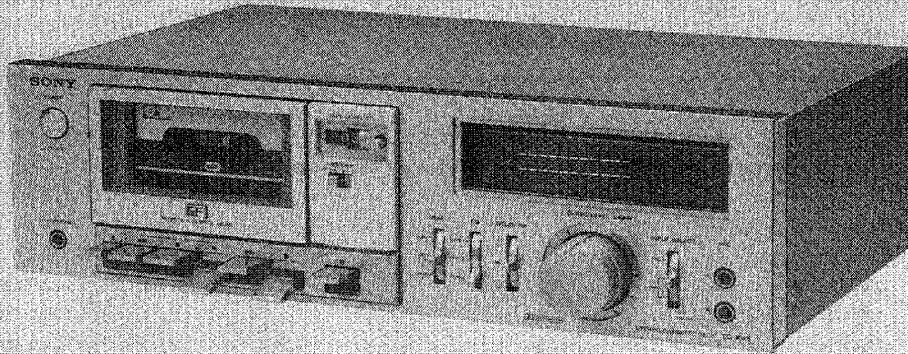


TC-K45

US Model
Canadian Model
AEP Model
UK Model



"Dolby" and "Dolby B" symbols are the trademarks of
Dolby Laboratories. Noise reduction systems are used
under license from Dolby Laboratories.

STEREO CASSETTE DECK

SPECIFICATIONS

GENERAL

Power Requirements: US, Canadian model:
120 V ac, 60 Hz
AEP model:
220 V ac ~, 50/60 Hz
(or 240 V ac by internal rewiring)
UK model:
240 V ac ~, 50/60 Hz
(or 220 V ac by internal rewiring)

Power Consumption: 12 W (US, Canadian model)
14 W (AEP, UK model)

Dimensions: US, AEP, UK model:
approx. 430 (w) x 130 (h) x 290 (d) mm
17 (w) x 5 1/8 (h) x 11 1/2 (d) inches
Canadian model:
approx. 460 (w) x 130 (h) x 290 (d) mm
18 1/8 (w) x 5 1/8 (h) x 11 1/2 (d) inches
including projecting parts and controls

— Continued on page 2 —

Tape Transport Mechanism Type	TCM-91V1	
	Specification	Test Equipment
Forward Torque	28 – 55 g·cm (0.39 – 0.76 oz·inch)	Sony torque meter CQ-102
Fast Forward Torque Rewind Torque	60 – 120 g·cm (0.84 – 1.66 oz·inch)	Sony torque meter CQ-201
Back Tension Torque	2.0 – 4.5 g·cm (0.03 – 0.06 oz·inch)	Sony torque meter CQ-102
Pinch Roller Pressure	310 – 390 g (11 – 13 oz)	spring scale or tension gauge

SERVICE MANUAL

Weight: US, AEP, UK model:
approx. 5.8 kg, 12 lb 13 oz
Canadian model:
approx. 6.6 kg, 14 lb 9 oz

TAPE RECORDER SECTION

Recording System: 4-track 2-channel stereo

Fast-forward and Rewind Time: Approx. 90 sec. (with C-60)

Frequency Response: DOLBY NR OFF
US, Canadian model:

- With TYPE III cassette (Sony Fe-Cr)
20 – 17,000 Hz
30 – 15,000 Hz (± 3 dB)
- With TYPE II cassette (Sony EHF)
20 – 17,000 Hz
30 – 15,000 Hz (± 3 dB)
- With TYPE I cassette (Sony HFX)
20 – 15,000 Hz

AEP, UK model:

- With TYPE III cassette (Sony Fe-Cr)
20 – 17,000 Hz
30 – 15,000 Hz (± 3 dB)
30 – 15,000 Hz (DIN)
- With TYPE II cassette (Sony CD- α)
20 – 17,000 Hz
30 – 15,000 Hz (± 3 dB)
30 – 15,000 Hz (DIN)
- With TYPE I cassette (Sony BHF)
20 – 15,000 Hz
30 – 13,000 Hz (DIN)

Wow and Flutter: 0.05 % WRMS (US, Canadian model)
0.05 % WRMS (NAB) } (AEP, UK model)
 ± 0.14 % (DIN)

S/N Ratio: DOLBY NR OFF
US, Canadian model:

- With TYPE III cassette (Sony Fe-Cr)
58 dB at peak level
- With TYPE II cassette (Sony EHF)
56 dB at peak level

AEP, UK model:

- With TYPE III cassette (Sony Fe-Cr)
58 dB at peak level (NAB)
56 dB (DIN, 1975 rev.)
- With TYPE II cassette (Sony CD- α)
56 dB at peak level (NAB)

DOLBY NR ON
Improved 5 dB at 1 kHz,
10 dB above 5 kHz

Total Harmonic Distortion: 1.3 % (with Sony Fe-Cr cassette)

Bias Frequency: 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 50 k Ω
REC/PB (connector) . . . (AEP, UK model)
input impedance less than 10 k Ω

Outputs: LINE OUT (two phono jacks)
output level 0.435 V (-5 dB) at load
impedance 50 k Ω
suitable load impedance more than
10 k Ω
Headphone output (binaural jack)
output level -26 dB at load impedance
8 Ω
REC/PB (connector) . . . (AEP, UK model)
output impedance less than 10k Ω

LED PEAK PROGRAM METERS

Response Range: -40 dB to $+5$ dB

Response Time: 1 millisecond

Decay Time
(from 0 dB to -20 dB): 750 milliseconds

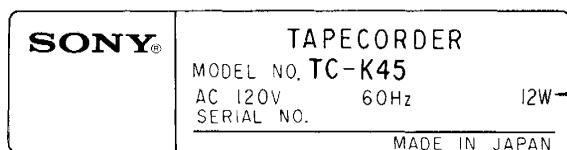
Overshoot: None

Indicator Elements: 16 elements for each channel

0 dB = 0.775 V

MODEL IDENTIFICATION

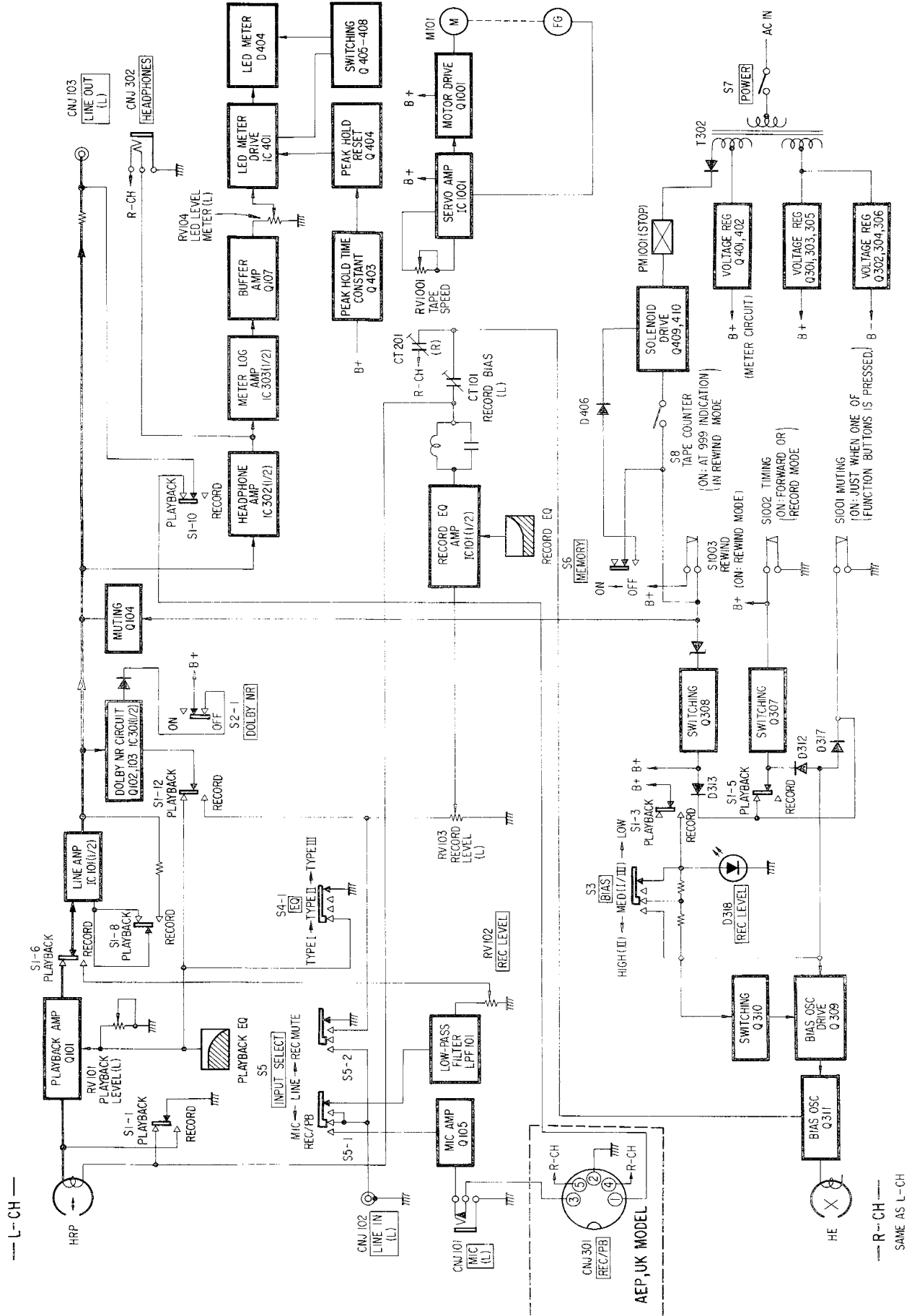
— Specification Label —



AC 120V	60Hz	12W	US, Canadian model
AC 220V~	50/60Hz	14W	AEP model
AC 240V~	50/60Hz	14W	UK model

