

CFS-66

US Model
Canadian Model



FM/AM STEREO CASSETTE-CORDER

SPECIFICATIONS

RADIO SECTION

Frequency Range: FM 87.5–108 MHz
AM 530–1,605 kHz (566–187 m)

Antennas: FM: Telescopic antenna
AM: Built-in ferrite bar antenna

TAPE RECORDER SECTION AND GENERAL

Recording System: 4-track 2-channel stereo

Fast Winding Time: Approx. 1 min, 30 sec, with Sony Cassette C-60

Frequency Response: 40–10,000 Hz (with standard cassette, with the TAPE SELECT switch set to TYPE I (NORM))
40–12,000 Hz (with chromium dioxide cassette, with the TAPE SELECT switch set to TYPE II (CrO₂))
40–13,000 Hz (with Sony metal cassette, with the TAPE SELECT switch set to TYPE IV (METAL))

S/N: 37 dB

Total Harmonic Distortion: 5 %


Wow and Flutter: 0.14 % (WRMS)

Speakers: Two-way:
Approx. 16 cm (6½ inches) dia. woofers
Approx. 4 cm (1½ inches) dia. tweeters


Power Output: US model: 1 W x 2 (at 10% harmonic distortion)
Canadian model: 3.5 W x 2 (at 10 % harmonic distortion)
at dc operation

— Continued on page 2 —

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 À LA SÉCURITÉ!

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



Tape Transport
Mechanism Type

MDS-19S3

SONY

SERVICE MANUAL

4408

Inputs: Two external microphone input jacks (minijack)
 sensitivity 0.39 mV (-66 dB)
 for low impedance microphone
 One mixing microphone input jack (minijack)
 for low impedance microphone
 sensitivity 0.78 mV (-60 dB)
 Two line input jacks (phono jack)
 sensitivity 0.25 V (-10 dB)
 input impedance 47 k Ω

Outputs: Two line output jacks (phono jack)
 load impedance 10 k Ω or higher
 rated output 0.44 V (-5 dB) at
 load impedance 47 k Ω
 Two external speaker jacks (minijack)
 for 4 Ω to 8 Ω impedance speaker
 Headphone jack (stereo binaural jack)
 for 8 Ω impedance headphones

Power Requirements: 120 V ac adjustable, 60 Hz
 12 V dc, eight batteries size D (IEC
 designation R20)
 12 V car battery with optional Sony DCC-120
 Car Battery Cord

Power Consumption: 18 W ac

Battery Life: Approx. 15 hours of continuous recording
 with the built-in microphones using
 Eveready No.1250 Heavy Duty Batteries

Dimensions: Approx. 520(w) x 252(h) x 146(d) mm
 20 $\frac{1}{2}$ (w) x 10(h) x 5 $\frac{1}{2}$ (d) inches
 incl. projecting parts and controls
 not incl. handle

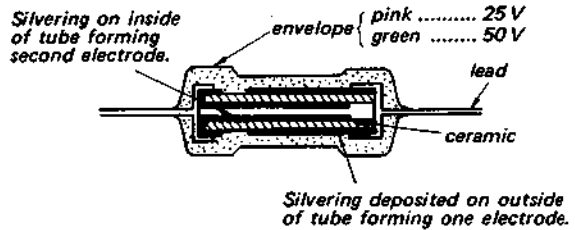
Weight: Approx. 6.5 kg (14 lb 5 oz)
 incl. batteries

THE CERAMIC CAPACITORS

This set uses tube-type ceramic capacitors whose shape is identical with the carbon resistors. Be careful not to use resistors instead of capacitors in repairing.

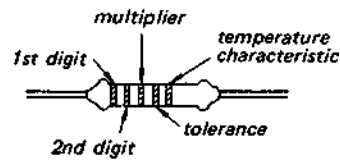
Disc-type ceramic capacitors can be used for replacing those originally used in the set.

Two kinds of drilled holes are provided in some patterns for mounting the tube-type and disc-type ceramic capacitors. Use appropriate holes where applicable.

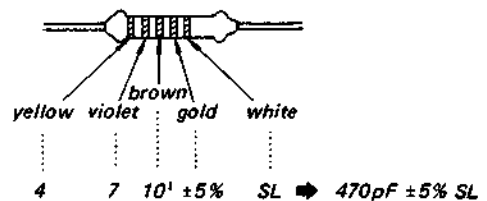


COLOR CODE (in pF)

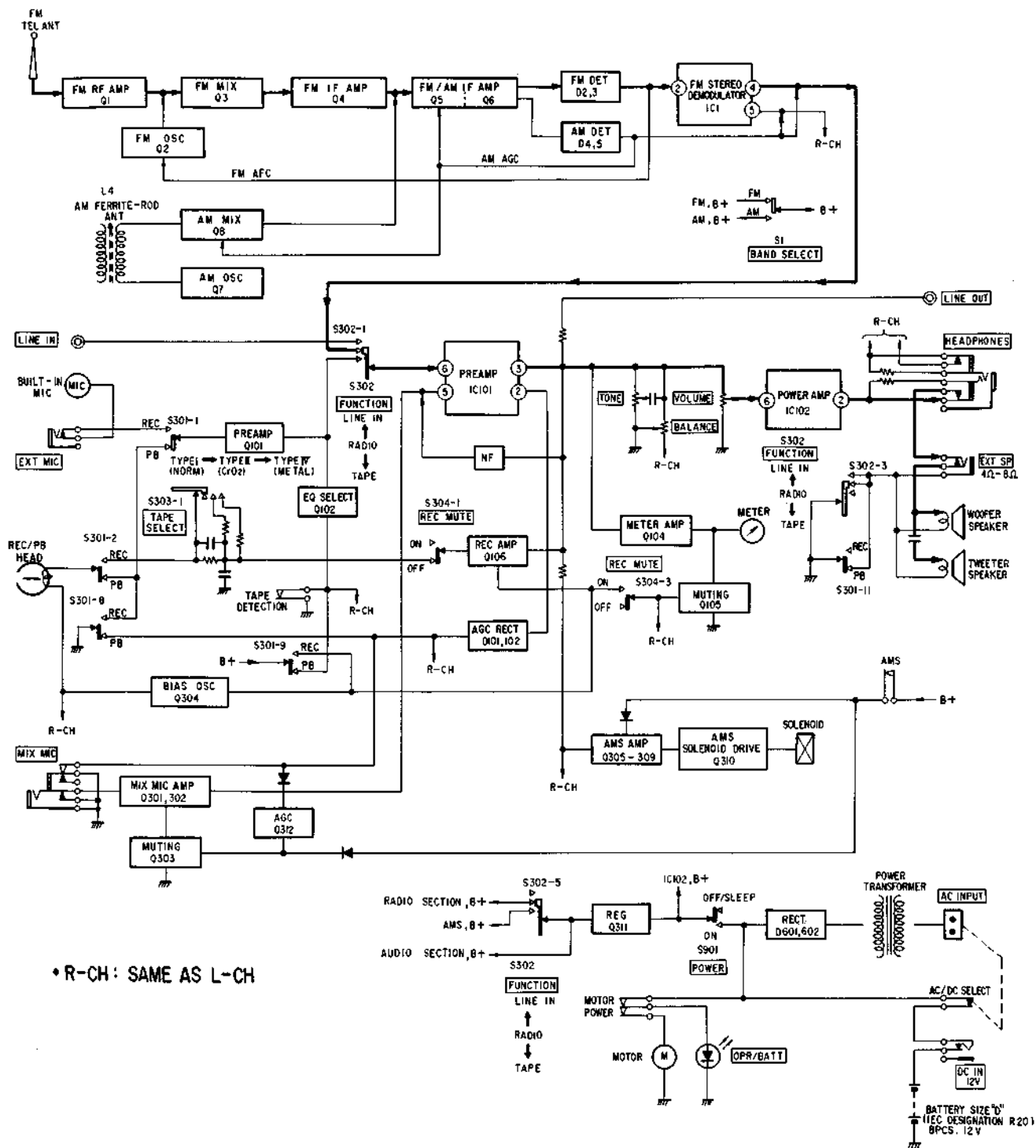
Color	1st or 2nd Digit	Multiplier	Tolerance	Temperature characteristic
brown	1	10 ¹	—	Y
red	2	10 ²	—	D
orange	3	10 ³	—	—
yellow	4	10 ⁴	—	RH
green	5	—	—	—
blue	6	—	—	—
violet	7	—	—	UJ
gray	8	—	± 30%	X
white	9	—	—	SL
black	0	10 ⁰	± 20%	CH
gold	—	10 ⁻¹	± 5%	V
silver	—	10 ⁻²	± 10%	B



Example:



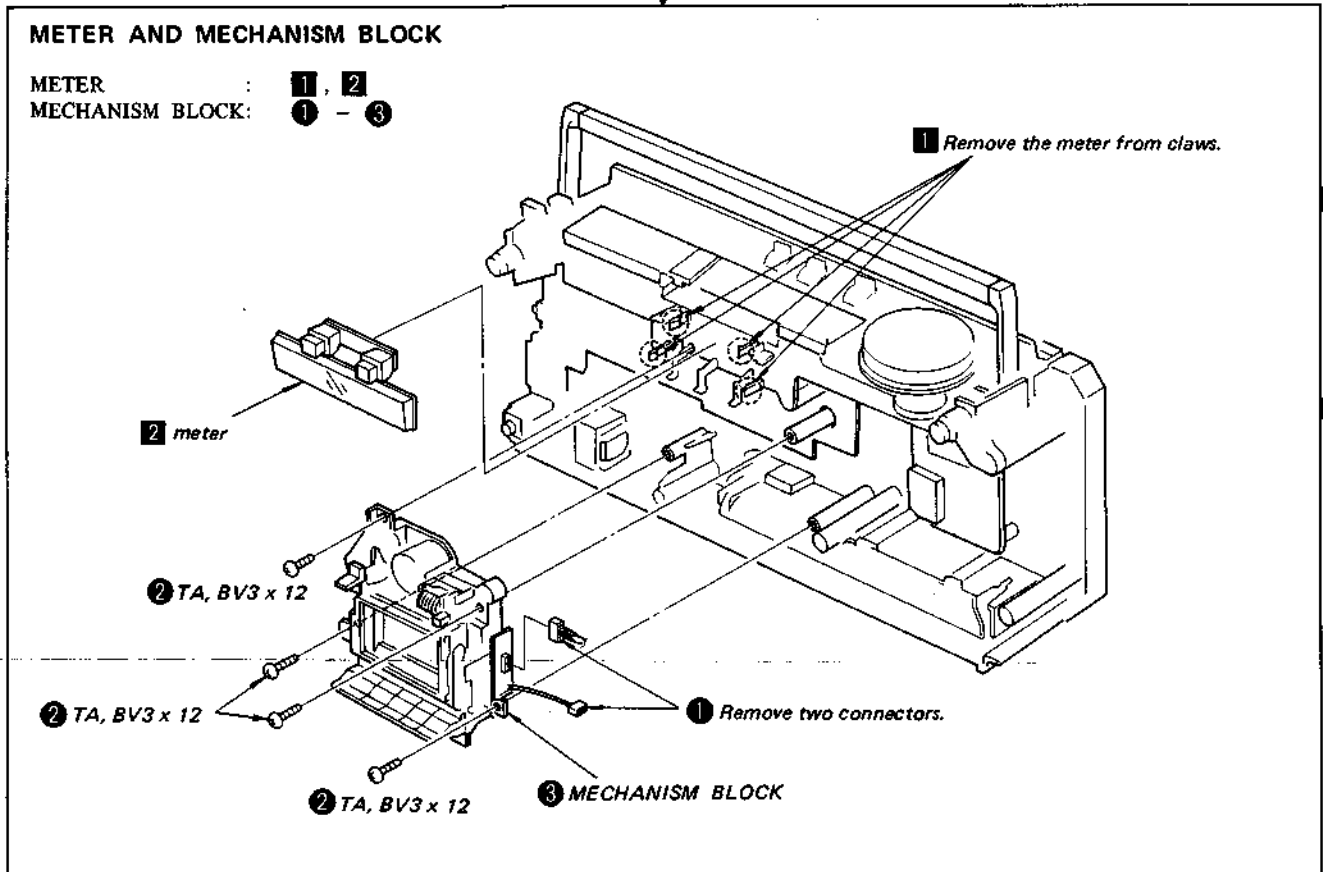
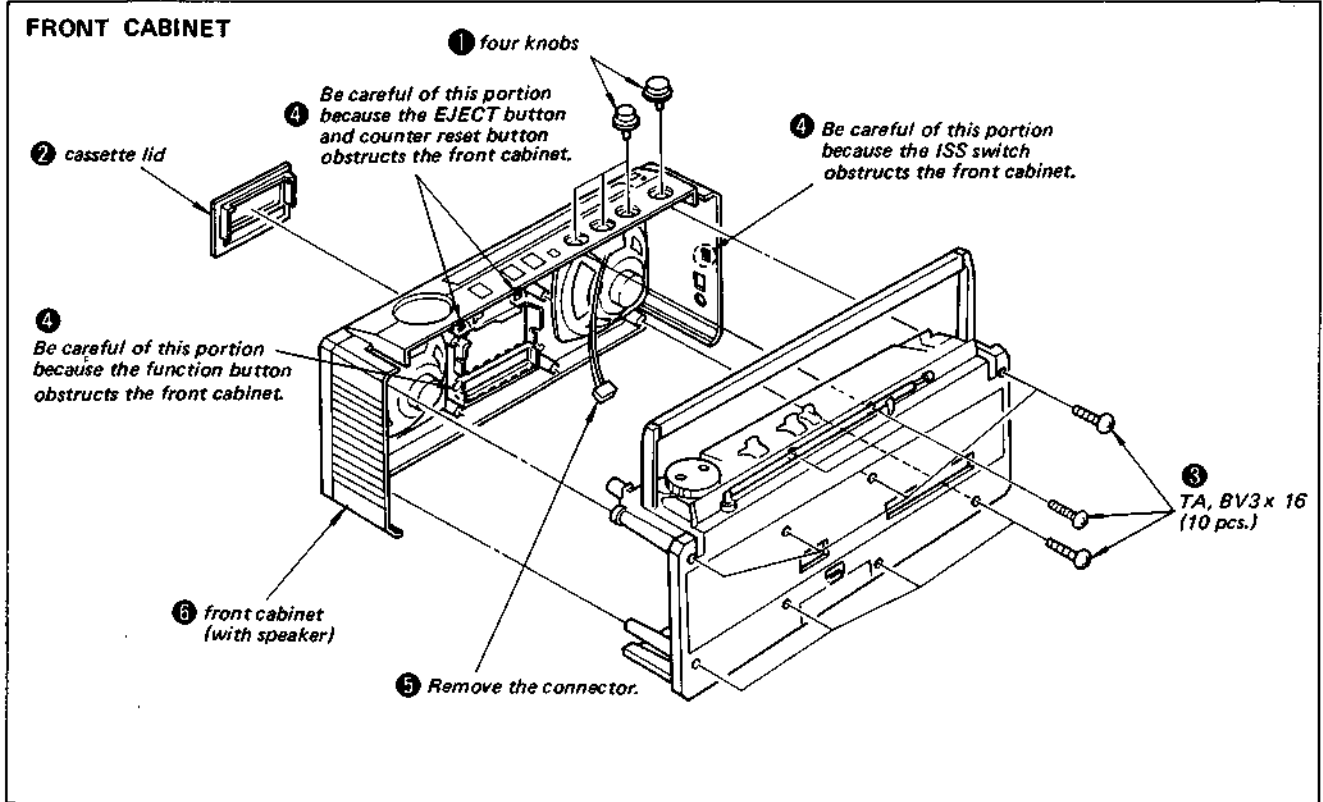
SECTION 1
BLOCK DIAGRAM



