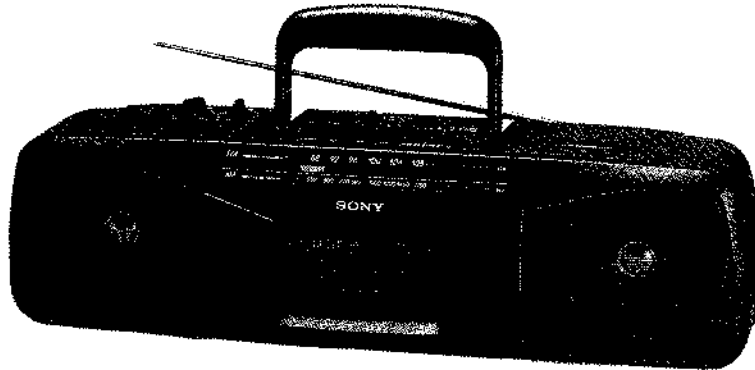


CFS-204

SERVICE MANUAL

AEP Model



Model Name Using Similar Mechanism	CFS-W304
Tape Transport Mechanism Type	MF-204-64

SPECIFICATIONS

Frequency range

	FM	AM
AEP model	87.6–107MHz	531–1,602kHz
Italian model	87.5–108MHz	526.5–1,606.5kHz

Recording system	4-track 2-channel stereo
Frequency response	80Hz–8,000Hz
Speakers	Full-range: 10cm (4 inches) dia.×2
Power output	2.3W+2.3W (at 10% harmonic distortion) at DC operation
Output	Headphones jack (stereo minijack), 16-68 ohm impedance

Power requirements	220V AC, 50Hz 9V DC, six R14 (size C) batteries
Power consumption	14W

Battery life

Batteries	FM recording
Sony SUM-2 (NS)	Approx. 4 hours
Sony AM2 alkaline	Approx. 8 hours

Dimensions	Approx. 460×145×160mm (w/h/d) (18 ¹ / ₈ ×5 ⁷ / ₄ ×6 ³ / ₈ inches) incl. projecting parts and controls
Weight	Approx. 2.4kg (5 lb 5 oz), incl. batteries
Accessory supplied	AC power cord (1)

Design and specifications subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS 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.

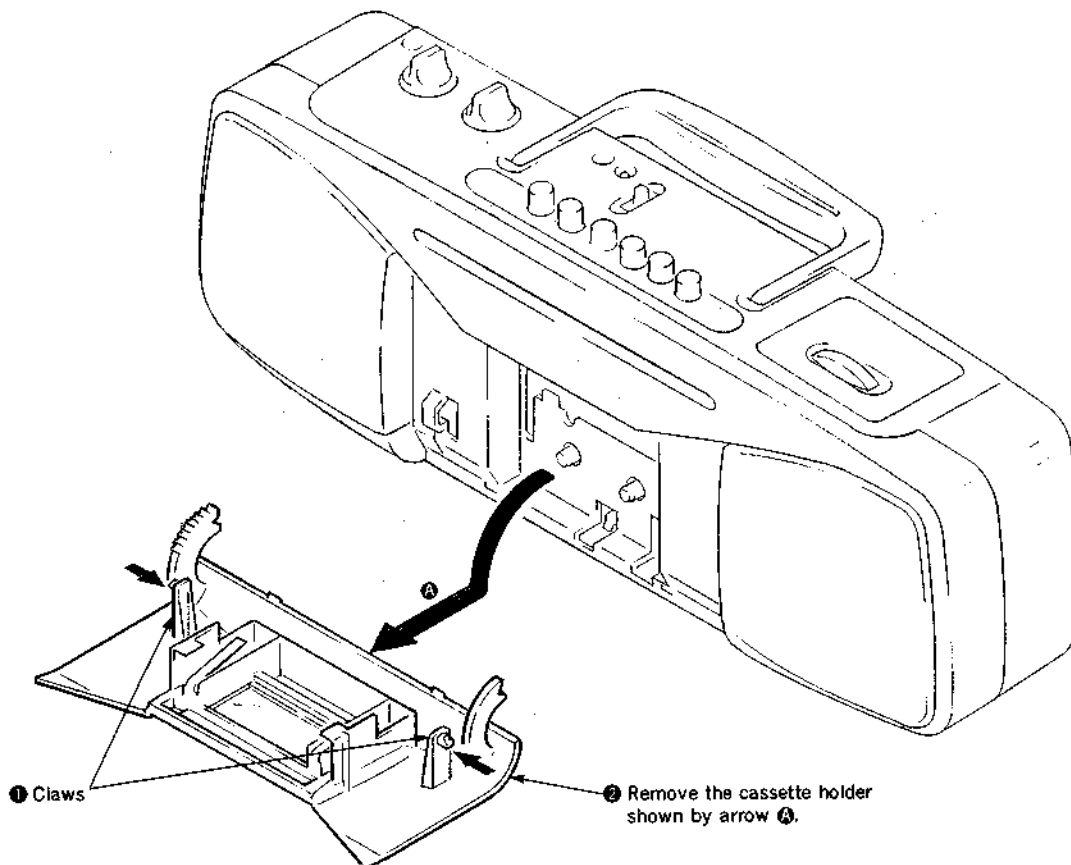


RADIO CASSETTE-CORDER
SONY®

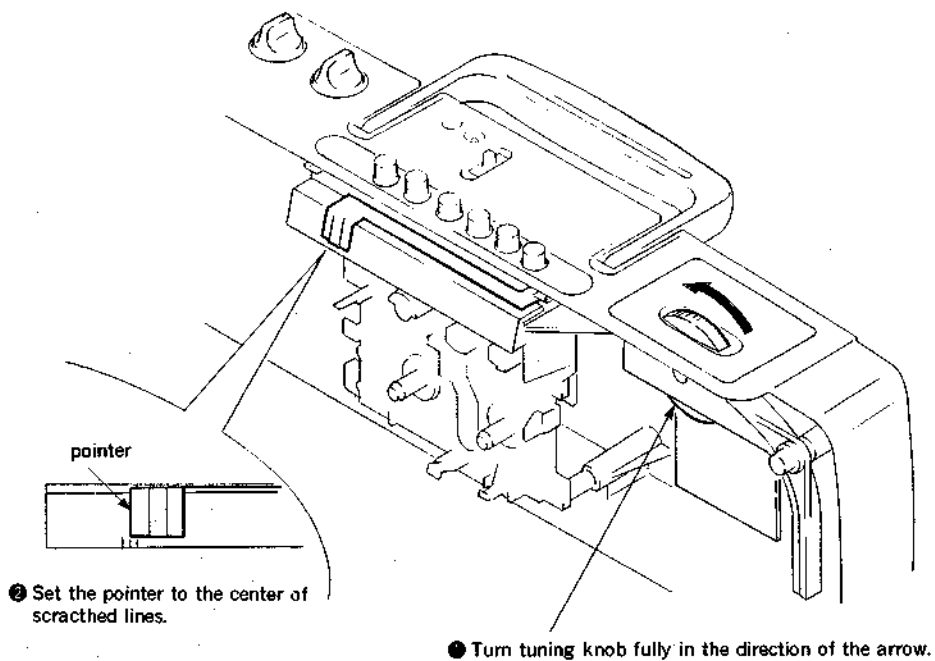
SECTION 1 DISASSEMBLY

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

1-1. REMOVAL OF CASSETTE HOLDER



1-2. DIAL POINTER SETTING



SECTION 2 MECHANICAL ADJUSTMENTS

PRECAUTION

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

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
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.
6. Power supply voltage : 9V dc.

Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	20-60g·cm (0.28-0.83 oz·inch)
Forward back tension	CQ-102C	2-6g·cm (0.028-0.083 oz·inch)
Fast Forward	CQ-201B	more than 45g·cm (more than 0.62 oz·inch)
Rewind	CQ-201B	more than 45g·cm (more than 0.62 oz·inch)

Tape Tension Measurement

Mode	Meter	Meter Reading
Forward	CQ-403A	more than 70g (more than 2.47 oz)
Reverse	CQ-403R	

SECTION 3 ELECTRICAL ADJUSTMENTS

3-1. TAPE RECORDER SECTION

Standard Output Level

Output terminal	SP OUT	HP OUT
load impedance	32Ω	32Ω
output signal level	0.775V (0dB)	0.25V (-10dB)

Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	tape speed adjustment

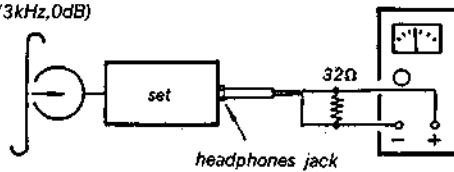
Tape Speed Adjustment

Procedure :

Mode : playback

speed checker
LFM-30
or
digital frequency
counter

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

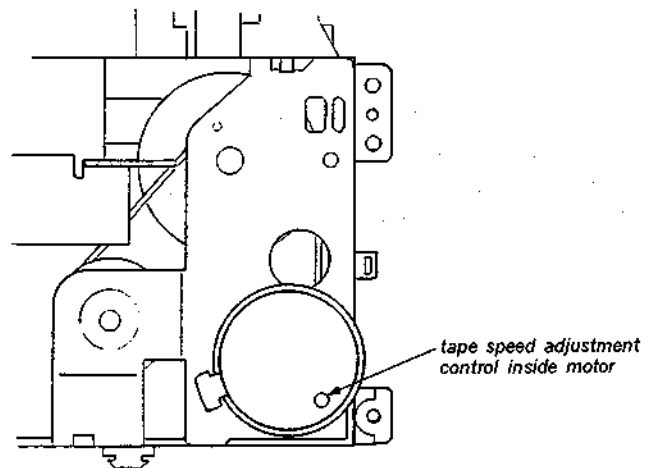


Adjustment Value :