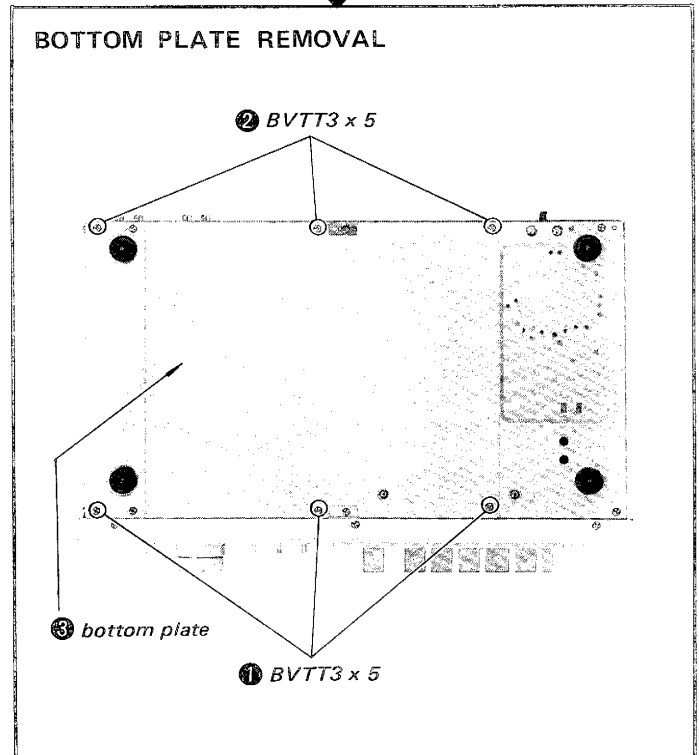
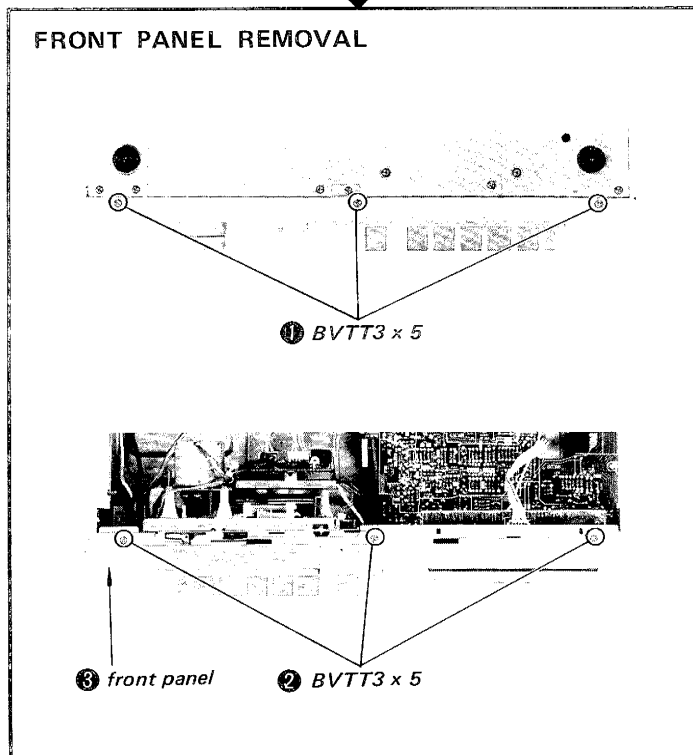
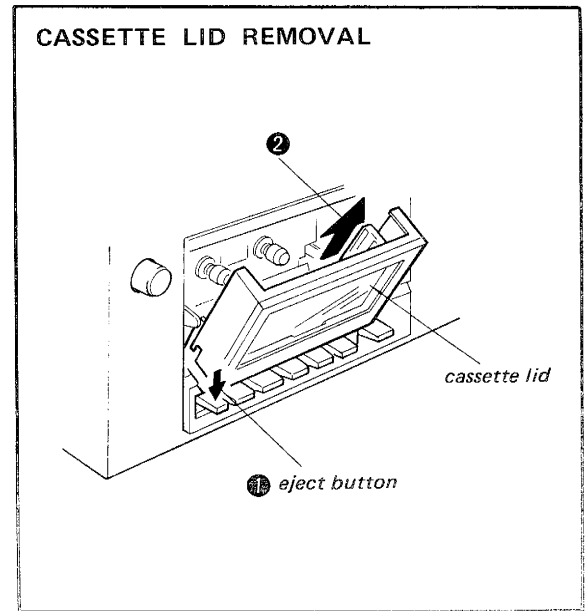
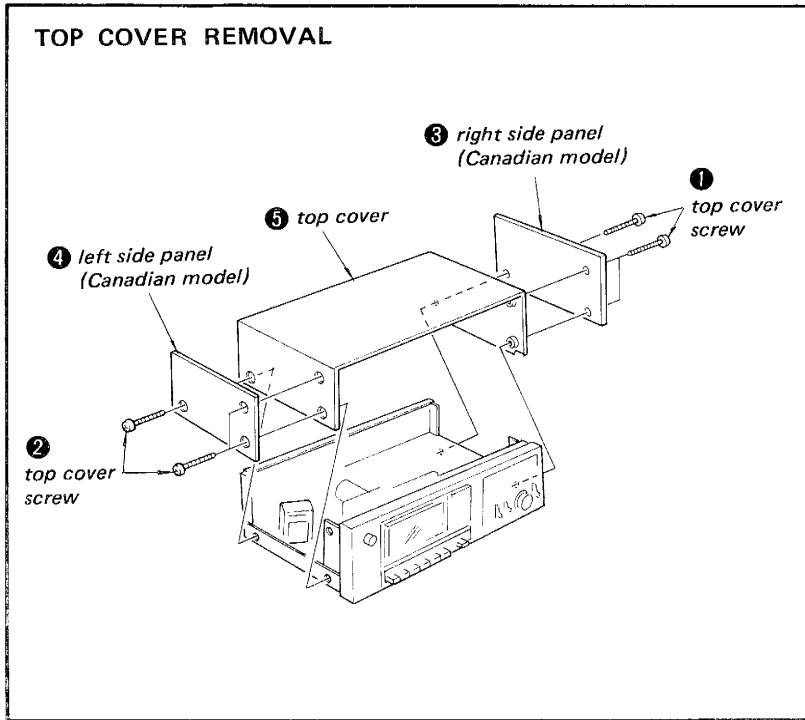
SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM

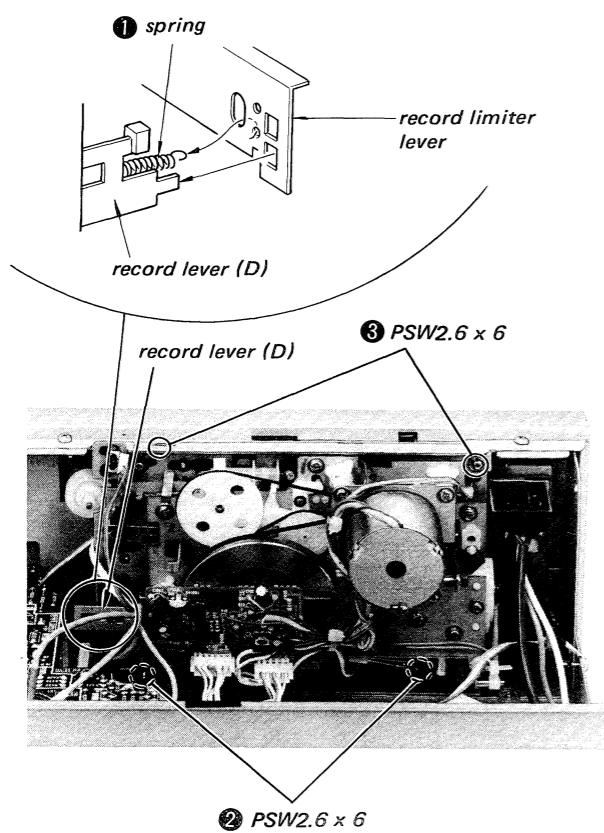


**SECTION 2
DISASSEMBLY**

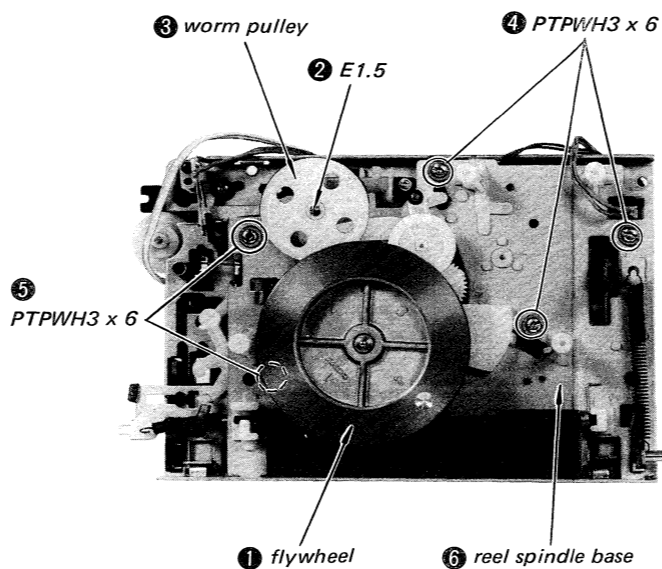
Note: Follow the disassembly procedure in the numerical order given.



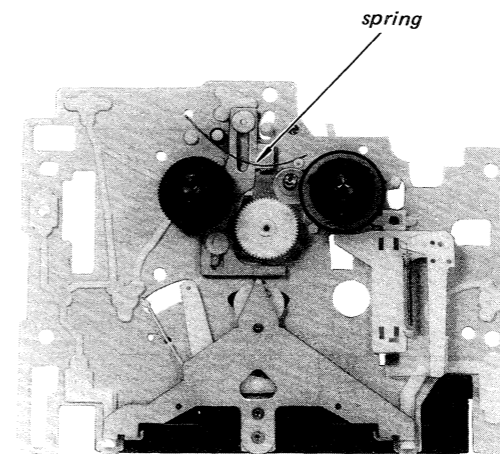
MECHANICAL BLOCK REMOVAL



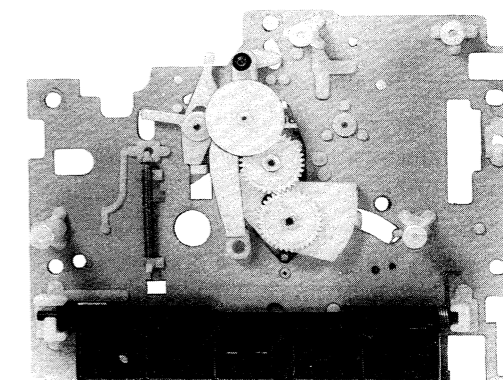
REEL SPINDLE BASE REMOVAL



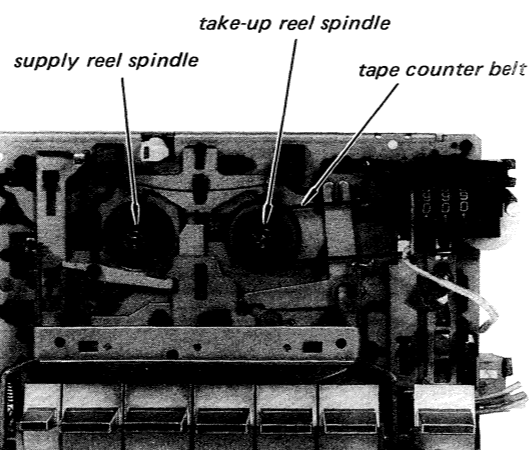
Reel spindle base front view



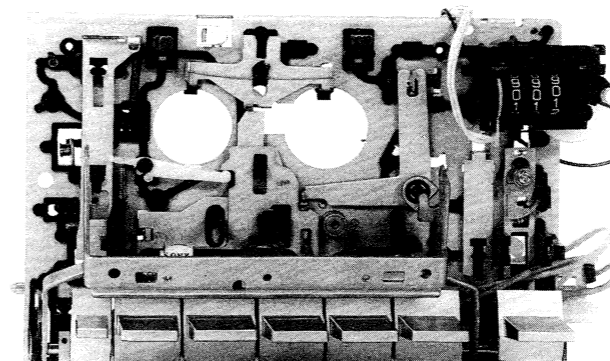
Reel spindle base rear view



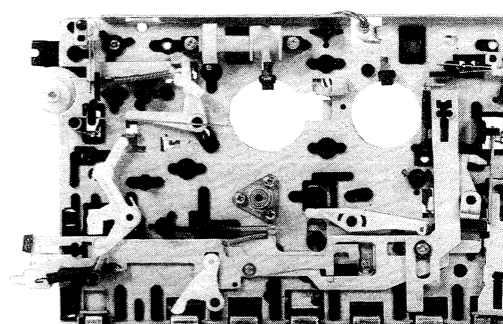
Reel spindle base is not removed. (front view)



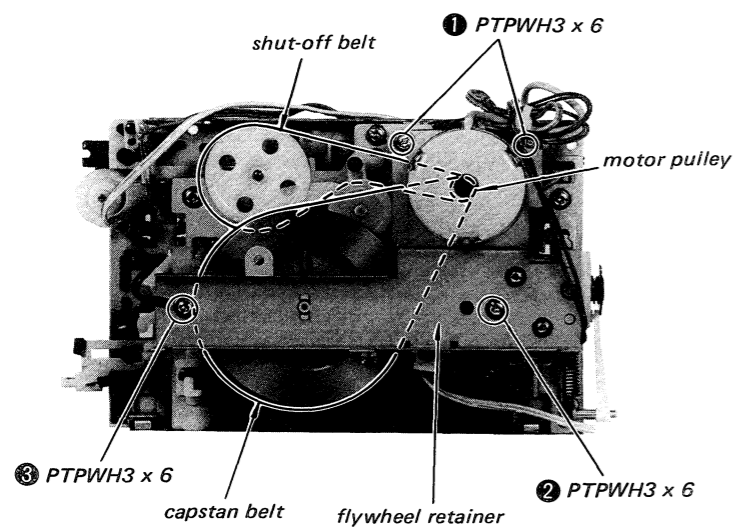
Reel spindle base is removed. (front view)



Reel spindle base is removed. (rear view)



FLYWHEEL RETAINER REMOVAL



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

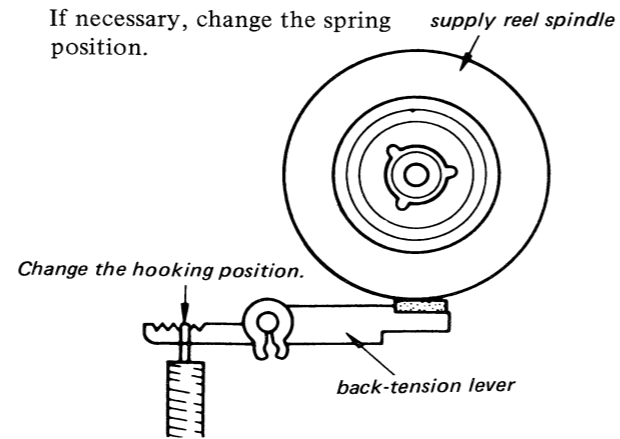
- Clean the following parts with a denatured-alcohol-moistened swab:
 record/playback head pinch roller
 erase head rubber belts
 capstan idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable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

Back Tension Torque Adjustment

— playback mode —

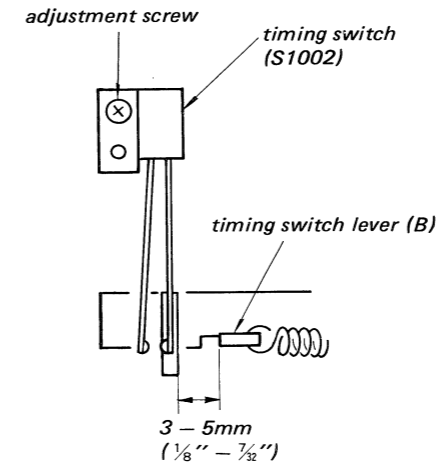
Torque meter	Meter reading
CQ-102	2.0 – 4.5g-cm (0.02 – 0.06 oz-inch)

If necessary, change the spring position.