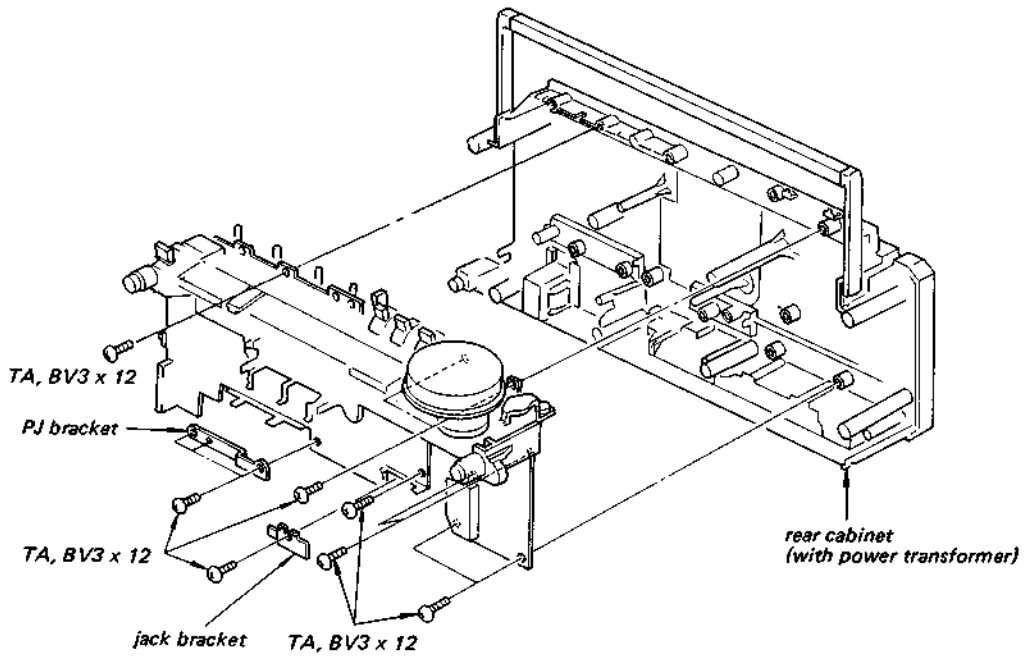
SECTION 2 DISASSEMBLY

2-1. REMOVAL

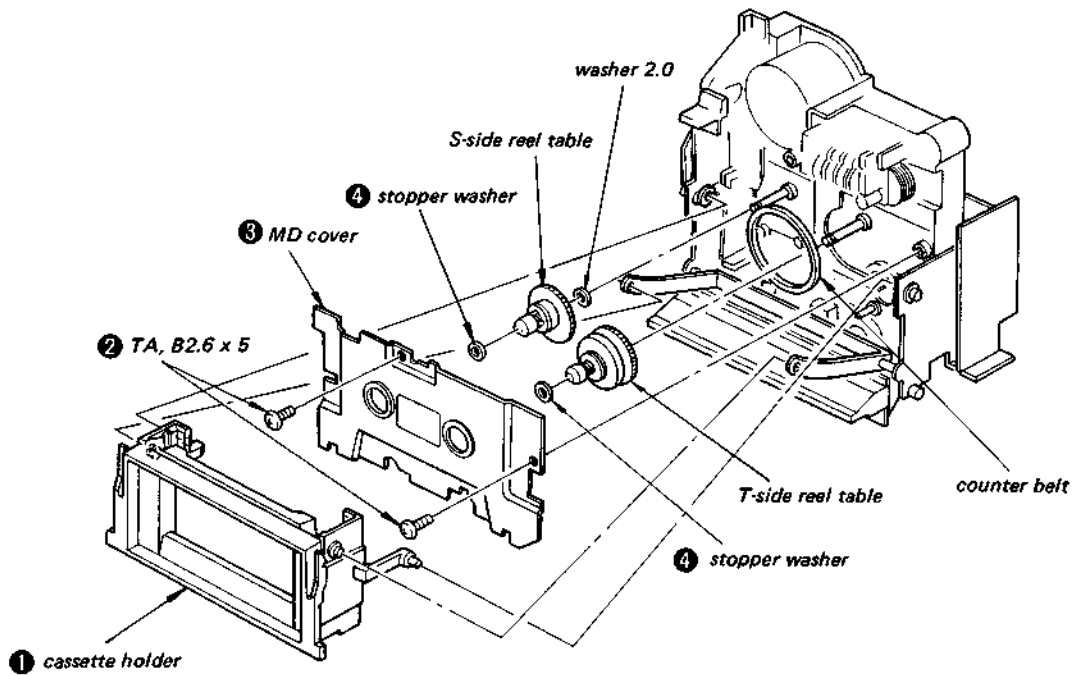
Note: Follow the disassembly procedure in the numerical order given.



