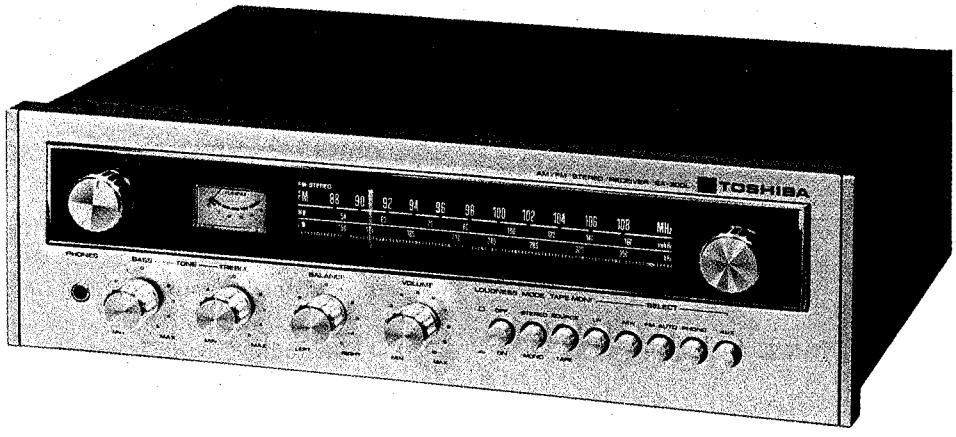
TOSHIBA AM/FM STEREO RECEIVER
SERVICE DATA MODEL SA-300L

FILE NO. 173-011

SUPPLEMENT A



1. SPECIFICATIONS

FM TUNER SECTION

Frequency range:	88–108 MHz
Antenna input impedance:	300 ohm (balanced) 75 ohm (unbalanced)
Usable sensitivity:	2.5μV
Harmonic distortion:	mono 0.4% (400 Hz 100%) stereo 1.0% (400 Hz 100%)
Signal-to-noise ratio:	better than 60 dB
Stereo separation:	better than 35 dB
Capture ratio:	better than 3 dB
Image rejection ratio:	better than 50 dB
AM suppression ratio:	better than 45 dB
Frequency response:	20 Hz–15 kHz -3 dB

AM TUNER SECTION

Frequency range:	LW 145–360 kHz MW 530–1605 kHz
Usable sensitivity:	LW 54 dB (S/N 20 dB) MW 48 dB (S/N 20 dB)
Distortion factor:	LW 1% MW 1%
Image rejection ratio:	LW better than 35 dB MW better than 35 dB
IF rejection ratio:	LW better than 27 dB MW better than 30 dB
Signal-to-noise ratio:	LW better than 45 dB MW better than 45 dB
Selectivity:	LW 35 dB (10 kHz) MW 35 dB (10 kHz)

AUDIO SECTION

Total IHF music power: (0.8% distortion)	44 Watts (8 ohm) 43 Watts (4 ohm)
R.M.S. continuous power: (0.8% distortion at 1 kHz)	14W x 2 (8 ohm) each channel driven 12W x 2 (4 ohm) each channel driven 12W x 2 (8 ohm) both channel driven
Harmonic distortion:	0.8% (at 14W output)
Inter modulation distortion:	0.8%
Frequency response:	20 Hz–50 kHz + 1 -3 dB
IHF power bandwidth:	15 Hz–25 kHz
Input sensitivity and impedance:	PHONO 3.0 mV (47k ohm) AUX 150 mV (50k ohm) TAPE PLAY 250 mV (50k ohm)
Recording output level:	TAPE REC 250 mV (50k ohm) DIN 30 mV
Signal-to-noise ratio:	PHONO 65 dB AUX 75 dB
Residual noise:	1.0 mV
Speaker impedance:	4–16 ohm (A or B) 8–16 ohm (A + B)
Tone control:	bass (100 Hz) ±10 dB treble (10 kHz) ±10 dB
Damping factor:	20 (8 ohm)
Power source:	100V/120V/220V/240V, 50 Hz/60 Hz
Power consumption:	70W
Dimensions:	15-3/4" (W) x 11-3/8" (D) x 4-1/2" (H) (400 x 290 x 115 m/m)
Weight:	15.6 lbs

TOKYO SHIBAURA ELECTRIC CO., LTD.

2-1, 5-CHOME, GINZA, CHUO-KU, TOKYO, JAPAN

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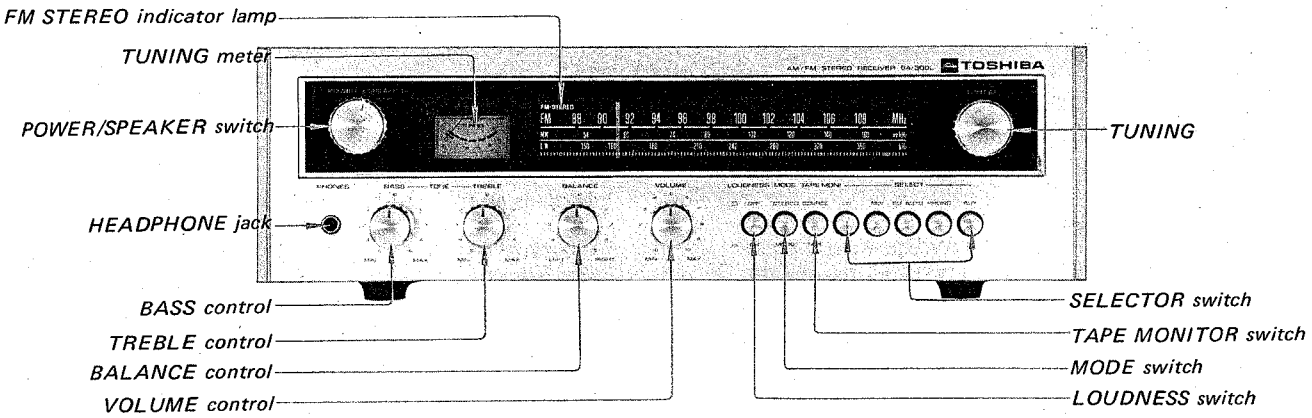
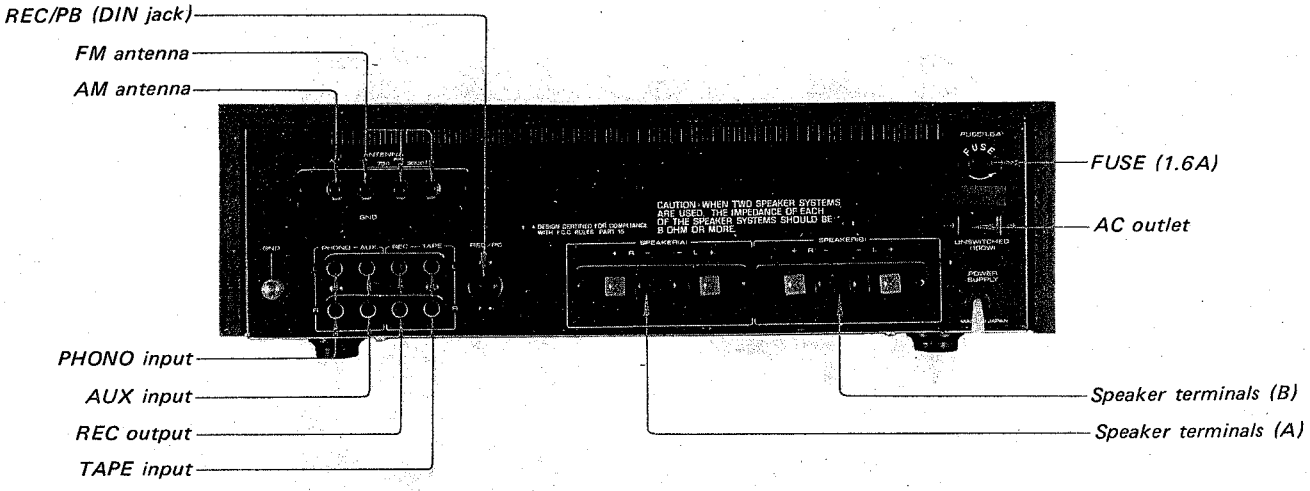
2. OPERATING CONTROLS