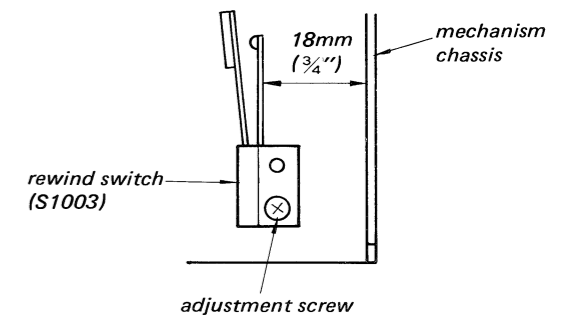
Timing Switch (S1002) Position Adjustment

— stop mode —



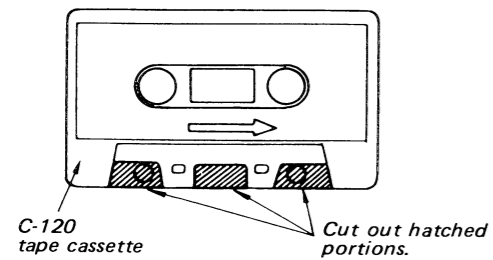
Rewind Switch (S1003) Position Adjustment

— stop mode —

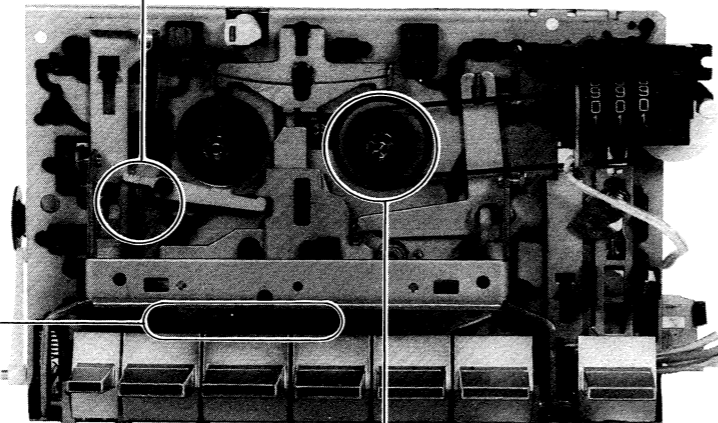
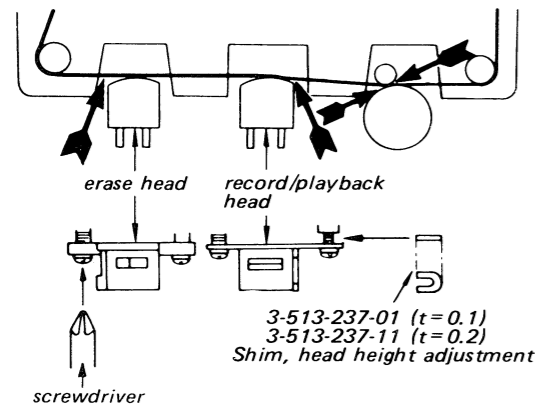


Head Height Adjustment

- 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 portions shown by arrows.

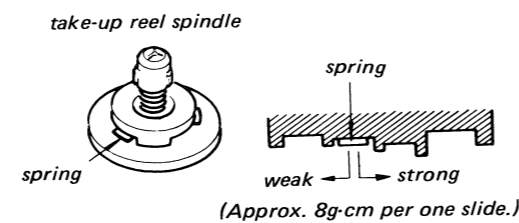


Forward Torque Adjustment

— playback mode —

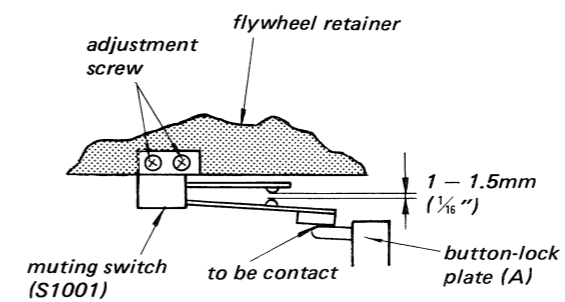
Torque meter	Meter reading
CQ-102	28 – 55g-cm (0.39 – 0.76 oz-inch)

If necessary, change the spring position.



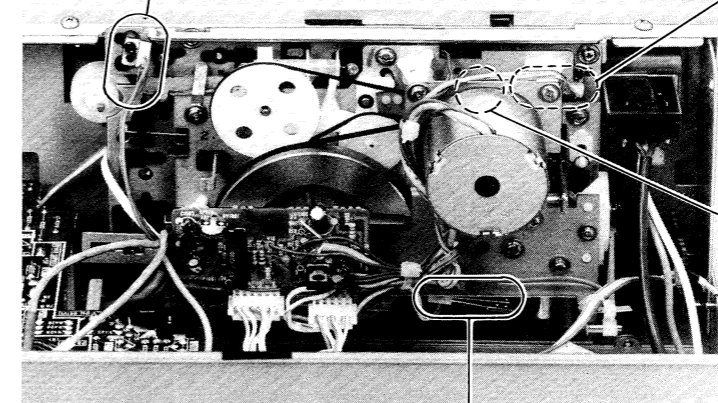
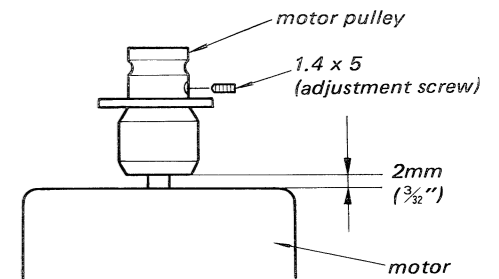
Muting Switch (S1001) Position Adjustment

— stop mode —



Pulley Height Adjustment

— stop mode —



3-2. ELECTRICAL ADJUSTMENTS

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

- Set the BIAS and EQ switches according to the tape as follows.

Tape	BIAS switch	EQ switch
CS-10	MED (I/III)	TYPE I
CS-25	HIGH (II)	TYPE II
CS-30	MED (I/III)	TYPE III

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

DOLBY NR switch: OFF
 EQ switch: TYPE I
 BIAS switch: MED (I/III)
 INPUT SELECT switch: LINE
 MEMORY switch: OFF

- 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	REC/PB (AEP and UK model)
source impedance	300Ω	10kΩ	100kΩ
input level	0.77mV (-60dB)	0.25V (-10dB)	17mV (-33dB)

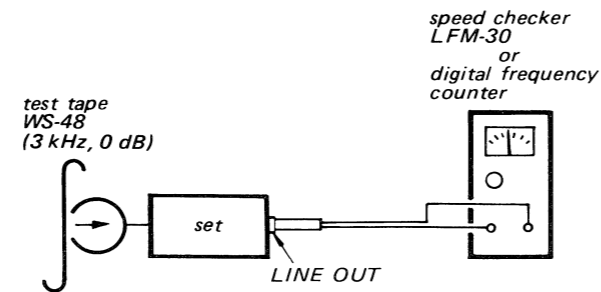
Standard Output Level

	LINE OUT	HEAD-PHONES	REC/PB (AEP and UK model)
load impedance	47kΩ	8Ω	50kΩ
output level	0.44V (-5dB)	39mV (-26dB)	0.44V (-5dB)

Tape Speed Adjustment

Procedure:

Mode: playback



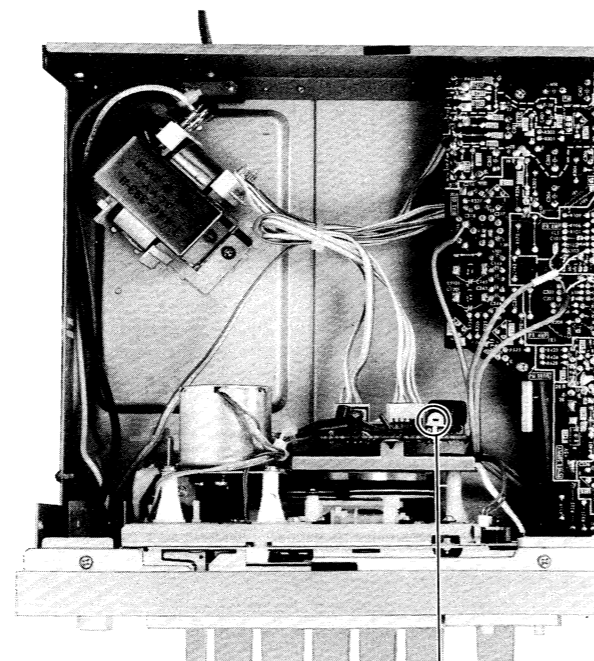
Specification:

Speed checker	Digital frequency counter
-0.6 - +0.6%	2980 - 3020Hz

Frequency difference between the beginning and the end of the tape should be within 0.6% (20Hz).

Adjustment Location:

- servo amp board -



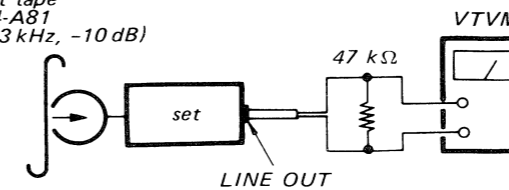
RV1001

Record/playback Head Azimuth Adjustment

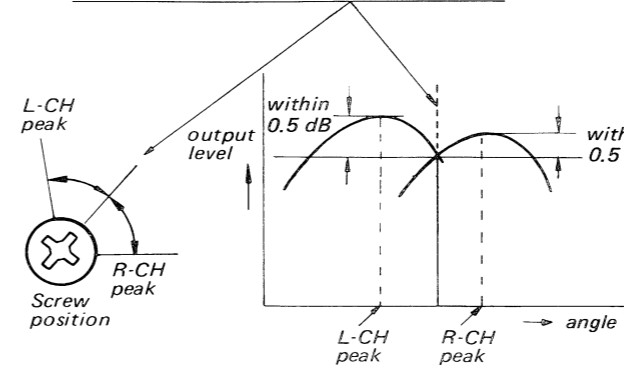
Procedure:

1. Mode: playback

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



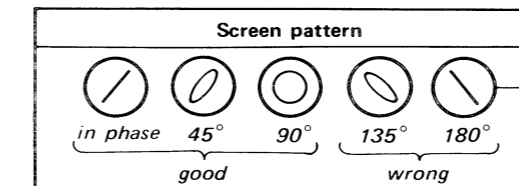
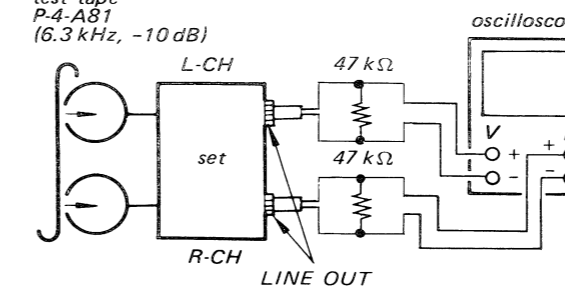
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw where both of output levels match together within 0.5 dB.



