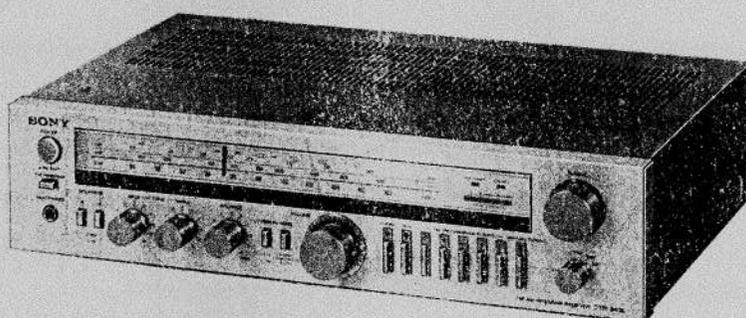


STR-343L

AEP Model
UK Model



FM-AM PROGRAM RECEIVER

SPECIFICATIONS

FM tuner section

Tuning range	87.5–108 MHz
Antenna terminals	300 ohm balanced 75 ohm unbalanced
Intermediate frequency	10.7 MHz
Sensitivity at 46 dB quieting (at 40 kHz deviation)	4.0 μ V (mono), 45 μ V (stereo)
Usable sensitivity	IHF 1.8 μ V, 10.3 dBf 1.6 μ V (S/N = 26 dB, 40 kHz deviation)
Signal-to-noise ratio	69 dB (mono), 64 dB (stereo)
Harmonic distortion	0.2% (mono), 0.3% (stereo), at 1 kHz
IM distortion	0.2% (mono), 0.3% (stereo)
Separation	45 dB at 1 kHz
Frequency response	40 Hz–12.5 kHz $^{+0.5}_{-1}$ dB
Selectivity at 300 kHz (at 40 kHz deviation, S/N = 26 dB)	40 dB
Capture ratio	1.5 dB
AM suppression ratio	48 dB
Image response ratio	45 dB
Spurious response ratio	70 dB
Muting threshold	Approx. 5 μ V

MW/LW tuner section

	MW	LW
Tuning range	522 kHz–1,602 kHz	150 kHz–350 kHz
Antenna	Built-in ferrite rod antenna, External antenna terminal	
Intermediate frequency	450 kHz	
Usable sensitivity	250 μ V/m, built-in antenna (1,000 kHz) 100 μ V, external antenna (1,000 kHz)	500 μ V/m, built-in antenna (230 kHz) 100 μ V, external antenna (230 kHz)
Signal-to-noise ratio	52 dB (50 mV/m)	52 dB (50 mV/m)
Harmonic distortion	0.3% (50 mV/m, 400 Hz)	0.3% (50 mV/m, 400 Hz)
Selectivity	35 dB (9 kHz)	35 dB (9 kHz)

— 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.

SONY

SERVICE MANUAL

STR-343L

Amplifier section

Continuous RMS power output (less than 0.08% THD, both channels driven simultaneously)

at 20 Hz–20 kHz
30 + 30 watts (8 ohms)

at 1 kHz
33 + 33 watts (8 ohms)

according to DIN 45500
30 + 30 watts (8 ohms)

Dynamic power output (IHF constant power supply method)

95 watts (8 ohms)

Power bandwidth (IHF)

15 Hz–35 kHz

Damping factor 30 at 1kHz, 8 ohms

Harmonic distortion Less than 0.08% at rated output

Less than 0.05% at 1 W output

Intermodulation (IM) distortion (60 Hz : 7 kHz = 4:1)

Less than 0.08% at rated output

Less than 0.05% at 1 W output

Residual noise

Less than 0.05 μ W at 8 ohms

Inputs

	Sensitivity	Impedance	S/N	Weighting network
PHONO	2.5 mV	50 K ohms	75 dB	A
TAPE	150 mV	50 K ohms	95 dB	A

Measured with rated output power into 8 ohm loads (both channels driven simultaneously) at 1kHz.

Outputs (with rated input)

REC OUT	Voltage 150 mV	Impedance 10 k ohms
HEADPHONES	Accepts all low or high impedance headphones.	
SPEAKER	8–16 ohm speakers are suitable.	

Frequency response PHONO

RIAA equalization curve ± 0.5 dB

TAPE

10 Hz–50 kHz ± 0 dB

Tone controls

BASS ± 8 dB at 100 Hz

TREBLE ± 8 dB at 10 kHz

Loudness control (att. 30 dB)

+8 dB at 100 Hz

General

System

Superheterodyne FM/AM tuner, Direct coupled quasi-complementary symmetry power amplifier circuit (SEPP OTL)

Power requirements

UK model: 240 V ac (or 220 V ac adjustable by

authorized Sony personnel), 50 Hz

AEP model: 220 V ac (or 240 V ac adjustable by

authorized Sony personnel), 50 Hz

Power consumption

UK model: 190 W

AEP model: 160 W

AC outlets

Two unswitched, total 200 W

(provided only for the UK model)

Dimensions

Approx. 430 × 110 × 315 mm (w/h/d)

(17 × 4 $\frac{1}{4}$ × 12 $\frac{3}{8}$ inches)

incl. projecting parts and controls

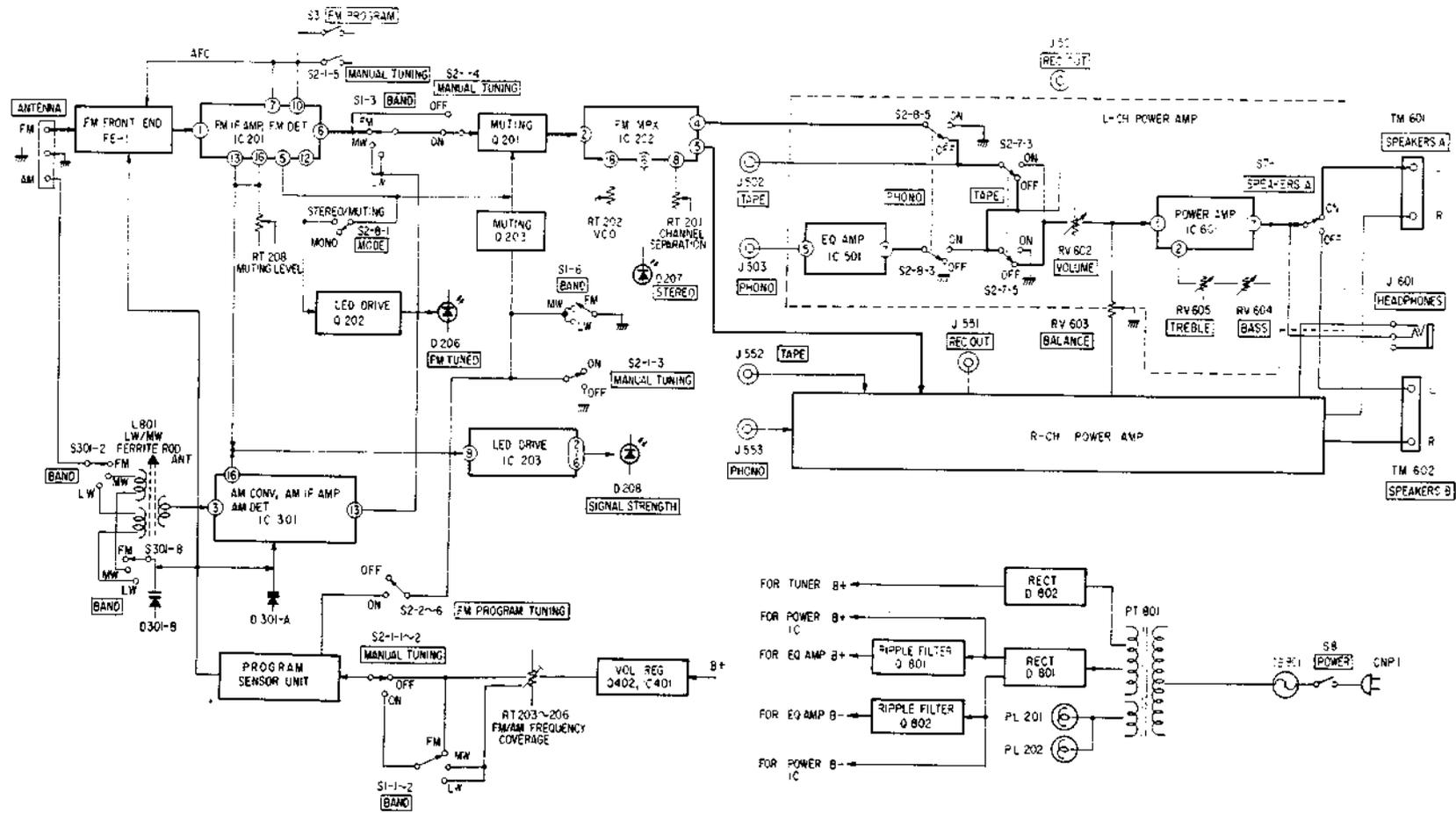
Weight

Approx. 7.2 kg (15 lb 15 oz) net

Approx. 8.7 kg (19 lb 3 oz) in shipping carton

SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM



1-2. SERVICING NOTE

MELF (Metal Electrodes Face-Bonding) Components

Warning

If MELF components are forcibly removed from the printed circuit board with pincers or pliers, the circuit board pattern is likely to peel away. Always remove MELF components according to the procedure described on the next page. Replace MELF components with the lead type components.

MELF components are soldered directly to the surface of the printed circuit board.

MELF resistors and capacitors have the same dimensions and are distinguished by their background colors: light brown for resistors, and pink or light green for capacitors.

The MELF resistor color coding is the same as for conventional resistors, and MELF capacitor color coding is the same as for tube-type ceramic capacitors. Note, however, that all MELF resistors are rated at 1/4W and ±5%.

Components larger than resistors and without a color code are cross conductors, which are used instead of jumper wires.

1. Structure

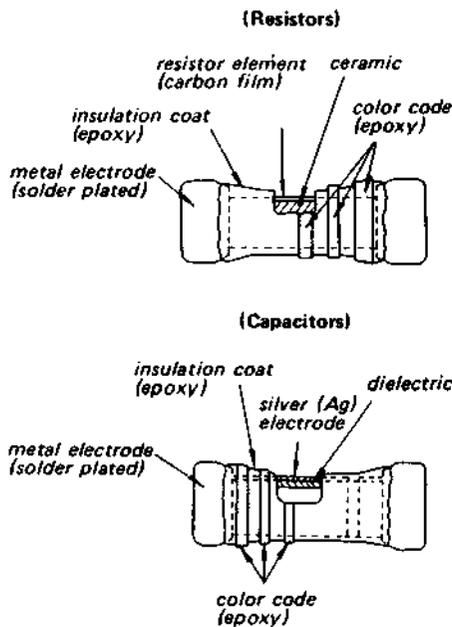
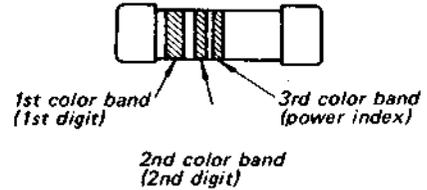
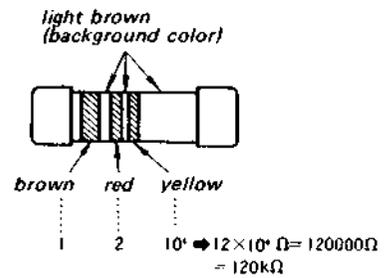


Fig. 1

2. Color Code Reading



(Example of Resistor)



(Example of Capacitor)

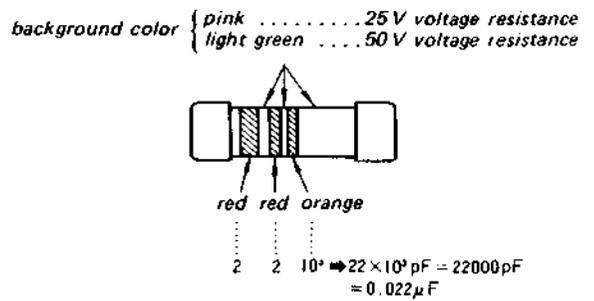


Fig. 2

3. How to Remove MELF Components and Mount Replacements

Use a soldering iron of at least 40W with an iron tip 4 mm in diameter and file the tip down to the angle shown in the diagram.