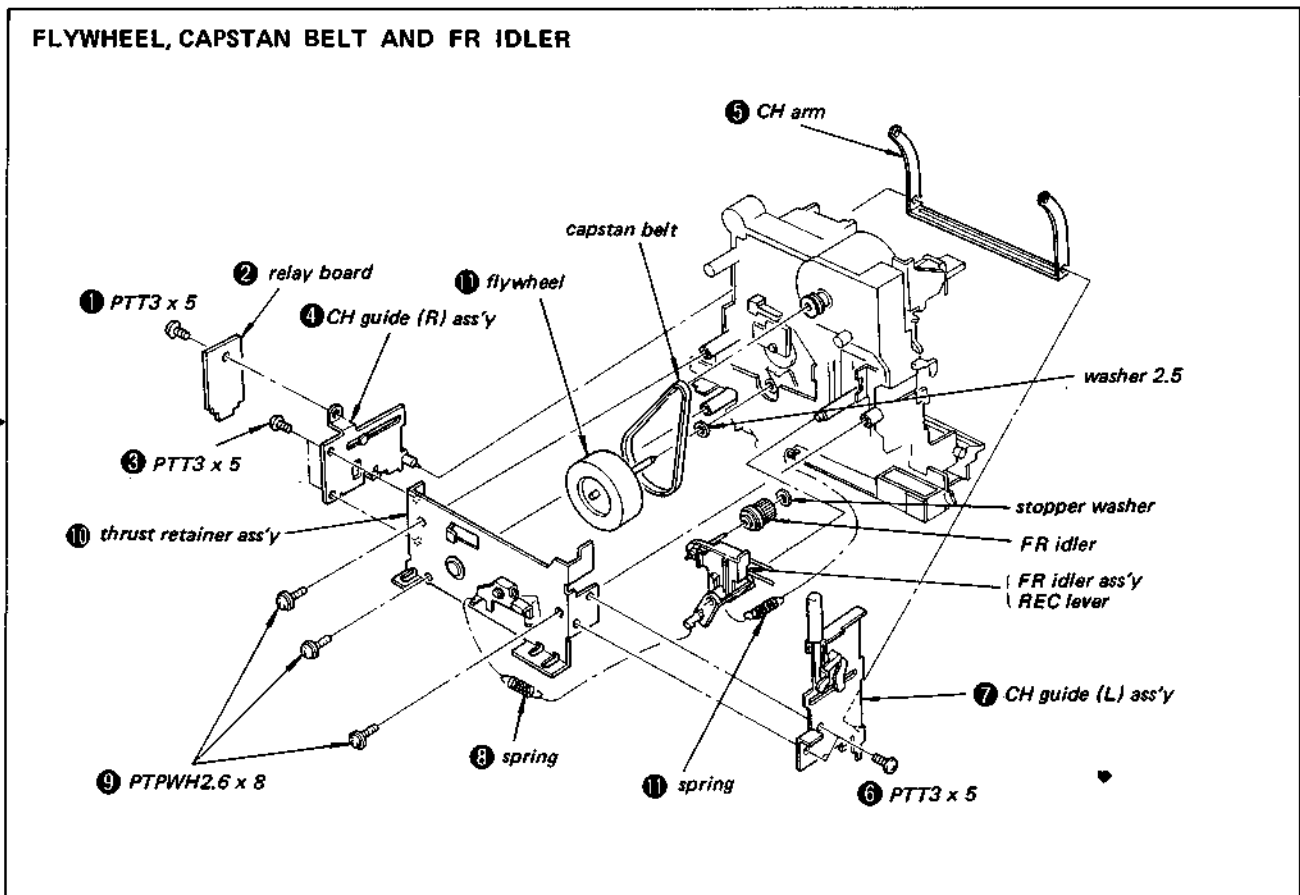
REAR CABINET



REEL TABLE AND COUNTER BELT

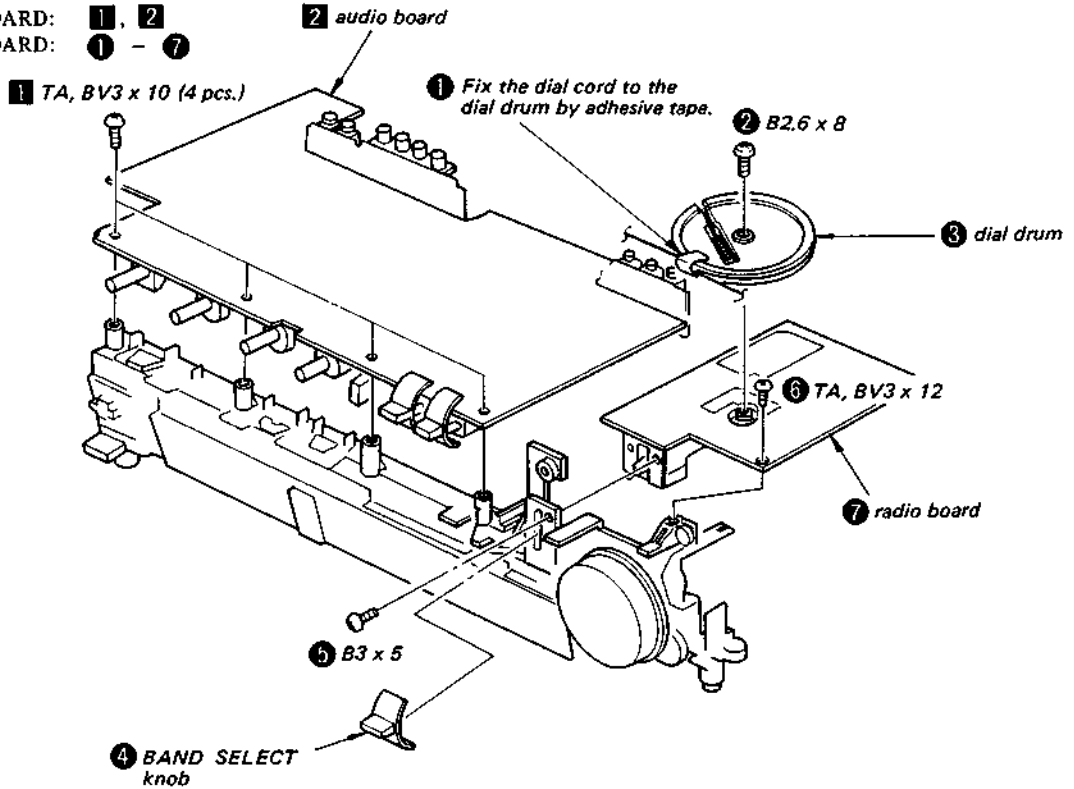


**DIAL CORD
STRINGING**
See page 8.

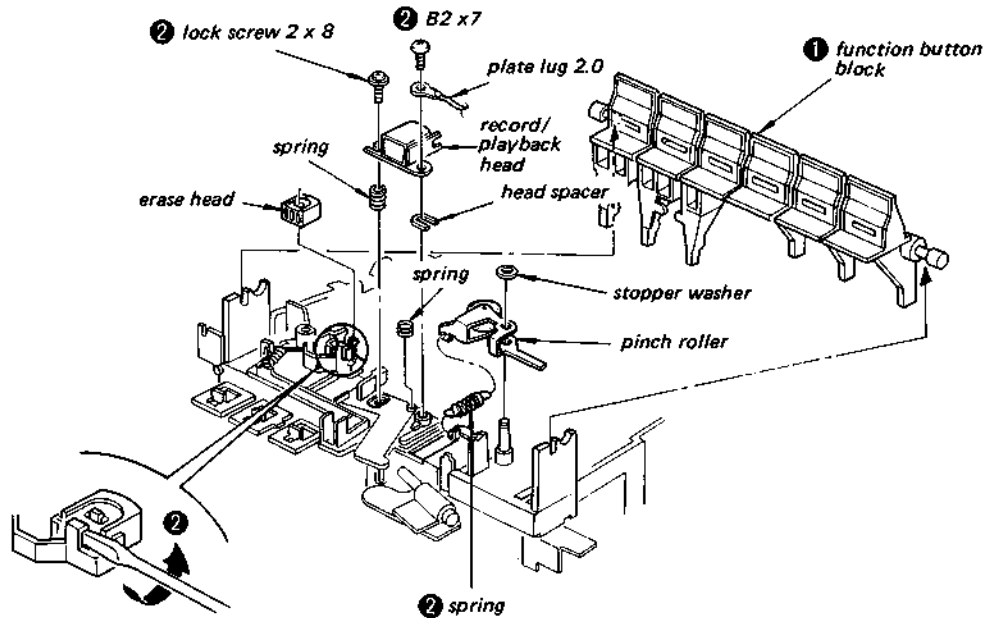


RADIO BOARD AND AUDIO BOARD

AUDIO BOARD: 1, 2
 RADIO BOARD: 1 - 7

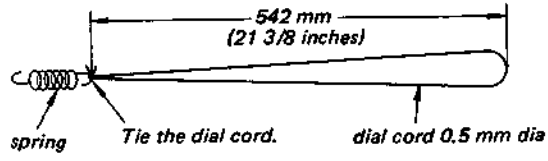


RECORD/PLAYBACK HEAD, ERASE HEAD AND PINCH ROLLER



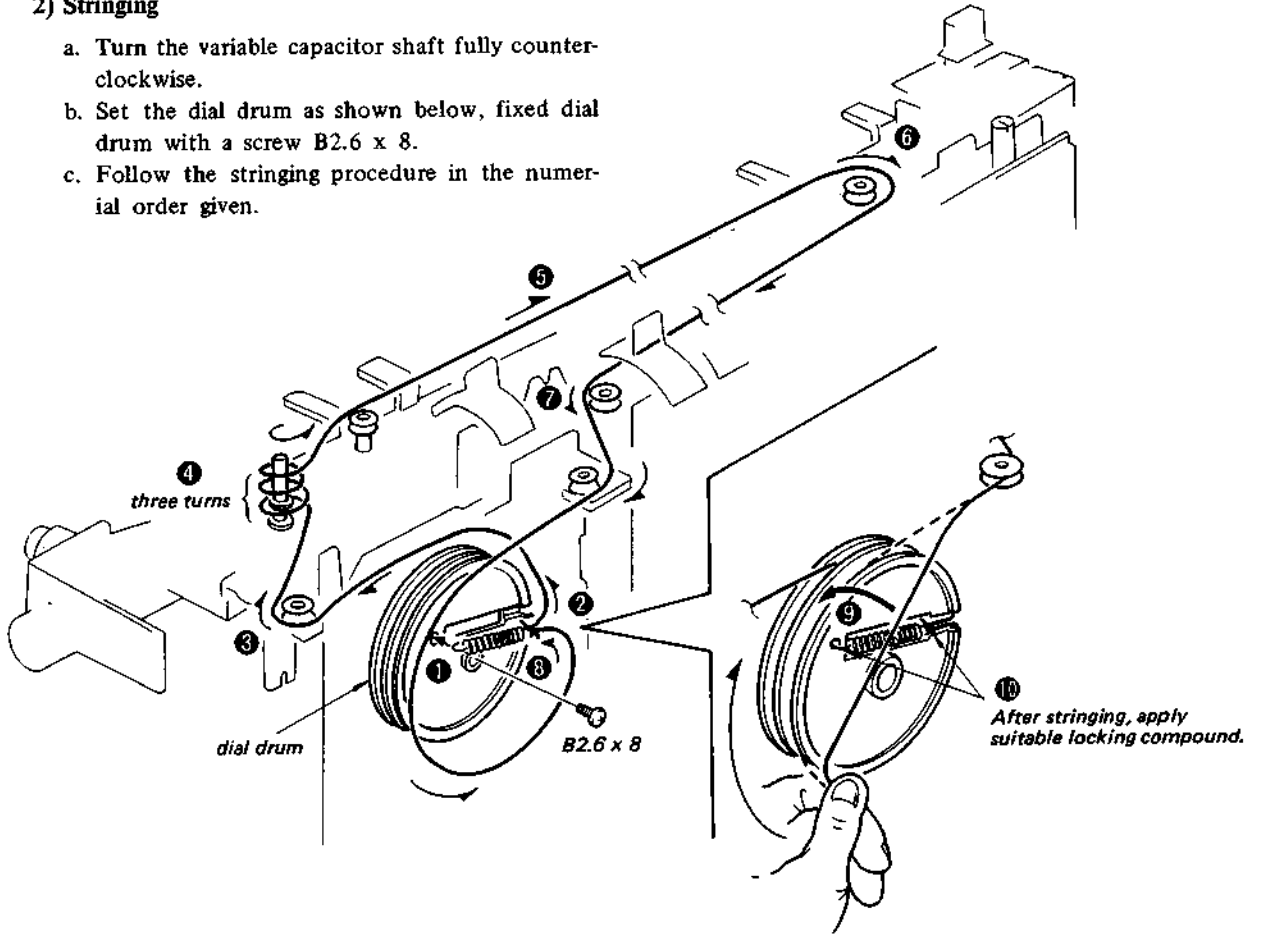
2.2. DIAL CORD STRINGING

1) Preparation



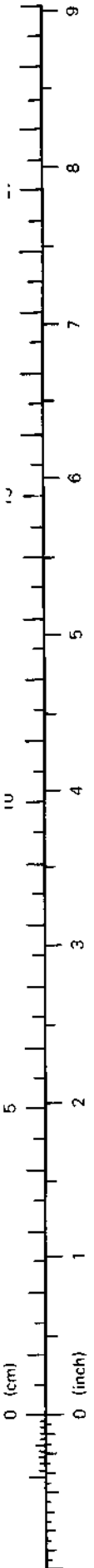
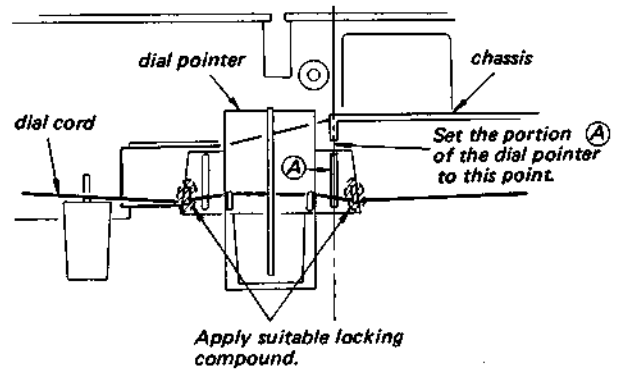
2) Stringing

- a. Turn the variable capacitor shaft fully counter-clockwise.
- b. Set the dial drum as shown below, fixed dial drum with a screw B2.6 x 8.
- c. Follow the stringing procedure in the numerical order given.



3) Dial Pointer Setting

- a. After the stringing, turn the TUNING knob fully counterclockwise.
- b. Set the dial pointer as shown on the right.
- c. Apply locking compound to the dial pointer and dial cord.



SECTION 3 ADJUSTMENTS

3-1. TAPE RECORDER SECTION MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol-moistened swab:
 - Mechanism Block Front Side -
 - record/playback head pinch roller
 - erase head FWD idler
 - capstan T-side reel table
 - Mechanism Block Rear Side -
 - capstan belt FR idler
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

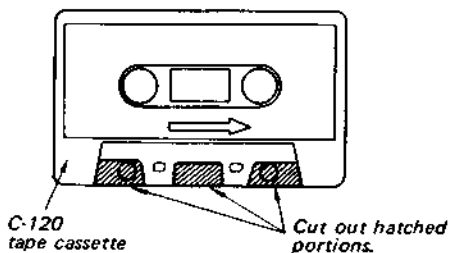
Torque	Meter Reading	Torque Meter
Forward	26 - 48 g · cm (0.36 - 0.67 oz · inch)	CQ-102C
Fast Forward and Rewind	80 - 120 g · cm (1.11 - 1.67 oz inch)	CQ-201B
Back Tension	1.5 - 5 g · cm	CQ-102C

Tape Tension Measurement

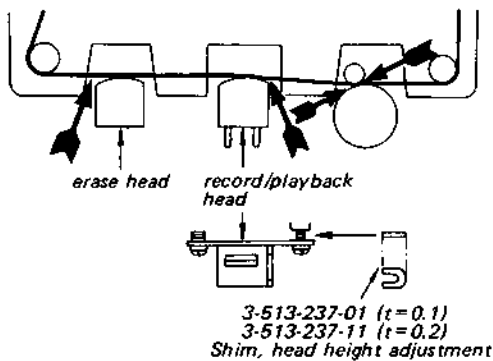
Meter	Meter Reading
CQ-403A	more than 160 g (5.6 oz)

Head Height Adjustment

1. Prepare an adjustment cassette as shown below.



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



3-2. TAPE RECORDER SECTION
ELECTRICAL ADJUSTMENTS

Tape Speed Adjustment

Setting:

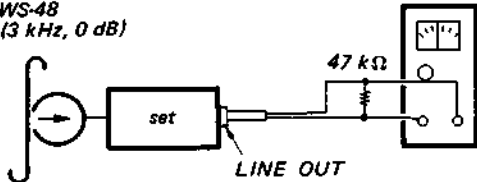
VOLUME control: mechanical mid

Procedure:

Mode: playback

speed checker
LFM-30
or
digital frequency
counter

test tape
WS-48
(3 kHz, 0 dB)

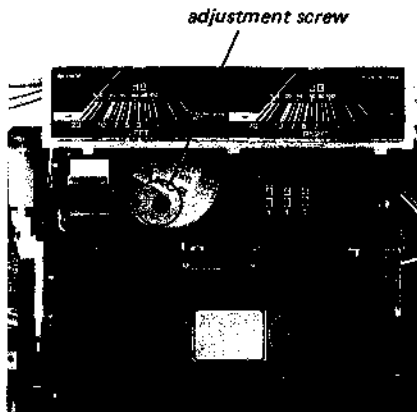


Specification:

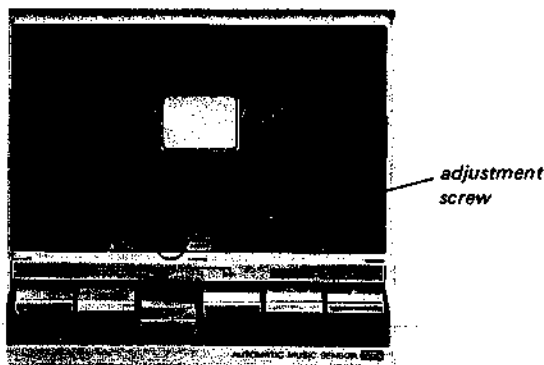
Speed checker	Digital frequency counter
-2.5 to +3 %	2925 - 3090 Hz

Frequency difference between the beginning and the end of the tape should be within 1 % (30 Hz).

Adjustment Location:



Adjustment Location:

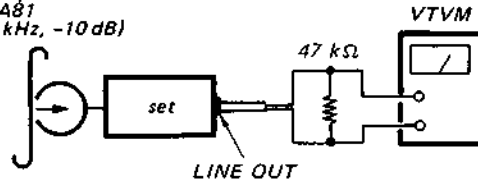


Record/playback Head Azimuth Adjustment

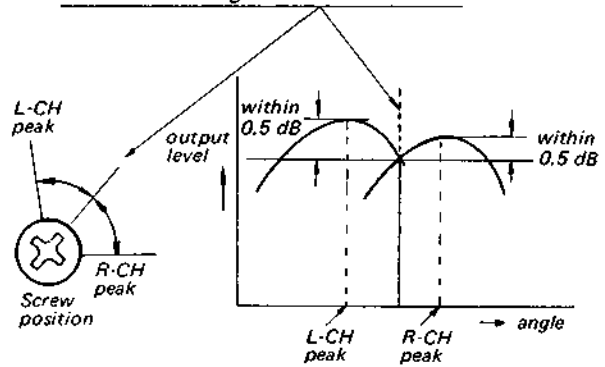
Procedure:

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.

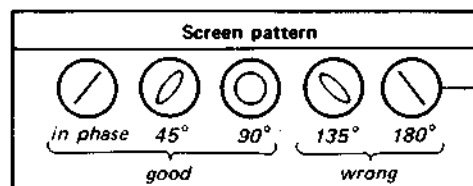
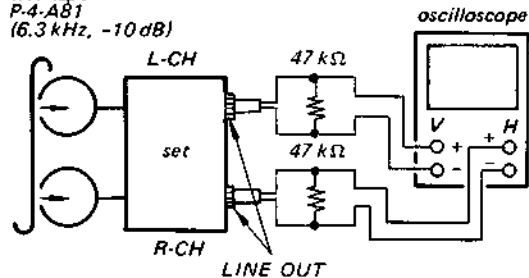


Note: Finish the screw adjustment with a turn in the clockwise direction. After the adjustment, lock the adjustment screw with suitable locking compound.

3. Phase Check

Mode: playback

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



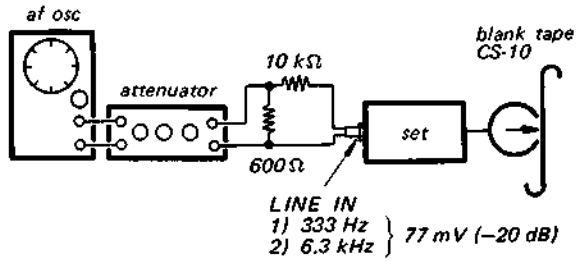
Record Bias Adjustment

Setting:

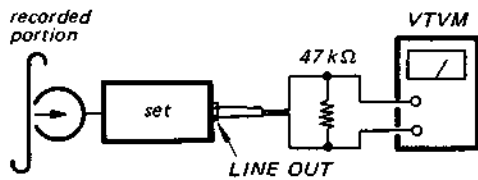
- TONE control: HIGH
- FUNCTION switch: TAPE
- TAPE SELECT switch: TYPE I (NORM)
- ISS switch: 1

Procedure:

1. Mode: record

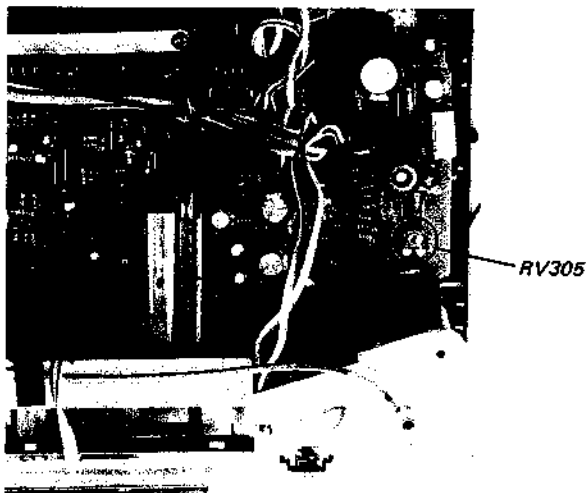


2. Mode: playback



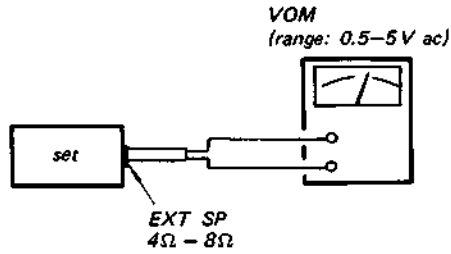
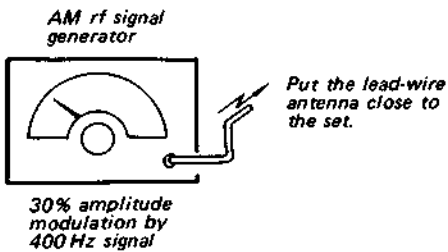
Adjust RV305 so that 6.3 kHz signal level is 2 ± 2 dB relative to 333 Hz signal level. Repeat the steps above.

