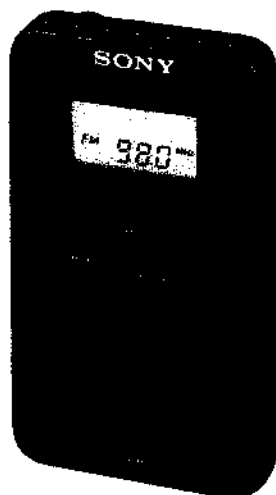


ICF-M1W

SERVICE MANUAL

AEP Model



SPECIFICATIONS

Frequency range	FM: 87.5 - 108 MHz AM: 531 - 1,602 kHz
Scan step	FM: 0.05* MHz AM: 9 kHz * The frequency display is raised or lowered by steps of 0.1 MHz. (Example: Frequency 88.05 MHz is displayed as "88.0 MHz".)
Antennas	FM: Earphone cord antenna AM: Built-in ferrite bar antenna
Speaker	3.6 cm (1 ⁷ / ₁₆ inches) dia.
Output	Earphone jack
Power output	80 mW (at 10% harmonic distortion)
Power requirements	3 V DC, two R03 (size AAA) batteries
Battery life	Using Sony batteries UM-4 (NU)

Using speaker	FM	Approx. 11 hours
	AM	Approx. 15 hours
Using earphone	FM	Approx. 15 hours
	AM	Approx. 37 hours

Dimensions	Approx. 57.8 x 96.0 x 17.2 mm (w/h/d) (2 ⁹ / ₈ x 3 ⁷ / ₈ x 1 ¹ / ₁₆ inches) incl. projecting parts and controls
Weight	Approx. 82 g (2.90 oz) incl. batteries
Supplied accessories	Sony batteries UM-4 (NU) (2) Dynamic earphone (open-air type, 1) Ear adaptor (1) Soft case (1)

FEATURES

- An FM/AM 2-band pocketable radio with quartz-controlled PLL (Phase Locked Loop) synthesizer system.
- Up to 14 stations (7 for each band) can be memorized for button-touch tuning (memory preset tuning).
- The tuned frequency is digitally displayed to make searching of the desired station easier.
- Power saving features — power goes off automatically in about 90 minutes.

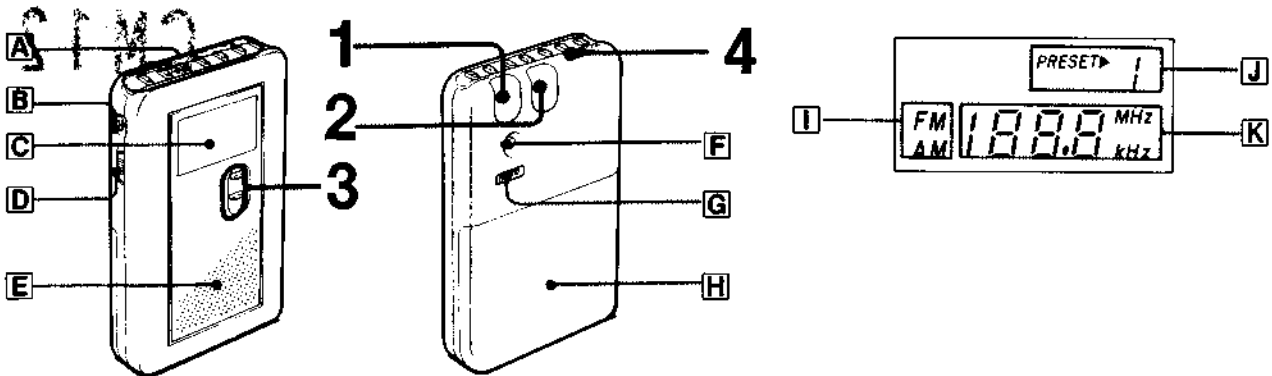
TABLE OF CONTENTS

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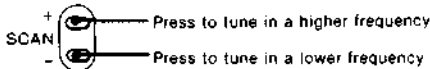
FM/AM 2 BAND
PLL SYNTHESIZED RECEIVER
SONY®



RADIO OPERATION



- 1 Press the **POWER/AUTO OFF** switch to turn on the power.
- 2 Select **FM** or **AM** with the **BAND** selector.
- 3 Tune in a desired station with the **SCAN** buttons.