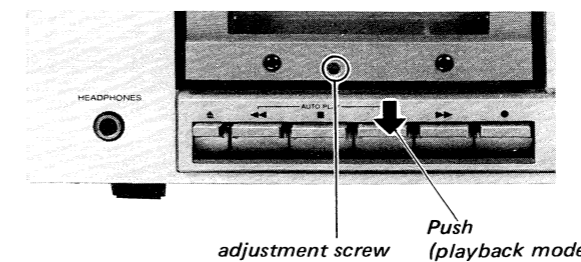
3. Phase Check

Mode: playback

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



Adjustment Location:



Playback Level Adjustment

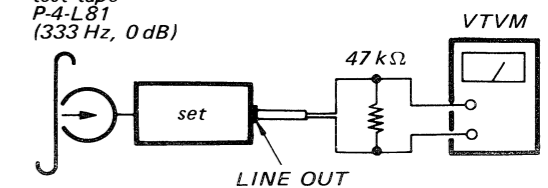
Setting:

TAPE SELECT switch: TYPE I

Procedure:

Mode: playback

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



Specification:

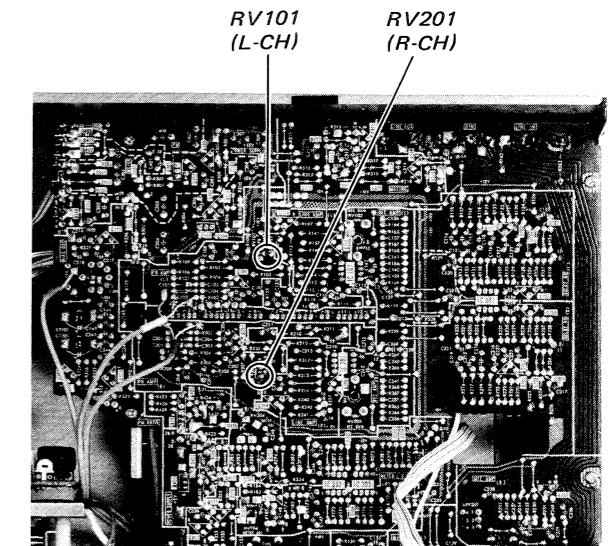
LINE OUT level: 0.52 - 0.59V (-3.5 to -2.5dB)
 Level difference between channels: less than 0.5dB
 Level difference from TYPE I: between -0.5dB and +0.5dB

(TAPE SELECT switch: TYPE III)

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

Adjustment Location:

- audio amp board -

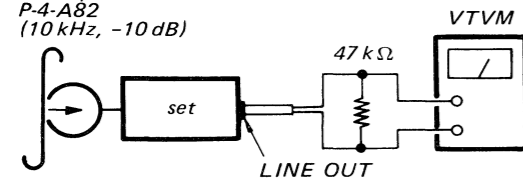


Playback Equalizer Adjustment

Procedure:

Mode: playback

test tape
P-4-A82
(10 kHz, -10 dB)



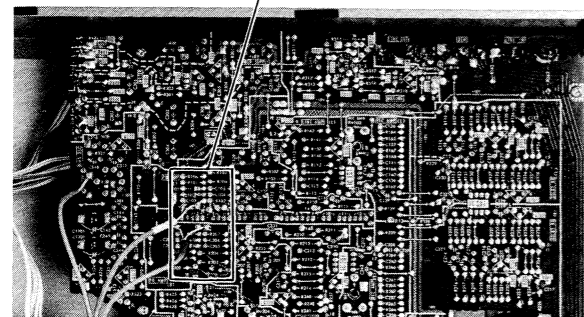
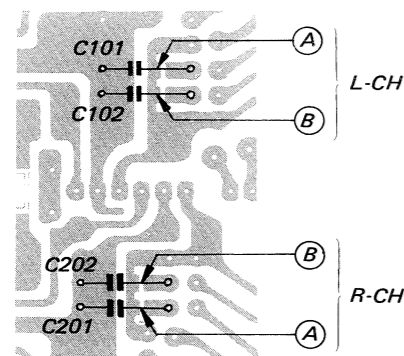
Specification:

EQ switch	LINE OUT level
TYPE I	0.13 - 0.24V (-15.5 to -10.5dB)
TYPE II or TYPE III	0.069 - 0.14V (-21 to -15dB)

Adjustment Location:

- audio amp board -

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



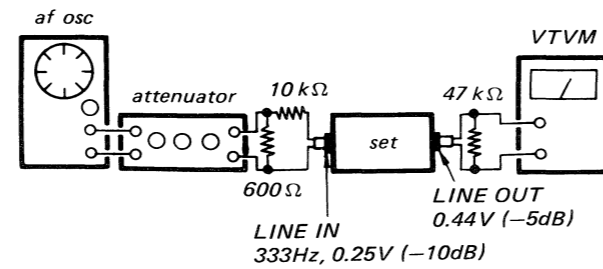
LED Peak Program Meter Calibration

Setting:

REC LEVEL control: standard record
(See page 9.)

Procedure:

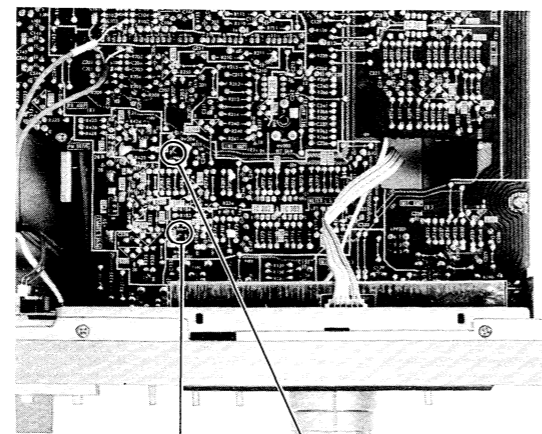
1. Mode: record



Turn RV104 (L-CH) and RV204 (R-CH), and stop them just when ninth segment from the left goes out.

Adjustment Location:

- audio amp board -



RV104 (L-CH) RV204 (R-CH)

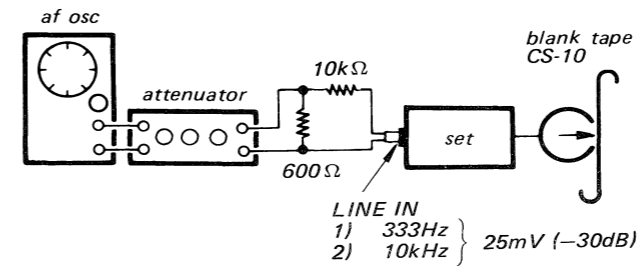
Record Bias Adjustment

Setting:

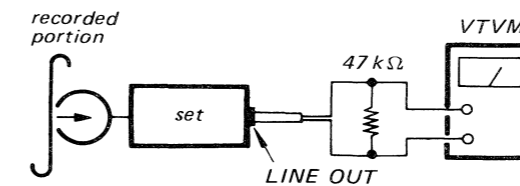
REC LEVEL control: standard record
(See page 9.)

Procedure:

1. Mode: record



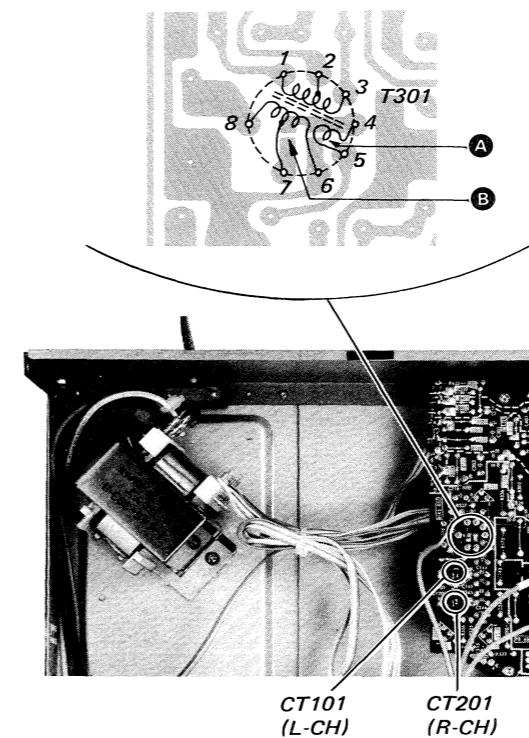
2. Mode: playback



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

If necessary, unsolder portion Ⓐ and solder portion Ⓑ.

Adjustment Location: - audio amp board -



CT101 (L-CH) CT201 (R-CH)

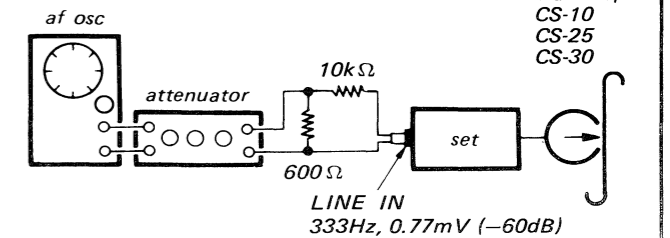
Record Level Adjustment

Setting:

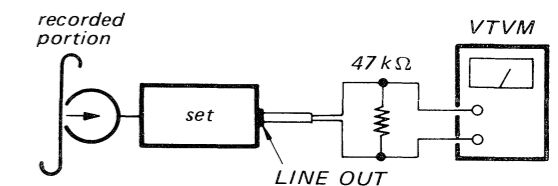
REC LEVEL control: standard record
(See page 9.)

Procedure:

1. Mode: record



2. Mode: playback

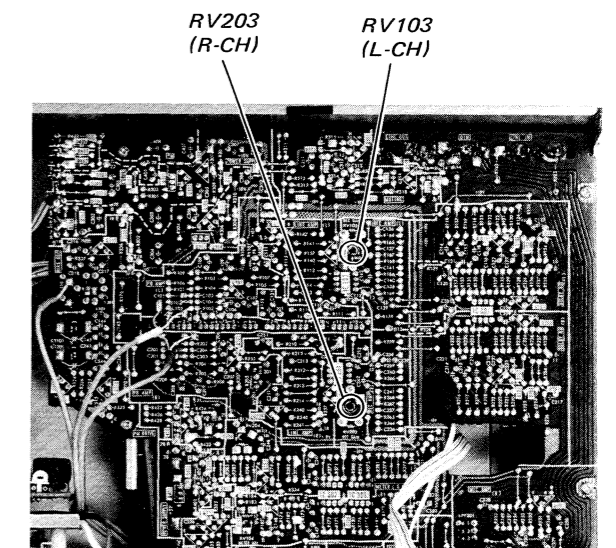


Specification:

tape	LINE OUT level
CS-10	0.41 - 0.46V (-5.5 to -4.5dB)
CS-25 CS-30	0.37 - 0.52V (-6.5 to -3.5dB)

Adjustment Location:

- audio amp board -



SECTION 4
DIAGRAMS

For Schematic Diagram

Note:

- Components for right channel have same values as for left channel. Reference numbers are coded from 200.
- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\mu\text{F}$
- 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted. $\text{k}\Omega : 1000\Omega$, $\text{M}\Omega : 1000\text{k}\Omega$
- \square : nonflammable resistor.
- \square : fusible resistor.
- (N) : low-noise resistor.

\square : panel designation.