Speed checker	Digital frequency counter
±2.5%	2,925 to 3,075Hz

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

Adjustment Location :

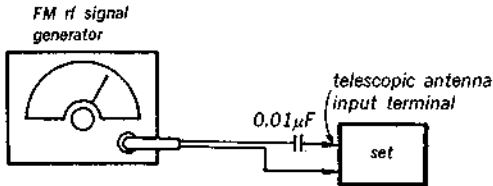


3-2. RADIO SECTION

• FM Section

Setting :

FUNCTION switch : FM

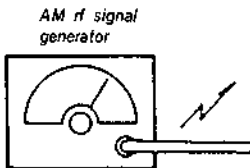


22.5kHz frequency deviation by 400Hz signal
output level : as low as possible

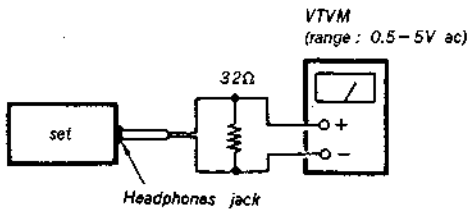
• AM Section

Setting :

FUNCTION switch : AM



30% amplitude modulation by 400Hz signal
output level : as low as possible



FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	CT2
AEP : 87.6MHz IT : 87.35MHz	AEP : 107.0MHz IT : 108.3MHz

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	CT1
AEP : 87.6MHz IT : 87.35MHz	AEP : 107.0MHz IT : 108.3MHz

AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	CT4
AEP : 520kHz IT : 516kHz	AEP : 1,680kHz IT : 1,630kHz

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	CT3
600kHz	1,400kHz

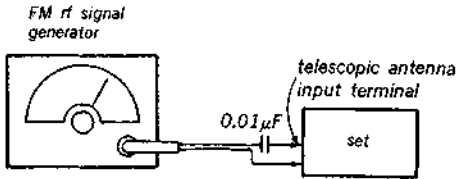
AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	
455kHz	

♦ IT : Italian model

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

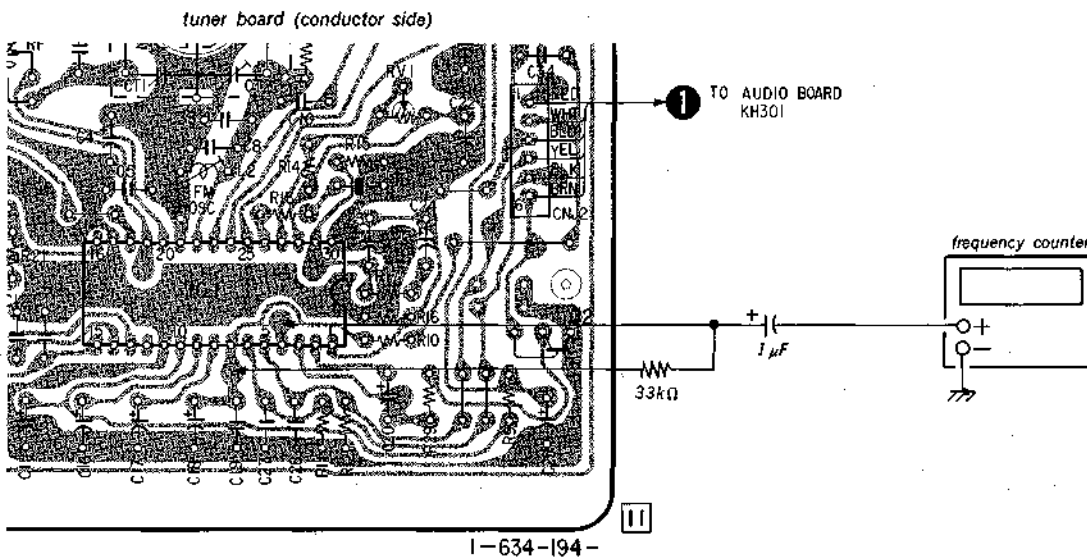
VCO Adjustment

Procedure :

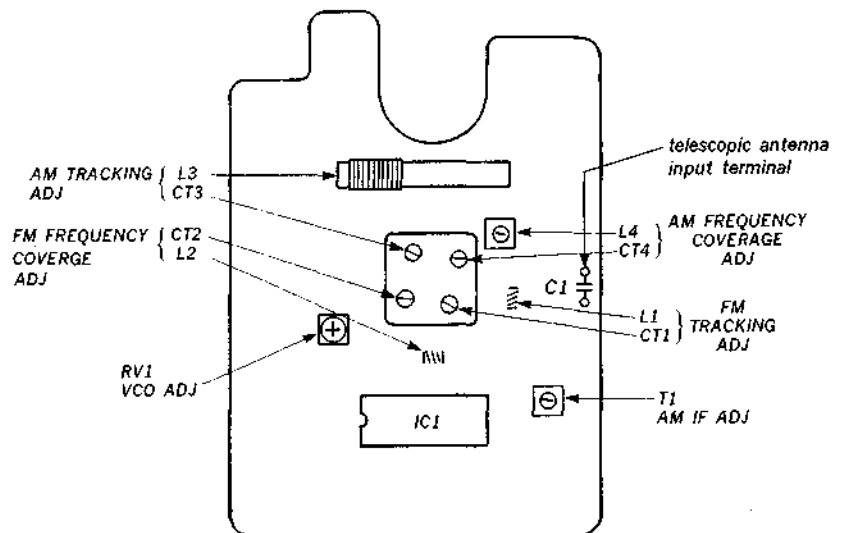


Carrier frequency : 98MHz
 Modulation : no modulation
 Output level : 0.1V (100dB)

1. Connect frequency counter as shown below.
2. Tune the set to 98MHz.
3. Adjust RV1 for 76kHz ± 500Hz reading on the frequency counter.

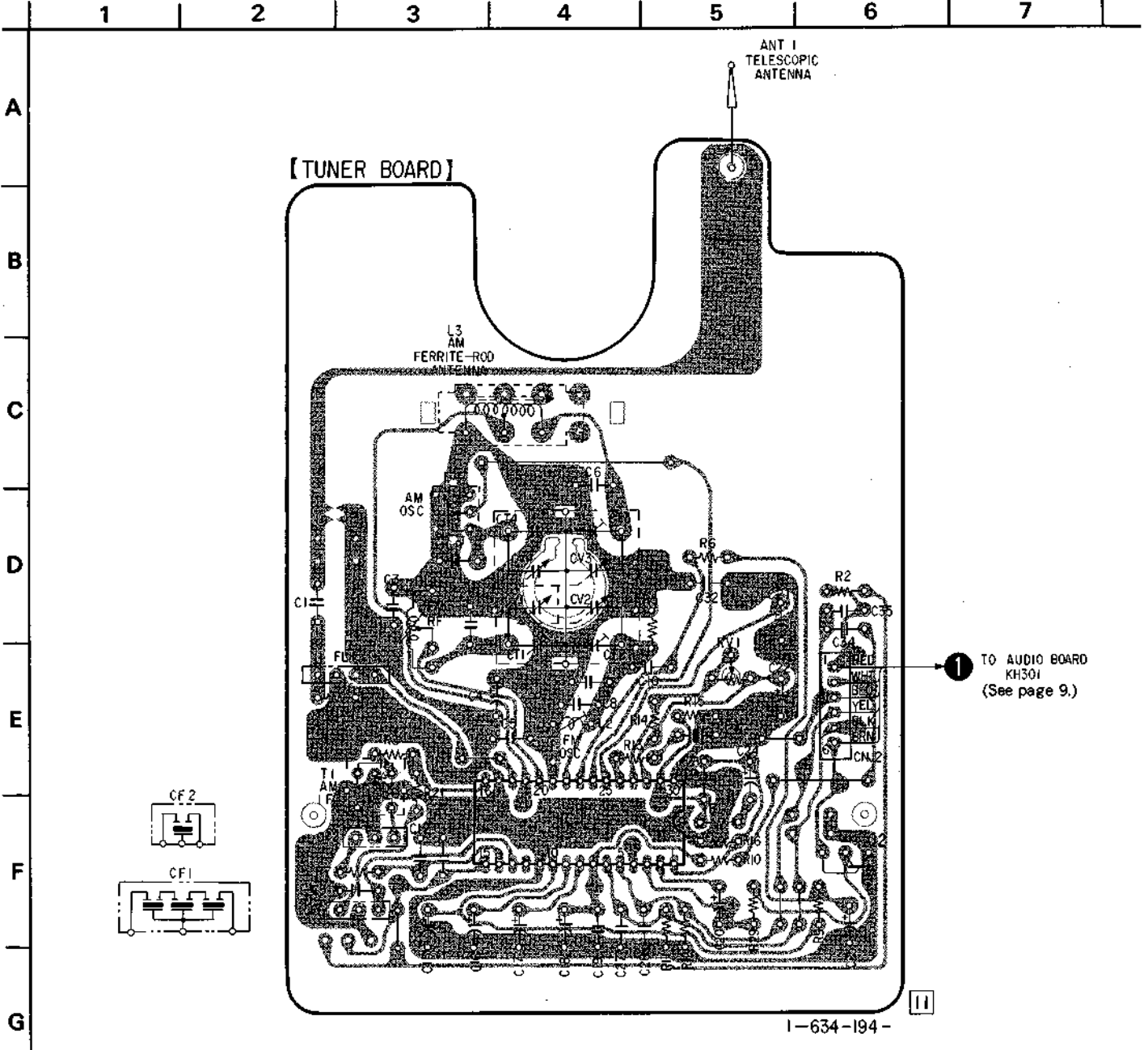


Adjustment Location : tuner board (component side)