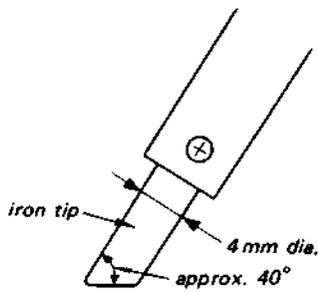


Fig. 3

1. Bring the flat surface of the soldering iron in equal contact with both soldered ends of the component.
2. The solder should melt in about 4 seconds. (The solder will melt more readily if a small amount of solder is attached to the iron tip and the iron tip is placed against the component.)
3. Once the solder has melted, tap the component aside with the tip of the soldering iron, and remove it from the board.

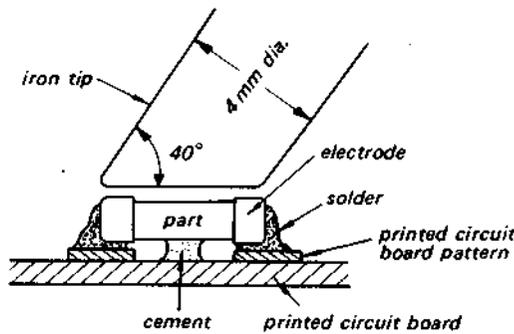


Fig. 4

4. Use lead type resistors or capacitors to replace the MELF components.

These replacements may be mounted either with short leads (see Fig. 5), or by covering a lead with tubing (see Fig. 6).

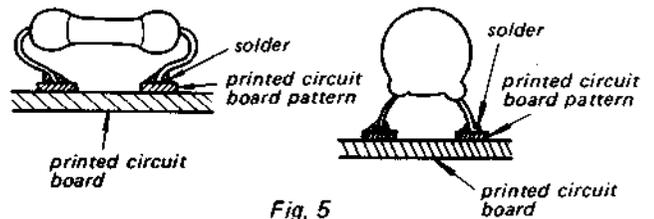


Fig. 5

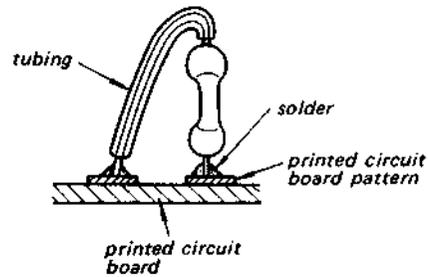
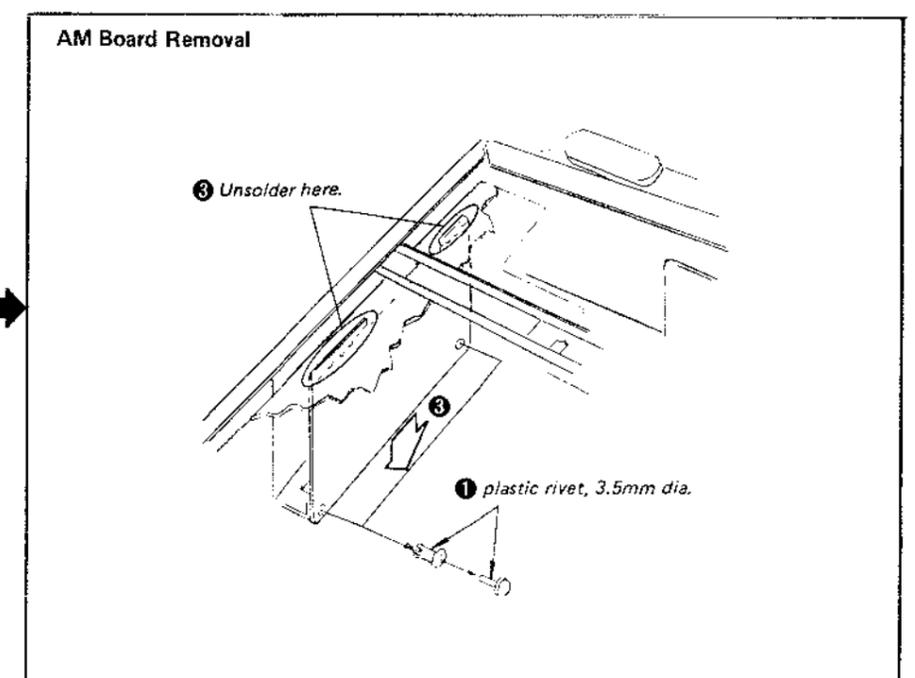
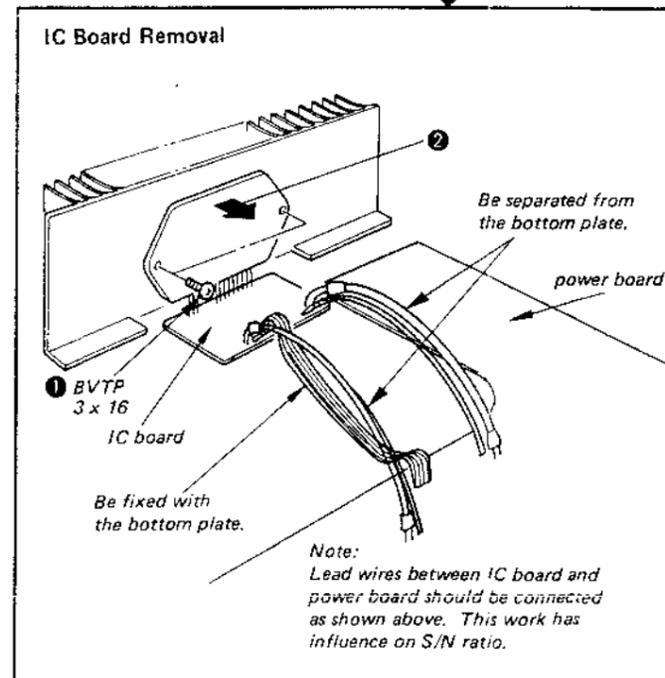
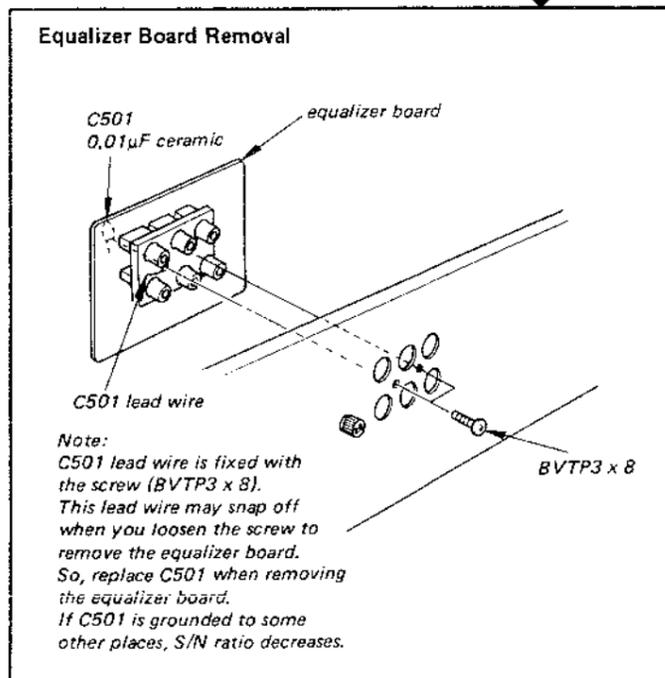
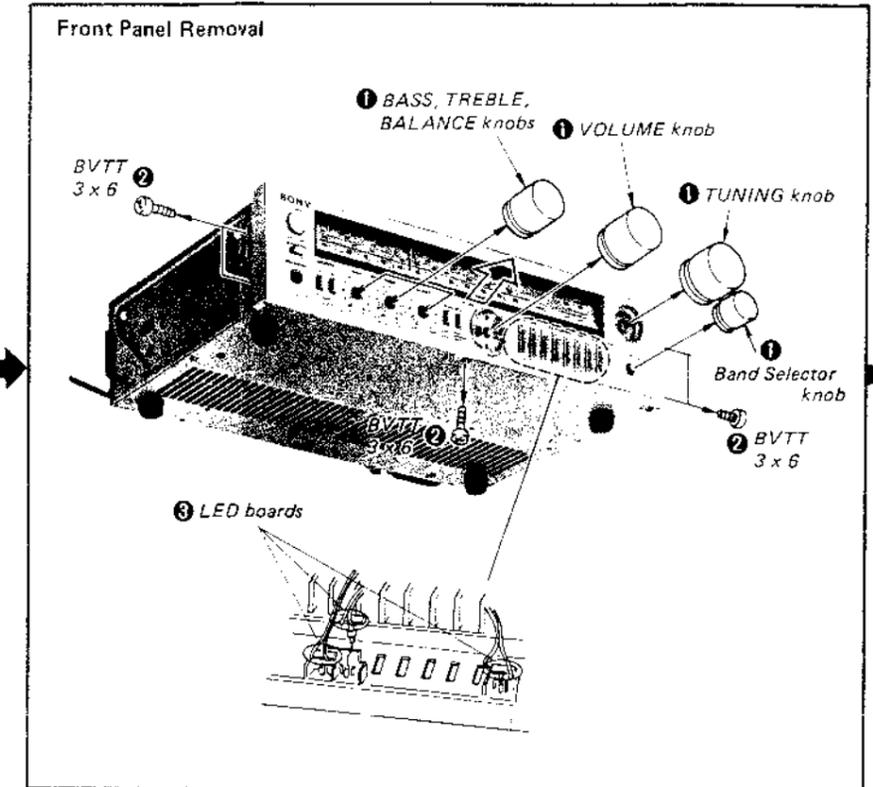
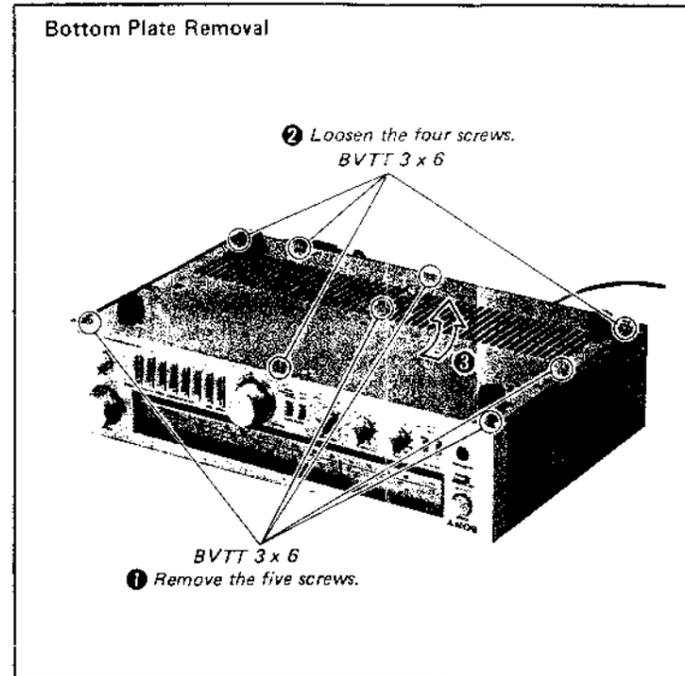
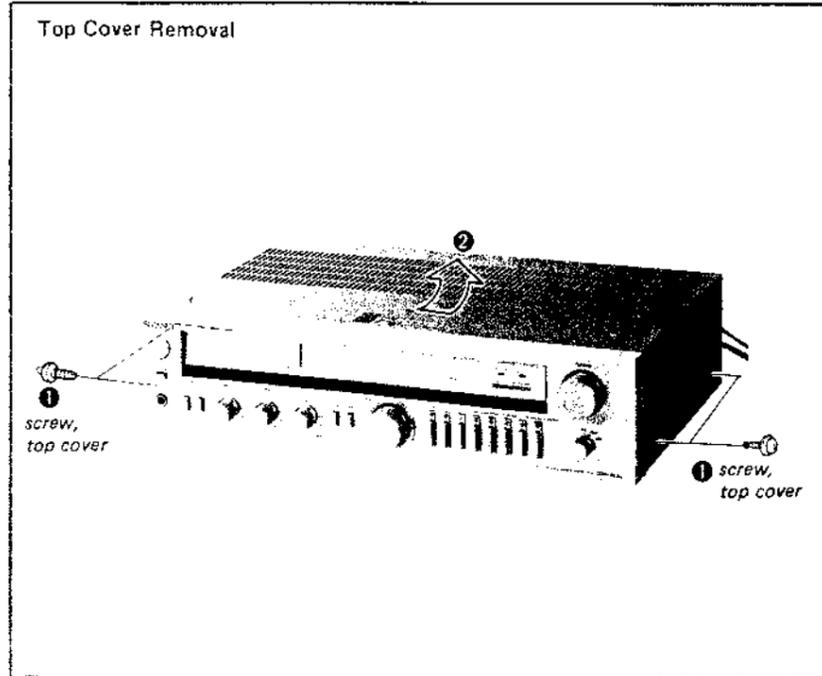