2-1. FRONT VIEW

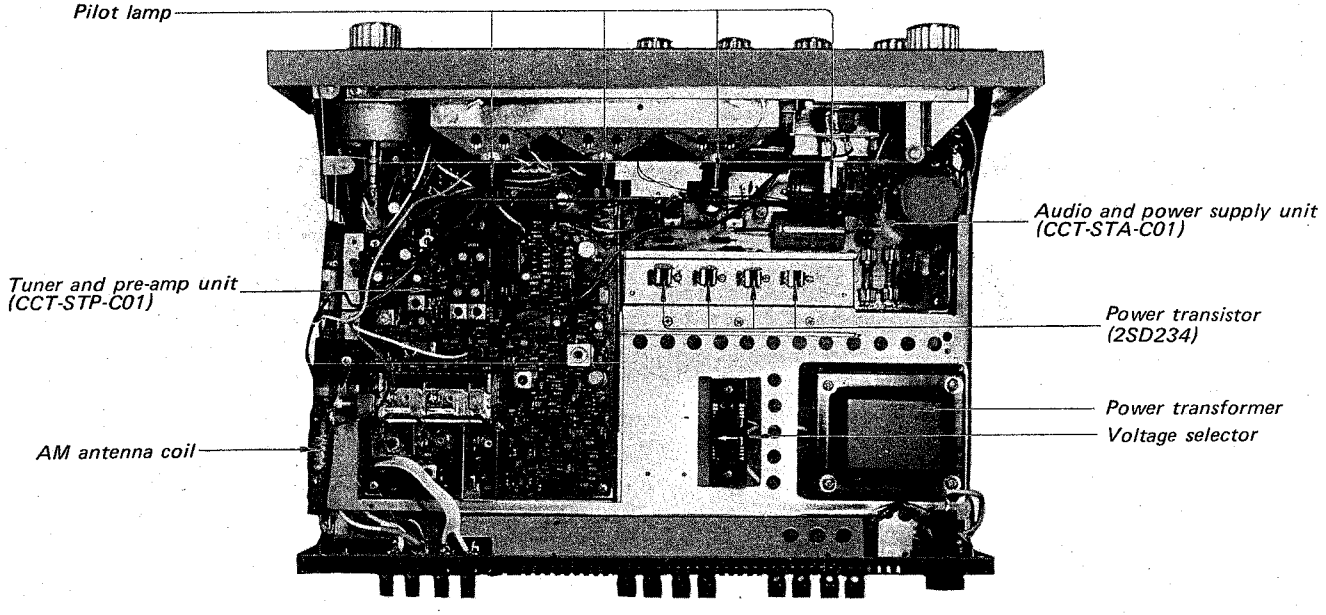


2-2. REAR VIEW

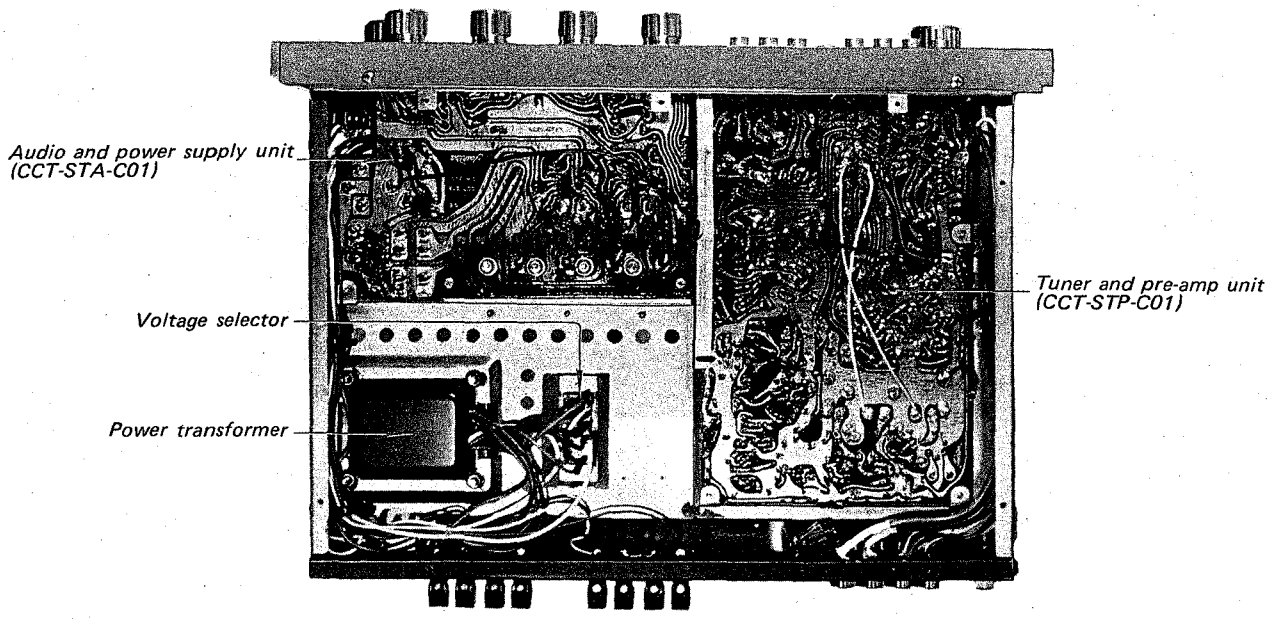


3. PARTS LOCATION

3-1. CHASSIS TOP VIEW



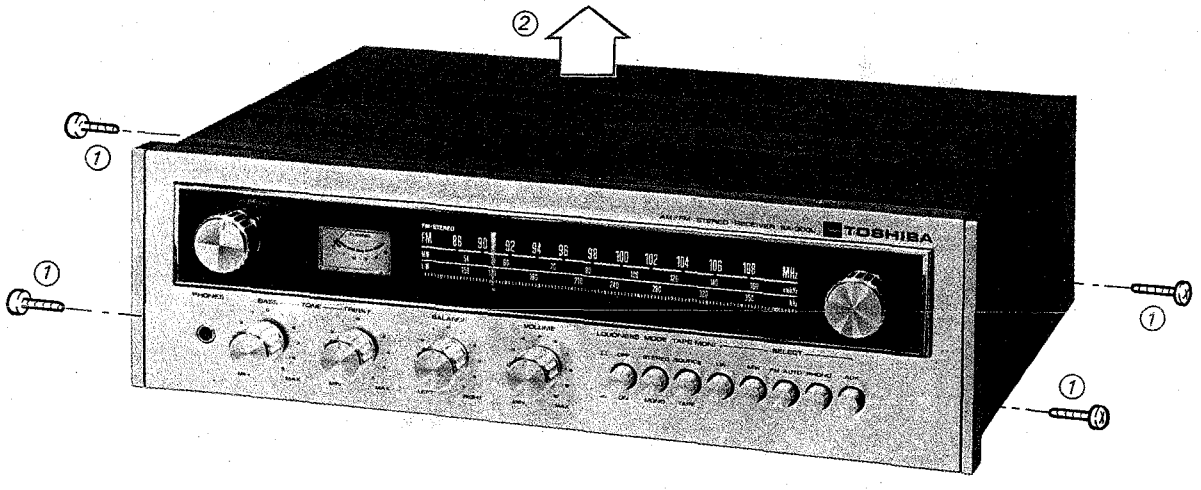
3-2. CHASSIS BOTTOM VIEW



4. DISASSEMBLY INSTRUCTION

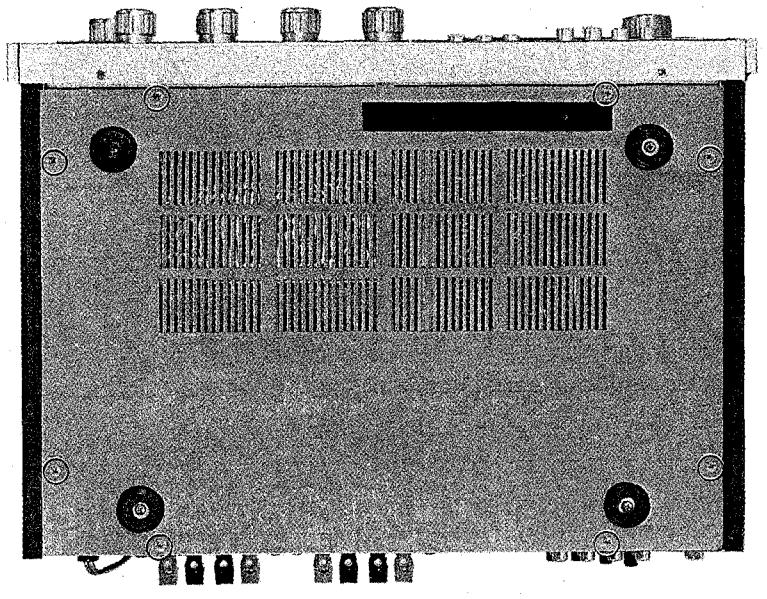
4-1. CABINET REMOVAL

1. Remove the four screws (①).
2. Pull out the cabinet (②).

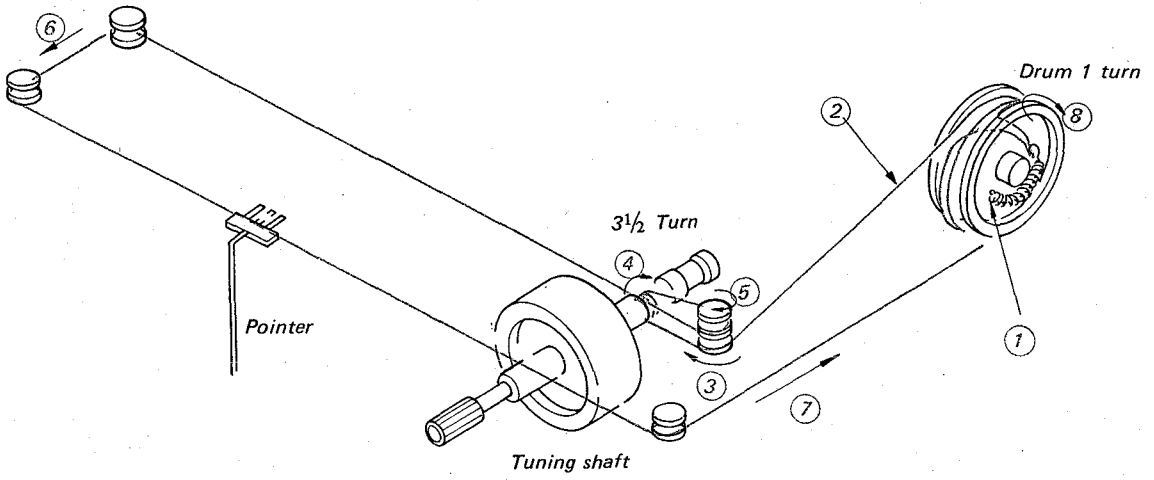


4-2. BOTTOM COVER REMOVAL

1. Remove the eight screws.
2. Remove the back cover.



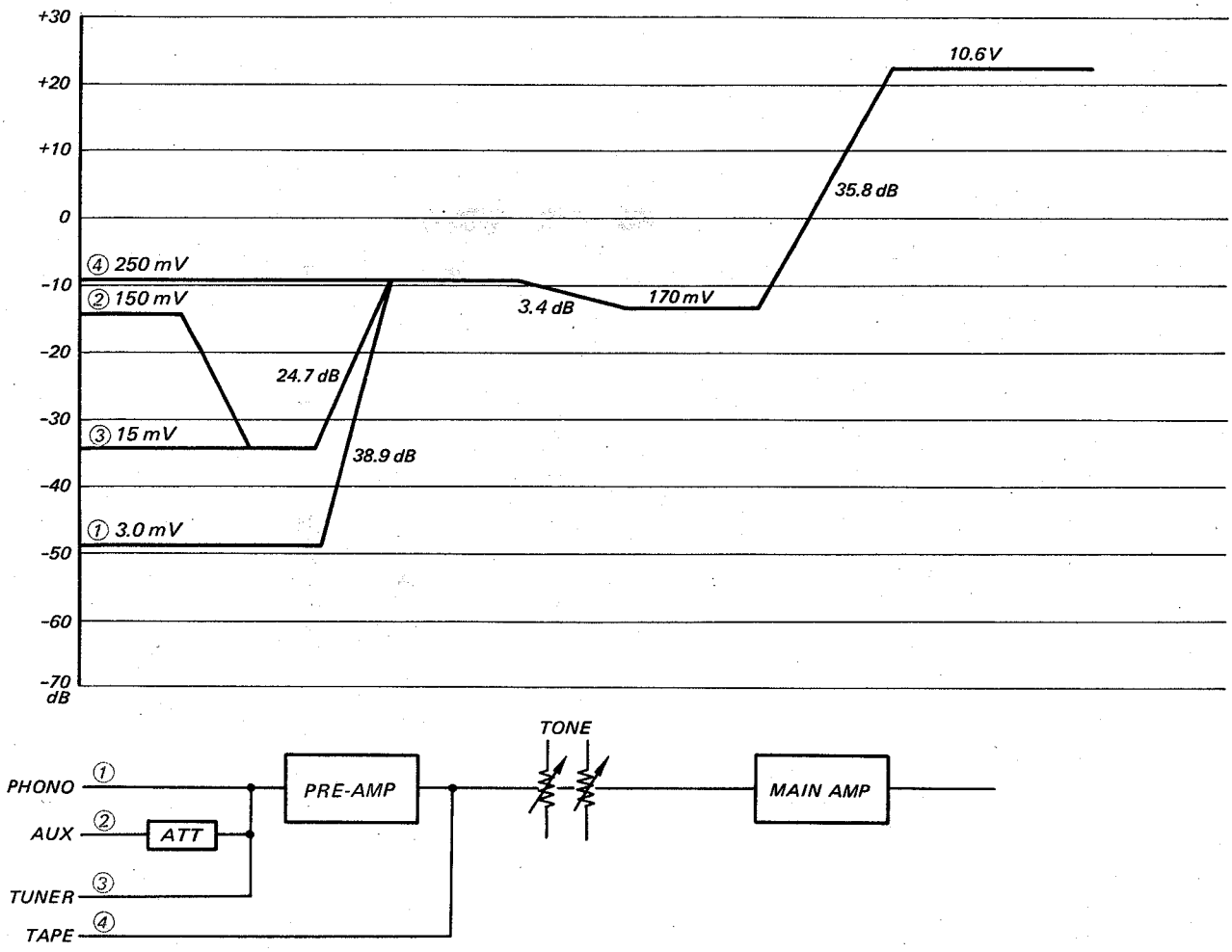
5. DIAL CORD STRINGING



DIAL STRINGING BLOCK DIAGRAM

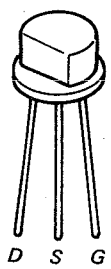
Load the dial cord as shown in the figure above. Get the cord through the eyelet as shown right. Give tension on the dial cord by tension-spring action.
Then squash the eyelet and fix it by the aid of a small amount cement not to loosen the cord.

6. LEVEL DIAGRAM



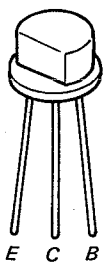
7. SEMICONDUCTOR BASE DIAGRAM

2SK19



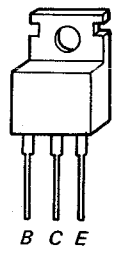
D Drain
S Source
G Gate

2SC373 2SC380A 2SC372
2SC941 2SC732 2SC734



E Emitter
C Collector
B Base

2SD234



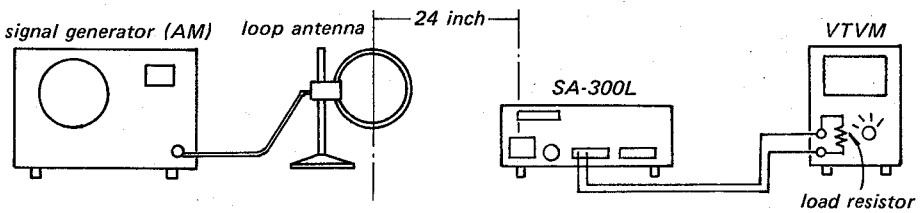
E Emitter
E Collector
B Base

8. CIRCUIT ADJUSTMENTS

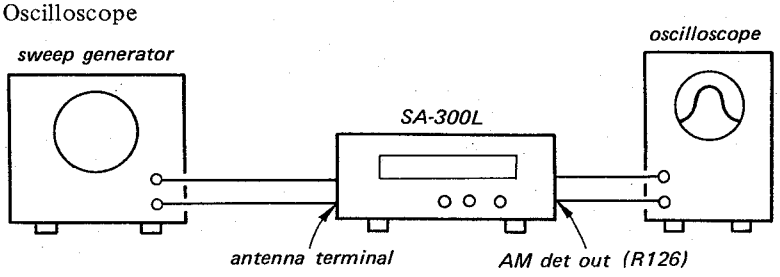
8-1. AM ADJUSTMENTS

Equipments

1. Signal generator
2. Sweep generator
3. Test loop antenna
4. Dummy load (8 ohm)
5. VTVM
6. Adjusting screw driver
7. Adjusting driver (use to antenna core)
8. Oscilloscope



Frequency coverage and tracking adjustment test set-up



IF adjustment test set-up

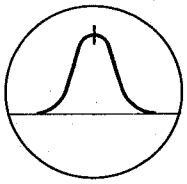


Fig. 8.

Step	Adjustment	Remarks
IF Response	IT-04, IT-07, IT-08 IF Transformer	Adjust for scope pattern with specified marker (455 kHz) as illustrated in Fig. 8.

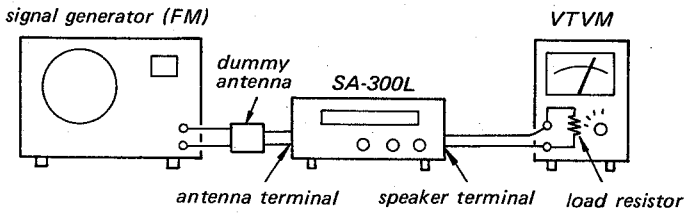
Step	Adjusting circuit	Connections		SG frequency	Position of tuning dial	Adjustment	VTVM
		Input	Output				
1	MW OSC (Frequency Coverage)	Connect Signal generator to test loop	Connect VTVM to SP terminal	540 kHz (400 Hz 30% MOD)	Set the tuning gang at 540 kHz	1T-06	Maximum
2				1600 kHz (400 Hz 30% MOD)	Set the tuning gang at 1600 kHz	VC02-a	
Repeat Step 1 and 2							