**SECTION 4
DIAGRAMS**

4-1. PRINTED WIRING BOARD — TUNER SECTION —

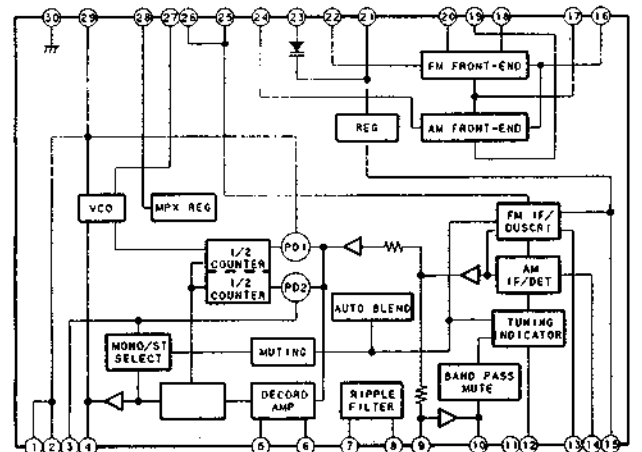


Note:

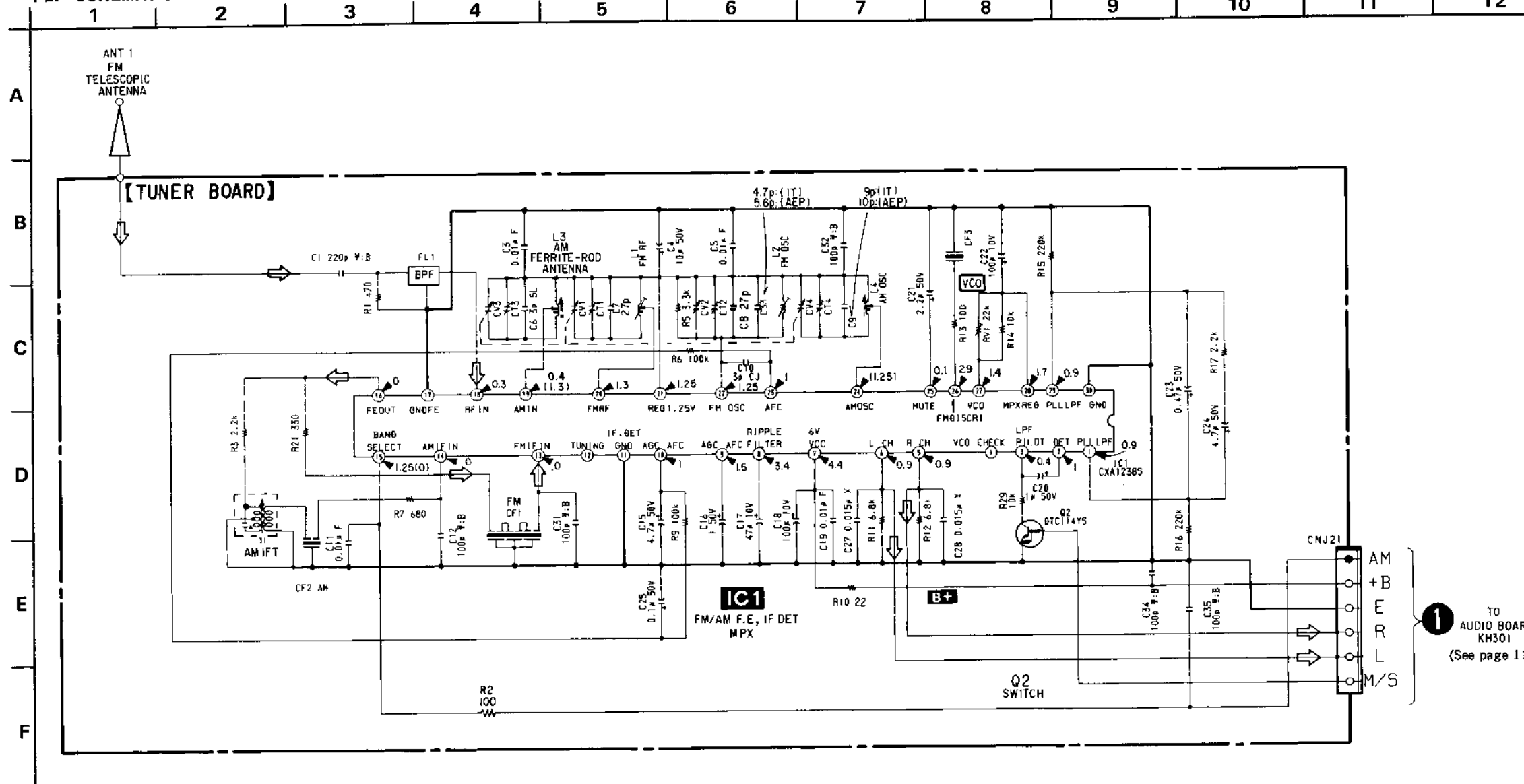
• ○ — : parts extracted from the component side.

• IC Block Diagram

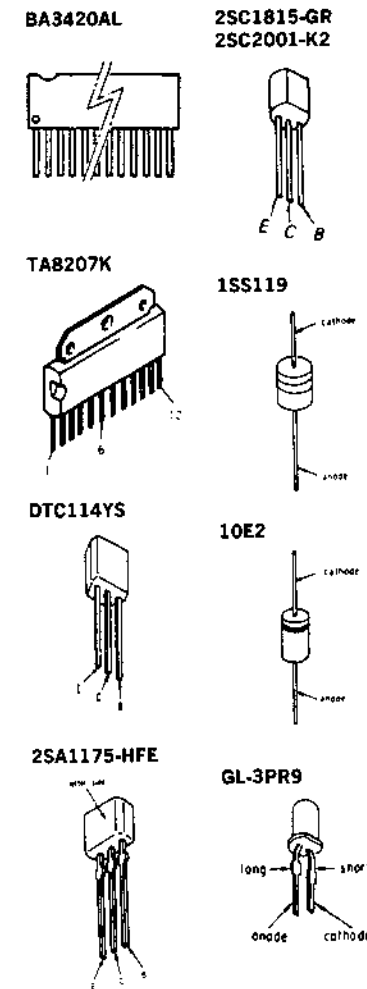
IC1 CXA1238S



4-2. SCHEMATIC DIAGRAM — TUNER SECTION —



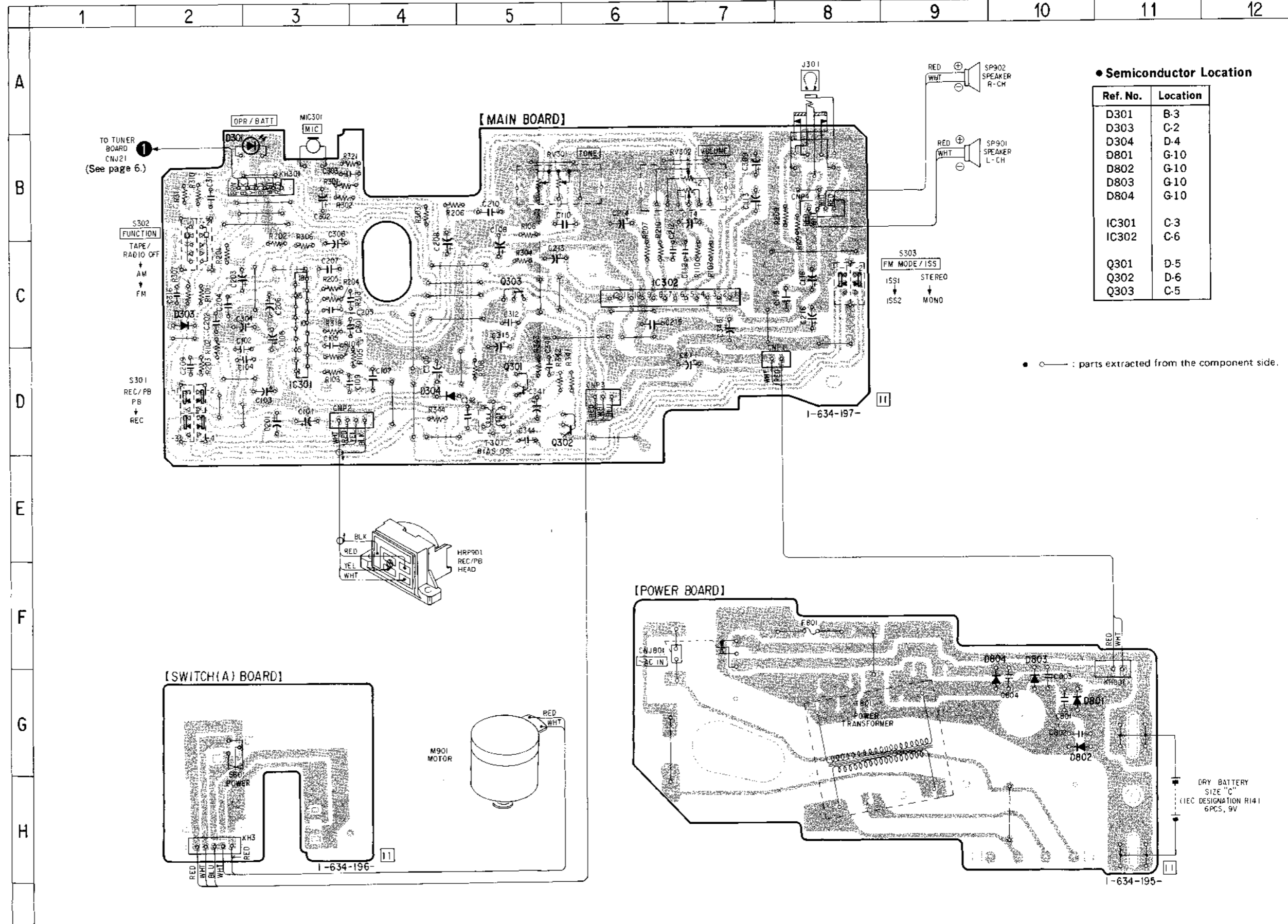
4-3. SEMICONDUCTOR LEAD LAYOUT



1 TO AUDIO BOARD KH301 (See page 11.)

- 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 Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 - Δ : internal component.
 - Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
 - Voltages are dc with respect to ground under no-signal (detuned) conditions.
 - no mark: FM
 - (): AM
 - Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 - \Rightarrow : FM
 - IT: Italian model