Fig. 6

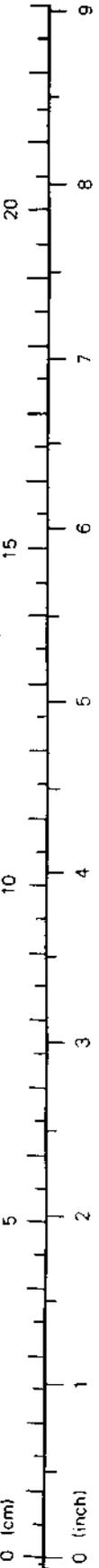
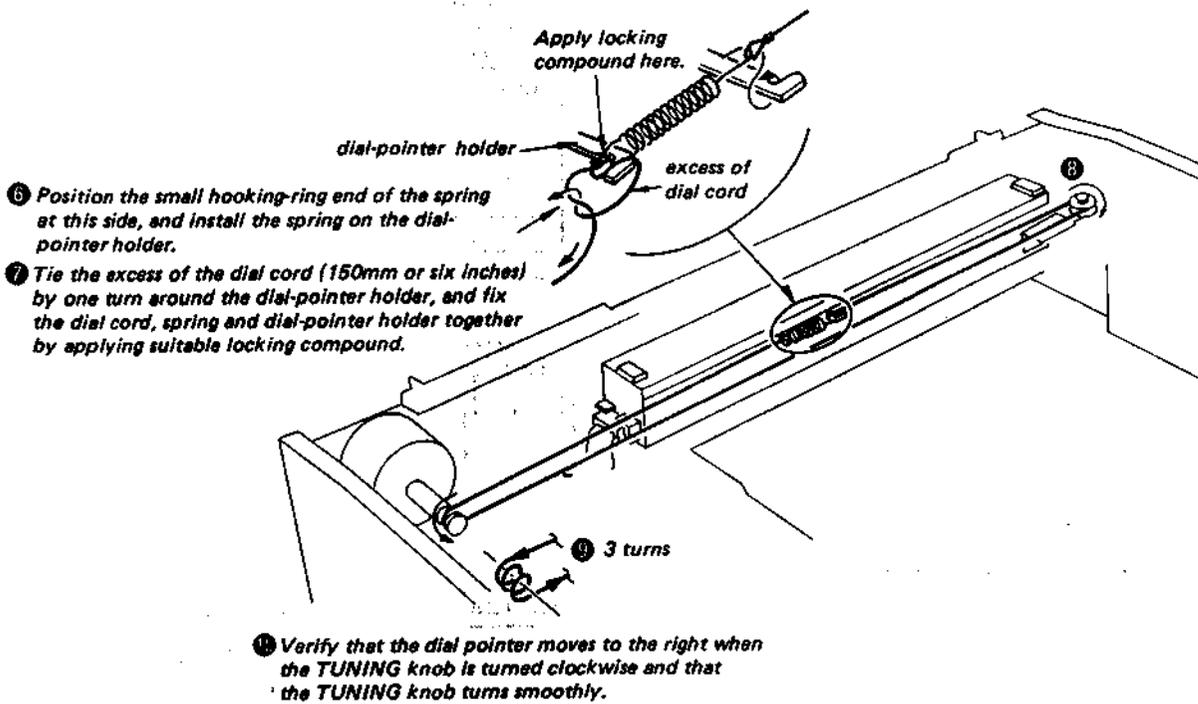
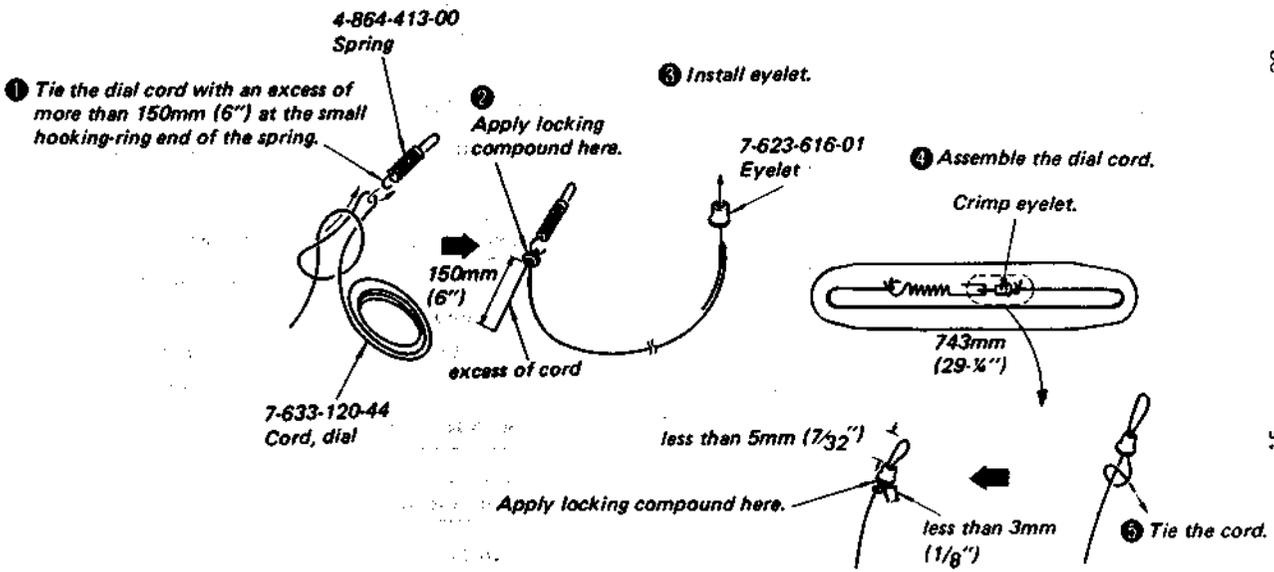
SECTION 2
DISASSEMBLY

2-1. REMOVAL

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



2-2. DIAL CORD STRINGING

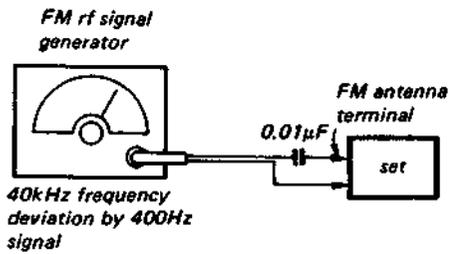


**SECTION 3
ADJUSTMENTS**

FM SECTION

Setting:

MANUAL TUNING switch: ON
 Band Selector: FM
 MODE switch: MONO



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

FM FRONT-END BLOCK

Adjustment is not necessary. But if it has been meddled with in some way, and if the adjustment is necessary by all means, adjust the FM front-end block as follows.

FM FREQUENCY COVERAGE ADJUSTMENT 1

1) Be sure to perform this adjustment before the FM frequency coverage adjustment 2.

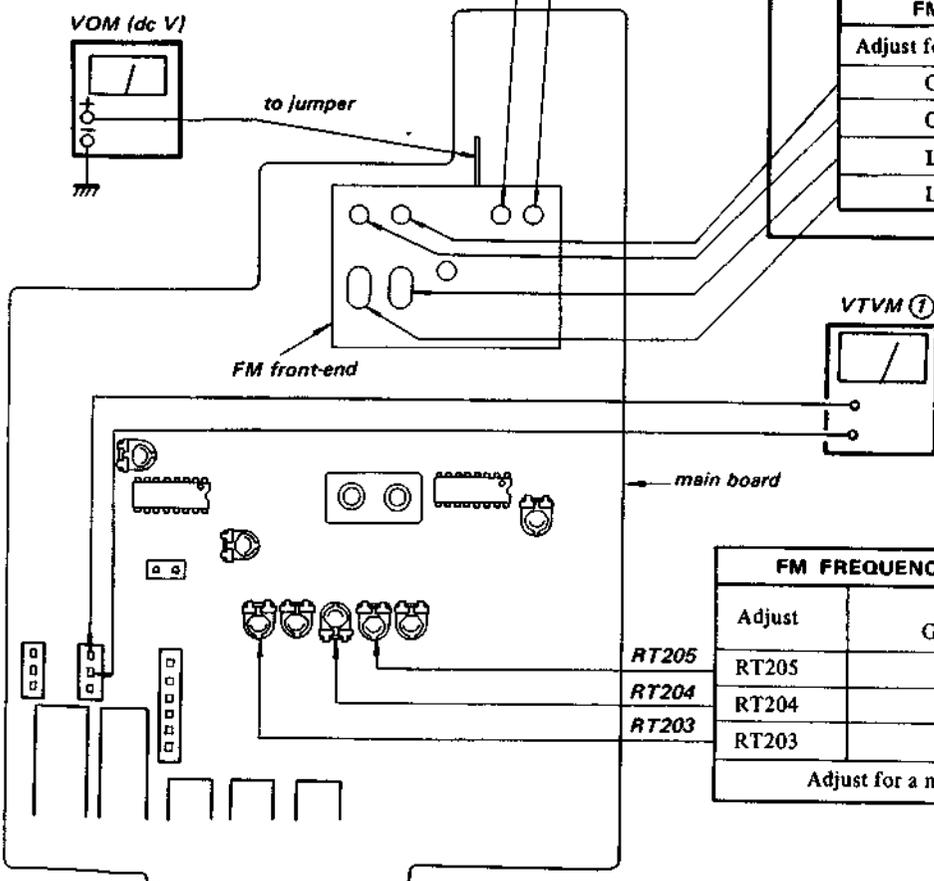
TUNING CONTROL VOLTAGE ADJUSTMENT		
Adjustment Part	Dial Indication	VOM Reading
RT205	lowest frequency	2.8V
RT204	98MHz	8.0V
RT203	highest frequency	22.5V
Adjust for a specified reading on VOM.		