Adjustment Location:



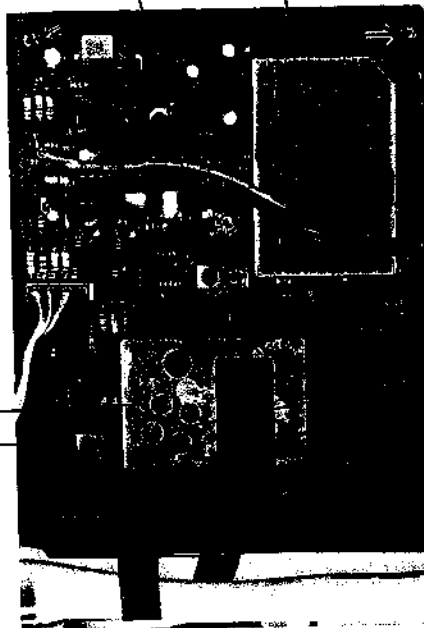
**3-3. RADIO SECTION
ELECTRICAL ADJUSTMENTS**

AM



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

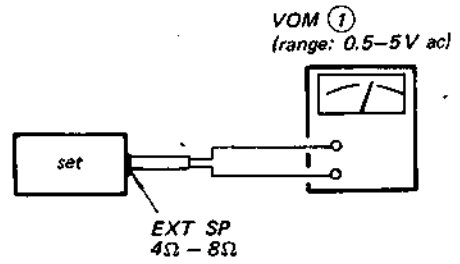
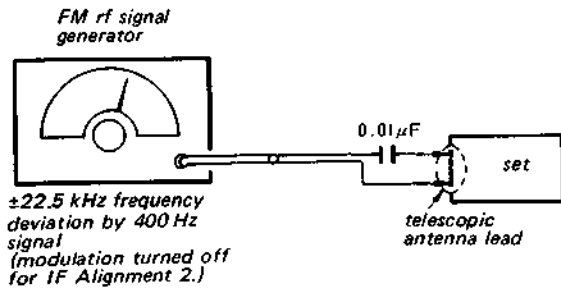
AM IF ALIGNMENT	
Adjust for a maximum reading on VOM.	
455 kHz	
T3	T6



AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM.	
1,680 kHz	CT4
520 kHz	T2

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
CT3	1,400 kHz
L4	620 kHz

FM



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM IF ALIGNMENT 2
(10.7 MHz with no modulation)

Adjust for 0V dc reading on VOM ②.

T5

VOM ② (range: 1V dc)

shield case (ground)

FM IF ALIGNMENT 1
(10.7 MHz with modulation)

Adjust for a maximum reading on VOM ①.

T5

T4

T1

FM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on VOM ①.

87.1 MHz	L3
108.5 MHz	CT2

FM TRACKING ADJUSTMENT

Adjust for a maximum reading on VOM ①.

L2	87.1 MHz
CT1	108.5 MHz

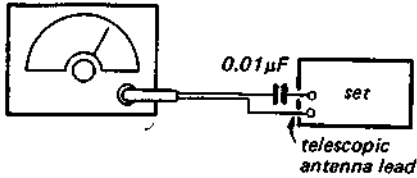


19 kHz Adjustment

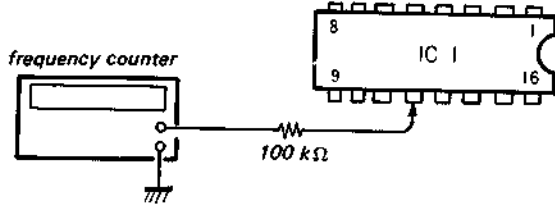
A) Regular Method

Procedure:

*FM rf
signal generator*



*Carrier frequency: 98 MHz
Modulation: 1 kHz, 75 kHz deviation (100 %)
Output level: 1 mV (60 dB)*

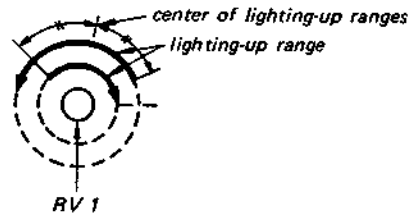


1. Tune the set to 98 MHz.
2. Adjust RV1 for 19 kHz $\begin{matrix} +50 \text{ Hz} \\ -100 \text{ Hz} \end{matrix}$ on the frequency counter.

B) Simple Method

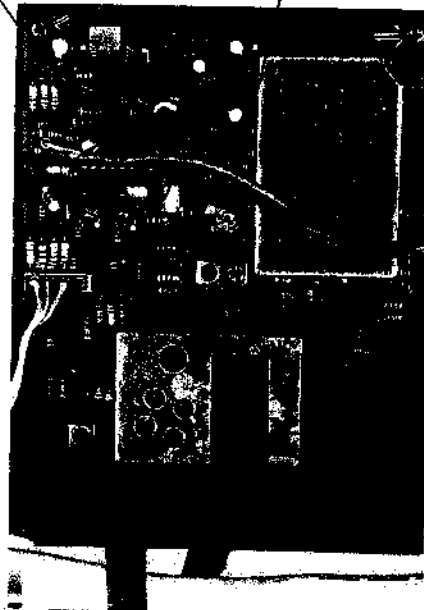
Procedure:

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RV 1 clockwise or counterclockwise and memorize the lighting-up range of the stereo lamp.
3. Secure RV 1 at the center of the lighting-up range of both turns as shown below.



*test
point*

RV1



DIAGRAMS

A

B

C

D

E

F

G

H

1

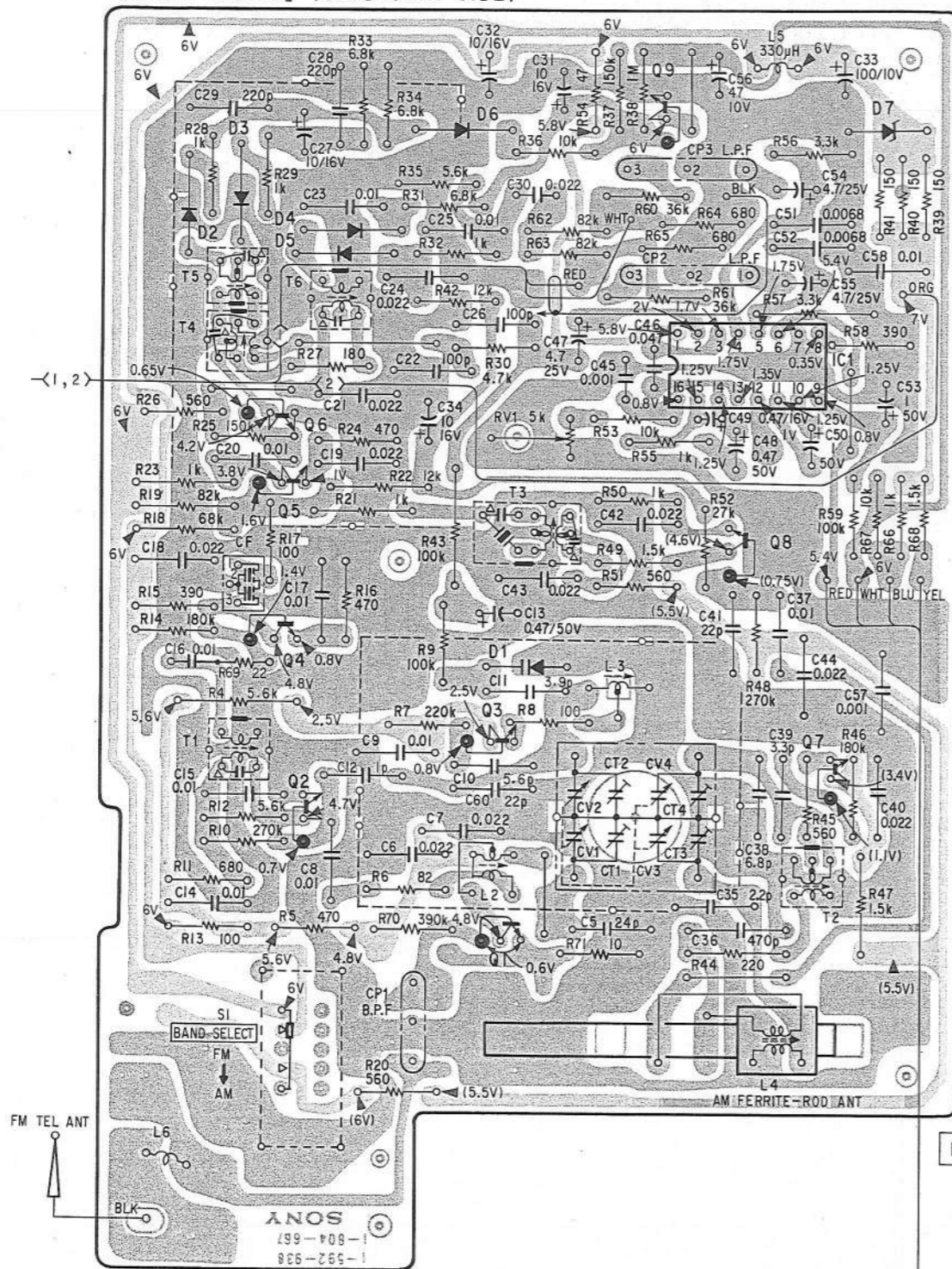
2

3

4

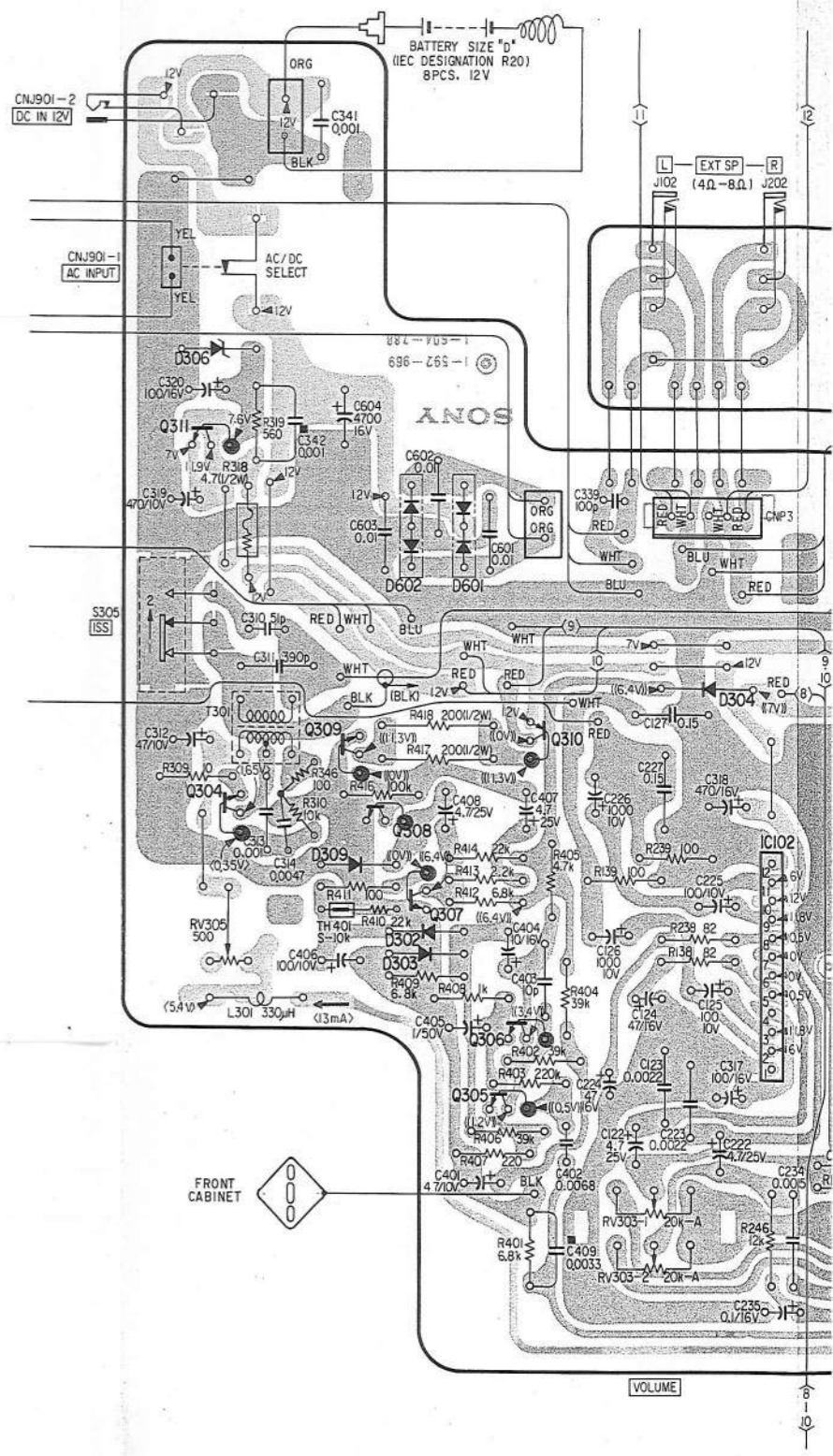
5

[RADIO BOARD] (CONDUCTOR SIDE)



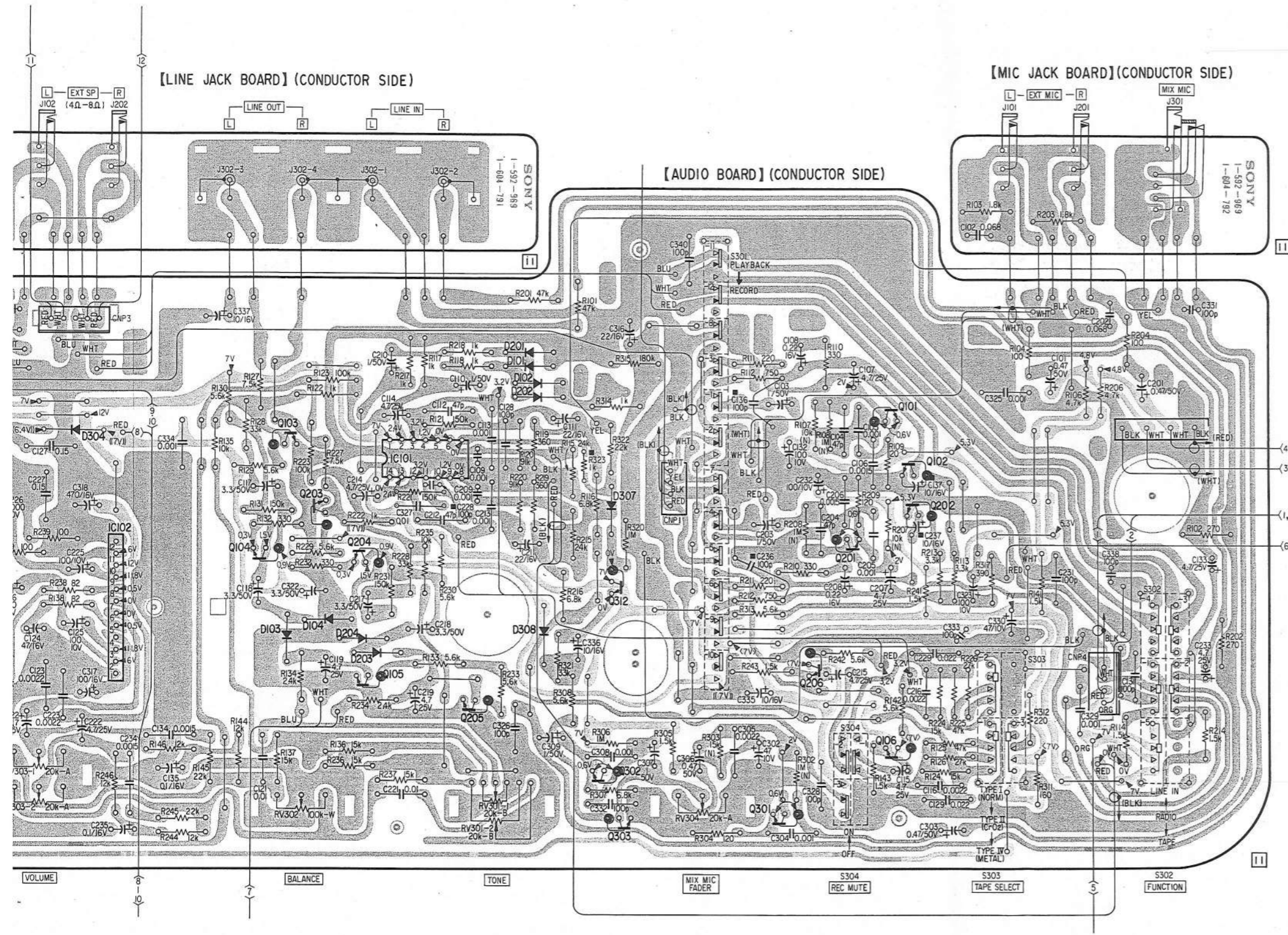
Q, IC	D
9	6 7
2,3	4 5
IC1	
6	
5	
8	
4	I
3	7
2	
I	