3	MW ANT (Tracking)	Connect Signal generator to test loop	Connect VTVM to SP terminal	600 kHz (400 Hz 30% MOD)	Tune to 600 kHz signal	L001 (MW)	Maximum
4				1400 kHz (400 Hz 30% MOD)	Tune to 1400 kHz signal	VC03-a	Maximum
Repeat Step 3 and 4							
5	LW OSC (Frequency Coverage)	Connect Signal generator to test loop	Connect VTVM to SP terminal	150 kHz (400 Hz 30% MOD)	Set the tuning gang at 150 kHz	1T-05	Maximum
6				360 kHz (400 Hz 30% MOD)	Set the tuning gang at 360 kHz	VC02-b	Maximum
Repeat Step 5 and 6							
7	LW ANT (Tracking)	Connect Signal generator to test loop	Connect VTVM to SP terminal	150 kHz (400 Hz 30% MOD)	Tune to 150 kHz signal	L001 (LW)	Maximum
8				360 kHz (400 Hz 30% MOD)	Tune to 360 kHz signal	VC03-b	Maximum
Repeat Step 7 and 8							

Note: Male adjustment of the AM tuner section with the minimum input signal possible to the set.

8-2. FM ADJUSTMENTS

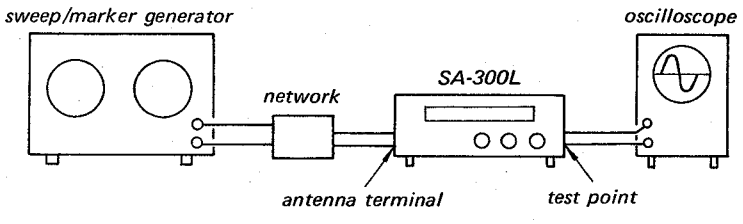
Test Equipments/Tools Required

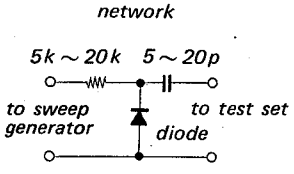
1. Sweep marker generator
2. Signal generator (FM)
3. Oscilloscope
4. VTVM
5. FM dummy antenna (300 ohms)
6. Dummy load resistor
7. Network
8. Adjusting driver
9. Adjusting bar



FM Frequency coverage and tracking adjustment test set-up

Step	Adjusting circuit	Connections		SG frequency	Position of tuning dial	Adjustment	VTVM
		Input	Output				
1	IF	Connect sweep generator to FM ANT terminal	Connect oscilloscope to across R43 (FM DET OUT)	10.7 MHz	Near max. capacity of VC. at position with no unrequired signal	1T01 1T03	10.7MHz 75kHz 150kHz
2	Radio Det.		Connect oscilloscope to across R43 (FM DET OUT)			1T03 (secondary)	75kHz
3	OSC (Frequency coverage)	Connect to FM signal generator to FM ANT terminal	Connect VTVM to SP terminal	87.5 MHz (400 Hz 30% MOD)	Low end of dial scale	L04	Maximum
4				108 MHz (400 Hz 30% MOD)	Set the tuning gang at 108 MHz	FM OSC Trimmer	
Repeat Step 3 and 4							
5	RF	Connect FM signal generator to FM ANT terminal	Connect VTVM to SP terminal	88 MHz (400 Hz 30% MOD)	Tune to 88 Hz signal	L02	Maximum
6				108 MHz (400 Hz 30% MOD)	Tune to 108 MHz signal	FM ANT RF Trimmer	
Repeat Step 5 and 6							





FM IF adjustment test set-up

CAUTION:

When realigning the FM receiving frequency, the lowest side of the frequency range must not be below 87.5 MHz in order to comply with FTZ regulations in west germany.