LOCAL OSCILLATOR FREQUENCY ADJUSTMENT		
Adjustment Part	Dial Indication	FM RF Signal Generator Frequency
CT3	highest frequency	108MHz
T2	lowest frequency	88MHz
Adjust for a maximum reading on VTVM ①.		

2) Be sure to perform this adjustment after the FM frequency coverage adjustment 2.

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM ①.	
CT2	108MHz
CT1	
L4	88MHz
L2	

FM FREQUENCY COVERAGE ADJUSTMENT 2		
Adjust	FM RF Signal Generator Frequency	Dial Indication
RT205	88MHz	88MHz
RT204	98MHz	98MHz
RT203	108MHz	108MHz
Adjust for a maximum reading on VTVM ①.		



FM DISCRIMINATOR ALIGNMENT 1

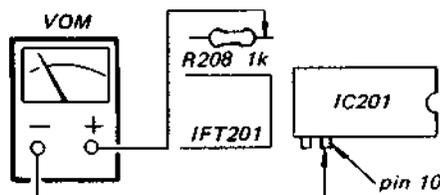
Setting:

MANUAL TUNING switch: ON
 Band Selector: FM
 MODE switch: MONO
 TUNING: Detuned position

Procedure:

Adjust the orange core (primary-side) of IFT201 for 0V dc reading on VOM.

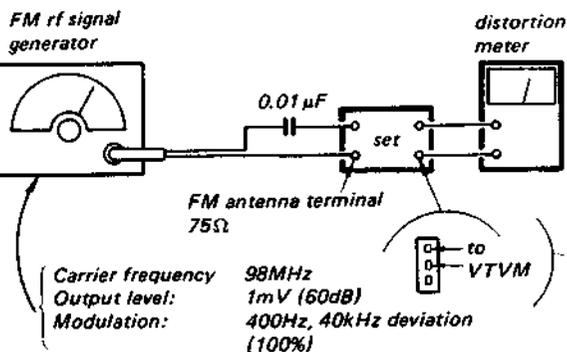
Note: When replacing the ceramic filter (CF201), perform this alignment.



FM DISCRIMINATOR ALIGNMENT 2

Setting:

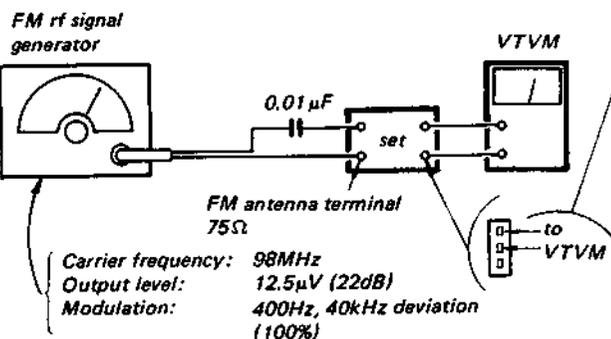
MANUAL TUNING switch: ON
 Band Selector: FM
 MODE switch: MONO



Procedure:

Adjust the black core (secondary side) of IFT201 for minimum distortion.

FM IF ALIGNMENT

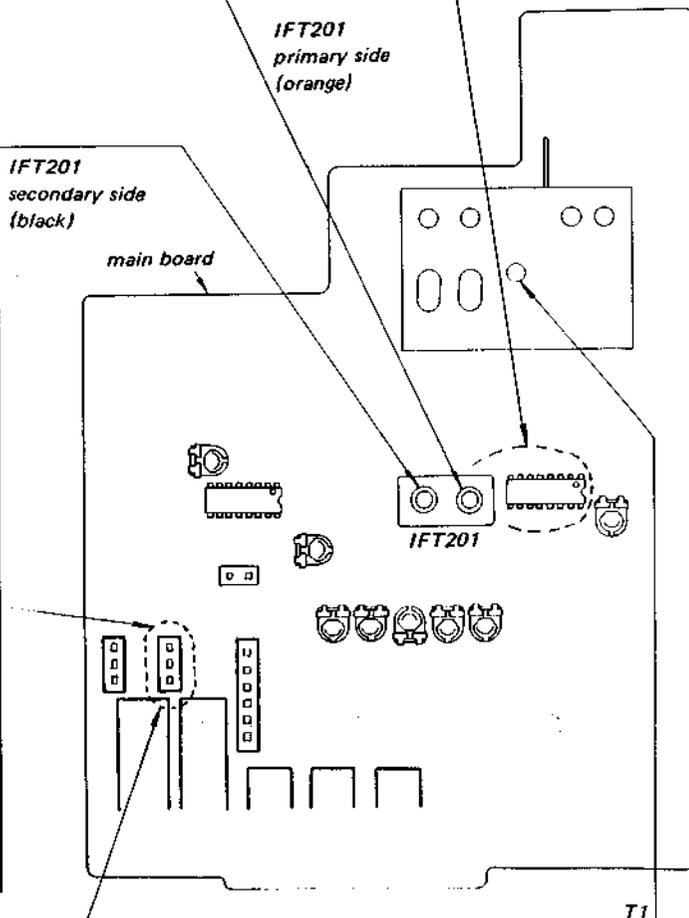


Setting:

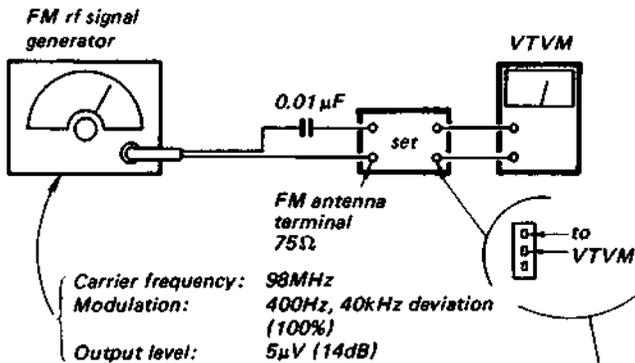
MANUAL TUNING switch: ON
 Band Selector: FM
 MODE switch: MONO

Procedure:

Adjust T1 for maximum reading on the VTVM.



MUTING LEVEL ADJUSTMENT



Setting:

MANUAL TUNING switch: ON
MODE switch: STEREO

Procedure:

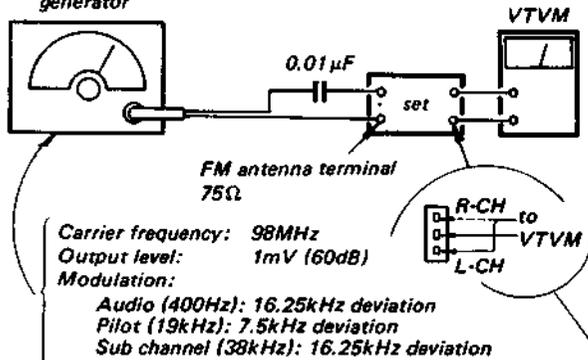
1. Turn RT208 and stop it just when the VTVM indication suddenly increases.
2. If necessary, turn RT208 fully clockwise and make sure that the VTVM indication increases when the output level of the FM rf signal generator is set to 16μV (24dB).

FM STEREO SEPARATION ADJUSTMENT

Setting:

MANUAL MUTING switch: ON
Band Selector: FM
MODE switch: STEREO

FM stereo signal generator



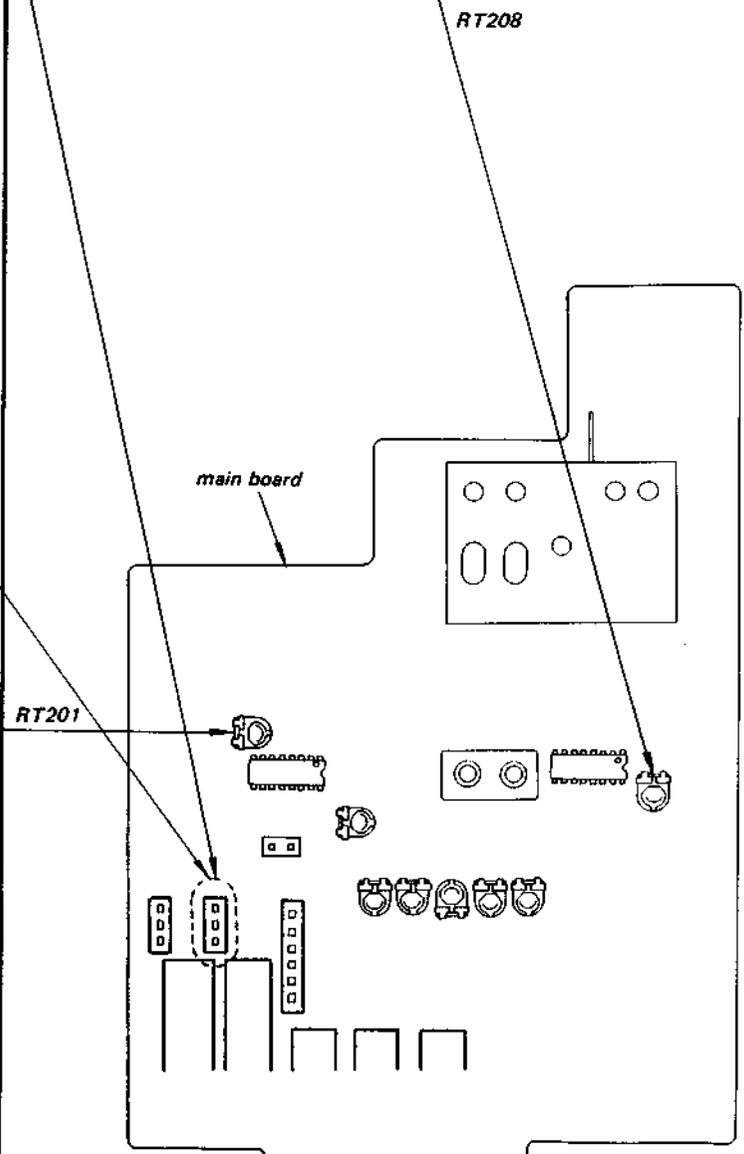
Procedure:

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RT201 for minimum reading.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RT201 for minimum reading.

L-CH Stereo separation: (A) - (B)

R-CH Stereo separation: (C) - (D)

The difference between separations (A) - (B) and (C) - (D) are to be equal.