4-4. PRINTED WIRING BOARDS —AUDIO SECTION—

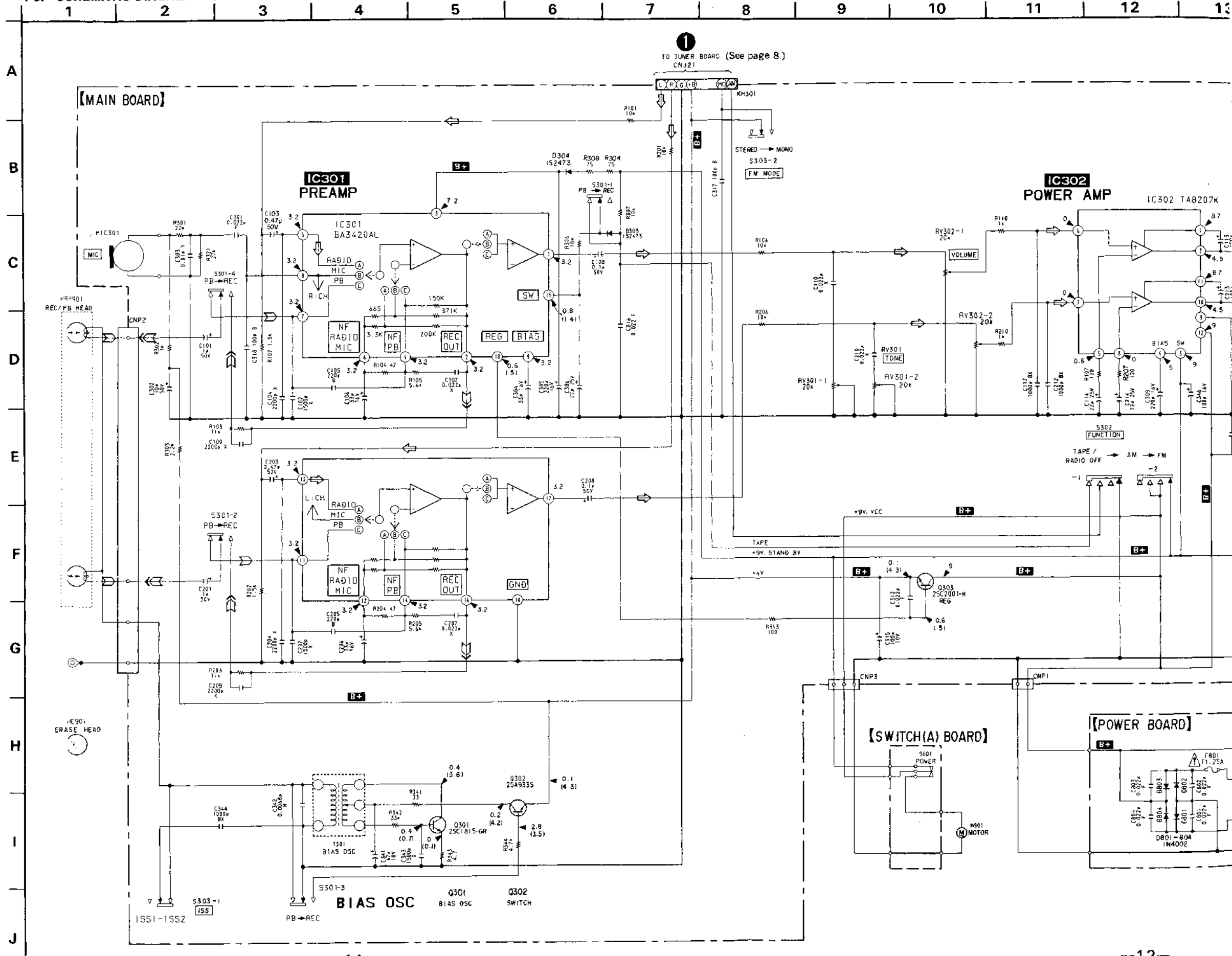


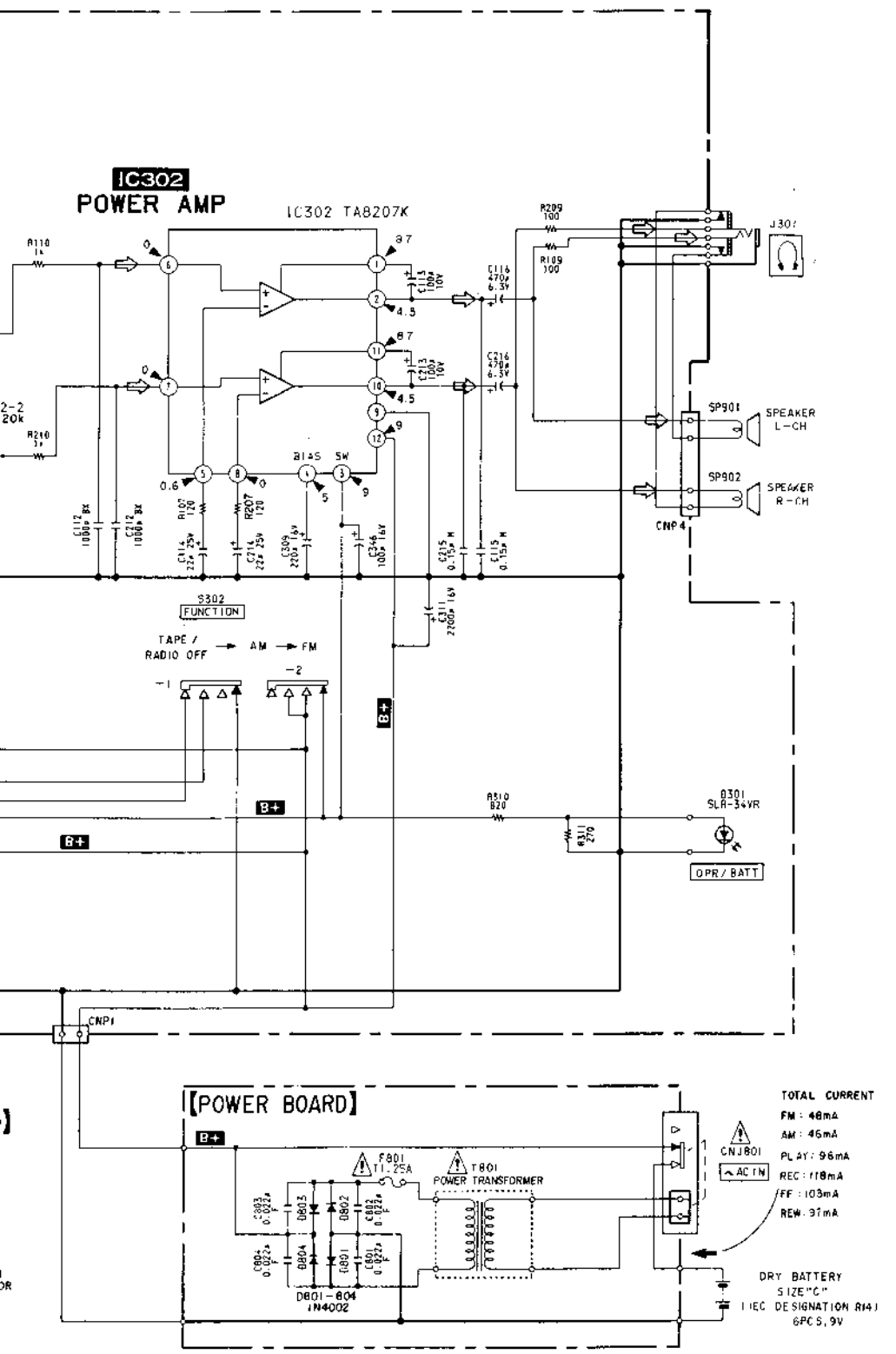
• Semiconductor Location

Ref. No.	Location
D301	B-3
D303	C-2
D304	D-4
D801	G-10
D802	G-10
D803	G-10
D804	G-10
IC301	C-3
IC302	C-6
Q301	D-5
Q302	D-6
Q303	C-5

• ○ : parts extracted from the component side.

4-5. SCHEMATIC DIAGRAM —AUDIO SECTION—





Note:

- All capacitors are in μF unless otherwise noted. pF : $\mu\mu\text{F}$
- 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.

Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : PLAY
() : REC
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - \rightarrow : FM
 - \rightarrow : PB
 - \rightarrow : REC
- IT: Italian model

SECTION 5 EXPLODED VIEWS

NOTE:

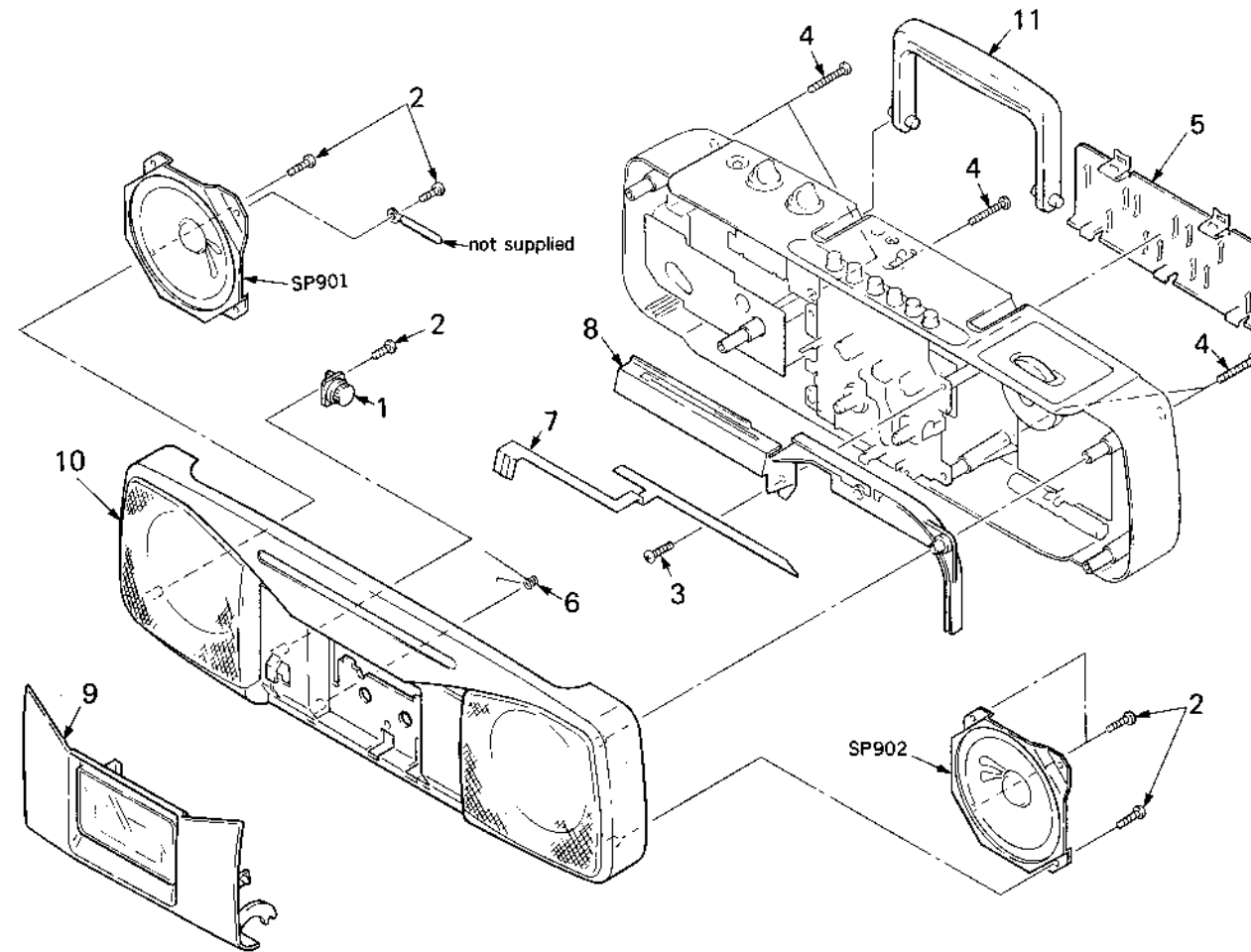
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
Example:
(RED) ... KNOB, BALANCE (WHITE)
↑ Cabinet's Color ↑ Parts Color

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

- IT: Italian model

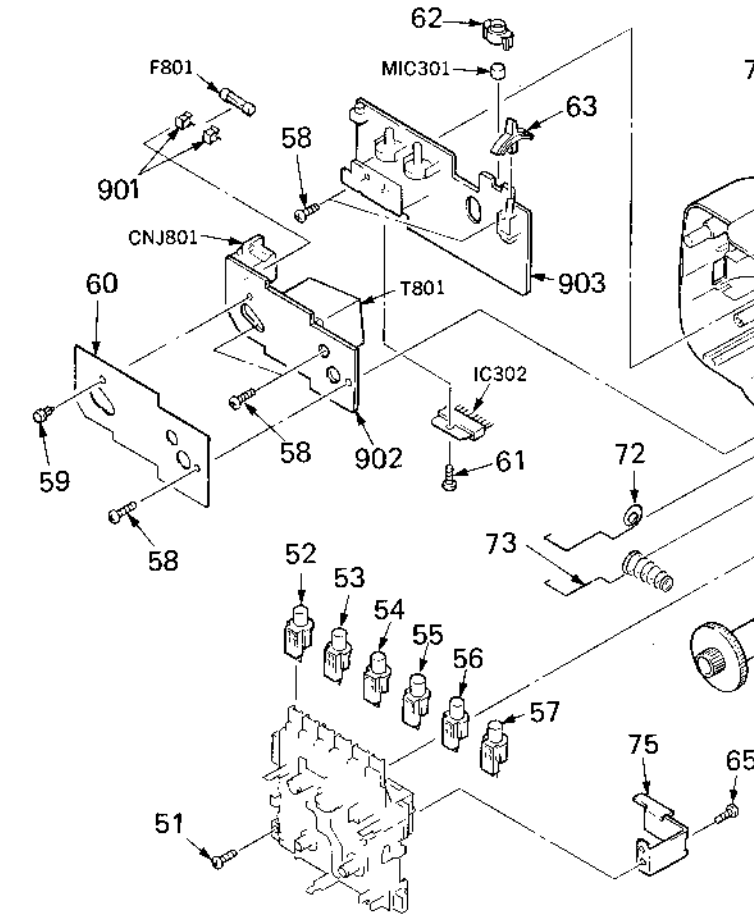
5-1. FRONT CABINET



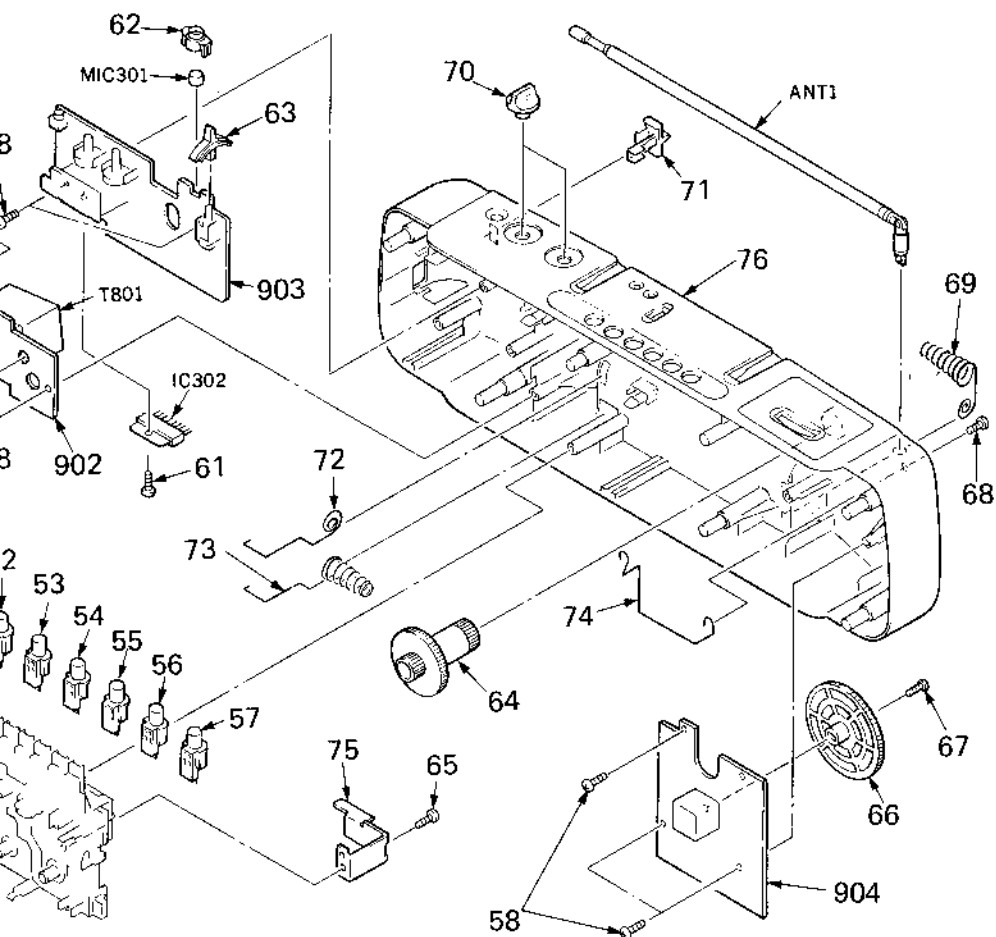
Ref.No	Part No.	Description	Remarks
1	3-351-377-11	DAMPER	
2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
3	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S	
4	7-685-153-19	SCREW +P 3X30 TYPE2 NON-SLIT	
5	3-357-521-01	(BLACK) ... LID, BATTERY CASE	
5	3-357-521-11	(WHITE) ... LID, BATTERY CASE	
5	3-357-521-21	(RED) ... LID, BATTERY CASE	
6	3-356-172-01	SPRING (CASSETTE)	
7	3-356-164-01	POINTER	
8	3-356-165-01	CHASSIS (DIAL)	
9	X-3351-305-1	(BLACK) ... HOLDER ASSY, CASSETTE	
9	X-3351-318-1	(RED) ... HOLDER ASSY, CASSETTE	
9	X-3351-324-1	(WHITE) ... HOLDER ASSY, CASSETTE	