8-3. FM MPX ADJUSTMENTS

Test Equipments/Tools Required

1. Signal generator (FM)
2. Dummy antenna (300 ohms)
3. Stereo modulator
4. Oscilloscope
5. VTVM
6. CR oscillator
7. Dummy load resistor
8. Adjusting driver
9. Multimeter

Step	Adjusting circuit	Connections		Position of tuning dial	Adjustment	VTVM
		Input	Output			
1	Dabuler & 19 kHz pilot signal	Connect FM stereo SG. to FM ANT. terminal. (see Fig. 7-3-1) 19 kHz signal ON. Sub channel signal ON. add 100 Hz signal from left CH.	Connect VTVM to right SP terminal	98 MHz	T02 T03	Maximum
2	FM stereo signal separation	Connect FM SG to FM ANT terminal	Connect Multimeter to across R71		IT02	Multimeter's DC Voltage Maximum
3		Connect FM stereo SG. to FM ANT terminal. (see Fig. 7-3-1) 19 kHz signal ON. Main channel, sub channel signal ON. add 1000 Hz signal from left CH.	Connect VTVM to right SP terminal		T02 T03 VR01	Minimum
4		Connect FM stereo SG. to FM ANT terminal. (see Fig. 7-3-1) 19 kHz signal ON. Main channel, sub channel signal ON. add 1000 Hz signal from right CH.	Connect VTVM to left SP terminal		T02 T03 VR01	Minimum
Repeat Step 2 and 3						

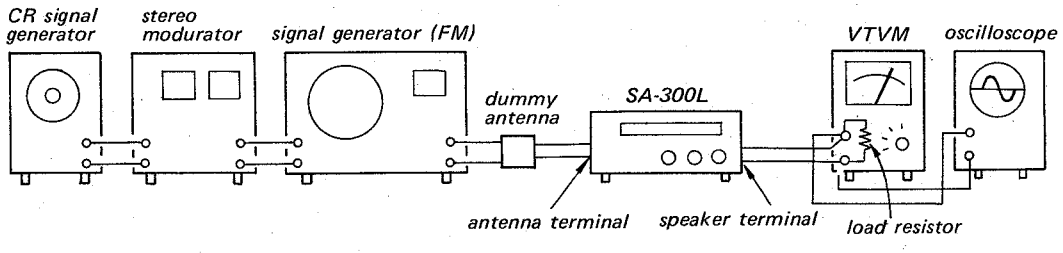


Fig. 8-3-1.
FM MPX adjustment test set-up

8-4. AUDIO ADJUSTMENTS

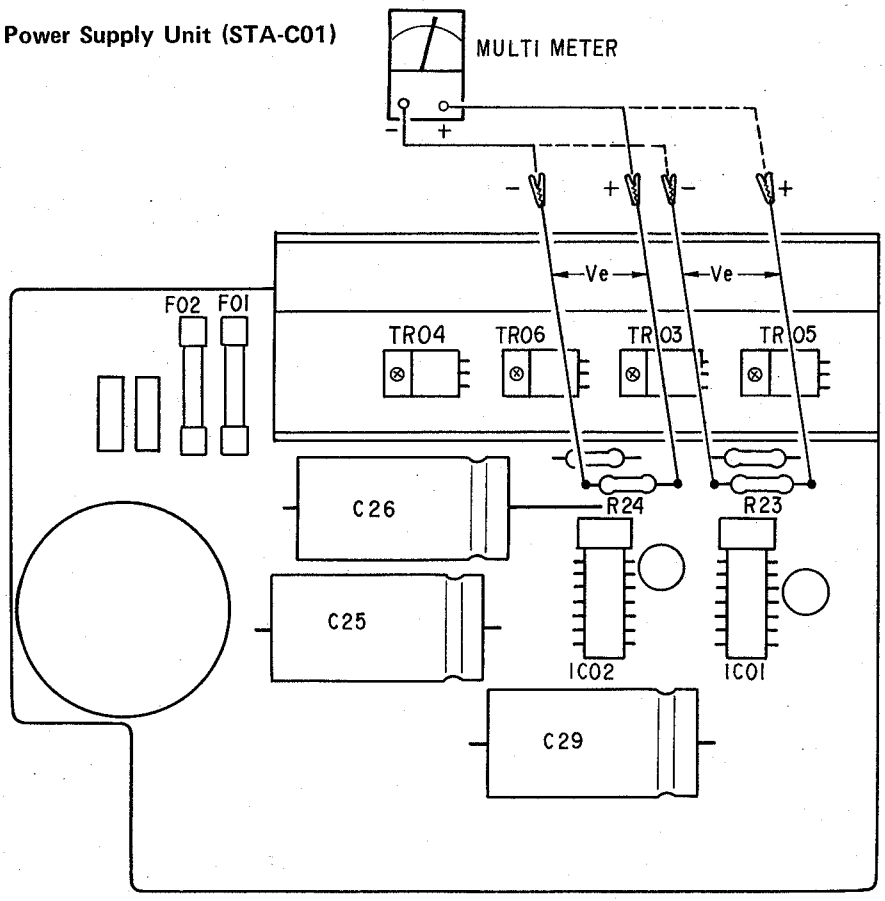
Test Equipments Required

1. Multi meter

CAUTION:

Never short-circuit the speaker terminal. When a strong input is fed to the speaker or the speaker terminal is short-circuited, the output circuit is protected against the possible damage through the protection fuse (F01, F02). When the protection circuit worked, change the attached 1.5A Fuse (Ⓐ TLC Special Fuse) after taking away the mistake.

Audio and Power Supply Unit (STA-C01)



Power Amprifier IC Idle Adjustment

Adjustment	Remarks
L ch : R36	Adjust for Ve = 0.02 ~ 0.0025 Volts R23, R24
R ch : R37	Same as above

Adjust R36 (R37) so that the multimeter indicates as shown in table.

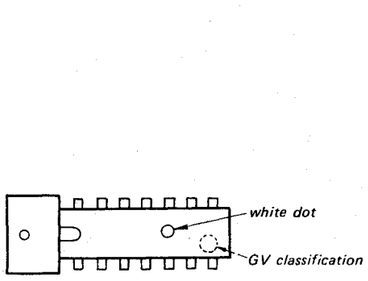
Note: Select the resistor either 15 k ohms or other value.

9. TROUBLE SHOOTING HINTS

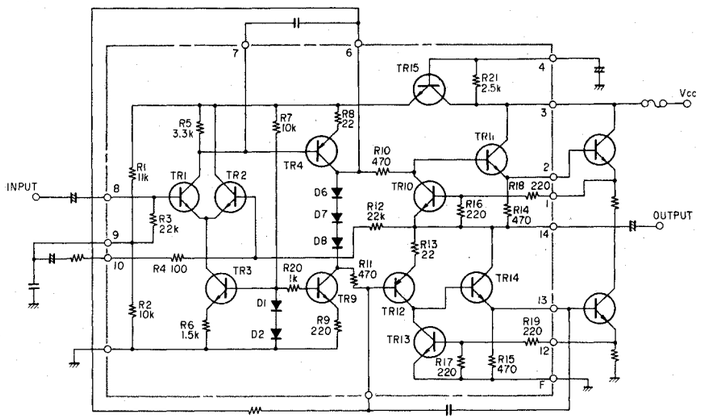
Model SA-300L uses the current limiter circuit for a momentary overload and the fuse for a continuous overload.

The current limiter circuit contained in the driver stage IC limits the transistor current to 2.8 A peak-to-peak for protecting the power transistors and the IC from surge current that is caused by a momentary overleveled input and short circuit of speaker terminals.

The special time-lag fuse (1.5 A, 125 V class A) to with stand heavy surges protects the unit from continuous over-current.



TA-7109P-JA or TA-7109AP-JA



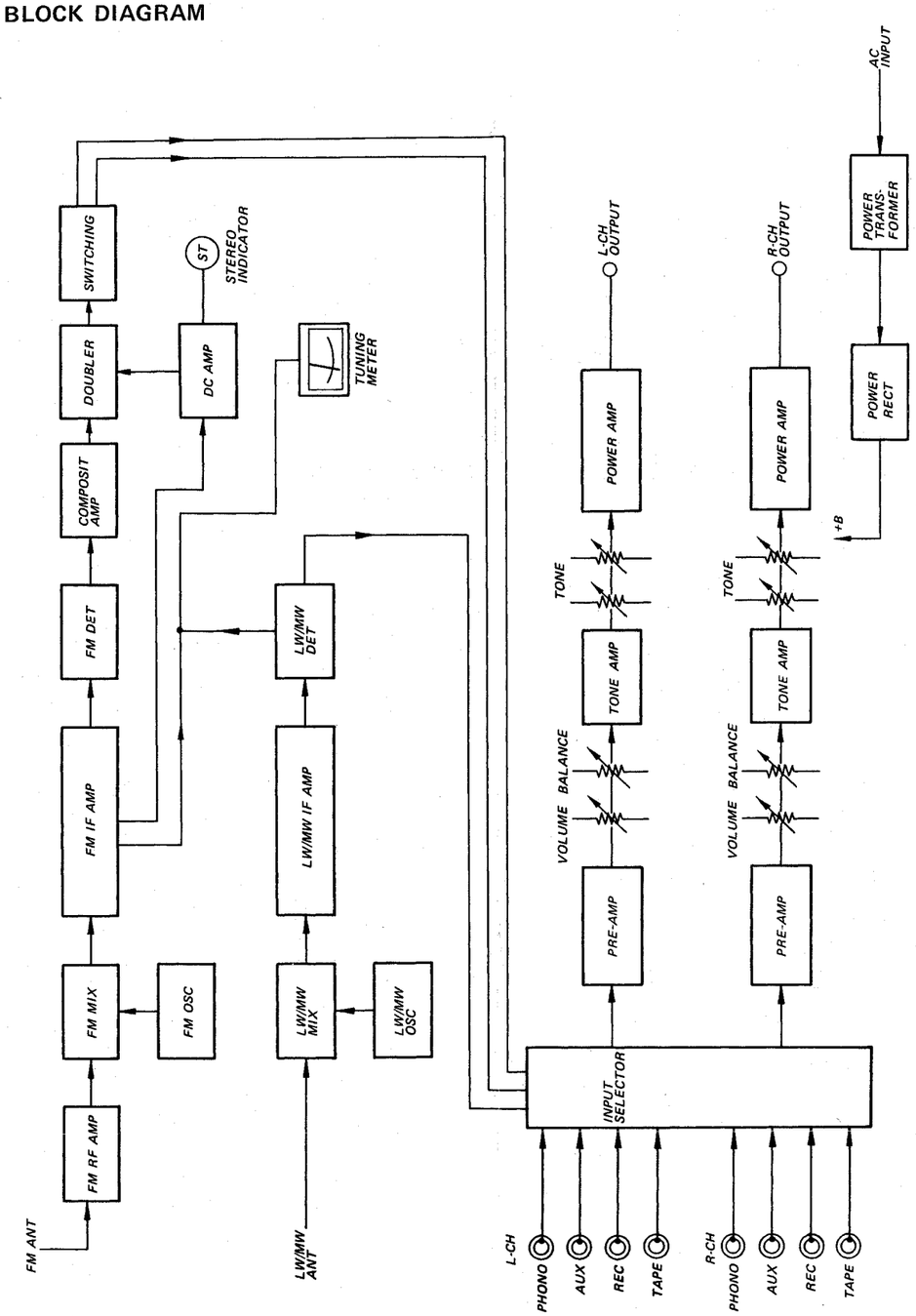
7109P-JA having voltage ratings of 50 V is selected for use. It is marked with a white identification dot as shown.