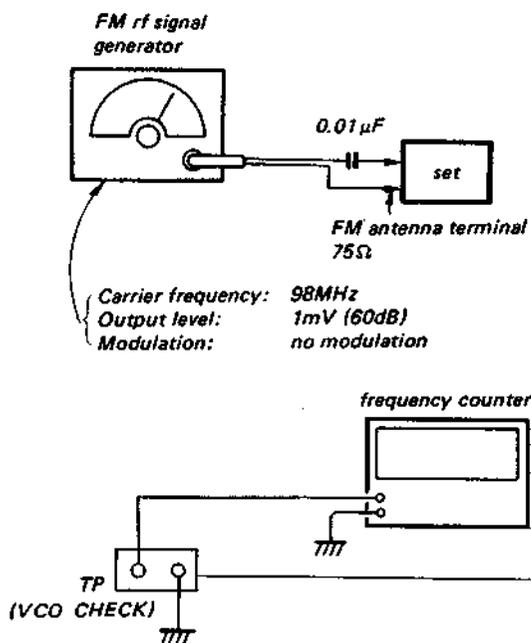


19kHz VCO ADJUSTMENT

Setting:

FUNCTION switch: TUNER
 Band Selector: FM
 MODE switch: STEREO

A) Regular Method

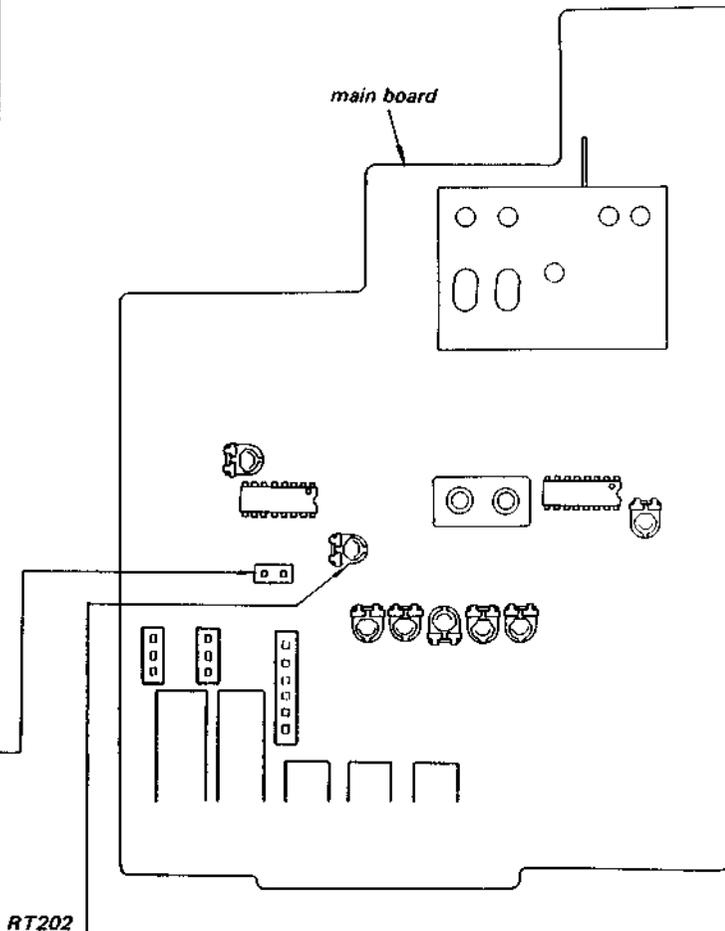
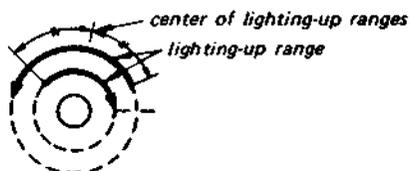


Procedure:

Adjust RT202 for 19kHz \pm 50Hz on the frequency counter.

B) Simple Method

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RT202 clockwise or counterclockwise and memorize the lighting-up ranges of STEREO lamp.
3. Secure RT202 at the center of the overlapped lighting-up range in both turning directions as shown below.



TR-343L

AM SECTION

(1) Setting:

MANUAL TUNING switch: ON
 Band Selector: MW

AM rf signal generator



Modulation: 400Hz, 30%

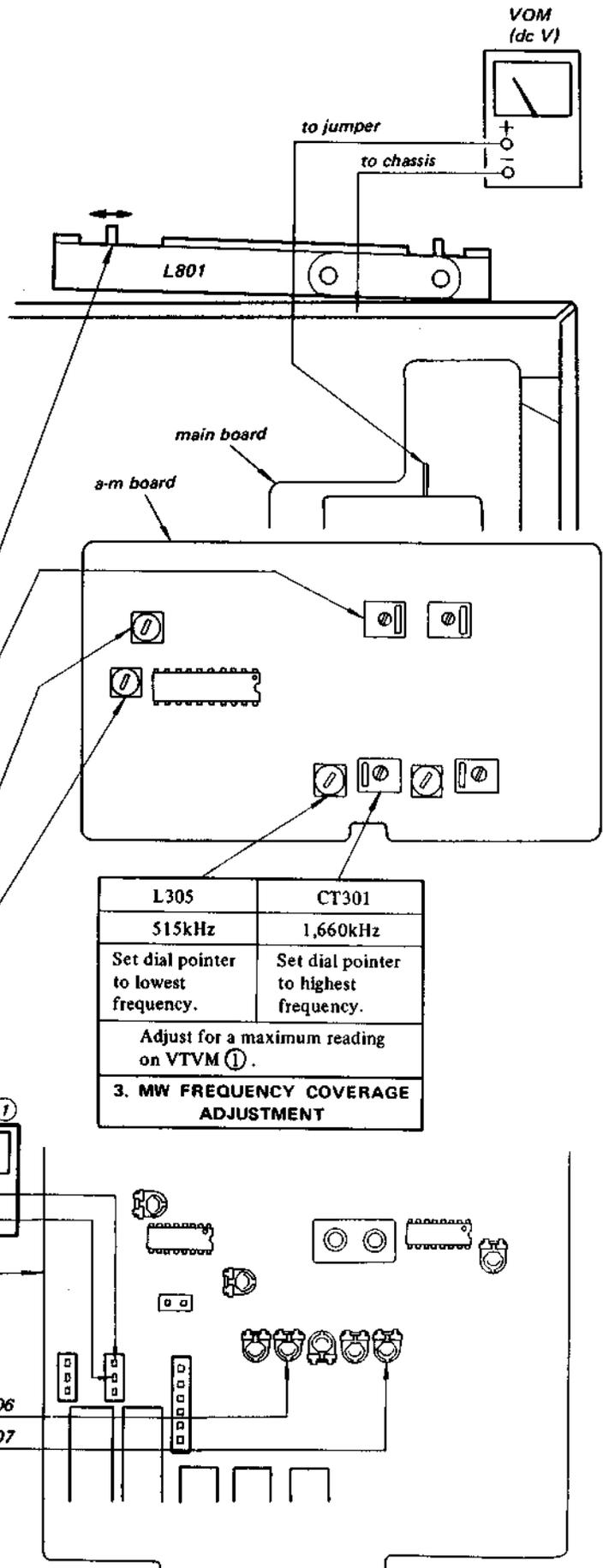
Put the lead-wire antenna close to the set.

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

4. MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM ①.	
600kHz	L801
1,400kHz	CT303

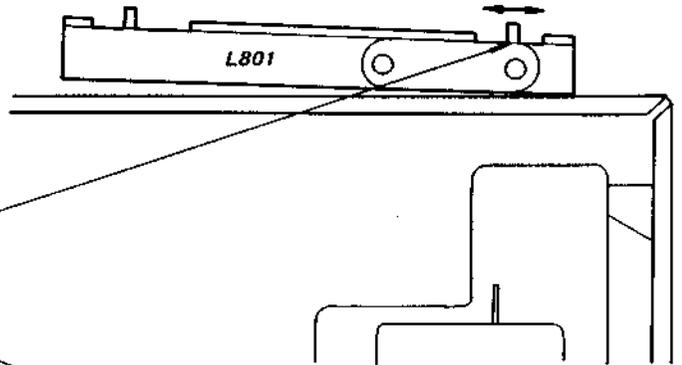
1. AM IF ALIGNMENT	
Adjust for a maximum reading on VTVM ①.	
450kHz	T301, T302

2. AM TUNING VOLTAGE ADJUSTMENT		
Dial Indication	VOM Reading	Adjust
highest frequency	25V	RT206
lowest frequency	1V	RT207

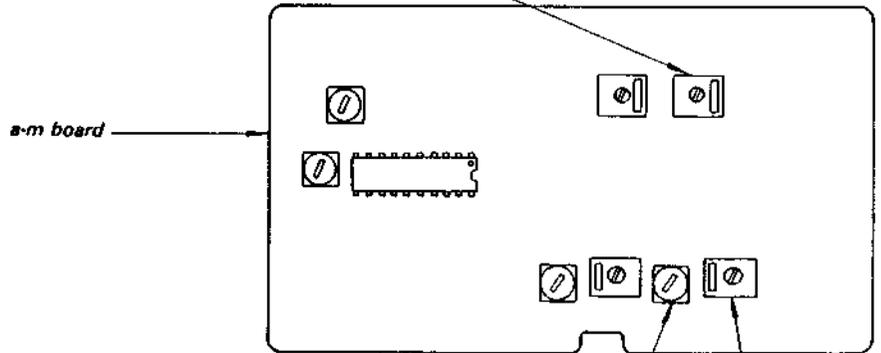


(2) Setting:

MANUAL TUNING switch: ON
 Band Selector: LW



LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM ①.	
170kHz	L801
310kHz	CT304



L306	CT302
145kHz	365kHz
Set dial pointer to lowest frequency.	Set dial pointer to highest frequency.
Adjust for a maximum reading on VTVM ①.	
LW FREQUENCY COVERAGE ADJUSTMENT	