12



Q, IC	311	304	309	308, 307	310	IC102
D	306		309	602, 601	305, 306	304
ADJ	RV305			302, 303		RV303-1, RV303-2

H I J K L M

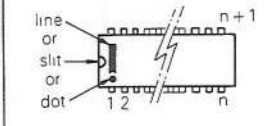


Semiconductor Lead Layouts

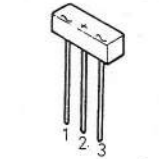
2SB733
2SD773



LA3361
TA7658P



S3VC40



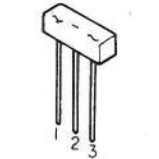
2SC710-13
2SC710-14



μPC1277H



S3VC40R



2SC1173

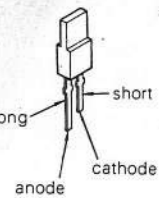


(Marking side view)

1S1555
1S2687S1
1T22
1T22AM
1T261
10E1
10E2
RD6.2E
RD6.2E-B
RD8.2E
RD8.2E-B
SD113



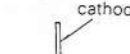
SLP141B



2SC1361
2SC1362
2SC1363
2SC1364
2SC1674



cathode
anode



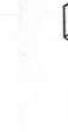
2SC2786



BLACK



2SC2839

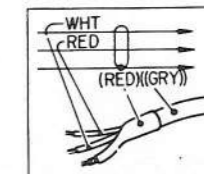


RED



Note:

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



- : parts extracted from the component side.
- : part mounted on the conductor side.
- : indicates side identified with part number.
- ▨ : B + pattern

IC102	104	103	203	204	IC101	312	206	201	101	102	Q, IC
				105	205	302, 303	301		106	202	
304			103	104, 204	203	307					D
					201, 101					102, 202	
					308						ADJ
RV303-1, RV303-2	RV302				RV301-1, RV301-2					RV304	

[LINE JACK BOARD] (COMPONENT SIDE)

[HEADPHONE JACK BOARD] (CONDUCTOR SIDE)

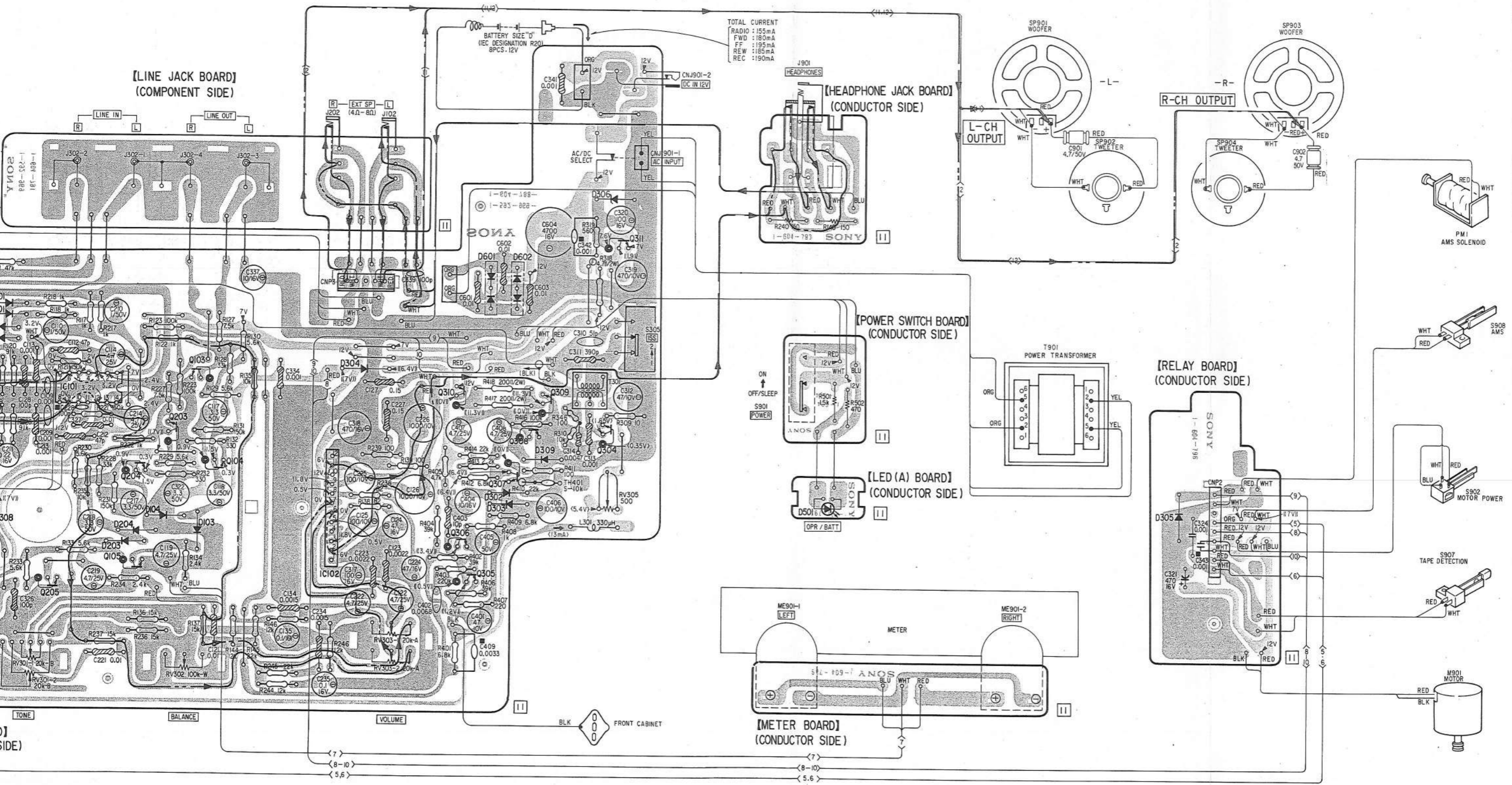
[POWER SWITCH BOARD] (CONDUCTOR SIDE)

[LED (A) BOARD] (CONDUCTOR SIDE)

[METER BOARD] (CONDUCTOR SIDE)

[RELAY BOARD] (CONDUCTOR SIDE)

TOTAL CURRENT
RADIO : 155mA
FWD : 180mA
FF : 195mA
REW : 185mA
REC : 190mA



[D] SIDE)