GV classification of the IC is as follows:

A: 34.5 to 36.5 dB
B: 35.5 to 37.5 dB
C: 36.5 to 38.5 dB

For replacement of the IC, use one whose GV classification is the same as the IC of the other channel.

10. BLOCK DIAGRAM

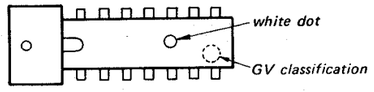


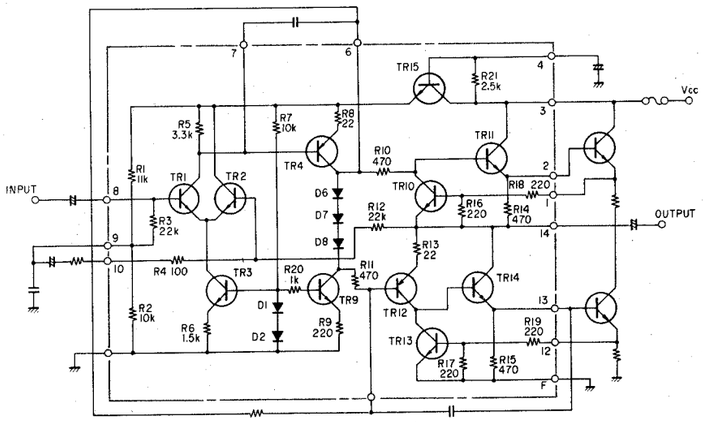
MEMO

11. CIRCUIT SCHEMATIC AND MOUNTING DIAGRAMS

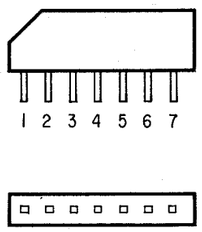
11-1. INTEGRATED CIRCUIT

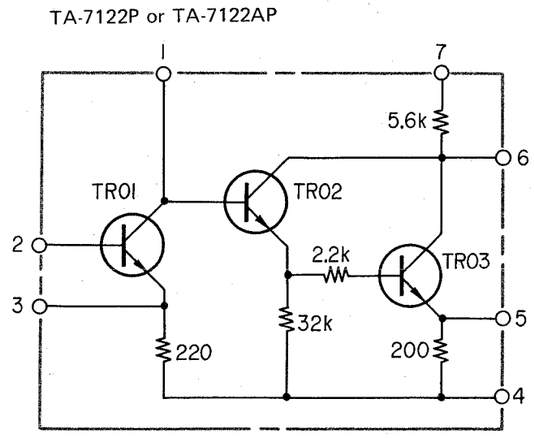
TA-7109P-JA or TA-7109AP-JA



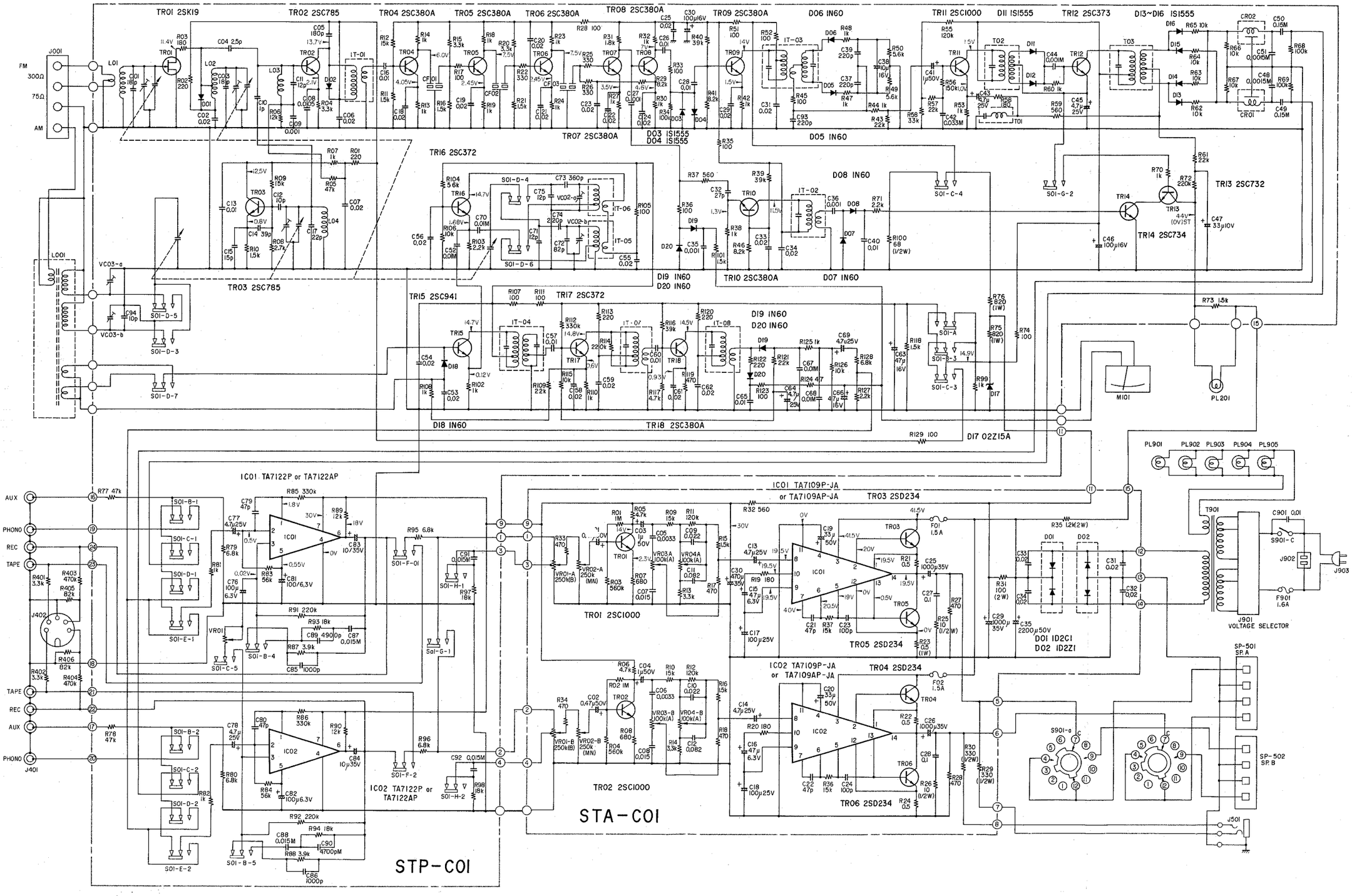


TA-7122P or TA-7122AP

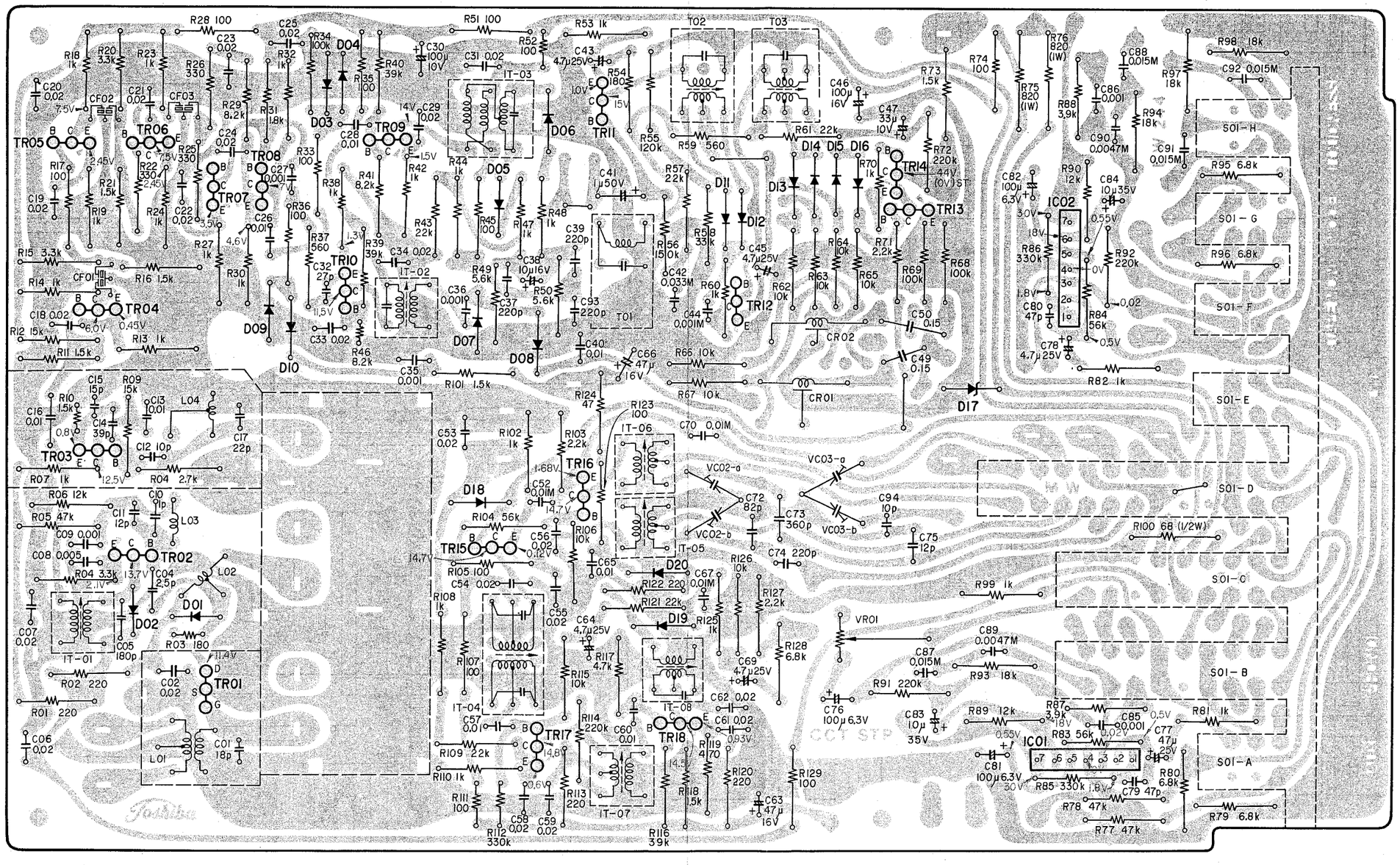


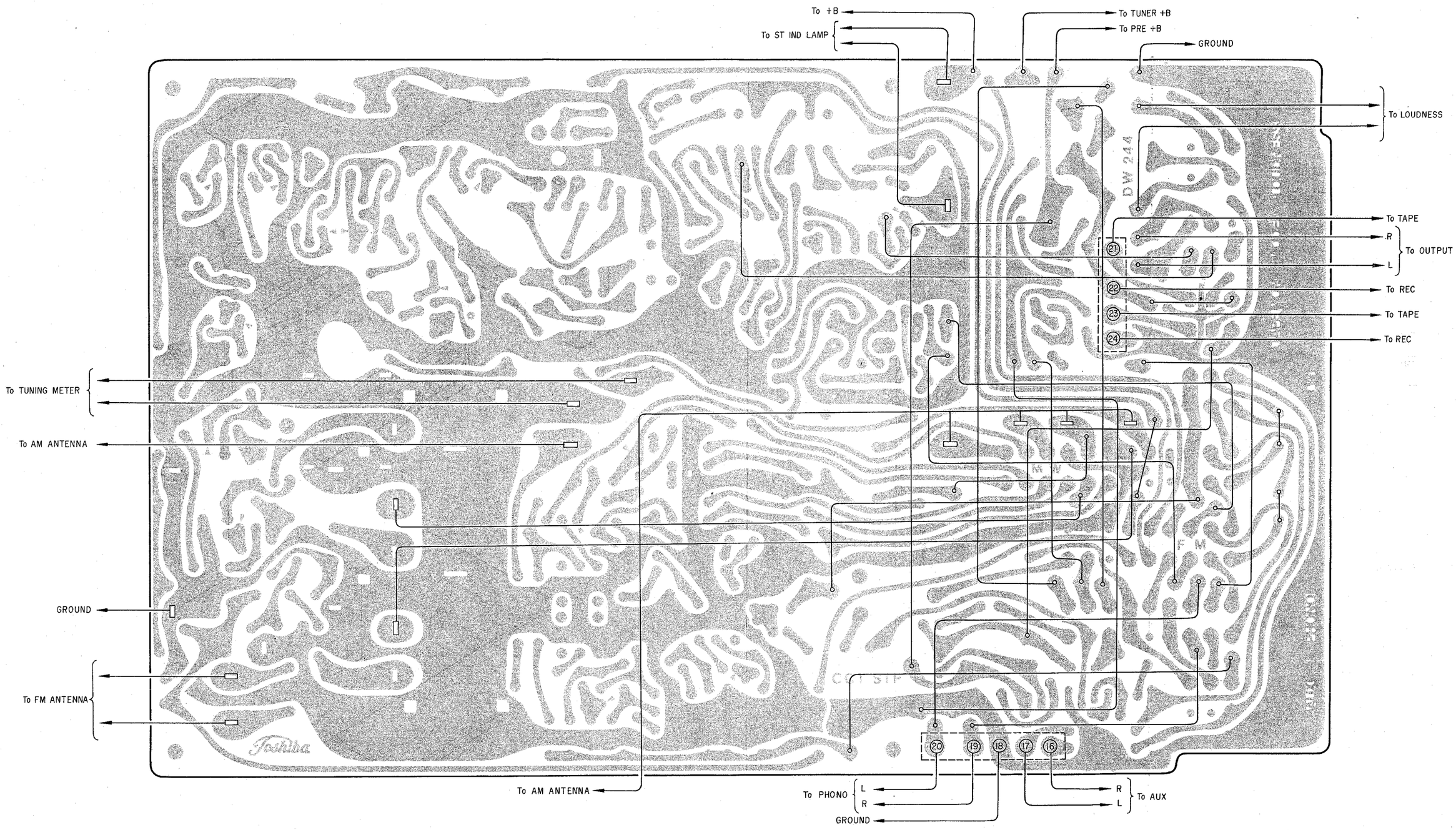


11-2. CIRCUIT SCHEMATIC GENERAL

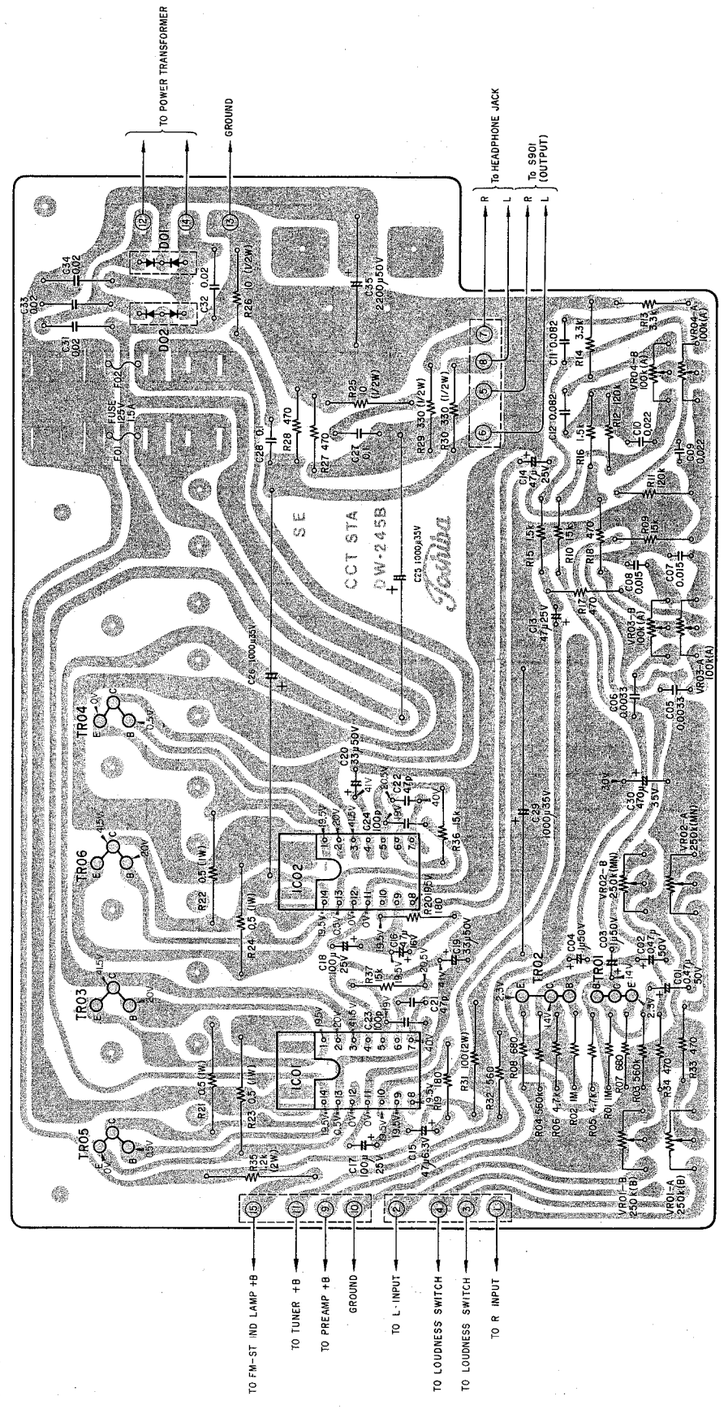


11-3. TUNER CIRCUIT BOARD MOUNTING DIAGRAM

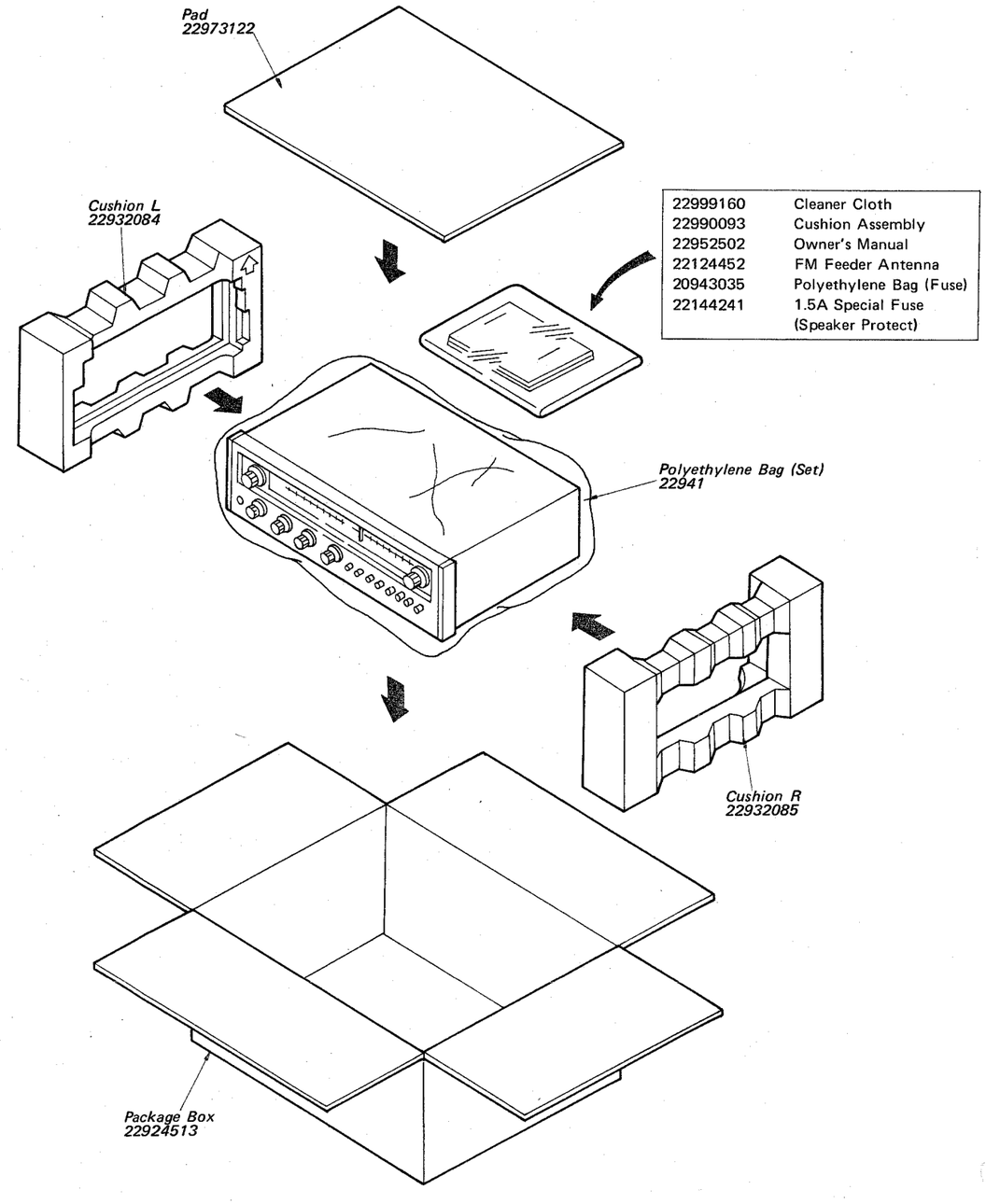



To +B
To ST IND LAMP
To TUNER +B
To PRE +B
GROUND
To LOUDNESS
To TAPE
R
L
To OUTPUT
To REC
To TAPE
To REC
To TUNING METER
To AM ANTENNA
GROUND
To FM ANTENNA
To AM ANTENNA
To PHONO
L
R
GROUND
R
L
To AUX
DW 244
21
22
23
24
20
19
18
17
16

11-4. AUDIO CIRCUIT BOARD MOUNTING DIAGRAM

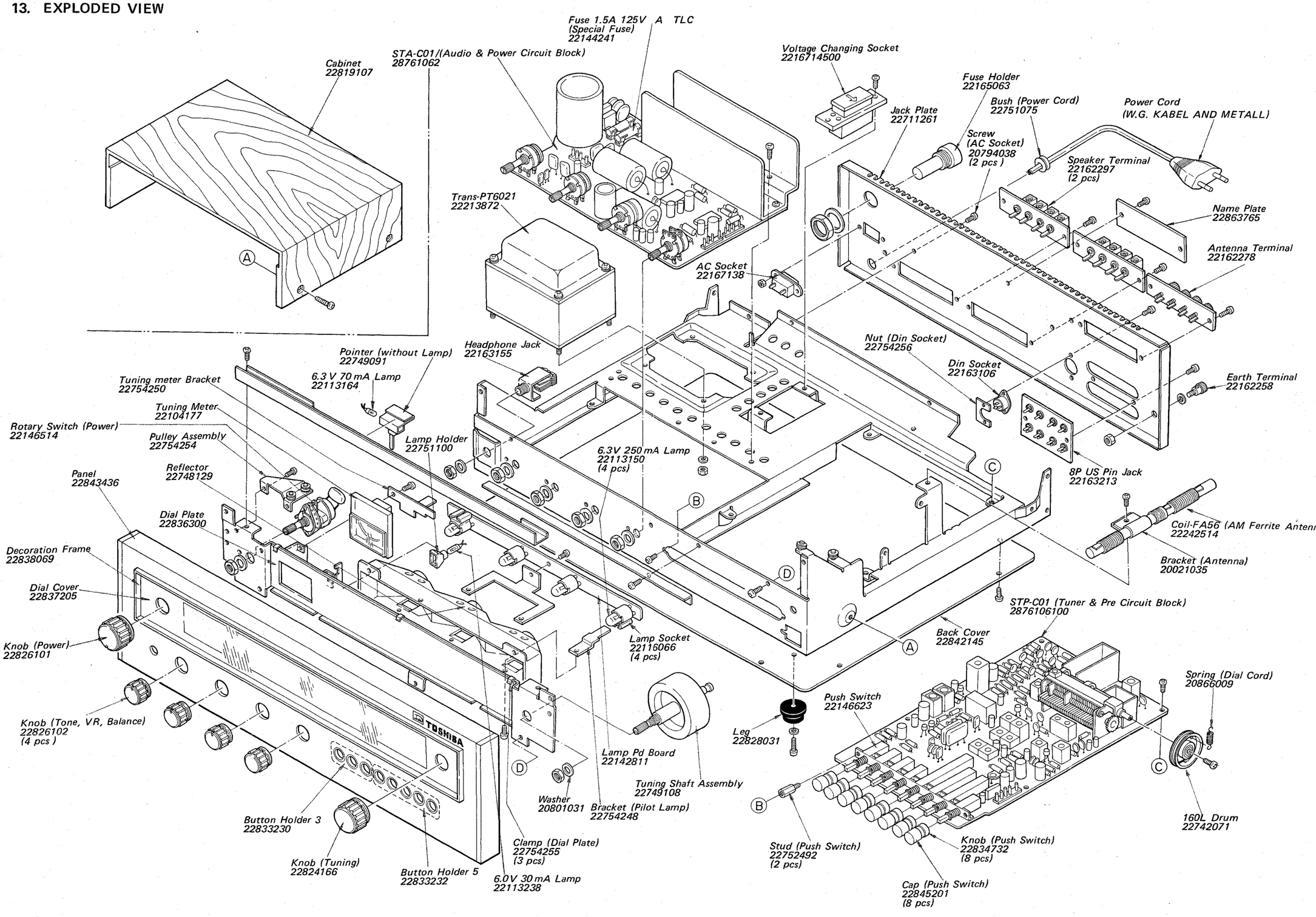


12. PACKING



22999160	Cleaner Cloth
22990093	Cushion Assembly
22952502	Owner's Manual
22124452	FM Feeder Antenna
20943035	Polyethylene Bag (Fuse)
22144241	1.5A Special Fuse (Speaker Protect)

13. EXPLODED VIEW



14. PARTS LIST

SYMBOL No.	PART No.	DESCRIPTION
TUNER AND PRE AMP UNIT (CCT-STP-C01)		
RESISTORS		
R01, 02	22544221	220ohm K 1/8W RD