Switch

Ref. No.	Switch	Position
S1-1 to 1-12	RECORD/PLAYBACK	PLAYBACK
S2-1, 2	DOLBY NR	OFF
S3	BIAS	MED (I/III)
S4-1 to 4-4	EQ	TYPE I
S5-1 to 5-4	INPUT SELECT	LINE
S6	MEMORY	OFF
S7	POWER	OFF
S8	TAPE COUNTER	OFF
S1001	MUTING	OFF
S1002	TIMING	OFF
S1003	REWIND	OFF

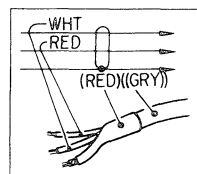
Note: The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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

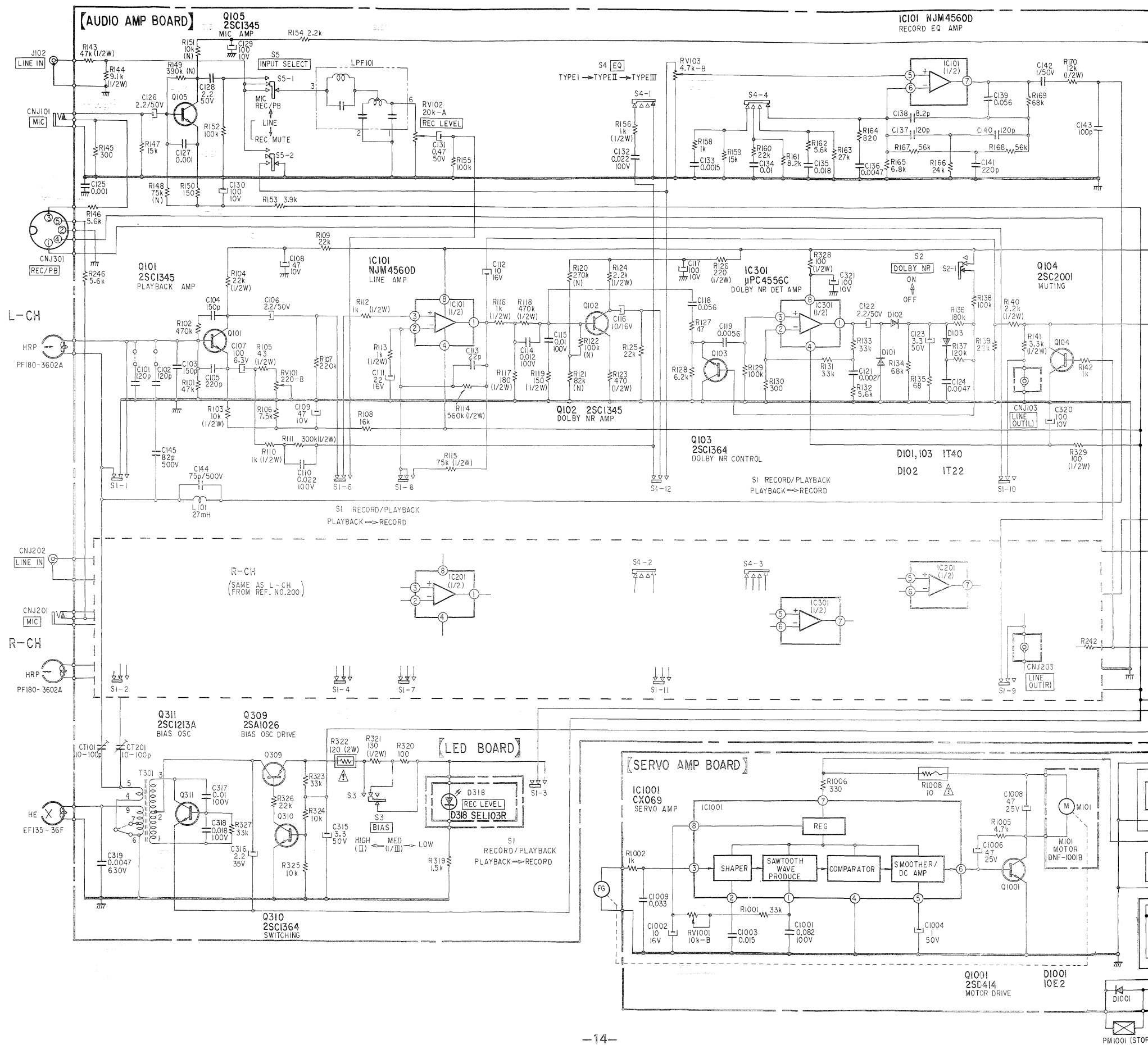
For Mounting Diagram

Note:

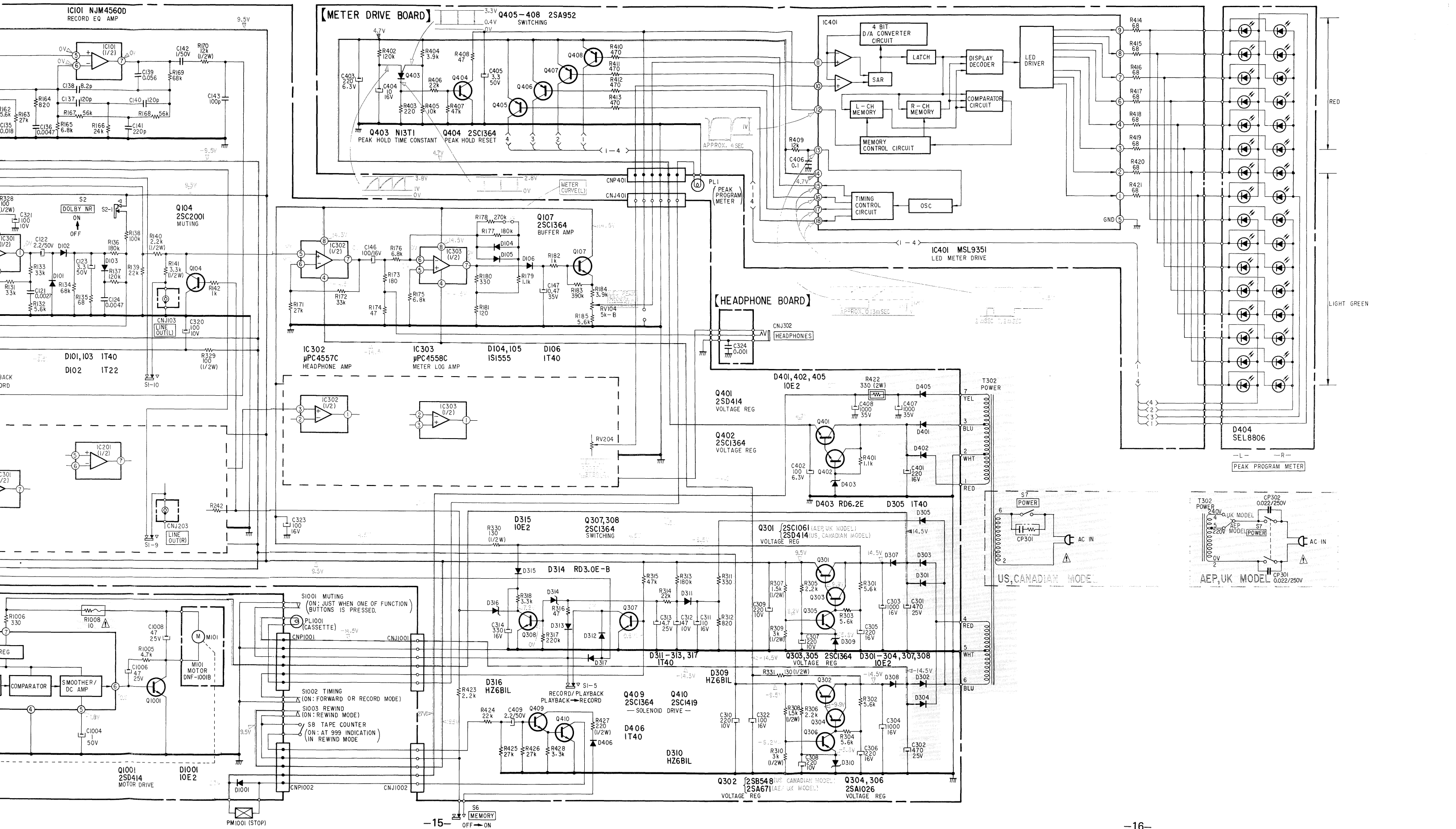
- Color code of sleeving over the end of the jacket.



- \circ : parts extracted from the component side.
- \bullet : parts extracted from the conductor side.