205	IC101	204	203	103	104	IC102	310	306	307	308	309	311	304	Q	IC
308	204	104	103	304	601	602	302	303	309	306	501	305	D		

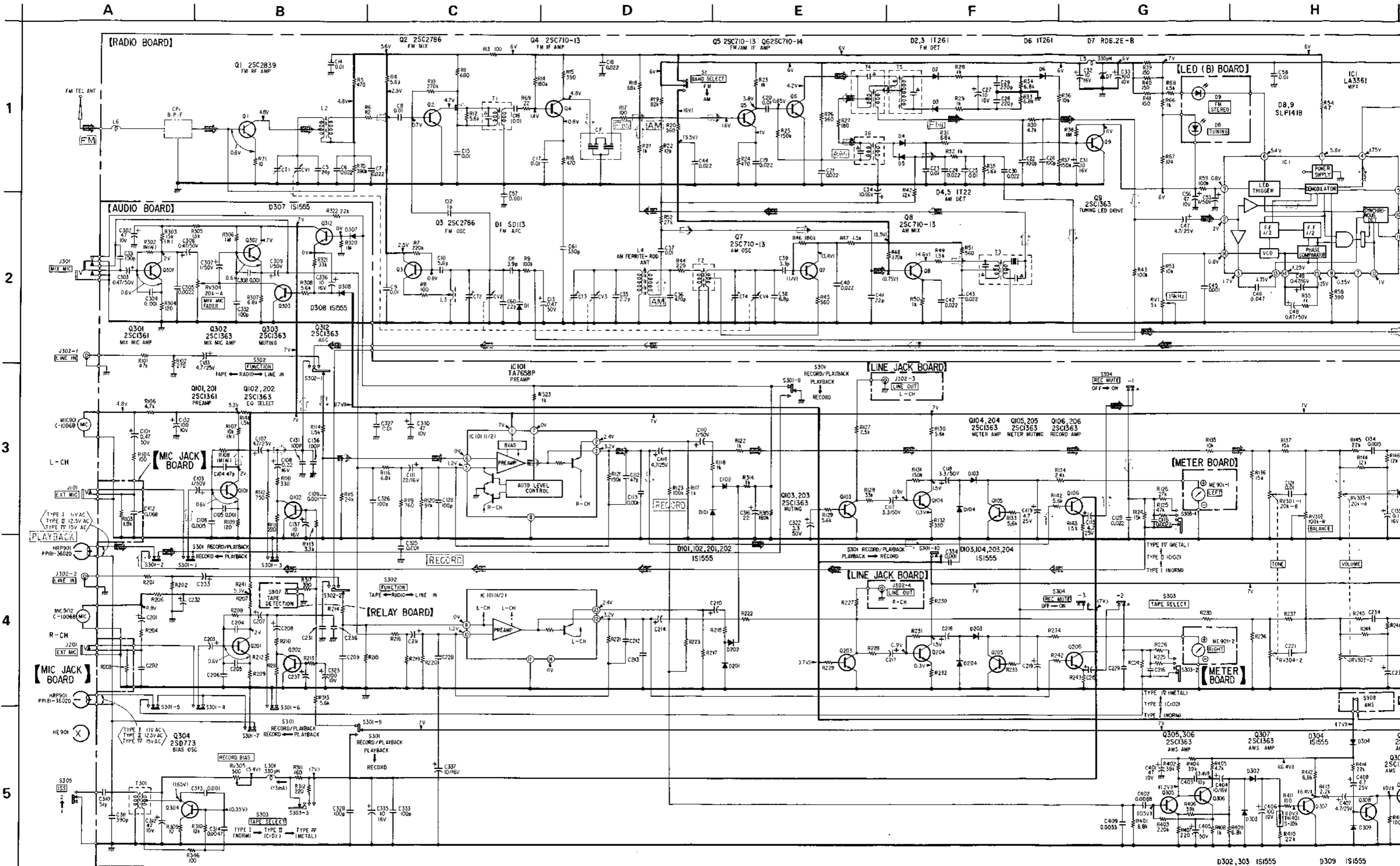
1

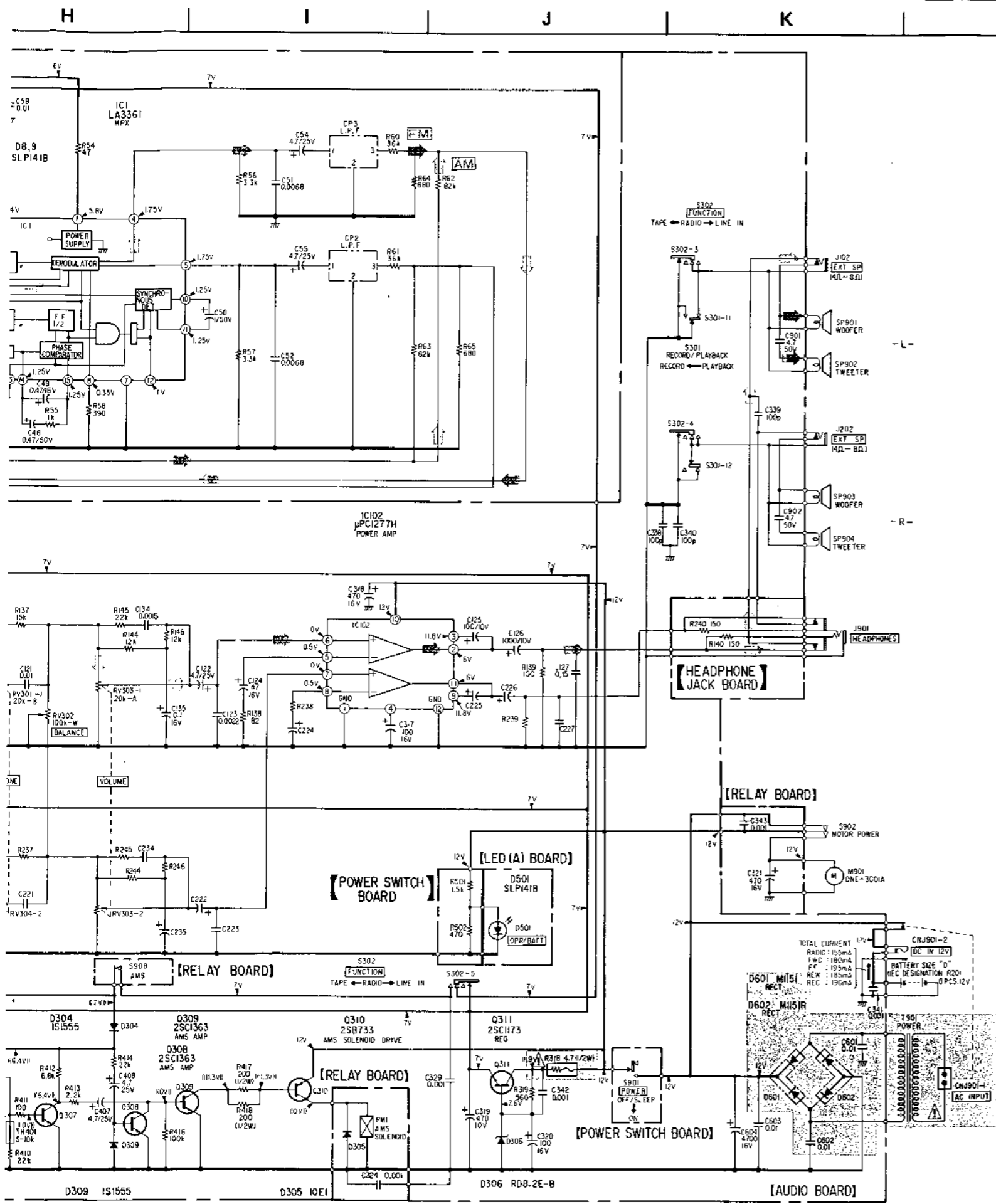
2

3

4

5





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

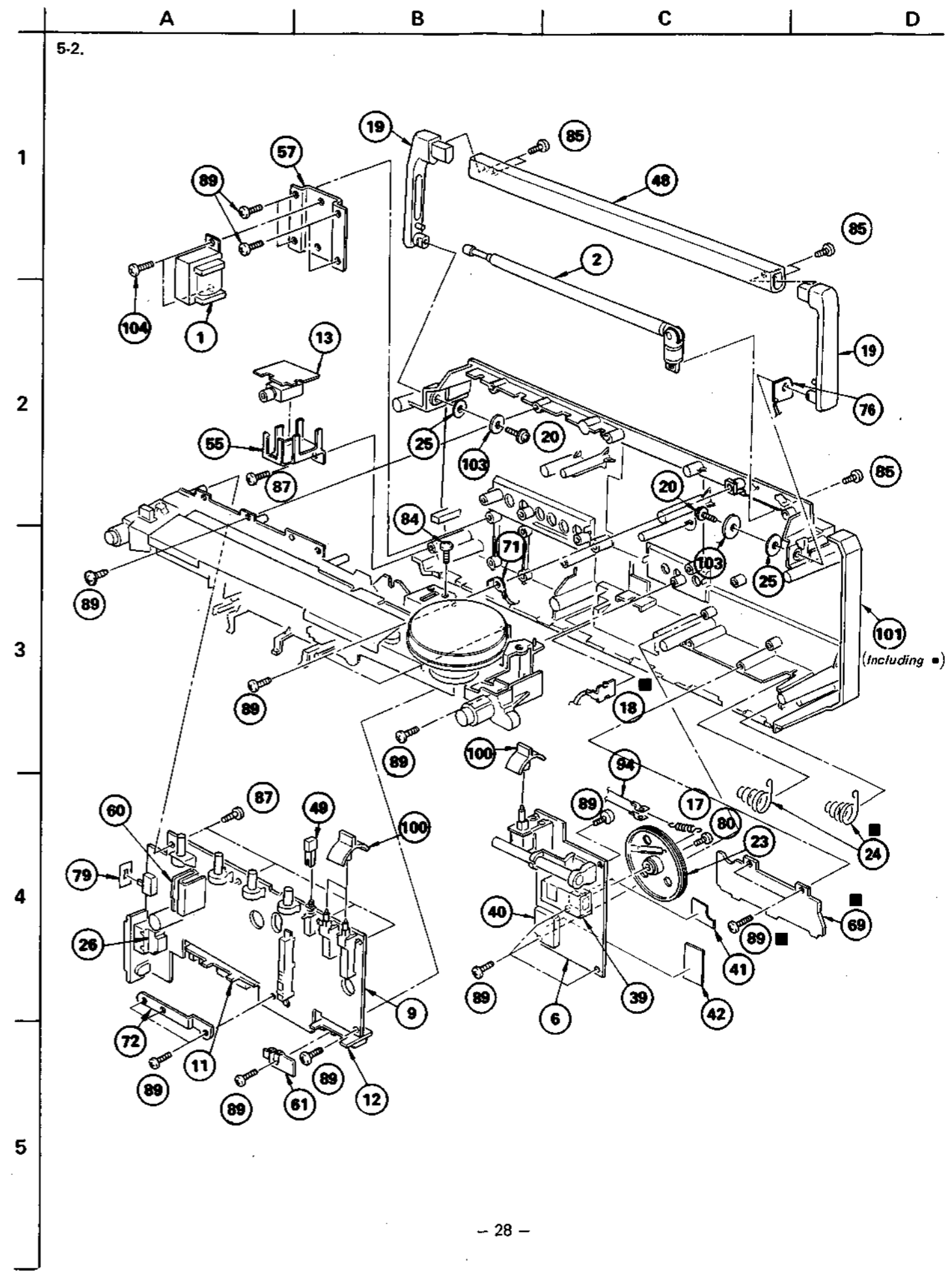
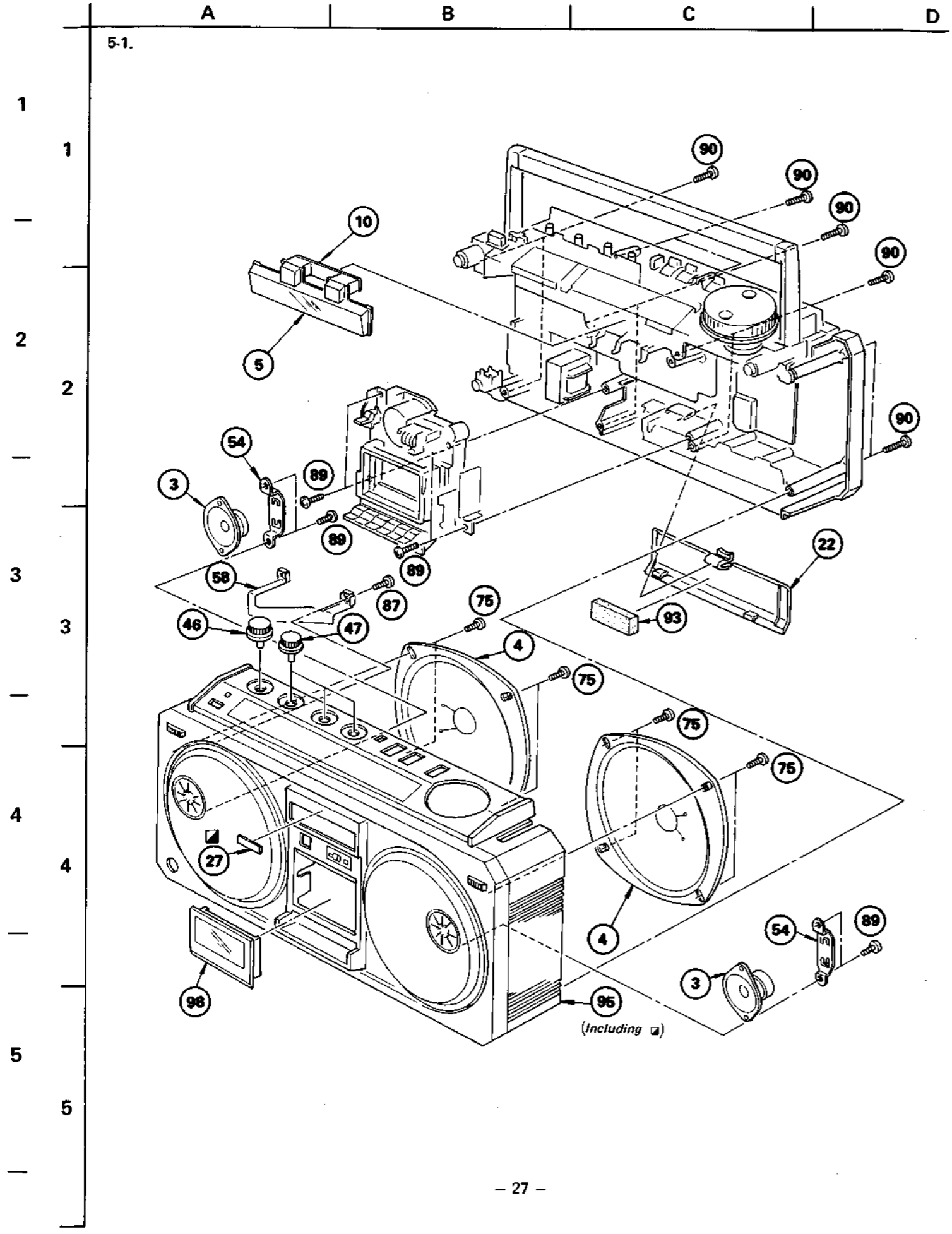
Note: Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

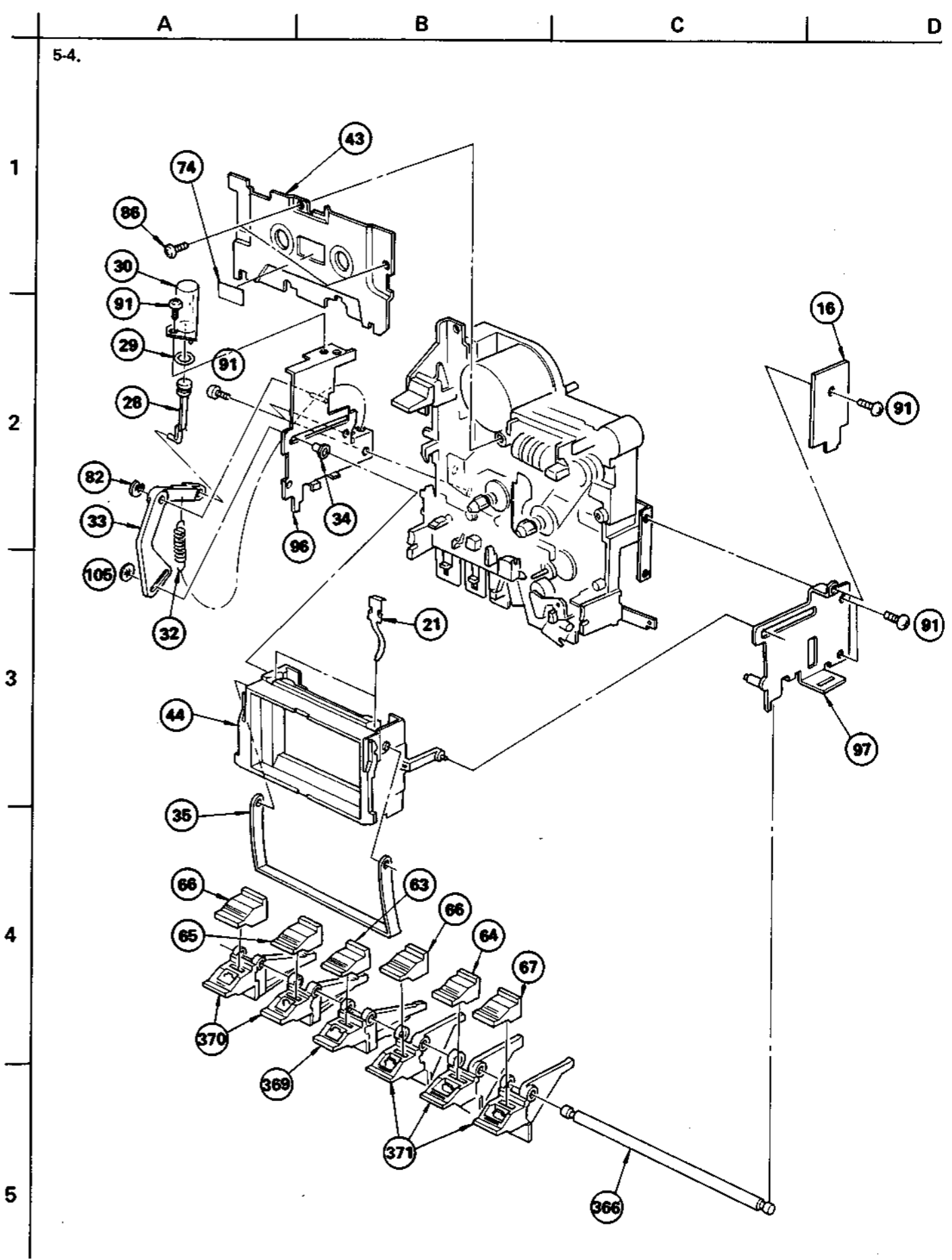
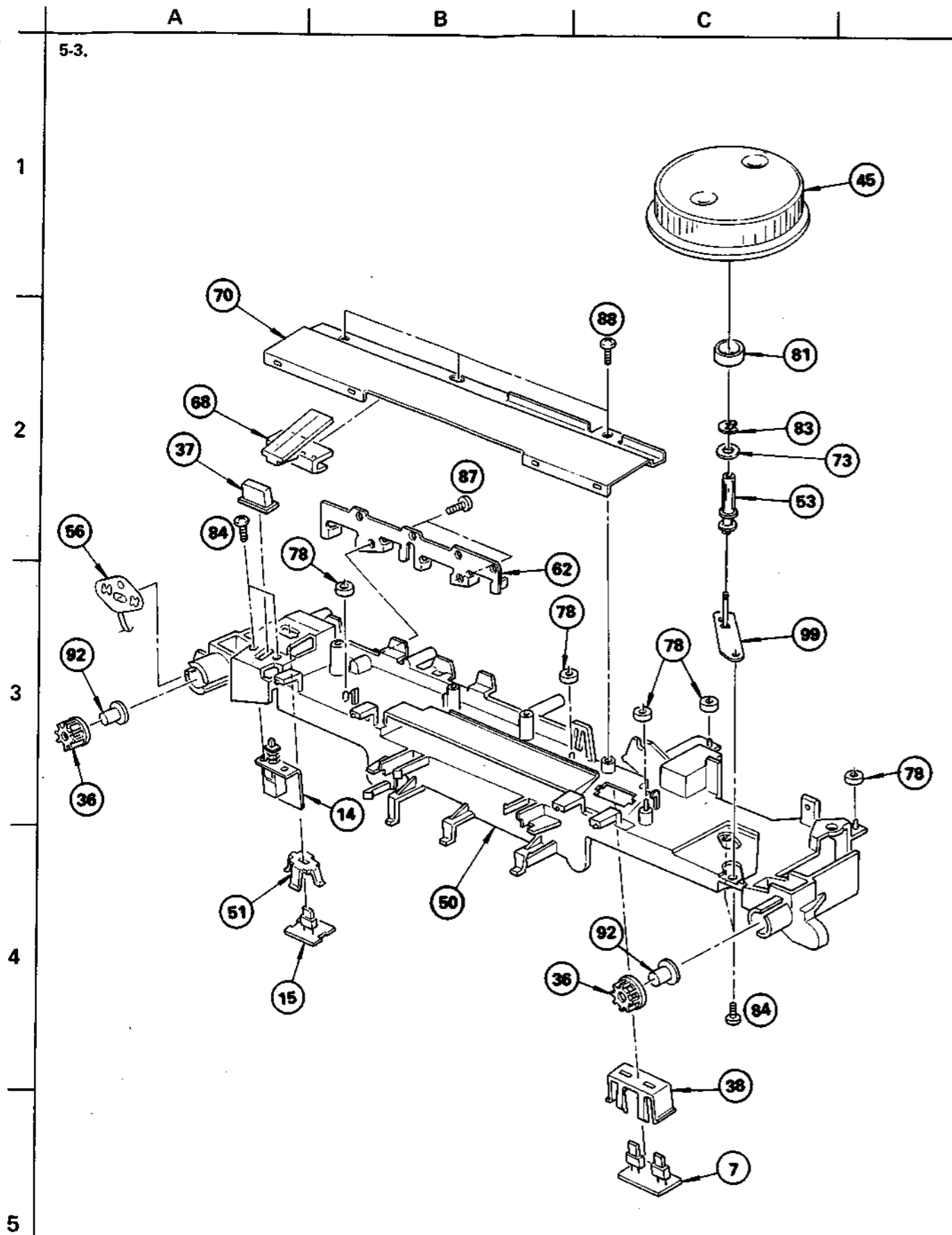
- Note:**
- Components for right channel have same values as for left channel. Reference numbers are coded from 201.
 - All capacitors are in μ F unless otherwise noted. pF : μ mF
50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in ohms, $\frac{1}{4}$ W unless otherwise noted.
k Ω : 1000 Ω , M Ω : 1000 k Ω
 - $\text{---}/\text{---}$: fusible resistor.
 - (N) : low-noise resistor.
 - Δ : internal component.
 - $\text{---}(\text{---})\text{---}$ (and $\text{---}(\text{---})\text{---}$) : electrolytics
 - --- : signal path
 - \square : adjustment for repair.
 - --- : B+ bus.
 - Voltages are dc with respect to ground unless otherwise noted.
 - Readings are taken under no-signal conditions.
- no mark: FM
{ } : AM
< > : record
{ | } : AMS setting
- Voltage variations may be noted due to normal production tolerances.
 - AC voltage readings in the bias oscillator with a VTVM.
 - Total current is measured with no cassette installed.