R03	22544181	180ohm K 1/8W RD
R04	22544332	3.3kohm K 1/8W RD
R05	22544473	47kohm K 1/8W RD
R06	22544123	12kohm K 1/8W RD
R07	22544102	1kohm K 1/8W RD
R08	22544272	2.7kohm K 1/8W RD
R09	22544153	15kohm K 1/8W RD
R10, 11	22544152	1.5kohm K 1/8W RD
R12	22544153	15kohm K 1/8W RD
R13, 14	22544102	1kohm K 1/8W RD
R15	22544332	3.3kohm K 1/8W RD
R16	22544152	1.5kohm K 1/8W RD
R17	22544101	100ohm K 1/8W RD
R18, 19	22544102	1kohm K 1/8W RD
R20	22544332	3.3kohm K 1/8W RD
R21	22544152	1.5kohm K 1/8W RD
R22	22544331	330ohm K 1/8W RD
R23, 24	22544102	1kohm K 1/8W RD
R25, 26	22544331	330ohm K 1/8W RD
R27	22544102	1kohm K 1/8W RD
R28	22544101	100ohm K 1/8W RD
R29	22544822	8.2kohm K 1/8W RD
R30	22544102	1kohm K 1/8W RD
R31	22544182	1.8kohm K 1/8W RD
R32	22544102	1kohm K 1/8W RD
R33	22544101	100ohm K 1/8W RD
R34	22544104	100kohm K 1/8W RD
R35, 36	22544101	100ohm K 1/8W RD
R37	22544561	560ohm K 1/8W RD
R38	22544102	1kohm K 1/8W RD
R39, 40	22544393	39kohm K 1/8W RD
R41	22544822	8.2kohm K 1/8W RD
R42	22544102	1kohm K 1/8W RD
R43	22544223	22kohm K 1/8W RD
R44	22544102	1kohm K 1/8W RD
R45	22544101	100ohm K 1/8W RD
R46	22544822	8.2kohm K 1/8W RD
R47, 48	22544102	1kohm K 1/8W RD
R49, 50	22544562	5.6kohm K 1/8W RD
R51, 52	22544101	100ohm K 1/8W RD
R53	22544102	1kohm K 1/8W RD
R54	22544181	180ohm K 1/8W RD
R55	22544124	120kohm K 1/8W RD
R56	22544154	150kohm K 1/8W RD
R57	22544223	22kohm K 1/8W RD
R58	22544333	33kohm K 1/8W RD
R59	22544561	560ohm K 1/8W RD
R60	22544102	1kohm K 1/8W RD
R61	22544223	22kohm K 1/8W RD