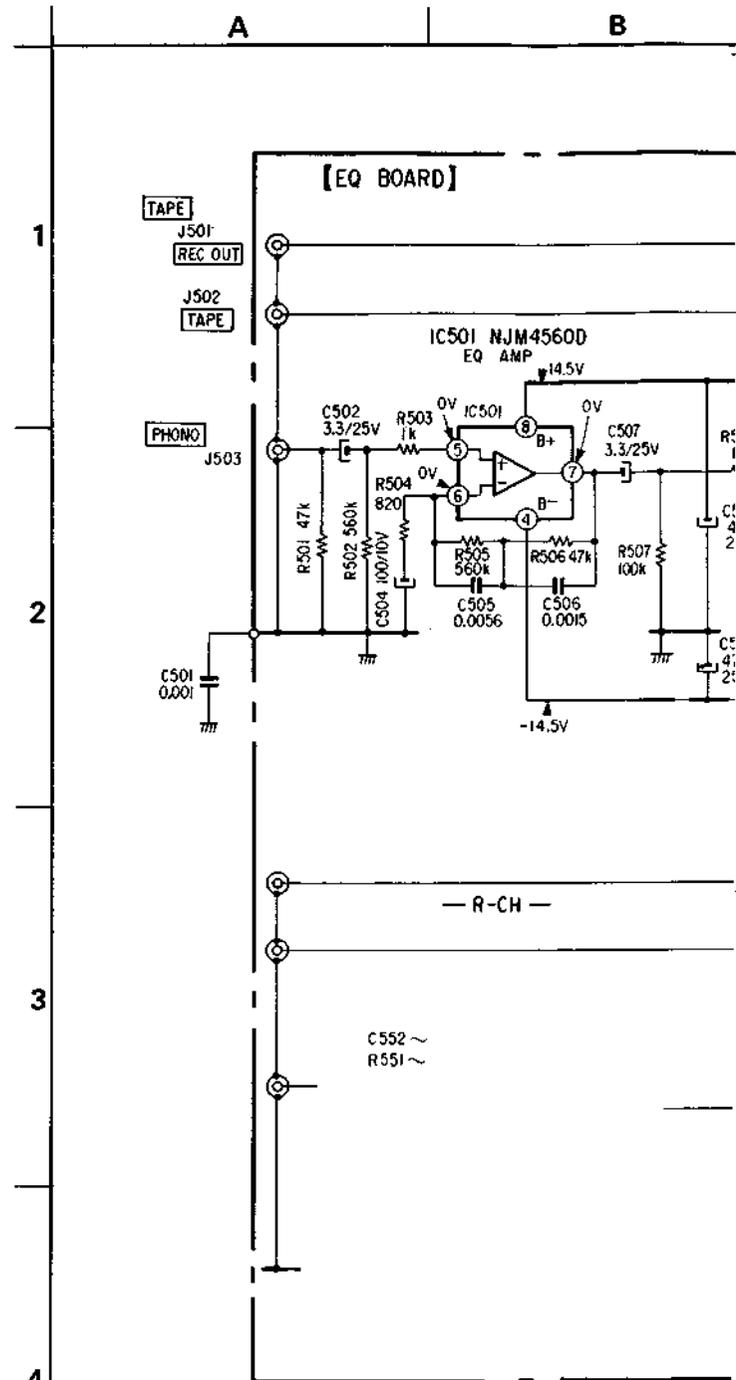
SECTION 4 DIAGRAMS

4-1. SCHEMATIC DIAGRAM — Audio Section —

Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{2}\text{W}$ unless otherwise noted. $\text{k}\Omega$: 1000Ω , $\text{M}\Omega$: $1000\text{k}\Omega$
-  : fusible resistor.
-  : nonflammable resistor.
- Δ : internal component.
-  : panel designation.
-  : adjustment for repair.
-  : B+ bus.
-  : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
-  : signal path

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



S2	FUNCTION	PHONO TAPE	-----	OFF POSITN
S6-1	LOUDNESS	ON/OFF		OFF
S6-3	MODE	MONO/STEREO		STEREO
S7,9	SPEAKER	A, B		A
S8	POWER	ON/OFF		OFF

STR-343L STR-343L

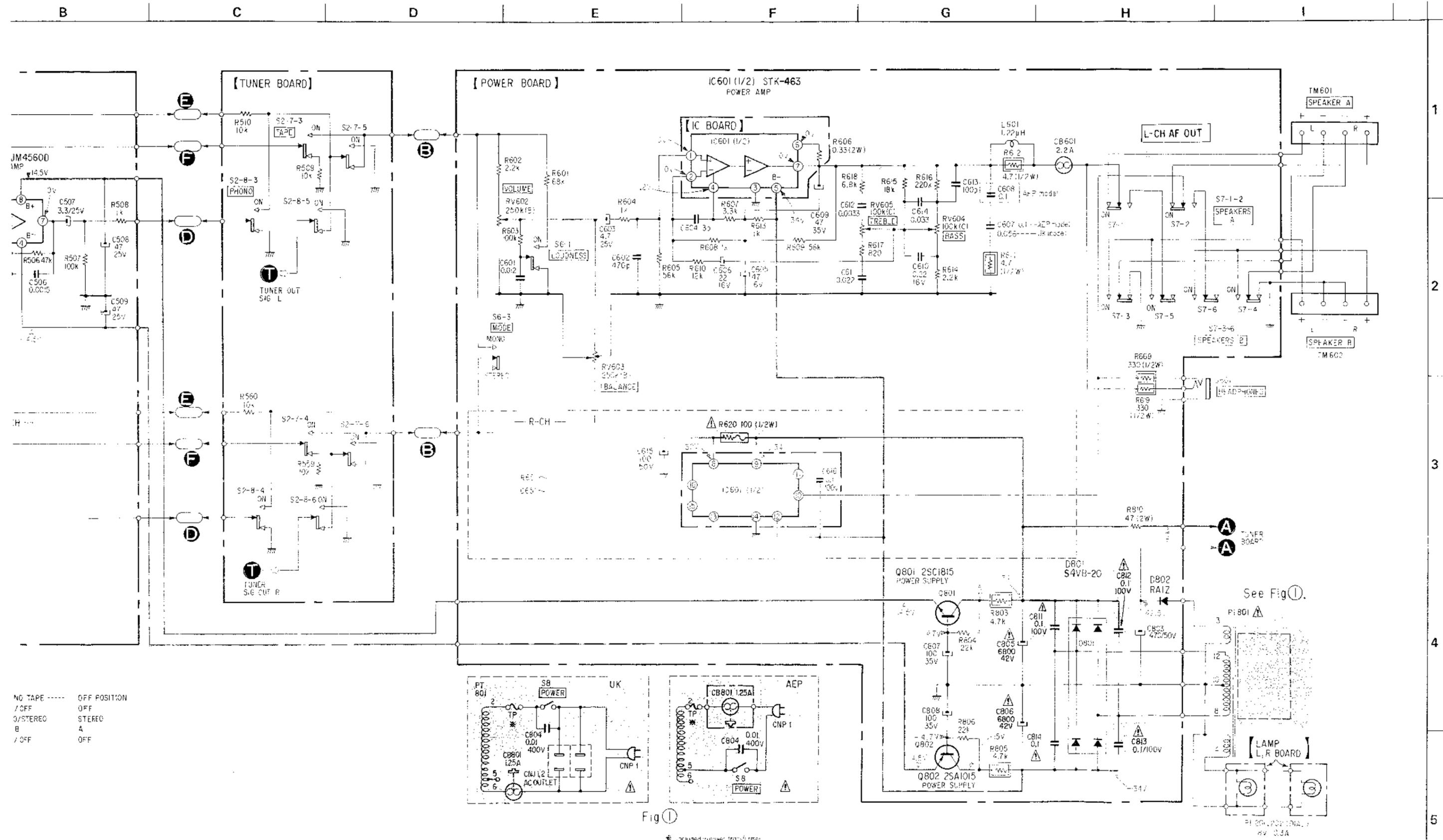
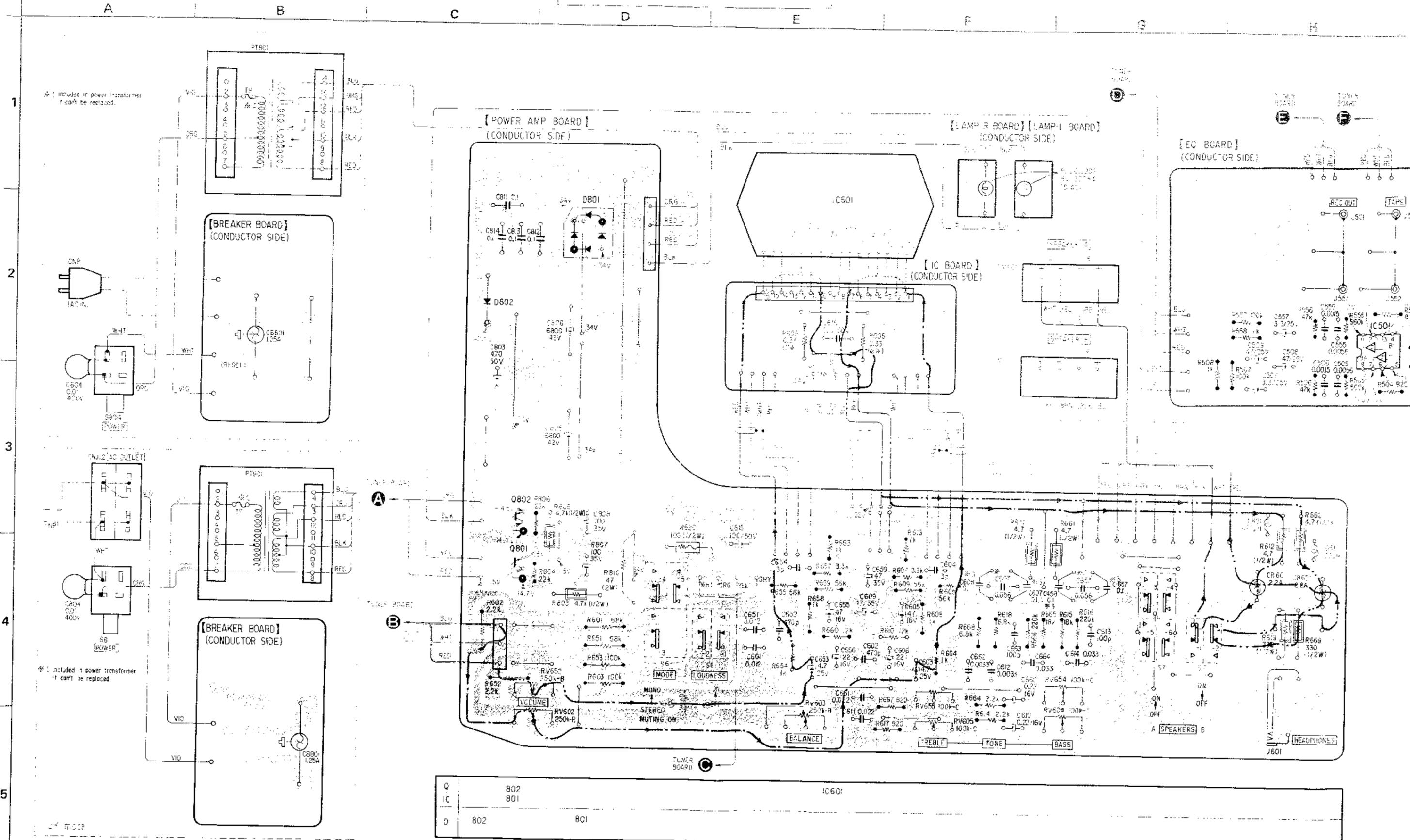
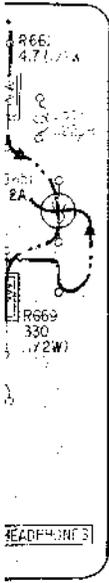
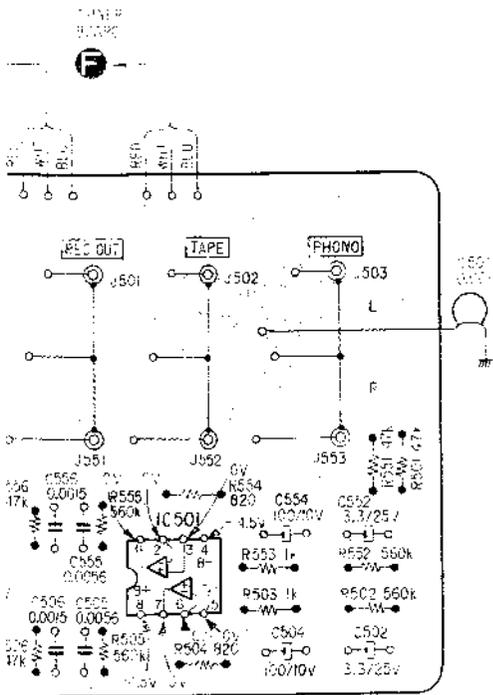