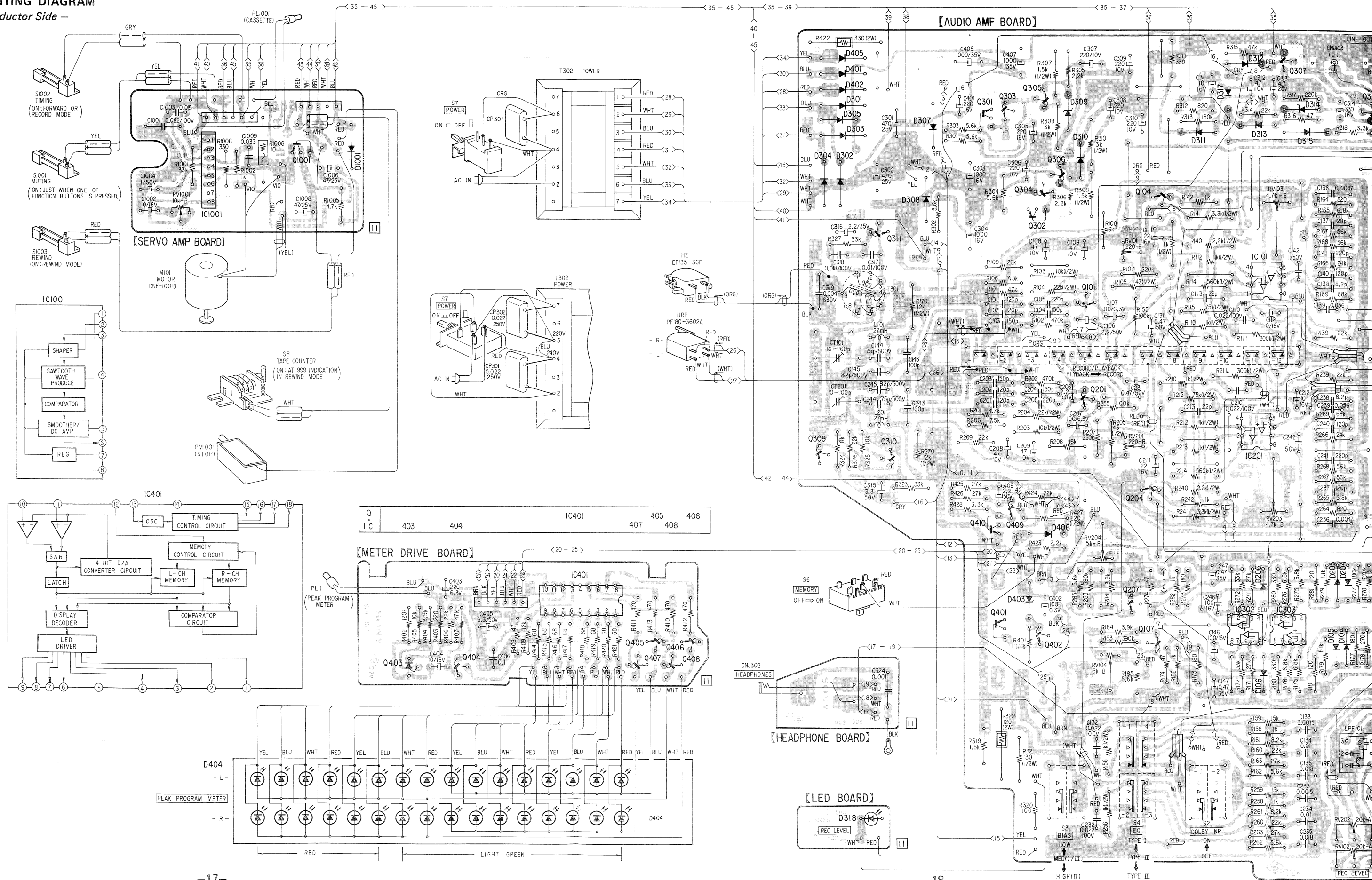
TC-K45 TC-K45

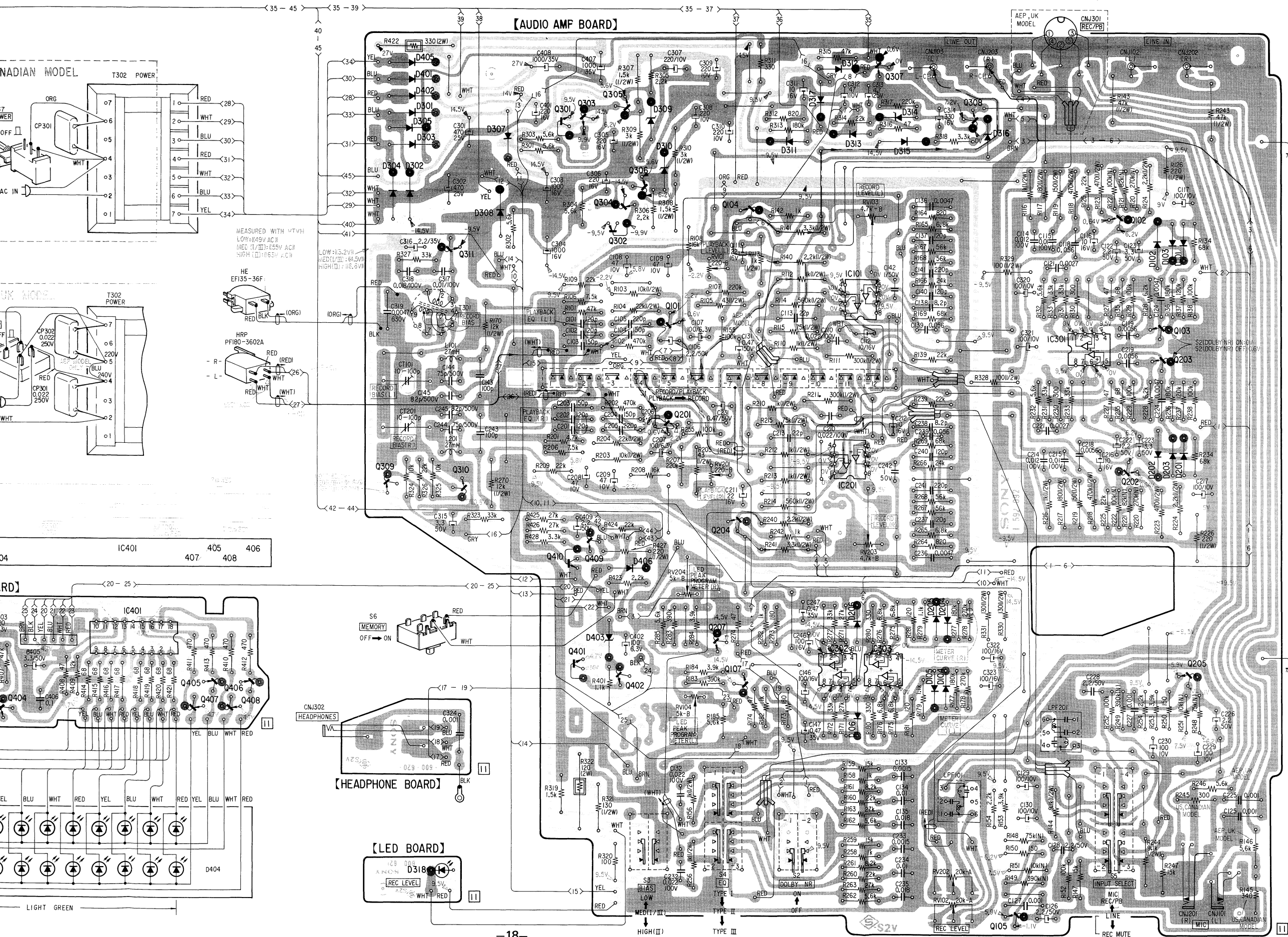


See page 13 for the notes and page 20 for semiconductor illustration.

TC-K45 TC-K45

4-2. MOUNTING DIAGRAM
— Conductor Side —



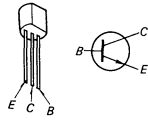


Q, IC	D
307	405 312
401	402 317
305 308	301 309 314
301 303	305 307 313 316
	303 311 315
	310
306	304 302
304 104 102	308
302	102 103, 101
311	
IC101	
101 103	
IC301	203
201	
IC201	202 203, 201
202	
309 310	
204	
409	
410	406
	206 205 204
207	403
401 303, 303 205	
402 107	105 104
	106
	318
105	
Q, IC	D

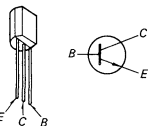
Replacement Semiconductors

For replacement, use semiconductors except in ().

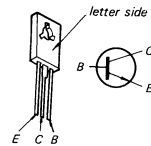
- Q101, 201 } : 2SC1345
- Q102, 202 } : 2SC1345
- Q105, 205 } : 2SC1345
- Q104, 204 } : 2SC2001



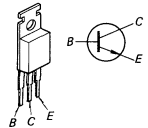
- Q103, 203 } : 2SC1364
- Q107, 207 } : 2SC1364
- Q303, 305 } : 2SC1364
- Q307, 308 } : 2SC1364
- Q310, 402 } : 2SC1364
- Q404, 409 } : 2SC1364



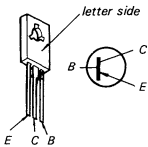
- Q301 (US, Canadian model) } : 2SD414
- Q401, 1001 } : 2SD414



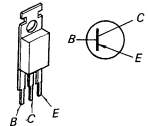
- Q301 (AEP, UK model): 2SC1061
- Q410: 2SC1061 (2SC1419)



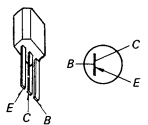
- Q302 (US, Canadian model): 2SB548



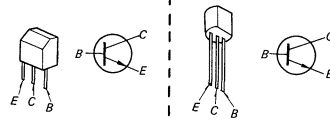
- Q302 (AEP, UK model): 2SA671



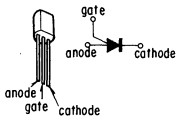
- Q304, 306, 309: 2SA1027R (2SA1026)



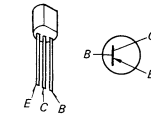
- Q311: 2SC1475 (2SC1213A)



- Q403: N13T1



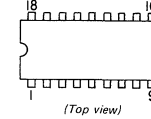
- Q405 - 408: 2SA952



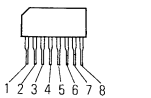
- IC101, 201 : NJM4560D
- IC301 : μPC4556C
- IC302 : μPC4557C
- IC303 : μPC4558C



- IC401: MSL9351



- IC1001: CX069

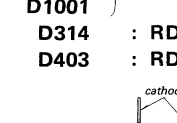


- D101, 201 } : 1S1555 (1T40)
- D103, 203 } : 1S1555 (1T40)
- D106, 206 } : 1S1555 (1T40)
- D305, 311-313 } : 1S1555 (1T40)
- D317, 406 } : 1S1555 (1T40)

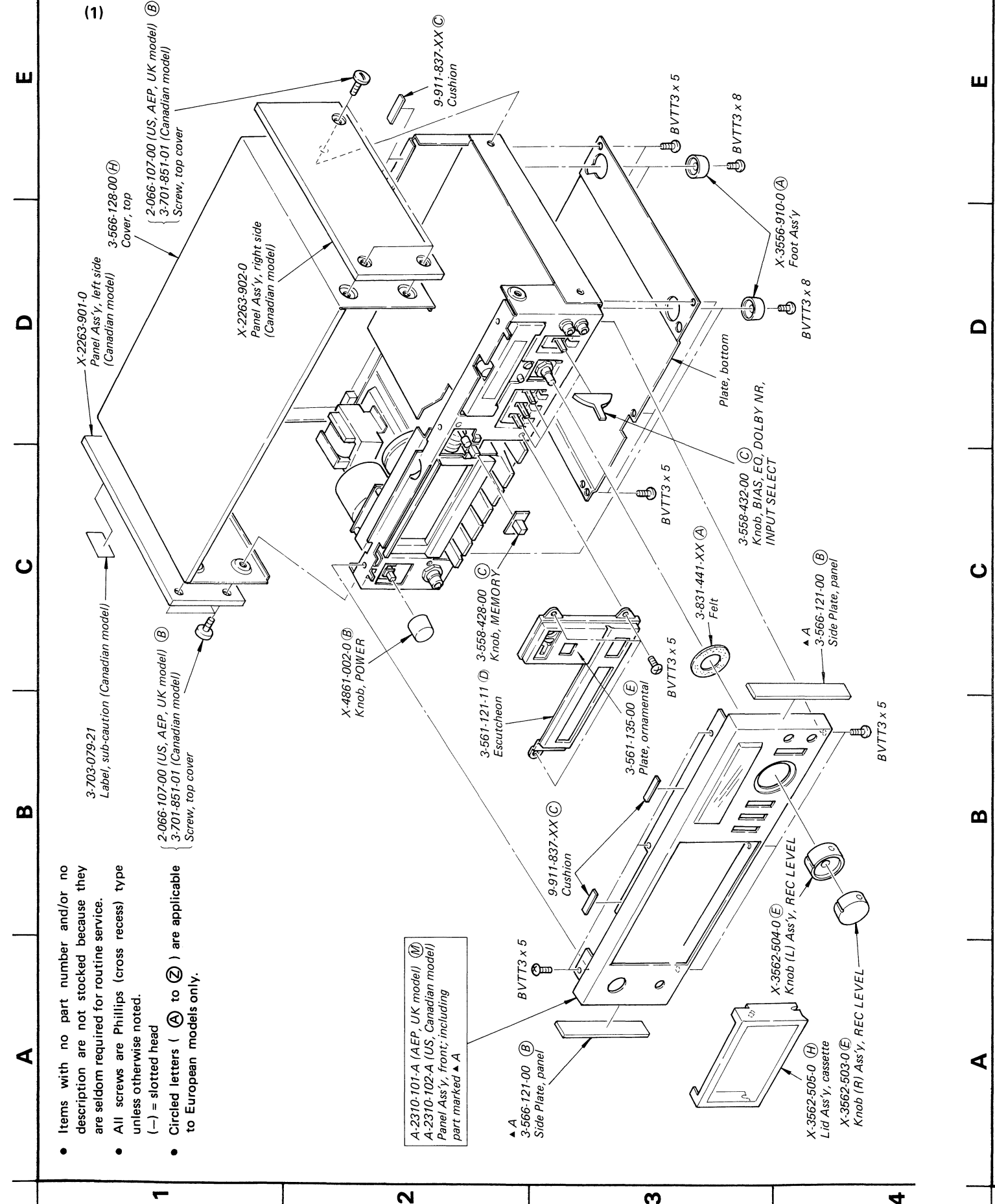
- D102, 202 } : 1T22AM (1T22)
- D104, 204 } : 1S1555
- D105, 205 } : 1S1555

- D301-304 } : 10E2
- D307, 308 } : 10E2
- D315, 401 } : 10E2
- D402, 405 } : 10E2

- D1001 } : RD3.0E (RD3.0E-B)
- D314 } : RD6.2E
- D403 } : RD6.2E

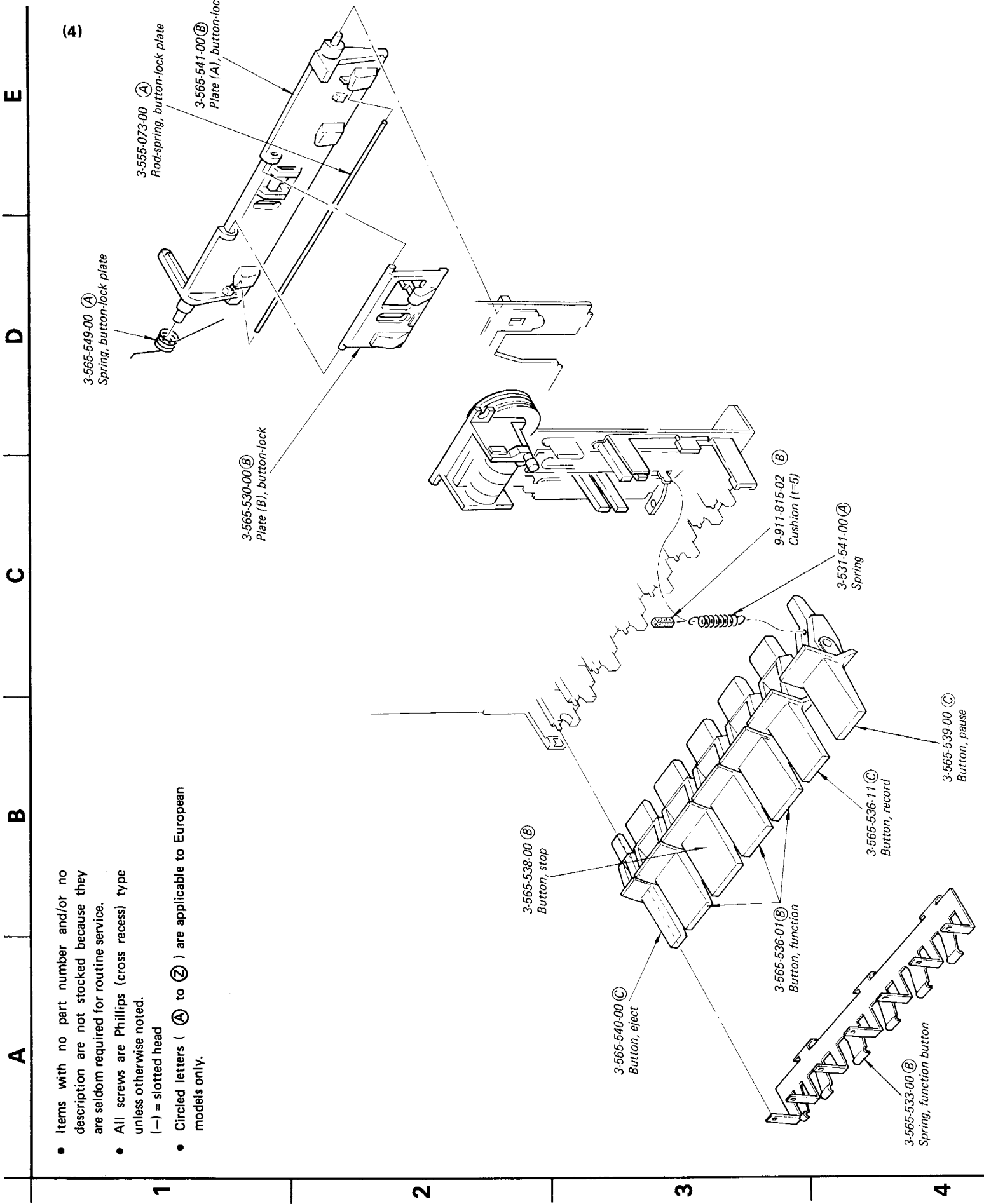


**SECTION 5
EXPLODED VIEWS**



- 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.