Ref.No	Part No.	Description	Remarks
10	X-3351-313-1	(IT : BLACK) ... CABINET (FRONT) ASSY	
10	X-3351-314-1	(IT : RED) ... CABINET (FRONT) ASSY	
10	X-3351-315-1	(AEP : BLACK) ... CABINET (FRONT) ASSY	
10	X-3351-316-1	(AEP : WHITE) ... CABINET (FRONT) ASSY	
10	X-3351-317-1	(AEP : RED) ... CABINET (FRONT) ASSY	
11	X-3351-306-1	(BLACK) ... HANDLE ASSY	
11	X-3351-319-1	(RED) ... HANDLE ASSY	
11	X-3351-325-1	(WHITE) ... HANDLE ASSY	
	SP901	1-544-154-11	SPEAKER
	SP902	1-544-154-11	SPEAKER

5-2. REAR CABINET

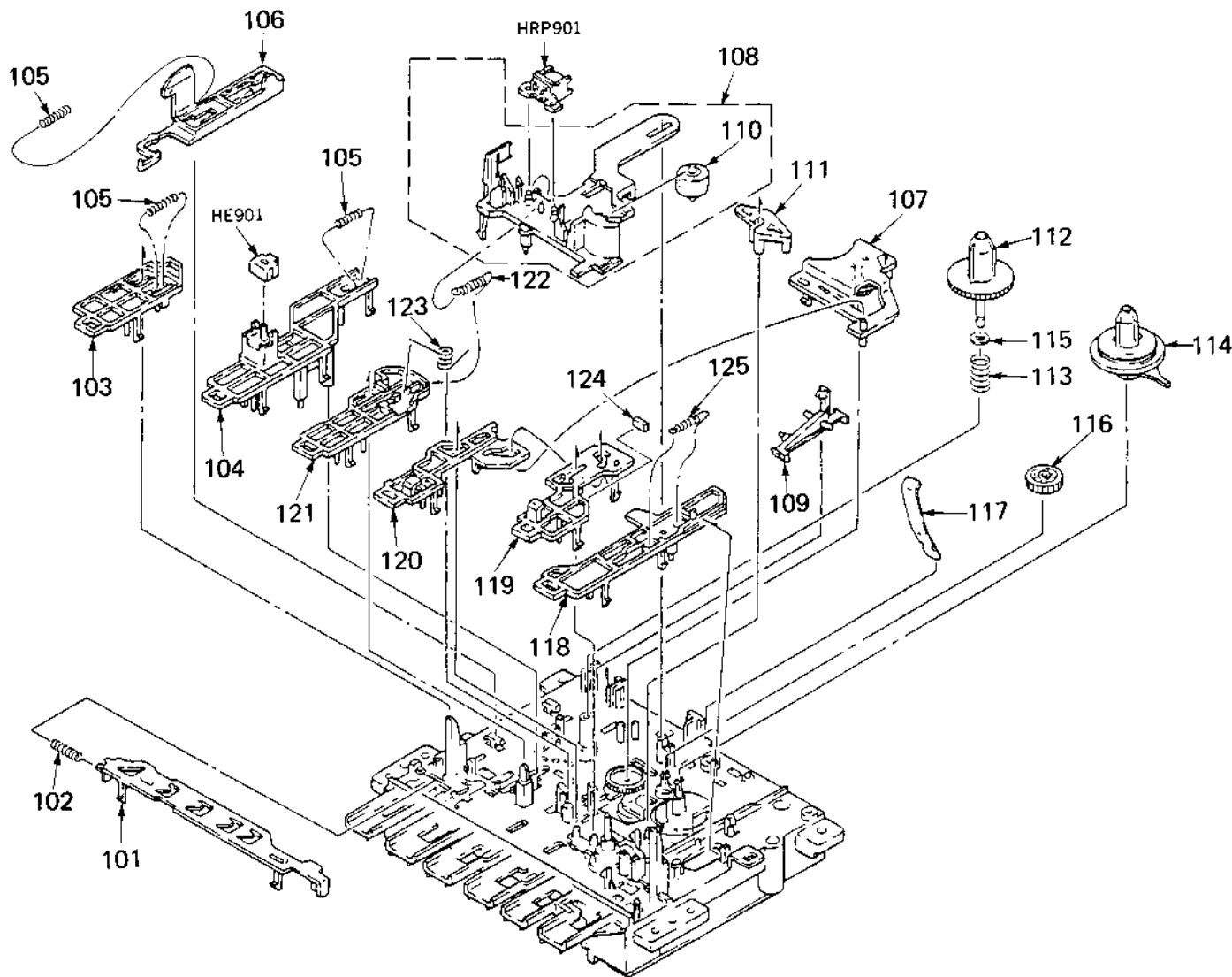


Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
51	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S		71	3-35		
52	3-357-527-01	BUTTON (PAUSE)		71	3-35		
53	3-357-528-01	BUTTON (FF)		71	3-35		
54	3-357-529-01	BUTTON (REW)		72	3-35		
55	3-357-530-01	BUTTON (PLAY)		73	3-35		
56	3-357-533-01	BUTTON (REC)		74	3-35		
57	3-357-532-01	BUTTON (S/E)		75	3-35		
58	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		76	3-35		
59	4-812-134-00	RIVET NYLON, 3.5		76	3-35		
60	3-357-544-01	SHEET, INSULATING		76	3-35		
61	7-685-870-01	SCREW +BVTT 3X5 (S)		901	1-53		
62	3-321-122-01	CUSHION, MICROPHONE		902	*A-3		
63	3-343-062-11	(WHITE) ... KNOB (FUNCTION)		903	*A-3		
63	3-343-062-21	(RED) ... KNOB (FUNCTION)		904	*A-3		
63	3-343-062-31	(BLACK) ... KNOB (FUNCTION)		904	*A-3		
64	3-357-525-01	KNOB (TUNING)		ANT1	1-50		
65	7-685-132-19	SCREW +P 2.6X5 TYPE2 NON-SLIT		CN1801	1-52		
66	3-338-505-01	DRUM, TUNING CAPACITOR		F801	1-53		
67	7-621-770-87	SCREW +P 2.6X5		IC302	8-75		
68	7-682-548-09	SCREW +B 3X8		MIC301	1-54		
69	3-357-541-01	SPRING (+-), BATTERY COIL		T801	1-45		
70	3-351-338-11	(WHITE) ... KNOB (VOL)					
70	3-351-338-21	(RED) ... KNOB (VOL)					
70	3-351-338-31	(BLACK) ... KNOB (VOL)					



Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

5-3. TAPE MECHANISM(1)
(MF-204-64)



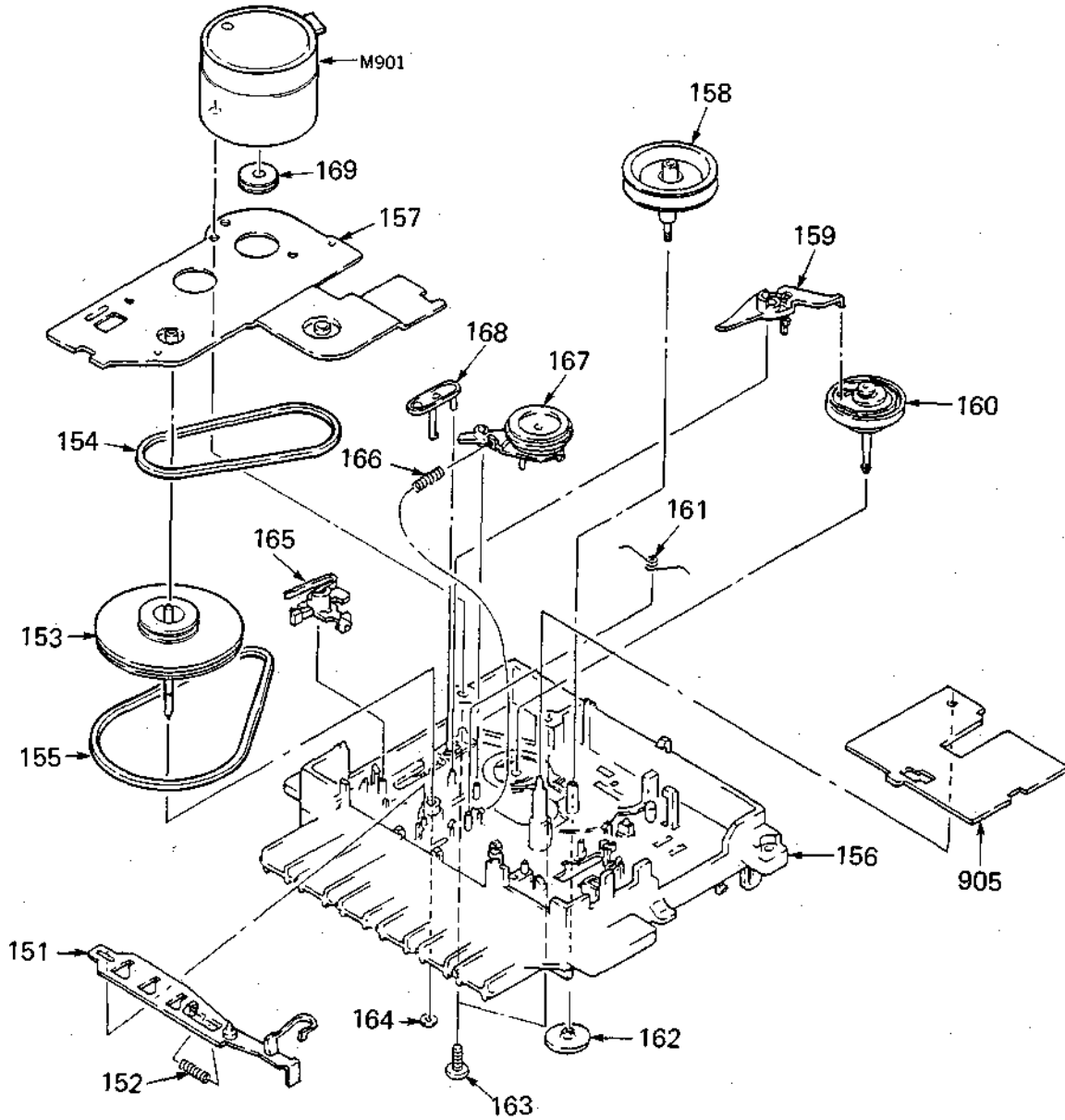
Remarks
3X14 TYPE2 N-S
3X10 TYPE2 N-S
3X5 (S)
PHONE
B (FUNCTION)
B (FUNCTION)
B (FUNCTION)
TYPE2 NON-SLIT
CAPACITOR
BATTERY COIL
B (VOL)
VOL)
B (VOL)