Fig 1

* Included in power transformer lead; to be replaced



Q	802	IC601
IC	801	
D	802	801



Note:

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



- —: parts extracted from the component side.
- —: parts extracted from the conductor side.
- []: indicates side identified with part number.
- [W]: nonflammable resistor.
- []: 5A part

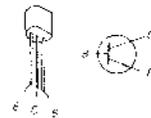
①: L-ON signal part

②: L-ON signal part

③: L-ON signal part

Replacement Semiconductors

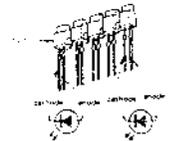
2SC1364
2SC1815



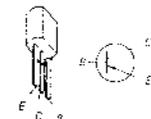
TL489CP



SLP252B-06
SLP252B



2SA1015



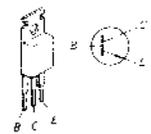
LA1245



KV1226



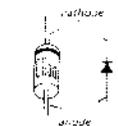
2SC1173



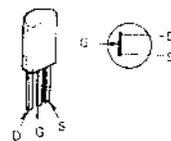
μPC574J



EQB01-14
EQA01-14R



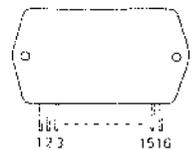
2SK105A



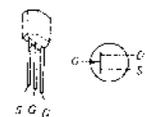
1S1555
10E2



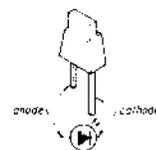
STK463



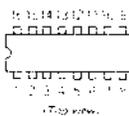
2SK23



SLP241B
SLP141B



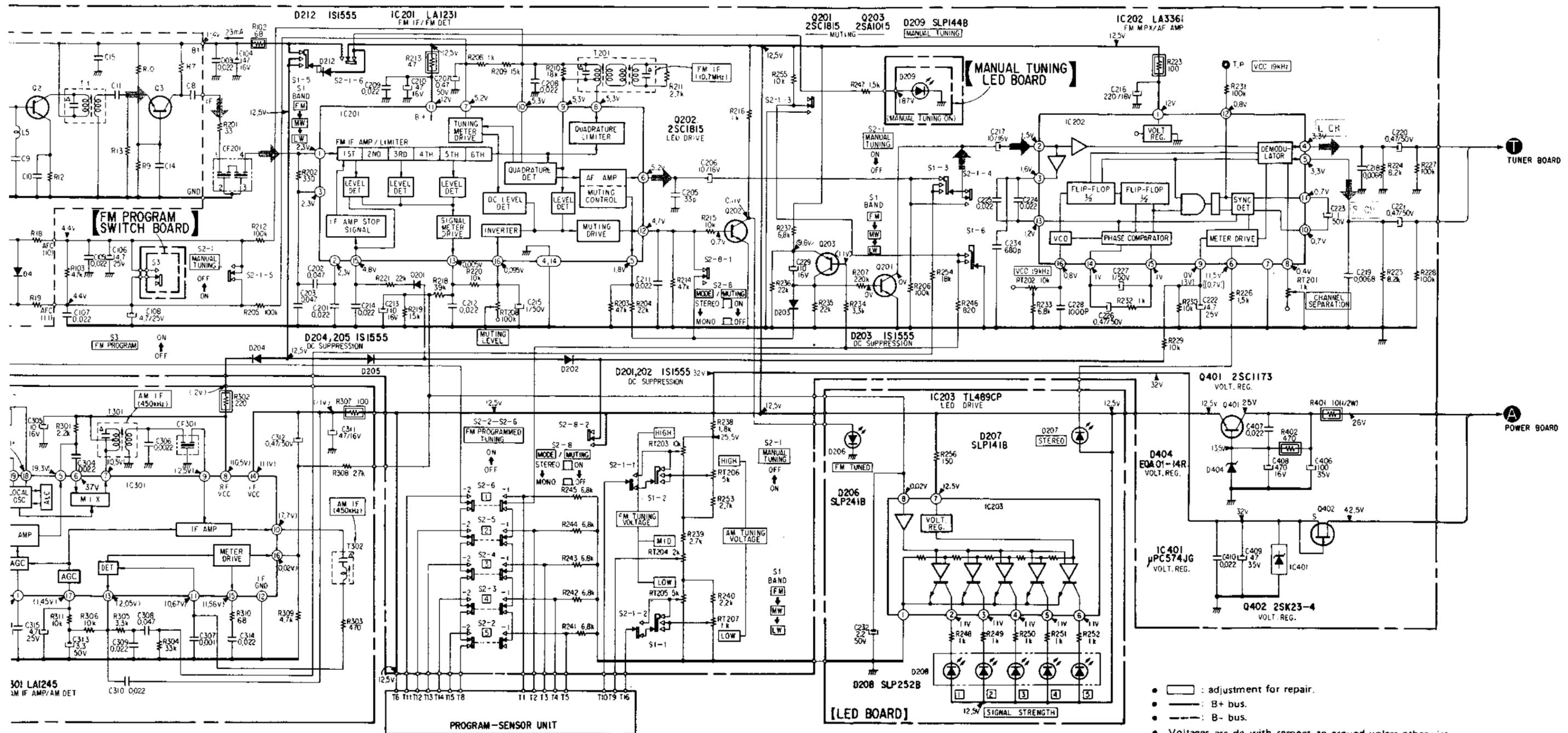
LA1231
LA3361



1
2
3
4
5

STR-343L STR-343L

D E F G H I J K L



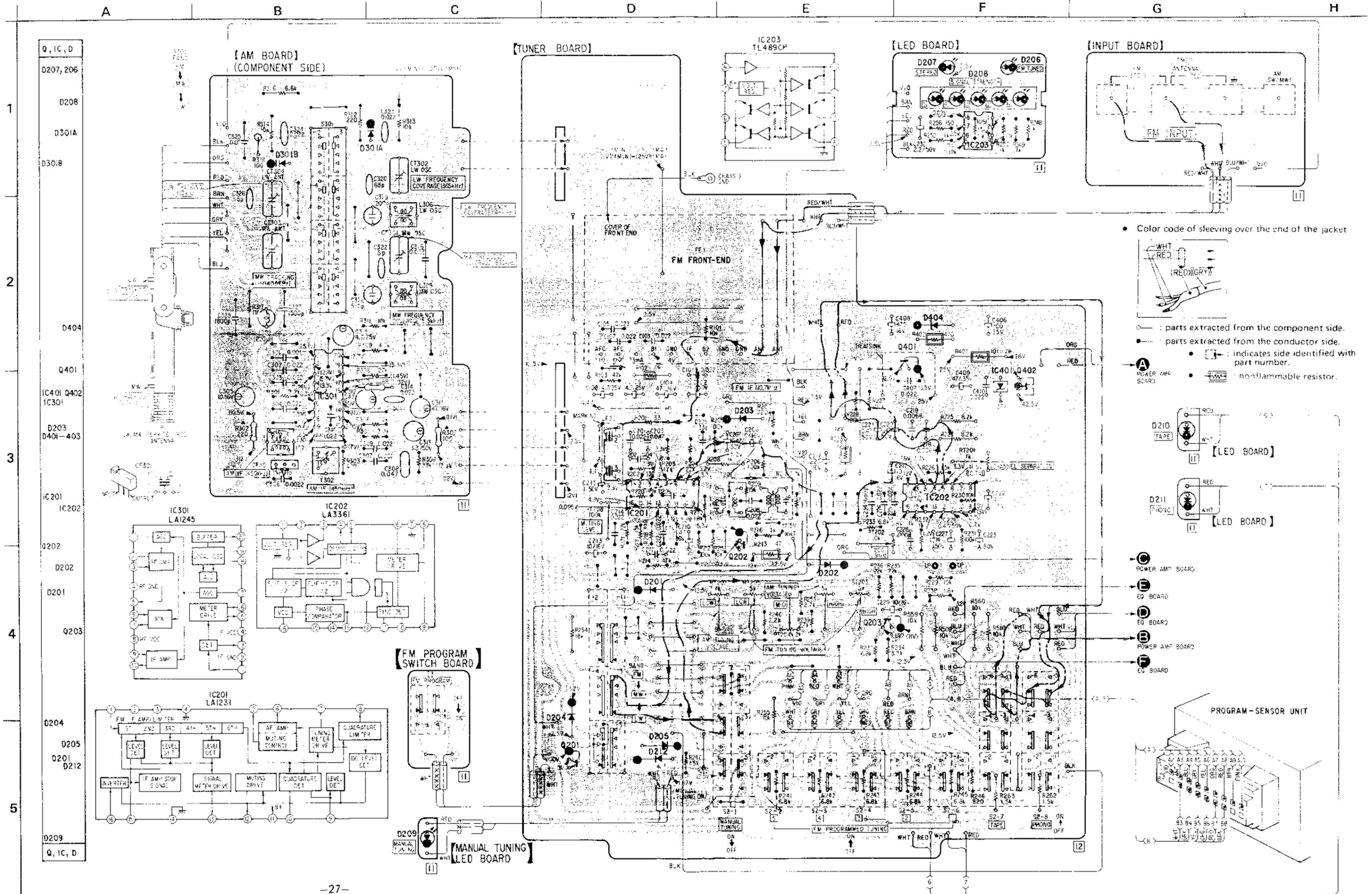
Note:

- All capacitors are in μF unless otherwise noted, pF : μpF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{2}\text{W}$ unless otherwise noted. $\text{k}\Omega$: 1000 Ω , $\text{M}\Omega$: 1000 $\text{k}\Omega$

- : fusible resistor.
- : nonflammable resistor.
- Δ : internal component.
- : panel designation.

- : adjustment for repair.
- $B+$ bus.
- $B-$ bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- () : AM
- [] : tuned in FM STEREO signal
- < > : FM PROGRAMMED TUNING
- no mark: Common
- : signal path.

4-4. MOUNTING DIAGRAM — Tuner Section —



STR-343L STR-343L

SECTION 6
ELECTRICAL PARTS LIST

Ref. No. Part No. Description

SEMICONDUCTORS

Transistors

Q201, 202	8-729-663-47	2SC1364
Q203	8-729-201-52	2SA1015
Q401	8-729-217-33	2SC1173
Q402	8-729-105-40	2SK105A
Q801	8-729-663-47	2SC1364

Q802	8-729-201-52	2SA1015
------	--------------	---------

ICs

IC201	8-759-812-31	LA1231
IC202	8-759-833-61	LA3361
IC203	8-759-904-89	TL489CP
IC301	8-759-812-45	LA1245
IC401	8-759-157-40	μPC574J

IC501	8-759-745-61	NJM4560D-D
IC601	8-759-846-30	STK463

Diodes

D201-204	8-719-815-55	1S1555
D206	8-719-922-41	SLP241B
D207	8-719-900-41	SLP141B
D208	8-719-925-26	LED Block SLP252B
D209-211	8-719-901-44	SLP144B

D212	8-719-815-55	1S1555
D301	8-719-912-27	KV1226
D404	8-719-931-14	EQB01-14
D801	8-719-504-40	S4VB40
D802	8-719-200-02	10E2

CAPACITORS

All capacitors are in μF. Common capacitors are omitted. Refer to the lists on pages 34 and 35 for their part numbers.