- 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.



- 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.

1

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4

A B C D E

(5)

- 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.

3-565-520-00 (A)
Spring, cassette

1-518-306-00 (B)
Lamp, cassette (PL1001)

3-565-522-00 (B)
Holder, lamp

9-911-848-XX (F)
Shoe, back-tension (t=1)

3-555-017-00 (A)
Lever, back-tension

3-555-124-00 (A)
Spring

Plate, brake

3-555-016-00 (A)
Spring, brake

G3

3-555-015-00 (A)
Rubber, brake

Lever (A), timing switch

Lever Ass'y, forward

3-565-532-00 (B)
Base, head

3-565-531-00 (B)
Bracket, head

Steel Ball, 2.5mm dia.

3-539-237-00 (A)
Spring

8-825-506-10 (E)
Head, erase; EF135-36F (HE)

W2

B2 x 12

B2 x 10

8-825-710-00 (L)
Head, record/playback; PF180-3602A (HRP)

3-513-237-01 (t=0.1) (A)
3-513-237-11 (t=0.2) (A)
Shim, head height adjustment

9-911-815-02 (B)
Cushion (t=5)

3-555-064-00 (A)
Spring, pinch roller

3-490-159-00 (A)
Spring

X-3555-005-0 (C)
Pinch Roller Ass'y

3-555-021-00 (A)
Spring, pause-lock plate

3-555-020-00 (A)
Plate, pause-lock

3-537-783-XX (A)
Spring (67T)

Plate, pause function

Plate, pause slide

Lever, PR release

Steel Ball, 2.5mm dia.

CS3

E2.3

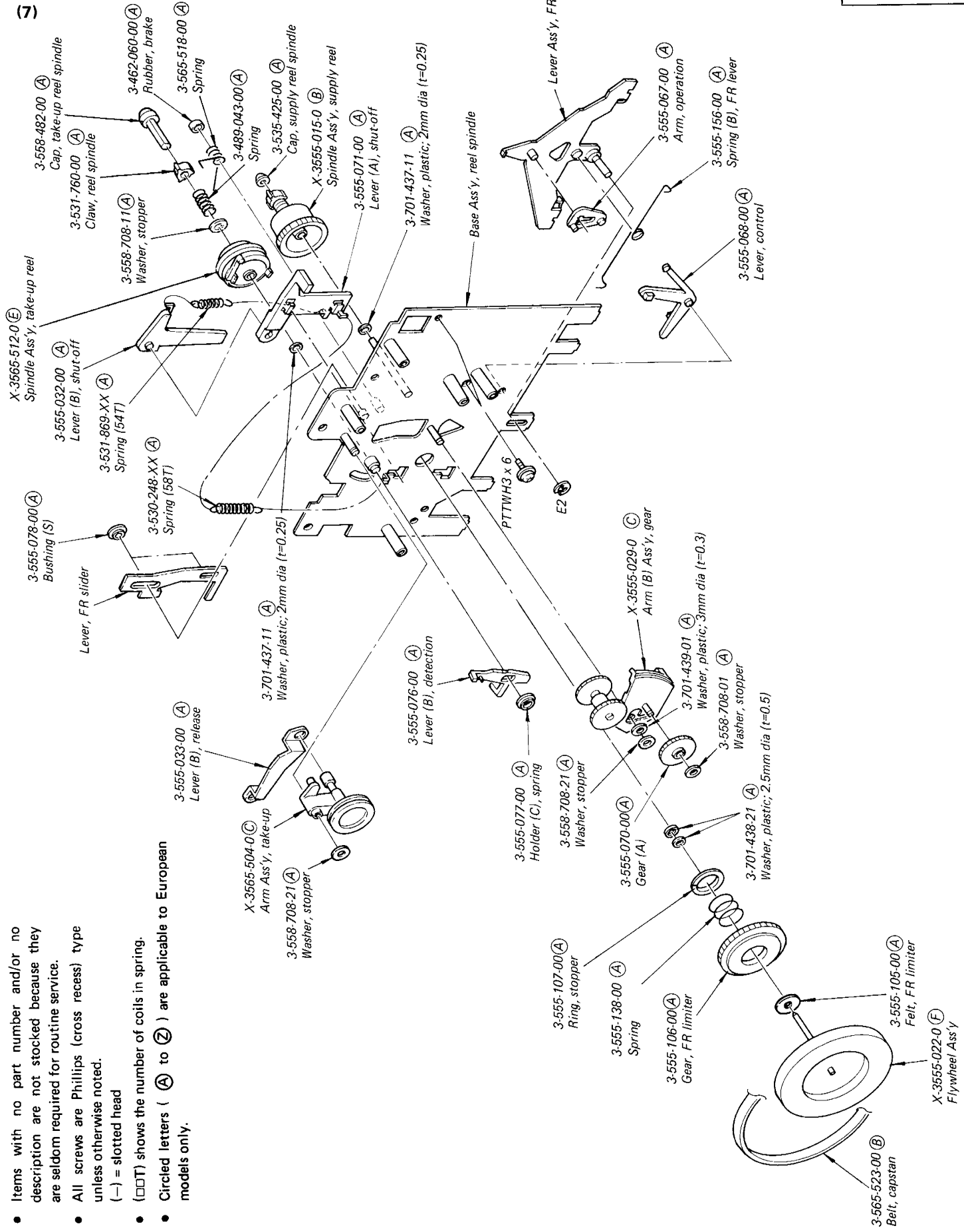
PTPWH

2.6 x 6

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

A B C D E

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

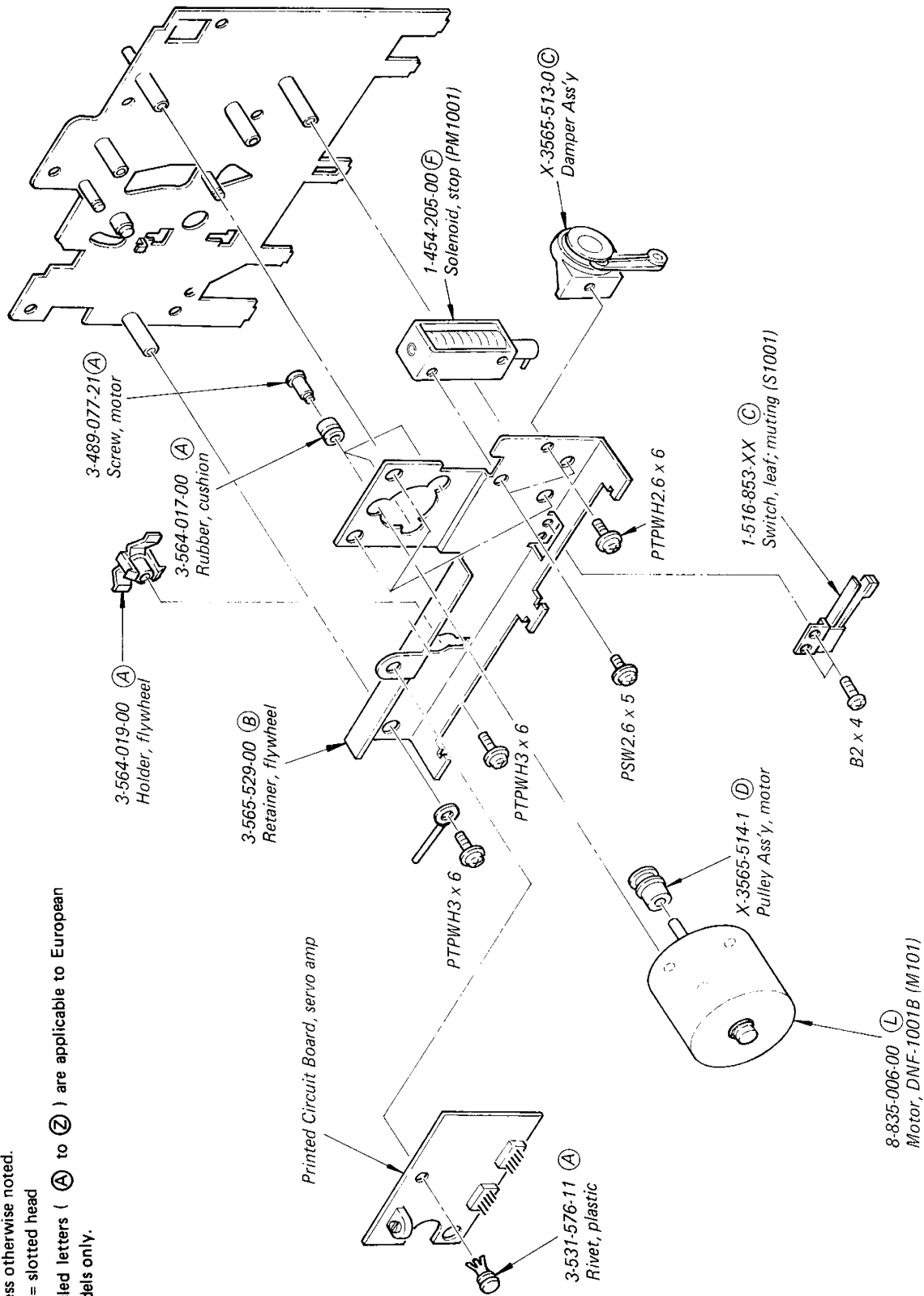


1 2 3 4

(8)

A B C D E

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



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3

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**SECTION 6
ELECTRICAL PARTS LIST**

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

Ref. No. *Part No.* *Description*

SEMICONDUCTORS

Transistors

Q101, 102 Q201, 202)	8-729-334-58	(B) 2SC1345
Q103, 203	8-729-663-47	(B) 2SC1364
Q104, 204	8-729-100-13	(B) 2SC2001
Q105, 205	8-729-334-58	(B) 2SC1345
Q107, 207	8-729-663-47	(B) 2SC1364
Q301	8-729-141-43	2SD414 (US, Canadian model)
	(8-729-316-12	(D) 2SC1061 (AEP, UK model)
Q302	8-729-154-83	2SB548 (US, Canadian model)
	(8-729-317-12	(D) 2SA671 (AEP, UK model)
Q303	8-729-663-47	(B) 2SC1364
⇒ Q304	8-729-612-77	(B) 2SA1027R
Q305	8-729-663-47	(B) 2SC1364
⇒ Q306	8-729-612-77	(B) 2SA1027R
Q307, 308	8-729-663-47	(B) 2SC1364
⇒ Q309	8-729-612-77	(B) 2SA1027R
Q310	8-729-663-47	(B) 2SC1364
⇒ Q311	8-760-413-10	(B) 2SC1475
Q401	8-729-141-43	(B) 2SD414
Q402	8-729-663-47	(B) 2SC1364
Q403	8-729-101-31	(B) N13T1
Q404	8-729-663-47	(B) 2SC1364
Q405-408	8-729-195-23	(B) 2SA952
Q409	8-729-663-47	(B) 2SC1364
⇒ Q410	8-729-316-12	(D) 2SC1061
Q1001	8-729-141-43	(B) 2SD414

ICs

IC101, 201	8-759-745-60	(B) NJM4560D
IC301	8-759-100-06	(D) μPC4556C
IC302	8-759-145-57	(D) μPC4557C
IC303	8-759-145-58	(D) μPC4558C

Ref. No. *Part No.* *Description*

IC401	8-759-993-51	(H) MSL9351
IC1001	8-750-690-00	(D) CX069
Diodes		
⇒ D101, 201	8-719-815-55	(B) 1S1555
⇒ D102, 202	8-719-422-21	(B) 1T22AM
⇒ D103, 203	8-719-815-55	(B) 1S1555
D104, 105 D204, 205)	8-719-815-55	(B) 1S1555
⇒ D106, 206	8-719-815-55	(B) 1S1555
D301-304	(A) 8-719-200-02	(B) 10E2
⇒ D305	(A) 8-719-815-55	(B) 1S1555
D307, 308	8-719-200-02	(B) 10E2
⇒ D309, 310	8-719-910-65	(B) HZ6B2L
⇒ D311-313	8-719-815-55	(B) 1S1555
⇒ D314	8-719-130-07	(B) RD3.0E
D315	8-719-200-02	(B) 10E2
⇒ D316	8-719-910-65	(B) HZ6B2L
⇒ D317	8-719-815-55	(B) 1S1555
D318	8-719-301-03	(B) SEL103R
D401, 402	(A) 8-719-200-02	(B) 10E2
D403	8-719-162-07	(B) RD6.2E
D404	1-800-822-11	(K) SEL8806
D405	(A) 8-719-200-02	(B) 10E2
⇒ D406	8-719-815-55	(B) 1S1555
D1001	8-719-200-02	(B) 10E2


COILS


L101, 201	1-408-262-00	(B) 27mH, microinductor
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TRANSFORMERS

T301	1-433-132-11	(B) Osc
T302	(A) 1-446-393-00	(L) Power (AEP, UK model)
	(A) 1-446-394-00	Power (US, Canadian model)

• ⇒: 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.