R62,63,64 R65,66,67	22544103	10kohm K 1/8W RD
R68, 69	22544104	100kohm K 1/8W RD
R70	22544102	1kohm K 1/8W RD
R71	22544222	2.2kohm K 1/8W RD
R72	22544224	220kohm K 1/8W RD
R73	22544152	1.5kohm K 1/8W RD
R74	22544101	100ohm K 1/8W RD
R75, 76	22570017	820ohm K 1W RS
R77, 78	22544473	47kohm K 1/8W RD
R79, 80	22544682	6.8kohm K 1/8W RD
R81, 82	22544102	1kohm K 1/8W RD
R83, 84	22544563	56kohm K 1/8W RD
R85, 86	22544334	330kohm K 1/8W RD
R87, 88	22544392	3.9kohm K 1/8W RD
R89, 90	22544123	12kohm K 1/8W RD
R91, 92	22544224	220kohm K 1/8W RD
R93, 94	22544183	18kohm K 1/8W RD
R95, 96	22544682	6.8kohm K 1/8W RD
R97, 98	22544183	18kohm K 1/8W RD
R99	22544102	1kohm K 1/8W RD
R100	22563681	680ohm K 1/2W RC
R101	22544152	1.5kohm K 1/8W RD
R102	22544102	1kohm K 1/8W RD
R103	22544222	2.2kohm K 1/8W RD
R104	22544563	56kohm K 1/8W RD
R105	22544101	100ohm K 1/8W RD
R106	22544103	10kohm K 1/8W RD
R107	22544101	100ohm K 1/8W RD
R108	22544102	1kohm K 1/8W RD
R109	22544223	22kohm K 1/8W RD
R110	22544102	1kohm K 1/8W RD
R111	22544101	100ohm K 1/8W RD
R112	22544334	330kohm K 1/8W RD
R113	22544221	220ohm K 1/8W RD
R114	22544224	220kohm K 1/8W RD
R115	22544103	10kohm K 1/8W RD
R116	22544393	39kohm K 1/8W RD
R117	22544472	4.7kohm K 1/8W RD
R118	22544152	1.5kohm K 1/8W RD
R119	22544471	470ohm K 1/8W RD
R120	22544221	220ohm K 1/8W RD
R121	22544223	22kohm K 1/8W RD
R122	22544221	220ohm K 1/8W RD
R123	22544101	100ohm K 1/8W RD
R124	22544470	47ohm K 1/8W RD
R125	22544102	1kohm K 1/8W RD