Ref.No	Part No.	Description	Remarks
71	3-351-313-01	(BLACK)...KNOB (ISS)	
71	3-351-313-11	(WHITE)...KNOB (ISS)	
71	3-351-313-21	(RED)...KNOB (ISS)	
72	3-356-168-01	TERMINAL, PLUS	
73	3-356-167-01	SPRING (-), BATTERY COIL	
74	3-356-169-01	TERMINAL, ANTENNA	
75	3-356-170-01	LEVER (REC)	
76	3-356-159-01	(RED)...CABINET (REAR)	
76	3-356-177-81	(BLACK)...CABINET (REAR)	
76	3-356-177-91	(WHITE)...CABINET (REAR)	
901	1-533-217-31	HOLDER, FUSE	
902	*1-634-195-11	PC BOARD, POWER	
903	*A-3261-142-A	MOUNTED PCB, AUDIO	
904	*A-3261-145-A	(IT)...MOUNTED PCB, TUNER	
904	*A-3261-162-A	(AEP)...MOUNTED PCB, TUNER	
ANT1	1-501-378-11	ANTENNA, TELESCOPIC	
CN1801	Δ1-526-838-11	INLET, AC 2P (AC IN)	
F801	Δ1-532-285-00	FUSE, TIME-LAG (T1.25A)	
IC302	8-759-230-13	IC TA8207K	
MIC301	1-542-092-11	MICROPHONE, ELECTRET CONDENSER	
T801	Δ1-450-013-11	TRANSFORMER, POWER	

Ref.No	Part No.	Description	Remarks
101	4-932-695-01	SLIDER (FR), LOCK	
102	4-932-656-01	SPRING, COMPRESSION	
103	4-928-985-01	LEVER, STOP	
104	4-934-511-01	LEVER (S), REC	
105	4-932-648-01	SPRING, COMPRESSION	
106	4-936-206-01	SLIDER (S), EJECT	
107	X-4920-347-1	LEVER (S) ASSY, FR	
108	X-4920-345-1	BASE (S) ASSY, HEAD	
109	4-928-960-02	CLAW, SAFETY	
110	4-928-962-01	PINCH ROLLER	110
111	4-928-982-01	LEVER (C)	
112	4-928-978-01	GEAR (C), SUPPLY REEL	
113	3-343-381-01	SPRING, COMPRESSION	
114	X-4920-350-1	GEAR (S) ASSY, T REEL	

Ref.No	Part No.	Description	Remarks
115	4-931-795-11	WASHER	
116	3-343-285-01	GEAR, FF	
117	4-928-957-01	RETAINER, CASSETTE	
118	4-928-994-01	LEVER, PAUSE	
119	4-928-993-01	LEVER, FF	
120	4-928-992-01	LEVER, REW	
121	4-928-991-01	LEVER, PLAY	
122	4-928-972-01	SPRING, TENSION	
123	4-928-973-01	SPRING	
124	9-911-843-XX	SHEET, FF	
125	3-313-372-01	SPRING, TENSION	
HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)	
HRP901	1-543-714-11	HEAD, MAGNETIC (REC/PB)	

5-4. TAPE MECHANISM(2)
(MF-204-64)



Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
151	4-928-996-01	LEVER, SW		162	4-928-967-01	GEAR (C), MIDWAY	
152	4-932-656-01	SPRING, COMPRESSION		163	7-621-775-20	SCREW +B 2.6X5	
153	X-4920-349-1	WHEEL (S) ASSY, CAPSTAN		164	3-343-358-01	RING, RETAINING	
154	4-928-974-01	BELT (MIDWAY)		165	4-928-987-01	LEVER (T), SHUT-OFF	
155	4-928-951-01	BELT (CAPSTAN)		166	4-932-655-01	SPRING, COMPRESSION	
156	X-4920-348-1	CHASSIS (S) ASSY, MECHANICAL		167	X-4920-346-1	LEVER (S) ASSY, IDLER	
157	*X-4918-598-1	PLATE ASSY, GROUND		168	4-928-961-01	PLATE, PAUSE LOCK	
158	X-4918-580-1	PULLEY ASSY, FR		169	3-343-255-01	PULLEY (P), MOTOR	
159	4-928-986-01	LEVER (S), SHUT-OFF		905	*1-634-196-11	PC BOARD, SWITCH (A)	
160	X-4918-582-1	PLATE ASSY, TAKE-UP REEL		M901	1-541-625-11	MOTOR, DC	
161	4-928-958-01	SPRING, FR RETURN					

SECTION 6 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms.
- F: Nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:
UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

The components identified by mark Δ or dotted line with mark Δ are Critical for safety. Replace only with part number specified.

- IT: Italian model

Ref.No	Part No.	Description
901	1-533-217-31	HOLDER, FUSE
902	*1-634-195-11	PC BOARD, POWER
903	*A-3261-142-A	MOUNTED PCB, AUDIO
904	*A-3261-145-A (IT)	MOUNTED PCB, TUNER
904	*A-3261-162-A (AEP)	MOUNTED PCB, TUNER
905	*1-634-196-11	PC BOARD, SWITCH (A)
ANT1	1-501-378-11	ANTENNA, TELESCOPIC
CAPACITOR		
C1	1-162-286-31	CERAMIC 220PF 10% 50V
C3	1-164-096-11	CERAMIC 0.01MF 50V
C4	1-123-875-11	ELECT 10MF 20% 50V
C5	1-164-096-11	CERAMIC 0.01MF 50V
C6	1-164-039-11	CERAMIC 3PF 0.25PF 50V
C7	1-164-056-11	CERAMIC 27PF 5% 50V
C8	1-102-961-00	CERAMIC 27PF 5% 50V
C9	1-102-946-00 (IT)	CERAMIC 9PF 0.5PF 50V
C9	1-102-947-00 (AEP)	CERAMIC 10PF 0.5PF 50V
C10	1-164-012-11	CERAMIC 3PF 0.25PF 50V
C11	1-164-096-11	CERAMIC 0.01MF 50V
C12	1-162-282-31	CERAMIC 100PF 10% 50V
C15	1-124-927-11	ELECT 4.7MF 20% 50V
C16	1-124-791-11	ELECT 1MF 20% 50V
C17	1-124-446-11	ELECT 47MF 20% 10V
C18	1-124-443-00	ELECT 100MF 20% 10V
C19	1-164-096-11	CERAMIC 0.01MF 50V
C20	1-124-791-11	ELECT 1MF 20% 50V
C21	1-124-925-11	ELECT 2.2MF 20% 50V
C22	1-124-443-00	ELECT 100MF 20% 10V
C23	1-124-902-00	ELECT 0.47MF 20% 50V
C24	1-124-927-11	ELECT 4.7MF 20% 50V
C25	1-124-463-00	ELECT 0.1MF 20% 50V
C27	1-161-053-00	CERAMIC 0.015MF 10% 16V
C28	1-161-053-00	CERAMIC 0.015MF 10% 16V
C31	1-162-282-31	CERAMIC 100PF 10% 50V
C32	1-162-282-31	CERAMIC 100PF 10% 50V
C33	1-162-195-31 (IT)	CERAMIC 4.7PF 10% 50V
C33	1-162-196-31 (AEP)	CERAMIC 5.6PF 10% 50V
C34	1-162-282-31	CERAMIC 100PF 10% 50V
C35	1-162-282-31	CERAMIC 100PF 10% 50V
C101	1-124-791-11	ELECT 1MF 20% 50V
C102	1-163-209-00	CERAMIC MELF 0.0015MF 30% 16V
C103	1-124-902-00	ELECT 0.47MF 20% 50V
C104	1-163-213-00	CERAMIC MELF 0.0022MF 20% 16V
C105	1-163-189-00	CERAMIC MELF 220PF 10% 50V
C106	1-124-963-11	ELECT 33MF 20% 16V
C107	1-162-843-11	CERAMIC 0.022MF 10% 16V
C108	1-124-463-00	ELECT 0.1MF 20% 50V
C109	1-163-213-00	CERAMIC MELF 0.0022MF 20% 16V
C110	1-162-843-11	CERAMIC 0.022MF 10% 16V
C112	1-163-205-00	CERAMIC MELF 0.001MF 10% 50V
C113	1-124-443-00	ELECT 100MF 20% 10V
C114	1-126-233-11	ELECT 22MF 20% 25V
C115	1-130-497-00	MYLAR 0.15MF 5% 50V