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.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			
CAPACITORS					
All capacitors are in μF and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics and tantalum. p : $\mu\mu\text{F}$, elect : electrolytic					
C101, 102 C201, 202	1-161-272-00	A	120p		
C103, 104 C203, 204	1-161-313-00	A	150p		
C105, 205	1-161-315-00	A	220p		
C106, 206	1-123-050-00	B	2.2	50V	elect
C107, 207	1-121-413-00	B	100	6.3V	elect
C108, 109 C208, 209	1-121-352-00	A	47	10V	elect
C110, 210	1-129-776-00	B	0.022	100V	polyethylene
C111, 112 C211, 212	1-121-479-00	B	22	16V	elect
C113, 213	1-161-263-00	A	22p		
C114, 214	1-129-896-00	A	0.012	100V	polyethylene
C115, 215	1-129-701-00	A	0.01	100V	polyethylene
C116, 216	1-121-651-00	A	10	16V	elect
C117, 217	1-121-414-00	B	100	10V	elect
C118, 218	1-108-597-00	A	0.056		mylar
C119, 219	1-108-573-00	B	0.0056		mylar
C121, 221	1-108-565-00	B	0.0027		mylar
C122, 222	1-123-353-00	B	2.2	50V	elect
C123, 223	1-123-354-00	B	3.3	50V	elect
C124, 224	1-161-383-00	A	0.0047		
C125, 225	1-161-323-00	A	0.001		
C126, 226	1-123-050-00	B	2.2	50V	elect
C127, 227	1-161-323-00	A	0.001		
C128, 228	1-123-230-00	B	2.2	50V	elect (nonpolarized)
C129, 130 C229, 230	1-121-414-00	B	100	10V	elect
C131, 231	1-121-726-00	A	0.47	50V	elect
C132, 232	1-129-776-00	B	0.022	100V	polyethylene
C133, 233	1-108-559-00	B	0.0015		mylar
C134, 234	1-108-579-00	B	0.01		mylar
C135, 235	1-108-585-00	B	0.018		mylar

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			
C136, 236	1-161-383-00	A	0.0047		
C137, 237	1-161-272-00	A	120p		
C138, 238	1-161-258-00	A	8.2p		
C139, 239	1-108-597-00	A	0.056		mylar
C140, 240	1-161-272-00	A	120p		
C141, 241	1-161-315-00	A	220p		
C142, 242	1-123-228-00	B	1	50V	elect (nonpolarized)
C143, 243	1-161-271-00	A	100p		
C144, 244	1-107-167-11	B	75p	500V	mica
C145, 245	1-107-037-00	B	82p	500V	silvered mica
C146, 246	1-123-320-00	B	100	16V	elect
C147, 247	1-131-213-00	B	0.47	35V	tantalum
C301	A 1-121-733-00	B	470	25V	elect
C302	A 1-121-733-00	B	470	25V	elect
C303, 304	1-121-245-00	B	1000	16V	elect
C305, 306	1-121-421-00	B	220	16V	elect
C307-310	1-121-420-00	B	220	10V	elect
C311	1-123-316-00	B	10	16V	elect
C312	1-123-306-00	B	47	10V	elect
C313	1-123-328-00	B	4.7	25V	elect
C314	1-123-322-00	B	330	16V	elect
C315	1-123-354-00	B	3.3	50V	elect
C316	1-131-217-00	B	2.2	35V	tantalum
C317	1-129-701-00	A	0.01	100V	polyethylene
C318	1-130-189-00	B	0.018	100V	polyethylene
C319	1-129-710-00	B	0.0047	630V	polyethylene
C320, 321	1-121-414-00	B	100	10V	elect
C322, 323	1-123-320-00	B	100	16V	elect
C324	1-161-323-00	A	0.001		
C401	A 1-121-421-00	B	220	16V	elect
C402	1-123-295-00	B	100	6.3V	elect
C403	1-123-296-00	B	220	6.3V	elect
C404	1-121-651-00	A	10	16V	elect
C405	1-123-354-00	B	3.3	50V	elect
C406	1-108-603-00	B	0.1		mylar

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

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.**

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		
C407, 408	1-123-349-00	C 1000	35V	elect
C409	1-123-353-00	B 2.2	50V	elect
C1001	1-130-134-00	B 0.082	100V	plastic
C1002	1-123-316-00	B 10	16V	elect
C1003	1-108-583-00	A 0.015		mylar
C1004	1-123-352-00	B 1	50V	elect
C1006,1008	1-123-332-00	A 47	25V	elect
C1009	1-108-244-00	A 0.033		mylar
CT101, 201	1-141-225-00	C Trimmer		

RESISTORS

All resistors are in ohms. Common 1/2W carbon resistors are omitted. Refer to the list on page 33 for their part numbers.
kΩ : 1000Ω, MΩ : 1000kΩ

R103, 203	1-244-897-00	A 10k	1/2W	carbon
R104, 204	1-244-905-00	A 22k	1/2W	carbon
R105, 205	1-244-840-00	A 43	1/2W	carbon
R110, 210	1-244-873-00	A 1k	1/2W	carbon
R111, 211	1-244-932-00	A 300k	1/2W	carbon
R112, 113 R212, 213	1-244-873-00	A 1k	1/2W	carbon
R114, 214	1-244-939-00	A 560k	1/2W	carbon
R115, 215	1-244-918-00	A 75k	1/2W	carbon
R116, 216	1-244-873-00	A 1k	1/2W	carbon
R117, 217	1-244-855-00	A 180	1/2W	carbon
R118, 218	1-244-937-00	A 470k	1/2W	carbon
R119, 219	1-244-853-00	A 150	1/2W	carbon
R123, 223	1-244-865-00	A 470	1/2W	carbon
R124, 224	1-244-881-00	A 2.2k	1/2W	carbon
R126, 226	1-244-857-00	A 220	1/2W	carbon
R140, 240	1-244-881-00	A 2.2k	1/2W	carbon
R141, 241	1-244-885-00	A 3.3k	1/2W	carbon
R143, 243	1-244-913-00	A 47k	1/2W	carbon
R144, 244	1-244-896-00	A 9.1k	1/2W	carbon
R156, 256	1-244-873-00	A 1k	1/2W	carbon
R170, 270	1-244-899-00	A 12k	1/2W	carbon
R307, 308	1-244-877-00	A 1.5k	1/2W	carbon

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		
R309, 310	1-244-884-00	A 3k	1/2W	carbon
R321	1-244-852-00	A 130	1/2W	carbon
R322	A 1-206-642-00	A 120	2W	metal oxide (nonflammable)
R328, 329	1-244-849-00	A 100	1/2W	carbon
R330, 331	1-244-852-00	A 130	1/2W	carbon
R422	A 1-206-652-00	A 330	2W	metal oxide (nonflammable)
R427	1-244-857-00	A 220	1/2W	carbon
R1001	1-214-765-00	A 33k	1/4W	metal oxide
R1008	A 1-217-523-00	B 10	1/4W	fusible
RV101, 201	1-244-550-21	B 220-B	adjustable; playback level	
RV102, 202	1-226-223-00	E 20k/20k-A	variable; REC LEVEL	
RV103, 203	1-224-644-XX	B 4.7k-B	adjustable; record level	
RV104, 204	1-226-235-00	A 5k-B	adjustable; meter	
RV1001	1-226-431-00	B 10k-B	adjustable; tape speed	

SWITCHES

S1	1-552-521-00	C Slide, record/playback
S2	1-552-723-00	C Lever-slide, DOLBY NR
S3	1-552-393-00	C Lever-slide, BIAS
S4	1-552-394-00	C Lever-slide, EQ
S5	1-552-724-00	D Lever-slide, INPUT SELECT
S6	1-552-271-00	C Slide, MEMORY
S7	A 1-552-530-00	Pushbutton, POWER (US, Canadian model)
	A 1-552-903-00	D Pushbutton, POWER (AEP, UK model)
S8		included in tape counter
S1001-1003	1-516-853-XX	C Leaf, muting, timing, rewind

JACKS

CNJ101,201	1-507-525-00	D MIC
CNJ102, 103 CNJ202, 203	1-507-531-00	LINE IN, LINE OUT (US, Canadian model)
CNJ102,103 CNJ202,203 CNJ301	1-536-501-21	D LINE IN, LINE OUT, REC/PB (AEP, UK model)

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

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.

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
CNJ302	1-507-553-00	Ⓒ HEADPHONES
MISCELLANEOUS		
CP301	Ⓐ1-231-326-11	Encapsulated Component (US, Canadian model)
	Ⓐ1-130-267-00	Ⓒ Capacitor, 0.022μF 250V; film (AEP, UK model)
HE	8-825-506-10	Ⓔ Head, erase; EF135-36F
HRP	8-825-710-00	Ⓕ Head, record/playback; PF180-3602A
LPF101,201	1-231-372-00	Ⓒ Filter, low-pass
M101	8-835-006-00	Ⓕ Motor, DNF-1001B
PL1, 1001	1-518-306-00	Ⓑ Lamp, peak program meter, cassette
PM1001	1-454-205-00	Ⓕ Solenoid, stop
	Ⓐ1-534-777-00	Ⓓ Cord, power (UK model)
	Ⓐ1-534-817-XX	Ⓓ Cord, power (AEP model)
	Ⓐ1-534-986-XX	Cord, power (US, Canadian model)

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.

ACCESSORIES & PACKING MATERIALS

<u>Part No.</u>	<u>Description</u>
X-3701-105-0	Ⓐ Tip Ass'y, head cleaning
1-551-734-11	Ⓓ Cord, connection; RK-74A
3-429-126-00	Bag, plastic (Canadian model)
3-561-128-00	Ⓓ Carton (US, AEP, UK model)
3-561-141-00	Carton (Canadian model)
3-561-142-00	Cushion, upper-front (Canadian model)
3-561-143-00	Cushion, upper-rear (Canadian model)
3-561-144-00	Cushion, bottom-right (Canadian model)
3-561-145-00	Cushion, bottom-left (Canadian model)
3-566-148-00	Ⓑ Cushion, upper-front (US, AEP, UK model)
3-566-149-00	Ⓑ Cushion, upper-rear (US, AEP, UK model)
3-566-150-00	Ⓑ Cushion, bottom-right (US, AEP, UK model)
3-566-151-00	Ⓑ Cushion, bottom-left (US, AEP, UK model)
3-701-630-00	Ⓐ Bag, plastic
3-770-849-11	Ⓔ Manual, instruction (AEP, UK model)
3-770-849-21	Manual, instruction (US model)
3-770-849-21	Manual, instruction (Canadian model)
3-794-461-31	
3-793-828-11	Ⓐ Caution Card, cassette
3-794-233-21	Separate Sheet, consumer products (US model)
4-818-924-00	Ⓑ Bag, plastic (US, AEP, UK model)

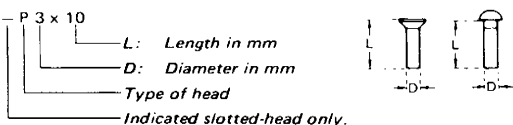
1/4 WATT CARBON RESISTORS [Ⓐ]

Note: Circled letter [Ⓐ] 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	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

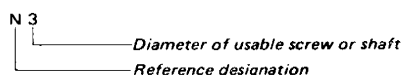
Screw:



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 washer
LW		external-tooth lock washer	ex: LW3, external washer
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