C502, 552	1-121-913-00	3.3	25V	elect
C507, 557				
C616	1-108-389-00	0.1	100V	mylar

C803	▲1-123-516-00	470	50V	elect
C804	▲1-161-744-00	0.01	400V	ceramic

C805, 806	▲1-125-157-00	6800	42V	elect
C811-814	▲1-108-389-00	0.1	100V	mylar

CT301-304	1-141-171-XX	Trimmer
-----------	--------------	---------

RESISTORS

All resistors are in ohms. Common 1/4W carbon resistors are omitted. Refer to the list on the last page for their part numbers.

R102	1-247-103-00	68		carbon (nonflammable)
R213	1-247-099-00	47		carbon (nonflammable)
R223	1-247-107-00	100		carbon (nonflammable)
R302	1-247-115-00	220		carbon (nonflammable)
R307	1-247-107-00	100		carbon (nonflammable)

R401	1-247-192-00	10	1/2W	carbon (nonflammable)
R402	1-247-123-00	470		carbon (nonflammable)
R606, 656	1-207-615-00	0.33	2W	metal plate
R611, 661	1-247-188-00	4.7	1/2W	carbon (nonflammable)
R612, 662				
R619, 669	1-247-228-00	330	1/2W	carbon (nonflammable)
R620	▲1-212-982-00	100	1/2W	fusible
R803, 805	1-247-256-00	4.7k	1/2W	carbon (nonflammable)

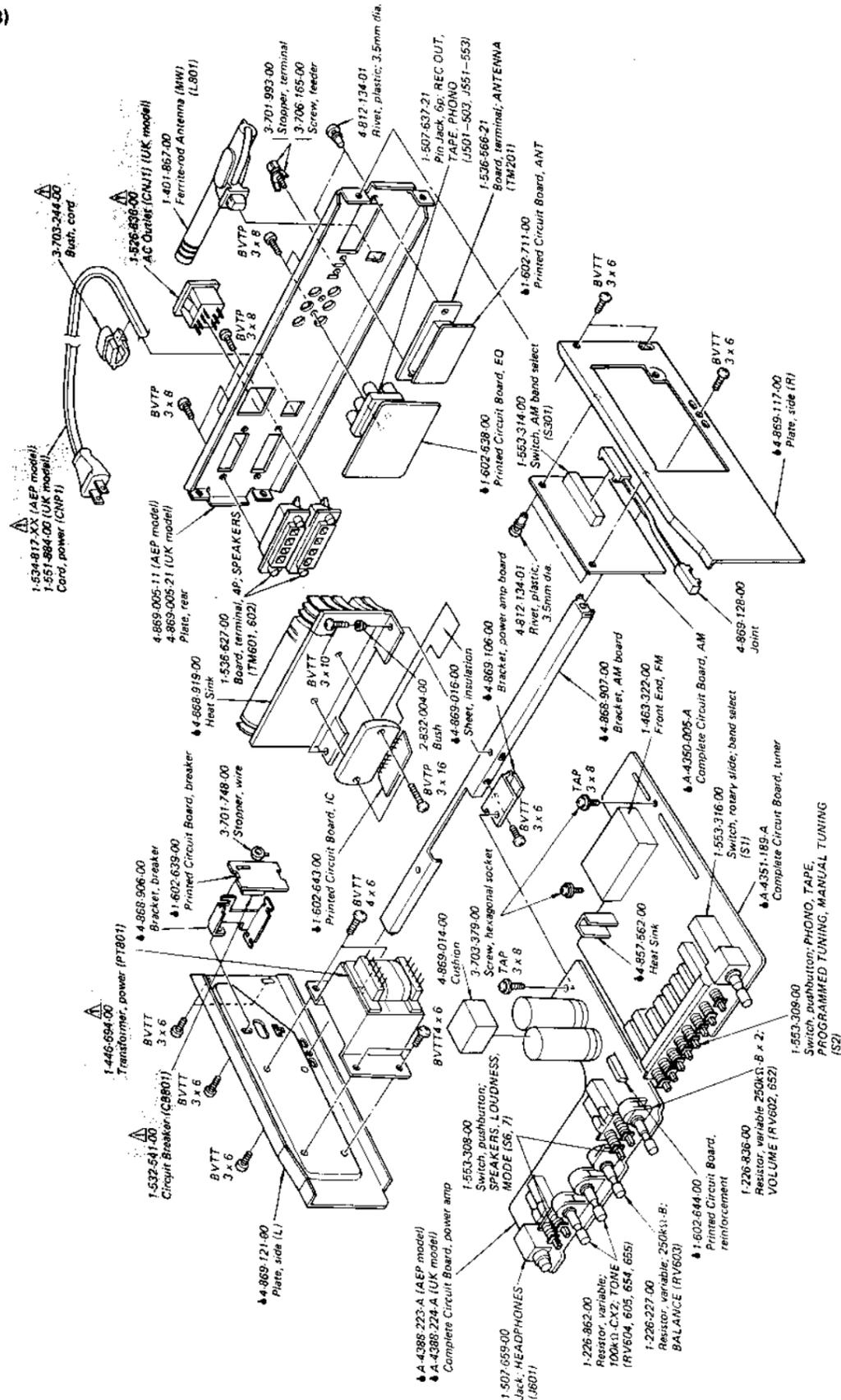
R810	1-206-479-11	47	2W	metal oxide
------	--------------	----	----	-------------

RT201, 207	1-226-233-00	1k, adjustable;
RT202, 203	1-226-236-00	10k-B, adjustable
RT204	1-226-234-00	2k, adjustable
RT205, 206	1-226-235-00	5k-B, adjustable
RT208	1-226-239-00	100k-B, adjustable

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

Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

(3)



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
RV602, 652	1-226-836-00	250k/250k-B, variable; VOLUME
RV603	1-226-227-00	250k-B, variable; BALANCE
RV604, 654 RV605, 655	1-226-862-00	100k/100k-C, variable; TONE

MISCELLANEOUS

CB601, 651	1-532-564-00	Breaker, circuit 2.2A
CB801	△1-532-541-00	Breaker, circuit 1.25A
CF201	1-527-534-XX	Filter, solid state
CF301	1-527-599-00	Filter, mechanical
CNJ1, 2	△1-526-636-00	Outlet, ac (UK model)
CNP1	△1-551-884-00	Cord, power (UK model)
	△1-534-817-XX	Cord, power (AEP model)
J501-503 J551-553	1-507-637-21	Jack, pin 6P; PHONO, TAPE, REC OUT
♣ J601	1-507-659-00	Jack, HEADPHONES
L302	1-407-173-XX	220μH, microinductor
L305	1-405-907-00	Coil, MW OSC
L306	1-405-914-00	Coil, LW OSC
♣ L601, 651	1-420-872-00	Coil, 1.22μH
L801	1-401-867-00	Antenna, ferrite-rod (MW/LW)
PL201, 202	1-518-283-00	Lamp, pilot 8V 300mA
PT801	△1-446-694-00	Transformer, power
S1	1-553-316-00	Switch, rotary slide; Band Select
S2	1-553-309-00	Switch, pushbutton; PHONO, TAPE, PROGRAMMED TUNING, MANUAL TUNING
S3	1-553-283-00	Switch, pushbutton; AFC
S6, 7	1-553-308-00	Switch, pushbutton; SPEAKERS, LOUDNESS, MODE
S8	△1-552-903-00	Switch, pushbutton; POWER
S301	1-553-314-00	Switch, AM band select
T201	1-404-170-00	IFT
T301	1-409-348-00	Coil, mechanical filter
T302	1-404-266-00	IFT
TM201	1-536-566-21	Terminal Board; ANTENNA
TM601, 602	1-536-627-00	Terminal Board; 4P

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
	1-463-322-00	Front End, FM
♣	1-555-324-00	Lead, w/connector

COMPLETE CIRCUIT BOARDS

♣	A-4350-005-A	AM
♣	A-4351-189-A	Tuner
♣	A-4388-223-A	Power Amplifier (AEP model)
♣	A-4388-224-A	Power Amplifier (UK model)

PRINTED CIRCUIT BOARDS

♣	1-602-637-00	Power Amp
♣	1-602-638-00	Equalizer
♣	1-602-639-00	Breaker
♣	1-602-643-00	IC
♣	1-602-644-00	Reinforcement
♣	1-602-709-00	SW
♣	1-602-710-00	Indicator
♣	1-602-711-00	ANT
♣	1-602-712-00	Lamp (R)
♣	1-602-713-00	Lamp (L)
♣	1-602-714-00	LED

ACCESSORIES AND PACKING MATERIALS

<u>Part No.</u>	<u>Description</u>
1-501-184-00	Antenna, feeder
3-701-630-00	Bag, polyethylene
3-783-219-11	Manual, instruction
3-794-869-11	Card, control
4-864-354-00	Sheet, polyethylene
4-868-927-01	Cushion (A)
4-868-928-01	Cushion (B)
4-869-012-00	Carton
4-869-015-00	Cushion, support
3-794-963-11	Leaflet, Dutch/Swedish (AEP model)

ELECTROLYTIC CAPACITORS

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

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

CERAMIC CAPACITORS

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

0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.				
	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015	→	1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018	→	1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022	→	1-161-043-00	0.039	1-161-020-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00	-	-	-
0.0082	1-161-012-00	1-161-050-00	-	-	-
0.01	1-161-013-00	1-161-051-00	-	-	-
0.012	→	1-161-052-00	-	-	-
0.015	1-161-015-00	1-161-053-00	-	-	-

MYLAR CAPACITORS

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



TANTALUM CAPACITORS

CAP. (μF)	RATING → Use the high voltage rated one.													
	3.15 VOLT.		6.3 VOLT.		10 VOLT.		16 VOLT.		20 VOLT.		25 VOLT.		35 VOLT.	
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	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														1-131-405-00
0.47														1-131-406-00
0.68														1-131-407-00
1.0														1-131-408-00
1.5														1-131-409-00
2.2														1-131-410-00
3.3														1-131-411-00
4.7														1-131-412-00
6.8														1-131-413-00
10														1-131-414-00
15														1-131-415-00
22														1-131-416-00
33														1-131-417-00
47														1-131-418-00
68														1-131-419-00
100														1-131-420-00



TANTALUM CAPACITORS

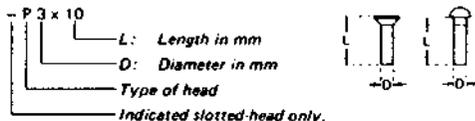
CAP. (μF)	RATING											
	3 VOLT.		6.3 VOLT.		10 VOLT.		16 VOLT.		20 VOLT.		35 VOLT.	
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033												1-131-273-00
0.047												1-131-274-00
0.068												1-131-275-00
0.1												1-131-276-00
0.15												1-131-277-00
0.22												1-131-278-00
0.33												1-131-279-00
0.47												1-131-280-00
0.68												1-131-281-00
1.0												1-131-282-00
1.5												1-131-283-00
2.2												1-131-284-00
3.3												-
4.7												-
6.8												-
10												-
15												-
22												-
33												-
47												-
100												-

1/4 WATT CARBON RESISTORS

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

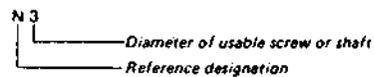
Screw:



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	
FK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazer-head screw	

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

Sony Corporation