SYMBOL No.	PART No.	DESCRIPTION
R126	22544103	10kohm K 1/8W RD
R127	22544222	2.2kohm K 1/8W RD
R128	22544682	6.8kohm K 1/8W RD
R129	22544101	100ohm K 1/8W RD
CAPACITORS		
C01	22360146	18pF 50V J CC (RH)
C02	22342223	0.02μF Z CK
C03	22360146	18pF 50V J CC (RH)
C04	22361259	2.5pF 50V CC (SL)
C05	22360242	180pF 50V
C06, 07	22342223	0.02μF Z CK
C08	22342472	0.0047μF Z CK
C09	22341102	0.001μF P CK
C10	22361109	1pF 50V CC (SL)
C11	22362120	12pF 50V K CC (SL)
C12	22360131	10pF 50V J CC (CH)
C13	22342103	0.01μF Z CK
C14	22360137	39pF 50V J CC (CH)
C15	22360132	15pF 50V J CC (CH)
C16	22342103	0.01μF Z CK
C17	22360141	22pF 50V J CC (PH)
C18,19,20,21 C22,23,24,25	22342223	0.02μF Z CK
C26	22342103	0.01μF Z CK
C27	22341102	0.001μF P CK
C28	22342103	0.01μF Z CK
C29	22342223	0.02μF Z CK
C30	22445101	100μF 16WV CE
C31	22342223	0.02μF Z CK
C32	22362270	27pF 50V K CC (SL)
C33, 34	22342223	0.02μF Z CK
C35, 36	22341102	0.001μF P CK
C37	22343221	220pF 50V CK
C38	22445100	10μF 16WV CE
C39	22343221	220pF 50V CK
C40	22342103	0.01μF Z CK
C41	22448109	1μF 50WV CE
C42	22373333	0.033μF 50V M MY
C43	22446479	4.7μF 25WV CE
C44	22373102	0.001μF 50V M MY
C45	22446479	4.7μF 25WV CE
C46	22445101	100μF 16WV CE
C47	22443330	33μF 10WV CE
C48	22373152	0.0015μF 50V M MY
C49, 50	22373154	0.15μF 50V M MY
C51	22373152	0.0015μF 50V M MY
C52	22373103	0.01μF 50V M MY
C53,54,55,56	22342223	0.02μF Z CK
C57	22342103	0.01μF Z CK
C58, 59	22342223	0.02μF Z CK
C60	22342103	0.01μF Z CK
C61, 62	22342223	0.02μF Z CK
C63	22445470	47μF 16WV CE
C64	22446479	4.7μF 25WV CE
C65	22342103	0.01μF Z CK
C66	22445470	47μF 16WV CE
C67, 68	22373103	0.01μF 50V M MY
C69	22446479	4.7μF 25WV CE
C70	22373103	0.01μF 50V M MY
C71	22362120	12pF 50V K CC (SL)
C72	22362820	82pF 50V K CC (SL)
C73	22381361	360pF 50V J PE
C74	22381221	220pF 50V J PE
C75	22362120	12pF 50V K CC (SL)
C76	22442101	100μF 6.3WV CE
C77, 78	22446479	4.7μF 25WV CE
C79, 80	22362470	47pF 50V K CC (SL)
C81, 82	22442101	100μF 6.3WV CE
C83, 84	22447100	10μF 35WV CE
C85, 86	22341102	0.001μF P CK
C87, 88	22373153	0.015μF 50V M MY
C89, 90	22373472	0.0047μF 50V M MY
C91, 92	22373153	0.015μF 50V M MY
C93	22343221	220pF 50V CK
C94	22362100	10pF 50V K CC (SL)
C95	22361309	3pF 50V CC (SL)
VR01	22658179	5kohm B FM-ST Separation Control
VC01	22307354	Variable Capacitor
VC02, 03	22309114	Trimmer Capacitor
S01	22146623	Push Switch
L01	22292037	COIL-RT81T FM ANT
L02	22292043	COIL-RT81T FM RF
L03	22291049	RF-COIL-RC-408
L04	22295016	COIL-RT8057 FM OSC
CF01,02,03	22153024	Ceremic Filter 10.7MHz
IT01	22265655	IFT-IT6478 FM IFT
IT02	22265654	IFT-IT6479 FM
IT03	22267306	IFT-IT8475 Discre Trans
IT04	22264643	IFT1106B AM IFT
IT05	22205029	COIL-RT74 LW OSC
IT06	22245232	COIL-RT7288 MW OSC
IT07	22264626	IFT-IT5477 AM IFT
IT08	22266308	IFT-IT5476 AM IFT
T01	22212028	COIL-ST1112 19kHz Trap
T02	22212041	COIL-ST31 19kHz
T03	22212042	COIL-ST32 38kHz
CR01, 02	22134065	CR-T-01 38kHz Trap
TR01		2SK19-GR

SYMBOL No.	PART No.	DESCRIPTION
TR02, 03		2SC785-O
TR04~10		2SC380A-O
TR11		2SC1000-GR
TR12		2SC373
TR13		2SC732-GR
TR14		2SC734-GR
TR15		2SC941-Y
TR16, 17		2SC372-O
TR18		2SC380A-O
D01,02,03,04		1S1555V
D05, 06		1N60-MPX
D07,08,09,10		1N60
D11,12,13,14		
D15, 16		1S1555V
D17		02Z15A
D18		1N60
D19		1N60-MPX
D20		1N60
IC01, 02		TA7122P or TA7122AP

AUDIO AND POWER SUPPLY UNIT (CCT-STA-C01)

RESISTORS

R01, 02	22544105	1Mohm K 1/8W RD
R03, 04	22544564	560kohm K 1/8W RD
R05, 06	22544472	4.7kohm K 1/8W RD
R07, 08	22544681	680ohm K 1/8W RD
R09, 10	22544153	15kohm K 1/8W RD
R11, 12	22544124	120kohm K 1/8W RD
R13, 14	22544332	3.3kohm K 1/8W RD
R15, 16	22544152	1.5kohm K 1/8W RD
R17, 18	22544471	470ohm K 1/8W RD
R19, 20	22544181	180ohm K 1/8W RD
R21,22,23,24	22570031	0.5ohm K 1W RS
R25, 26	22563100	10ohm K 1/2W RC
R27, 28	22544471	470ohm K 1/8W RD
R29, 30	22563331	330ohm K 1/2W RC
R31	22570021	100ohm K 2W RS
R32	22544561	560ohm K 1/8W RD
R33, 34	22544471	470ohm K 1/8W RD
R35	22570075	1.2kohm K 2W RS
R36, 37	22544153	15kohm K 1/8W RD
C01, 02	22558478	0.47μF 50WV CE
C03, 04	22448109	1μF 50WV CE
C05, 06	22373332	0.0033μF 50V M MY
C07, 08	22373153	0.015μF 50V M MY
C09, 10	22373223	0.022μF 50V M MY
C11, 12	22373823	0.082μF 50V M MY
C13, 14	22446479	4.7μF 25WV CE
C15, 16	22442470	47μF 6.3WV CE
C17, 18	22446101	100μF 25WV CE
C19, 20	22448330	33μF 50WV CE

SYMBOL No.	PART No.	DESCRIPTION
C21, 22	22362470	47pF 50V K CC (SL)
C23, 24	22343101	100pF 50V CK
C25, 26	22457102	1000μF 35WV CE
C27, 28	22373104	0.1μF 50V M MY
C29	22457102	1000μF 35WV CE
C30	22447471	470μF 35WV CE
C31~34	22340032	0.02μF AC500V Z CK
C35	22430028	2200μF 50WV CE
VR01	22650420	250kohm B (Volume)
VR02	22650418	250kohm MN (Balance)
VR03, 04	22650419	100kohm A (Treble, Bass)
F01, 02	22144172	Fuse 1.25A 125V
Tr01, 02		2SC1000-BL
Tr03~06		2SD234-Y
D01		1D2C1
D02		1D2Z1
IC01, 02		TA7109P-JA or TA7109AP-JA
		AC-55B Accesory of Transistor

ELECTRICAL PARTS

T901	22213872	TRANS-PT6021 Power Trans
S901	22146514	Rotary Switch Power
STP-C01 S01	22146623	Push Switch
STA-C01 F01, 02	22144241	Fuse 1.5A 125V (A TLC Special Fuse)
F901	22144175	Fuse 1.6A 250V
	22165048	Fuse Holder
	22165063	Fuse Holder
M101	22104177	Tuning Meter
PL905	22113164	6.3V 70mA Lamp Pointer
PL201	22113238	6.0V 30mA Lamp Stereo Indicator
PL901~904	22113150	6.3V 250mA Lamp Dial 3 Tuning Meter 1
	22116066	Lamp Socket
	22142811	Lamp PC Board
J901	22167145	Voltage Changing Socket
J501	22163155	Headphone Jack
	22162258	Earth Terminal
J001	22162278	Antenna Terminal
SP501, 502	22162294	Speaker Terminal
J401	22163213	8P US Pin Jack
J402	22167131	DIN Socket
J902	22167138	AC Socket
	22168062	Feeder Cable
J903	22176286	Power Cord (W.G. KABEL und METALL)
	22167411	5P-SOCKET
	22167410	4P-SOCKET
L001	22242514	COIL-FA56 AM Ferrit Antenna