Ref.No	Part No.	Description
C116	1-124-472-11	ELECT 470MF 20% 6.3V
C201	1-124-791-11	ELECT 1MF 20% 50V
C202	1-163-209-00	CERAMIC MELF 0.0015MF 30% 16V
C203	1-124-902-00	ELECT 0.47MF 20% 50V
C204	1-163-213-00	CERAMIC MELF 0.0022MF 20% 16V
C205	1-163-189-00	CERAMIC MELF 220PF 10% 50V
C206	1-124-963-11	ELECT 33MF 20% 16V
C207	1-162-843-11	CERAMIC 0.022MF 10% 16V
C208	1-124-463-00	ELECT 0.1MF 20% 50V
C209	1-163-213-00	CERAMIC MELF 0.0022MF 20% 16V
C210	1-162-843-11	CERAMIC 0.022MF 10% 16V
C212	1-163-205-00	CERAMIC MELF 0.001MF 10% 50V
C213	1-124-443-00	ELECT 100MF 20% 10V
C214	1-126-233-11	ELECT 22MF 20% 25V
C215	1-130-497-00	MYLAR 0.15MF 5% 50V
C216	1-124-472-11	ELECT 470MF 20% 6.3V
C301	1-163-063-00	CERAMIC MELF 0.022MF 25V
C302	1-123-875-11	ELECT 10MF 20% 50V
C303	1-163-059-00	CERAMIC MELF 0.01MF 30% 16V
C304	1-124-963-11	ELECT 33MF 20% 16V
C305	1-124-120-11	ELECT 220MF 20% 16V
C306	1-126-233-11	ELECT 22MF 20% 25V
C309	1-124-120-11	ELECT 220MF 20% 16V
C311	1-124-556-11	ELECT 2200MF 20% 16V
C312	1-163-063-00	CERAMIC MELF 0.022MF 25V
C315	1-124-443-00	ELECT 100MF 20% 10V
C316	1-163-063-00	CERAMIC MELF 0.022MF 25V
C317	1-163-181-00	CERAMIC MELF 100PF 10% 50V
C318	1-163-181-00	CERAMIC MELF 100PF 10% 50V
C341	1-124-446-11	ELECT 47MF 20% 10V
C342	1-130-481-00	MYLAR 0.0068MF 5% 50V
C343	1-163-209-00	CERAMIC MELF 0.0015MF 30% 16V
C344	1-163-205-00	CERAMIC MELF 0.001MF 10% 50V
C346	1-126-101-11	ELECT 100MF 20% 16V
C801	1-101-005-00	CERAMIC 0.022MF 50V
C802	1-101-005-00	CERAMIC 0.022MF 50V
C803	1-101-005-00	CERAMIC 0.022MF 50V
C804	1-101-005-00	CERAMIC 0.022MF 50V
CF1	1-567-166-00	FILTER, CERAMIC
CF3		
CF2	1-527-870-00	FILTER
CNJ5	*1-563-470-11	HOUSING, CONNECTOR 2P
CNJ21	*1-568-272-11	SOCKET, CONNECTOR 6P
CNJ801	Δ 1-526-838-11	INLET, AC 2P (\sim AC IN)
CNP1	*1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P
CNP2	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P
CNP3	*1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
CNP4	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P
CT1-4	1-151-615-11	CAP, VARIABLE
CV1-4		
D301	8-719-918-76	DIODE GL-3PR9
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119

Ref.No	Part No.	Description
D801	8-719-200-02	DIODE 10E2
D802	8-719-200-02	DIODE 10E2
D803	8-719-200-02	DIODE 10E2
D804	8-719-200-02	DIODE 10E2
F801	△.1-532-285-00	FUSE, TIME-LAG (T1.25A)
FL1	1-236-022-11	FILTER, BAND PASS
HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)
HRP901	1-543-714-11	HEAD, MAGNETIC (REC/PB)
IC1	8-752-035-68	IC CXA1238S
IC301	8-759-978-54	IC BA3420AL
IC302	8-759-230-13	IC TA8207K
J301	1-566-891-11	JACK (PHONO)
KH3	*1-565-386-11	HOLDER, CABLE 5P
KH801	*1-565-384-11	HOLDER, CABLE 3P
L1	*1-142-180-11	(IT)... CAIL, AIR-CORE (RF)
L1	1-420-855-00	(AEP)... CAIL, FM ANT
L2	1-459-815-11	COIL (WITH CORE)
L3	1-402-158-11	ANTENNA, FERRITE-ROD (MW)
L4	1-406-040-00	COIL (OSC)
M901	1-541-625-11	MOTOR, DC
MIC301	1-542-092-11	MICROPHONE, ELECTRET CONDENSER
Q2	8-729-904-36	TRANSISTOR DTC114YS
Q301	8-729-281-53	TRANSISTOR 2SC1815-GR
Q302	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q303	8-729-100-13	TRANSISTOR 2SC2001-K2

RESISTOR

R1	1-249-413-11	CARBON	470	5%	1/4W
R2	1-249-405-11	CARBON	100	5%	1/4W
R3	1-249-421-11	CARBON	2.2K	5%	1/4W
R5	1-249-423-11	CARBON	3.3K	5%	1/4W
R6	1-249-441-11	CARBON	100K	5%	1/4W
R7	1-249-415-11	CARBON	680	5%	1/4W
R9	1-249-441-11	CARBON	100K	5%	1/4W
R10	1-249-397-11	CARBON	22	5%	1/4W
R11	1-249-427-11	CARBON	6.8K	5%	1/4W
R12	1-249-427-11	CARBON	6.8K	5%	1/4W
R13	1-249-405-11	CARBON	100	5%	1/4W
R14	1-249-429-11	CARBON	10K	5%	1/4W
R15	1-247-887-00	CARBON	220K	5%	1/4W
R16	1-247-887-00	CARBON	220K	5%	1/4W
R17	1-249-421-11	CARBON	2.2K	5%	1/4W
R21	1-249-411-11	CARBON	330	5%	1/4W
R29	1-249-429-11	CARBON	10K	5%	1/4W
R101	1-249-429-11	CARBON MELF	10K	5%	1/8W
R102	1-249-419-11	CARBON MELF	1.5K	5%	1/8W
R103	1-215-446-00	CARBON MELF	11K	5%	1/8W
R104	1-249-401-11	CARBON MELF	47	5%	1/8W
R105	1-249-426-11	CARBON MELF	5.6K	5%	1/8W
R106	1-249-429-11	CARBON MELF	10K	5%	1/8W
R107	1-249-406-11	CARBON MELF	120	5%	1/8W
R109	1-249-405-11	CARBON MELF	100	5%	1/8W
R110	1-249-417-11	CARBON MELF	1K	5%	1/8W
R201	1-249-429-11	CARBON MELF	10K	5%	1/8W
R202	1-249-419-11	CARBON MELF	1.5K	5%	1/8W
R203	1-215-446-00	CARBON MELF	11K	5%	1/8W
R204	1-249-401-11	CARBON MELF	47	5%	1/8W
R205	1-249-426-11	CARBON MELF	5.6K	5%	1/8W
R206	1-249-429-11	CARBON MELF	10K	5%	1/8W
R207	1-249-406-11	CARBON MELF	120	5%	1/8W

Ref.No	Part No.	Description
R209	1-249-405-11	CARBON MELF 100 5% 1/8W
R210	1-249-417-11	CARBON MELF 1K 5% 1/8W
R301	1-249-433-11	CARBON MELF 22K 5% 1/8W
R302	1-249-417-11	CARBON MELF 1K 5% 1/8W
R303	1-249-421-11	CARBON MELF 2.2K 5% 1/8W
R304	1-215-394-00	CARBON MELF 75 5% 1/8W
R306	1-249-432-11	CARBON MELF 18K 5% 1/8W
R307	1-249-429-11	CARBON MELF 10K 5% 1/8W
R308	1-215-394-00	CARBON MELF 75 5% 1/8W
R310	1-249-416-11	CARBON MELF 820 5% 1/8W
R311	1-249-410-11	CARBON MELF 270 5% 1/8W
R313	1-249-405-11	CARBON MELF 100 5% 1/8W
R321	1-249-434-11	CARBON MELF 27K 5% 1/8W
R341	1-249-399-11	CARBON MELF 33 5% 1/8W
R342	1-249-435-11	CARBON MELF 33K 5% 1/8W
R343	1-249-389-11	CARBON MELF 4.7 5% 1/8W
R344	1-249-425-11	CARBON MELF 4.7K 5% 1/8W
RV1	1-238-601-11	RES. ADJ. CARBON 22K
RV301	1-238-431-11	RES. VAR. CARBON 20K/20K (TONE)
RV302	1-238-430-11	RES. VAR. CARBON 20K/20K (VOLUME)
S301	1-571-472-11	SWITCH, SLIDE (REC/PB)
S302	1-570-558-11	SWITCH, LEVER SLIDE (FUNCTION)
S303	1-554-222-00	SWITCH, SLIDE (FM MODE/ISS)
S601	1-571-330-21	SWITCH, LEAF (POWER)
SP901	1-544-154-11	SPEAKER
SP902	1-544-154-11	SPEAKER
T1	1-404-355-00	TRANSFORMER, IF
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR
T801	△.1-450-013-11	TRANSFORMER, POWER

ACCESSORIES & PACKING MATERIALS

- △.1-555-234-00 CORD, POWER
- 3-752-129-41 (AEP)... MANUAL, INSTRUCTION (DUTCH, SWEDISH, SPANISH, PORTUGUESE)
- 3-752-129-51 (IT)... MANUAL, INSTRUCTION (ITALIAN, ENGLISH)
- *3-357-552-01 INDIVIDUAL CARTON
- *3-357-555-01 CUSHION (L)
- *3-357-589-01 CUSHION (R)

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.