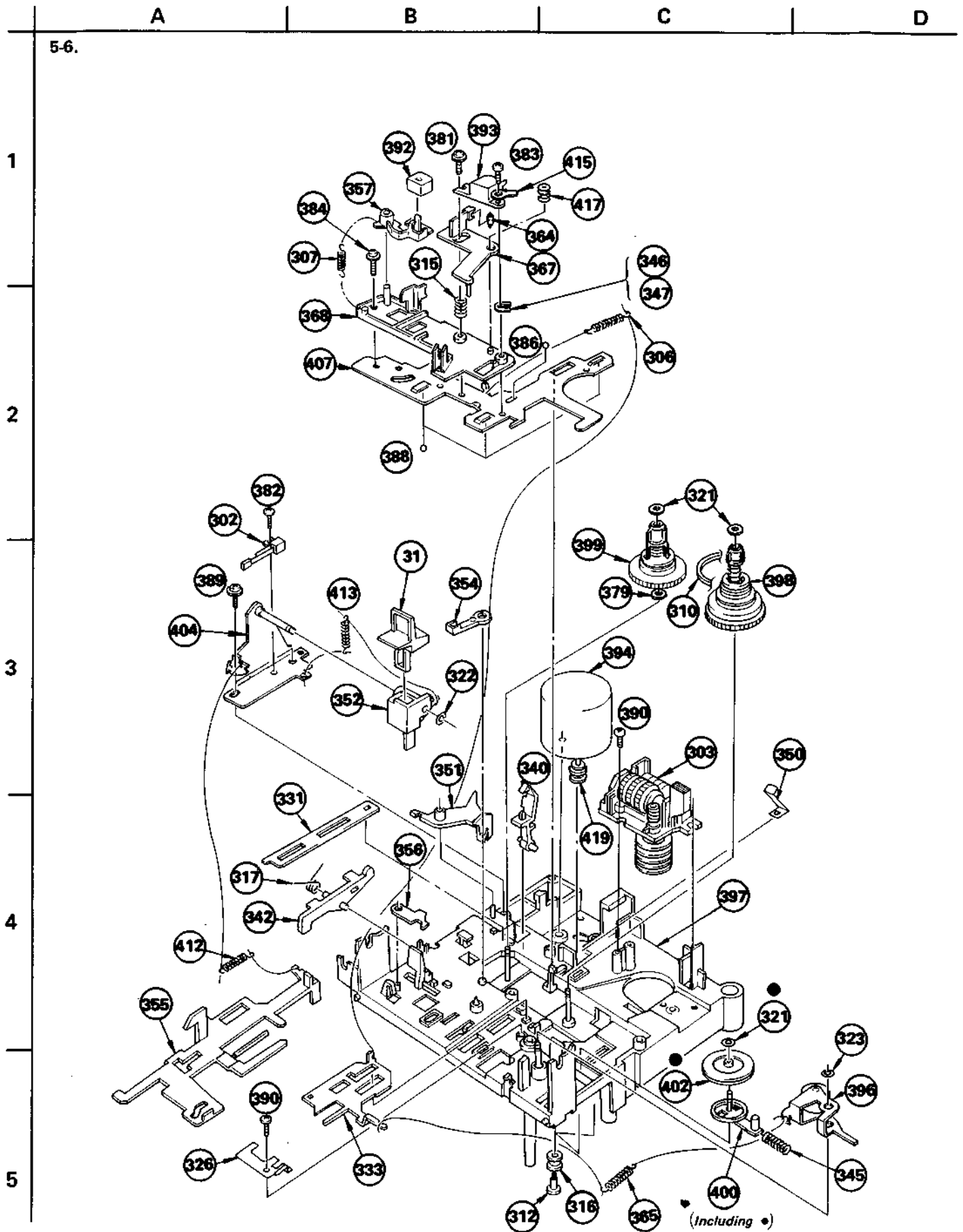
Note: Voltages are measured with a VOM (50k Ω /V).

SECTION 5
EXPLODED VIEWS AND PARTS LIST

CFS-66 CFS-66







GENERAL SECTION

No.	Part No.	Description
1	▲-1-446-756-00	TRANSFORMER, POWER (T901)
2	1-501-231-00	ANTENNA, TELESCOPIC
3	1-503-025-00	SPEAKER, TWEETER (S902,904)
4	1-503-026-00	SPEAKER, WOOFER (S901, 903)
5	1-520-437-21	METER, LEVEL (ME901)
6	▲;A-3266-134-A	MOUNTED PCB, RADIO
7	▲;1-604-669-00	PC BOARD, LED (B)
8	
9	▲;A-3270-075-A	MOUNTED PCB, AUDIO
10	▲;1-604-789-21	PC BOARD, METER
11	▲;1-604-791-21	PC BOARD, LINE JACK
12	▲;1-604-792-21	PC BOARD, MIC JACK
13	▲;1-604-793-21	PC BOARD, HEADPHONE JACK
14	▲;1-604-794-21	PC BOARD, POWER SWITCH
15	▲;1-604-795-21	PC BOARD, LED (A)
16	▲;1-604-796-21	PC BOARD, RELAY
17	3-430-219-00	SPRING, TENSION
18	3-538-133-00	PLATE, BATTERY CONTACT
19	3-548-910-00	PLATE, SIDE, HANDLE
20	7-682-648-01	+PS3 x 8
21	3-559-229-00	SPRING
22	3-560-438-11	LID, BATTERY CASE
23	3-565-315-00	DRUM, DIAL
24	3-566-511-00	SPRING
25	3-566-528-11	WASHER, FRICTION
26	▲;3-572-164-00	COVER, AC TERMINAL
27	3-572-504-00	EMBLEM, SONY
28	3-575-333-00	PISTON
29	3-575-360-00	RING, O
30	▲;3-576-273-00	CYLINDER, AIR
31	3-577-727-00	BUTTON, EJECT
32	3-578-476-00	SPRING
33	3-578-415-00	ARM, SE
34	
35	▲;3-578-418-00	ARM, CH
36	3-565-331-00	CUSHION, MICROPHONE
37	3-578-424-00	BUTTON, POWER
38	▲;3-578-427-00	HOLDER (TUN), LED
39	▲;3-578-443-00	PLATE (A), SHIELD
40	▲;3-578-444-00	PLATE (B), SHIELD
41	▲;3-578-445-00	PLATE (C), SHIELD
42	▲;3-578-446-00	PLATE (D), SHIELD
43	▲;3-578-454-00	COVER, MD
44	3-578-461-00	HOLDER, CASSETTE
45	A-3251-047-A	KNOB ASSY, TUNING

GENERAL SECTION

No.	Part No.	Description
46	3-578-804-00	KNOB, VOLUME
47	3-578-805-00	KNOB, TONE
48	3-578-806-00	HANDLE
49	3-578-807-00	BUTTON, REC MUTE
50	3-578-808-00	CHASSIS
51	3-578-809-00	HOLDER, POWER LED
52	
53	3-578-847-00	SHAFT, TUNING
54	▲;3-578-814-00	RETAINER, TWEETER
55	▲;3-578-815-00	BRACKET, HP
56	3-578-816-00	RETAINER, GROUND
57	▲;3-578-817-00	BRACKET, TRANSFORMER
58	3-578-818-00	PLATE, GROUND
59	▲;3-578-821-00	ARM, REC
60	▲;3-578-822-00	HEAT SINK
61	▲;3-578-823-00	BRACKET, JACK
62	▲;3-578-824-00	RETAINER, VOLUME
63	3-578-828-00	ORNAMENT, FWD BUTTON
64	3-578-829-00	ORNAMENT, REC BUTTON
65	3-578-830-00	ORNAMENT, STOP BUTTON
66	3-578-831-01	ORNAMENT, FRP BUTTON
67	3-578-831-11	ORNAMENT, FRP BUTTON
68	3-578-836-00	POINTER, DIAL
69	3-578-839-00	COVER, BATTERY
70	3-578-840-11	SCALE, DIAL
71	▲;3-578-845-00	PLATE, TERMINAL, CHASSIS
72	▲;3-578-846-00	BRACKET, P.J
73	3-701-440-11	WASHER, 3.5
74	3-701-769-00	PLATE, ORNAMENTAL
75	3-703-137-00	SCREW, +PTPWH3 x 10
76	3-578-852-00	GROUND PLATE, HANDLE
77	3-578-851-00	SPRING
78	3-817-114-00	PULLEY
79	3-831-441-XX	SHEET (1)
80	7-621-775-40	SCREW +B 2.6X8
81	3-578-848-00	COLLAR, KNOB
82	7-624-104-04	STOP RING 2.0, TYPE -E
83	7-624-118-01	STOP RING 2.5, TYPE -E
84	7-682-546-09	SCREW +B 3X5
85	7-682-549-04	SCREW +B 3X10
86	7-685-532-14	SCREW +BTP 2.6X5 TYPE2 N-S
87	7-685-647-11	SCREW +BVTP 3X10 TYPE2 N-S
88	7-685-647-19	SCREW +BVTP 3X10 TYPE2 N-S
89	7-685-648-11	SCREW +BVTP 3X12 TYPE2 N-S
90	7-685-650-11	SCREW +BVTP 3X16 TYPE2 N-S

NOTE:

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

CAPACITORS:

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

RESISTORS

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

- F : nonflammable

COILS

- MMH : mH, UH : μ H

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

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

GENERAL SECTION

No.	Part No.	Description
91	7-685-750-01	SCREW +PTT 3X5 (S)
92	8-814-194-10	MICROPHONE, BUILT-IN (C-1006B)
93	9-911-815-02	CUSHION
94	9-911-825-42	STRING, DIAL
95	A-3240-582-A	CABINET (FRONT) SUB ASSY
96	♣;X-3578-401-0	GUIDE (L) SUB ASSY, CH
97	♣;X-3578-402-0	GUIDE (R) ASSY, CH
98	X-3578-405-0	LID ASSY, CASSETTE
99	X-3578-802-0	PLATE ASSY, BEARING, TU
100	X-3578-803-1	CABINET (REAR) ASSY
101	X-3578-805-1	FUNCTION KNOB ASSY
102	
103	4-812-554-00	WASHER
104	7-686-247-01	PWH 3X6
105	7-624-190-31	STOP RING 4.0, TYPE-CS

ACCESSORY & PACKING MATERIAL

Part No.	Description
♣ 1-551-504-00	CORD, POWER
3-566-582-00	BAG, PROTECTION
3-578-833-00	CUSHION (RIGHT)
3-578-834-00	CUSHION (LEFT)
3-578-854-00	INDIVIDUAL CARTON
3-701-632-00	BAG, POLYETHYLENE
3-703-390-01	INSTRUCTION
3-783-538-21	MANUAL, INSTRUCTION
3-793-828-11	QUESTIONNAIRE
3-795-201-31	(Canadian)...MANUAL, INSTRUCTION, FRENCH
8-893-528-10	(Canadian)...TAPE, DEMONSTRATION

MECHANISM SECTION

No.	Part No.	Description
301	1-454-260-00	SOLENOID, PLUNGER (PM1)
302	1-514-346-00	SWITCH, LEAF (S907)
303	1-548-545-41	COUNTER, TAPE (WITH ROTARY SW)
304	1-552-612-00	SWITCH, LEAF (S902)
305	1-552-804-00	SWITCH, LEAF (S908)
306	3-579-027-00	SPRING, TENSION
307	3-446-154-XX	SPRING, TENSION
308	3-480-160-XX	SPRING, TENSION
309	3-513-076-XX	SPRING, TENSION
310	3-527-153-XX	BELT (C)
311	3-532-725-00	SPRING, TENSION
312	3-533-254-11	SCREW, MOTOR
313	3-535-347-00	SPRING, TENSION
314	3-579-032-00	RUBBER, BRAKE
315	3-539-237-00	SPRING (3), COMPRESSION
316	3-548-886-00	CUSHION (B), MOTOR
317	3-558-606-00	SPRING
318	3-558-620-00	GEAR, REWIND
319	♣;3-578-331-00	PLATE, PAUSE LOOK
320	3-558-652-00	SPRING
321	3-558-708-01	WASHER, STOPPER
322	3-558-708-11	WASHER, STOPPER
323	3-558-708-21	WASHER, STOPPER
324	3-561-818-00	LEVER, REVIEW
325	3-561-839-00	LEVER, FF
326	3-561-852-00	SPRING
327	♣;3-561-889-00	BRACKET, CYLINDER
328	3-561-890-00	CYLINDER
329	♣;3-561-891-00	ROD
330	3-561-832-00	SPRING
331	♣;3-564-302-00	LEVER (B), RECORD PREVENTION
332	3-564-327-00	SPRING
333	♣;3-573-401-00	LEVER, RP (SS)
334	♣;3-573-402-00	LEVER, FF BUTTON (SS)
335	♣;3-573-404-00	LEVER, PAUSE BUTTON (SS)
336	♣;3-573-413-00	LEVER, REC (BSS)
337	♣;3-573-415-00	LEVER, REC (CSS)
338	3-573-426-00	LEVER (SS), RELEASE, SHUT-OFF
339	♣;3-573-427-00	LEVER, REC (ASS)
340	3-573-438-00	CLAW, RECORDING SAFETY
341	3-579-003-00	WASHER (S)
342	3-573-451-00	LEVER (SS), EJECT LOCK
343	3-573-461-00	SPRING, COMPRESSION
344	3-573-462-00	SPRING, TENSION
345	3-573-464-00	SPRING, COMPRESSION

NOTE:

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

CAPACITORS:

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

RESISTORS

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

COILS

- MMH : mH, UH : μH

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

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

MECHANISM SECTION

No.	Part No.	Description
346	3-573-466-01	SPACER, HEAD
347	3-573-466-11	SPACER, HEAD
348	3-573-467-00	RETAINER (D), THRUST
349	3-573-468-00	SPRING, TENSION
350	3-579-019-00	SPRING
351	3-578-324-00	LEVER, DETECTION
352	3-578-327-00	LEVER (B), EJECT
353	3-578-328-00	BELT, CAPSTAN
354	3-578-334-00	LEVER (R), STOPPER
355	3-578-363-00	LEVER (A), EJECT
356	♣;3-578-367-00	LEVER, ERASE
357	3-578-368-00	LEVER, HEAD, ERASE
358	3-578-371-00	LEVER, RELAY, SHUT-OFF
359	♣;3-578-372-00	LEVER, BUTTON, REC
360	♣;3-578-373-00	LEVER, BUTTON, FWD
361	♣;3-578-374-00	LEVER, BUTTON, STOP
362	♣;3-578-375-00	LEVER, BUTTON, REW
363	♣;3-578-376-00	PLATE, LOCK, BUTTON
364	♣;3-578-377-00	ROLLER
365	3-579-026-00	SPRING
366	♣;3-578-379-00	SHAFT (R), BUTTON
367	3-578-381-00	TENSION (P.U)
368	3-578-382-00	BRACKET (S3), HEAD
369	3-578-383-00	BUTTON, FWD
370	3-578-384-00	BUTTON, R.S
371	3-578-385-00	BUTTON, F.R.P
372	3-578-389-00	SPRING
373	♣;3-579-001-00	BRAKE (R)
374	3-579-008-00	RUBBER (S1), BRAKE
375	3-579-016-00	PULLEY, DRIVING
376	3-579-021-00	BUSHING, INSULATING
377	♣;3-579-022-00	PLATE, LOCK, AMS
378	♣;3-638-192-00	RING, RETAINING (TYPE CS)
379	3-701-437-01	WASHER
380	3-701-438-11	WASHER, 2.5
381	3-701-465-00	SCREW, LOCK
382	7-621-772-18	SCREW +B 2X4
383	7-621-772-98	SCREW +B 2X7
384	7-621-955-15	SCREW, TOTSU PWH 2X3
385	7-624-118-01	RING, RETAINING E-2.5
386	7-671-112-01	STEEL, BALL
387	7-671-112-11	BALL, STEEL
388	7-671-113-01	STEAL, BALL 3
389	7-685-534-24	SCREW, TOTSU PTPWH 2.6X8, TYPE2
390	7-687-134-21	SCREW, TOTSU PTP 2.6X8, TYPE2

MECHANISM SECTION

No.	Part No.	Description
391	7-687-702-39	SCREW, TOTSU BTT 2.6X5
392	8-658-099-03	HEAD, ERASE ESF212-36
393	8-829-373-40	HEAD (PP181-3602D)
394	8-835-033-01	MOTOR, DC (DNE-3001A)
395	A-2109-005-A	FLYWHEEL ASSY (SS)
396	A-2110-005-A	PINCH ROLLER ASSY
397	A-3102-038-A	CHASSIS SUB ASSY, MECHANISM
398	A-3130-020-A	TABLE ASSY, REEL, T SIDE
399	A-3130-021-A	TABLE ASSY, REEL, S SIDE
400	A-3136-014-A	IDLER COMPLETE ASSY, FWD
401	A-3136-028-A	IDLER COMPLETE ASSY, FR
402	X-3561-801-0	IDLER ASSY, FWD
403	X-3563-902-0	IDLER ASSY, FR (VS2)
404	♣;X-3578-307-0	BRACKET (S3) ASSY, SWITCH
405	♣;X-3578-308-0	RETAINER (S3) ASSY, LEVER
406	♣;X-3578-314-0	RETAINER (S2) ASSY, THRUST
407	♣;X-3578-319-0	BASE ASSY, HEAD
408	7-688-003-02	WASHER 3.0
409	7-624-190-11	STOP RING 3.0, TYPE-CS
410	3-578-397-00	SPRING
411	3-535-411-00	SPRING
412	3-578-395-00	SPRING
413	3-578-398-00	SPRING
414	3-578-923-00	SPRING
415	7-623-505-01	PLATE LUG 2
416	3-578-922-00	PLATE, CYLINDER
417	3-579-033-00	SPRING
418	3-535-355-00	SPRING
419	X-3564-301-4	MOTOR PULLEY ASSY

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

CAPACITORS:

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

RESISTORS

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

- F : nonflammable

COILS

- MH : mH, UH : μH

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C10	1-161-276-00	CERAMIC	5.6PF	10%	50V
C11	1-161-274-00	CERAMIC	3.9PF	10%	50V
C28	1-161-315-00	CERAMIC	220PF	10%	50V
C29	1-161-315-00	CERAMIC	220PF	10%	50V
C35	1-161-251-00	CERAMIC	2.2PF	10%	50V
C36	1-161-319-00	CERAMIC	470PF	10%	50V
C38	1-161-257-00	CERAMIC	6.8PF	10%	50V
C39	1-161-253-00	CERAMIC	3.3PF	10%	50V
C45	1-130-018-00	FILM	0.001MF	5%	50V
C57	1-161-323-00	CERAMIC	0.001MF	10%	50V
C60	1-161-283-00	CERAMIC	22PF	5%	50V
C102	1-108-249-00	MYLAR	0.068MF	10%	50V
C105	1-161-323-00	CERAMIC	0.001MF	10%	50V
C113	1-161-323-00	CERAMIC	0.001MF	10%	50V
C202	1-108-249-00	MYLAR	0.068MF	10%	50V
C205	1-161-323-00	CERAMIC	0.001MF	10%	50V
C213	1-161-323-00	CERAMIC	0.001MF	10%	50V
C304	1-161-323-00	CERAMIC	0.001MF	10%	50V
C308	1-161-323-00	CERAMIC	0.001MF	10%	50V
C313	1-161-323-00	CERAMIC	0.001MF	10%	50V
C324	1-161-323-00	CERAMIC	0.001MF	10%	50V
C325	1-161-323-00	CERAMIC	0.001MF	10%	50V
C329	1-161-323-00	CERAMIC	0.001MF	10%	50V
C334	1-161-323-00	CERAMIC	0.001MF	10%	50V
C601	▲ 1-161-379-00	CERAMIC	0.01MF	20%	25V
C602	▲ 1-161-379-00	CERAMIC	0.01MF	20%	25V
C901	1-119-427-00	ELECT	4.7MF		50V
C902	1-119-427-00	ELECT	4.7MF		50V
CF	1-527-795-71	FILTER, CERAMIC			
CNJ1	◆;1-561-674-00	SOCKET, CONNECTOR	4P		
CNJ2	◆;1-561-679-00	SOCKET, CONNECTOR	9P		
CNJ3	◆;1-561-675-00	SOCKET, CONNECTOR	5P		
CNJ4	◆;1-561-674-00	SOCKET, CONNECTOR	4P		
▲CNJ901	1-561-213-00	INLET, AC-DC			
CNP1	◆;1-560-557-00	PIN, CONNECTOR	4P		
CNP2	◆;1-560-562-00	PIN, CONNECTOR	9P		
CNP3	◆;1-560-558-00	PIN, CONNECTOR	5P		
CNP4	◆;1-560-557-00	PIN, CONNECTOR	4P		
CP1	1-231-720-00	FILTER, BANDPASS			
CP2	1-231-224-00	CR ENCAPSULATED COMPONENT			
CP3	1-231-224-00	CR ENCAPSULATED COMPONENT			
CT1-4					
CV1-4	1-151-382-00	CAP, TUNING, POLYETHYLENE			
D1	8-719-768-71	DIODE 1S2687S1			
D2	8-719-026-11	DIODE 1T261			
D3	8-719-026-11	DIODE 1T261			
D4	8-719-422-21	DIODE 1T22AM			
D5	8-719-422-21	DIODE 1T22AM			
D6	8-719-026-11	DIODE 1T261			
D7	8-719-162-07	DIODE RD6.2E			
D8	8-719-900-41	DIODE SLP141B			
D9	8-719-900-41	DIODE SLP141B			

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
D101	8-719-815-55	DIODE 1S1555			
D102	8-719-815-55	DIODE 1S1555			
D103	8-719-815-55	DIODE 1S1555			
D104	8-719-815-55	DIODE 1S1555			
D201	8-719-815-55	DIODE 1S1555			
D202	8-719-815-55	DIODE 1S1555			
D203	8-719-815-55	DIODE 1S1555			
D204	8-719-815-55	DIODE 1S1555			
D302	8-719-815-55	DIODE 1S1555			
D303	8-719-815-55	DIODE 1S1555			
D304	8-719-815-55	DIODE 1S1555			
D305	8-719-200-02	DIODE 10E2			
D306	8-719-182-07	DIODE RD8.2E			
D307	8-719-815-55	DIODE 1S1555			
D308	8-719-815-55	DIODE 1S1555			
D309	8-719-815-55	DIODE 1S1555			
D501	8-719-900-41	DIODE SLP141B			
D601	▲ 8-719-500-34	DIODE S3VC40			
D602	▲ 8-719-501-34	DIODE S3VC40R			
IC1	8-759-833-61	IC LA3361			
IC101	8-759-276-58	IC TA7658P			
IC102	8-759-112-77	IC UPC1277H			
J101	1-507-678-21	JACK			
J102	1-507-678-21	JACK			
J201	1-507-678-21	JACK			
J202	1-507-678-21	JACK			
J301	1-507-643-00	JACK			
J302	1-561-332-00	JACK, 4P-PIN			
J901	1-507-670-00	JACK			
L2	1-425-632-00	COIL, RF (FM)			
L3	1-459-266-00	COIL, WITH CORE			
L4	1-401-788-00	ANTENNA, FERRITE-ROD (MW)			
L5	1-408-201-00	MICRO INDUCTOR 330UH			
L6	1-401-526-00	COIL, ANTENNA			
L301	1-408-135-00	MICRO INDUCTOR 330UH			
Q1	8-729-883-92	TRANSISTOR 2SC2839			
Q2	8-729-167-42	TRANSISTOR 2SC1674			
Q3	8-729-167-42	TRANSISTOR 2SC1674			
Q4	8-729-671-13	TRANSISTOR 2SC710-13			
Q5	8-729-671-13	TRANSISTOR 2SC710-13			
Q6	8-729-671-14	TRANSISTOR 2SC710-14			
Q7	8-729-671-13	TRANSISTOR 2SC710-13			
Q8	8-729-671-13	TRANSISTOR 2SC710-13			
Q9	8-729-663-47	TRANSISTOR 2SC1364			
Q101	8-729-665-47	TRANSISTOR 2SC1362			
Q102	8-729-663-47	TRANSISTOR 2SC1364			
Q103	8-729-663-47	TRANSISTOR 2SC1364			
Q104	8-729-663-47	TRANSISTOR 2SC1364			
Q105	8-729-663-47	TRANSISTOR 2SC1364			
Q106	8-729-663-47	TRANSISTOR 2SC1364			

NOTE:

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

CAPACITORS:

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

RESISTORS

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

F : nonflamable

COILS

MMH : mH, UH : μ H

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

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

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q201	8-729-665-47	TRANSISTOR 2SC1362
Q202	8-729-663-47	TRANSISTOR 2SC1364
Q203	8-729-663-47	TRANSISTOR 2SC1364
Q204	8-729-663-47	TRANSISTOR 2SC1364
Q205	8-729-663-47	TRANSISTOR 2SC1364
Q206	8-729-663-47	TRANSISTOR 2SC1364
Q301	8-729-665-47	TRANSISTOR 2SC1362
Q302	8-729-663-47	TRANSISTOR 2SC1364
Q303	8-729-663-47	TRANSISTOR 2SC1364
Q304	8-729-177-32	TRANSISTOR 2SD773
Q305	8-729-663-47	TRANSISTOR 2SC1364
Q306	8-729-663-47	TRANSISTOR 2SC1364
Q307	8-729-663-47	TRANSISTOR 2SC1364
Q308	8-729-663-47	TRANSISTOR 2SC1364
Q309	8-729-663-47	TRANSISTOR 2SC1364
Q310	8-729-113-32	TRANSISTOR 2SB733
Q311	8-729-217-33	TRANSISTOR 2SC1173
Q312	8-729-663-47	TRANSISTOR 2SC1364
R318	▲-1-212-950-00	FUSIBLE 4.7 5% 1/2W F
R417	1-202-556-00	COMPOSITION 200 5% 1/2W
R418	1-202-556-00	COMPOSITION 200 5% 1/2W
RV1	1-226-235-00	RES, ADJ, CARBON 5K
RV301	1-228-256-00	RES, VAR, CARBON 20K/20K
RV302	1-226-749-21	RES, VAR, CARBON 100K
RV303	1-226-903-00	RES, VAR, CARBON 20K/20K
RV304	1-226-748-21	RES, VAR, CARBON 20K
RV305	1-226-232-00	RES, ADJ, CARBON 500
S1	1-553-699-00	SWITCH, LEVER SLIDE
S301	1-553-698-00	SWITCH, SLIDE
S302	1-552-858-00	SWITCH, SLIDE
S303	1-552-859-00	SWITCH, LEVER SLIDE
S304	1-553-613-00	SWITCH, PUSH
S305	1-552-844-21	SWITCH, SLIDE
S901	1-552-533-00	SWITCH, PUSH
T1	1-403-872-00	I.F.T
T2	1-405-655-00	COIL, MW OSCILLATOR
T3	1-403-163-21	CERAMIC FILTER
T4	1-403-952-00	TRANSFORMER, DISCRIMINATOR
T5	1-403-953-00	TRANSFORMER, DISCRIMINATOR
T6	1-404-041-00	COIL, AM
T301	1-433-222-00	TRANSFORMER, BIAS OSCILLATOR
TH401	1-800-202-XX	THERMISTOR S-10K

NOTE:

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

CAPACITORS:

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

RESISTORS

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

F : nonflammable

COILS

- MMH : mH, UH : μH

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

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

ELECTROLYTIC CAPACITORS

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

CAP. (μF)	100 VOLT.	180 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	-	-	-	-
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	-	1-123-028-00
3.3	1-121-995-00	-	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	-	-
47	1-123-251-00	1-121-919-00	-	-
100	1-123-084-00	-	-	-

CERAMIC CAPACITORS

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

0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

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

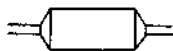
MYLAR CAPACITORS

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



TANTALUM CAPACITORS

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



TANTALUM CAPACITORS

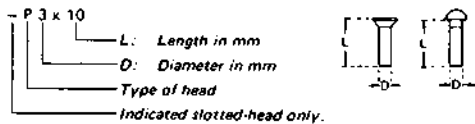
RATING						
CAP. (μF)	3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22						1-131-278-00
0.33					1-131-262-00	1-131-279-00
0.47					1-131-263-00	1-131-280-00
0.68			1-131-169-00		1-131-264-00	1-131-281-00
1.0					1-131-258-00	1-131-282-00
1.5			1-131-254-00			1-131-266-00
2.2		1-131-250-00				1-131-267-00
3.3					1-131-259-00	1-131-268-00
4.7						1-131-269-00
6.8		1-131-251-00	1-131-171-00			1-131-270-00
10					1-131-260-00	1-131-271-00
15						1-131-272-00
22						
33		1-131-252-00			1-131-261-00	
47			1-131-257-00			
68			1-131-173-00			
100	1-131-176-00	1-131-253-00	1-131-174-00			
	1-131-288-00					
	1-131-177-00					

1/4 WATT CARBON RESISTORS

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

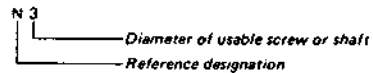
HARDWARE NOMENCLATURE

Screw:



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-Phillister-head screw	
RF		Phillister-head screw	
BV		brayzer-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	