At the high or low end of the frequency spectrum, the continuous beep sounds.

- 4 Adjust the **VOL** (volume) control.

To turn off the radio, press the **POWER/AUTO OFF** switch again.

Front panel

- A Preset buttons
- B Ⓜ (earphone) jack
- C Display window
- D Ⓜ/Ⓛ (earphone/speaker) selector
- E Speaker

Rear panel

- F ENTER button
- G AM SENS (sensitivity) selector
- H Battery compartment

Display window

- I Band indicator
- J Preset number indicator
- K Frequency indicator

When the power is shut off automatically

The radio will be shut off automatically in about 90 minutes to prevent unnecessary wear of the batteries.

To listen to the radio continuously, press the **POWER/AUTO OFF** switch again.

When the batteries become weak, the power is turned off automatically to hold the preset stations.

To tune in a station automatically

Keep either of the **SCAN** buttons pressed for more than 0.5 seconds, then release it.

The frequency goes up or down automatically with rapid beeps. When a station is received, the beep sound stops and a broadcast can be heard.

When the desired station cannot be received because of weak signals

Tune in manually.

Press either of the **SCAN** buttons, then immediately release it. Repeat this operation until the frequency of the desired station appears.

TO IMPROVE RECEIVING CONDITION

FM

Since the earphone cord serves as an FM antenna, extend it for better reception.

Note: Since the earphone cord serves as an FM antenna, connect the earphone even when listening to the radio from the speaker.

AM

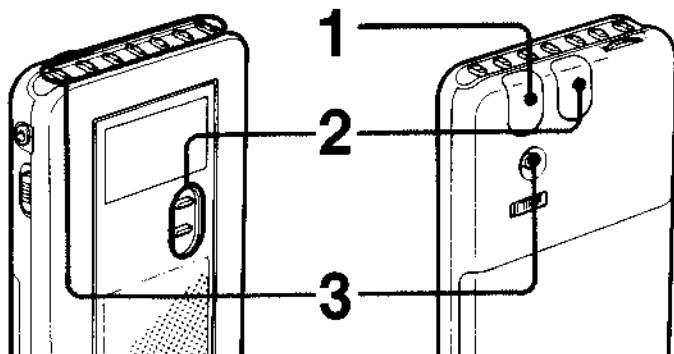
- Since the reception is affected by the direction of the radio, rotate the radio horizontally for optimum reception.
- Usually set the **AM SENS** selector to **DX**. However, set it to **LOCAL** when receiving a strong-signal station, or at night when it is difficult to pick up a local station signal because adjacent signals of far-away stations are received.

MEMORY PRESET TUNING

Once you store desired stations in memory, you can tune them in by a simple operation.

HOW TO PRESET

2



- 1 Press the POWER/AUTO OFF switch.
- 2 Select FM or AM and tune in a desired station. (See "Radio operation".)
- 3 Press a desired preset number button while keeping the ENTER button pressed.

The station received is now stored in memory.

Repeat steps 2 and 3 for each station to be preset.

How many stations can you preset?

14 stations. (1 station for FM and AM can be preset to one preset button.)

To change the preset station

Preset a new station to a desired button; the station previously preset to the button will be lost.

Were the preset stations lost during battery replacement?

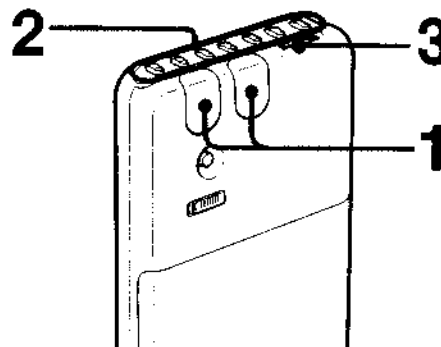
The preset stations will be lost if new batteries are not installed within three minutes after removing the old batteries.

To replace the batteries, turn off the power and install new batteries within three minutes.

If the unit has had its batteries removed for an extended period, be sure to preset the stations again.

TO TUNE IN A PRESET STATION

3

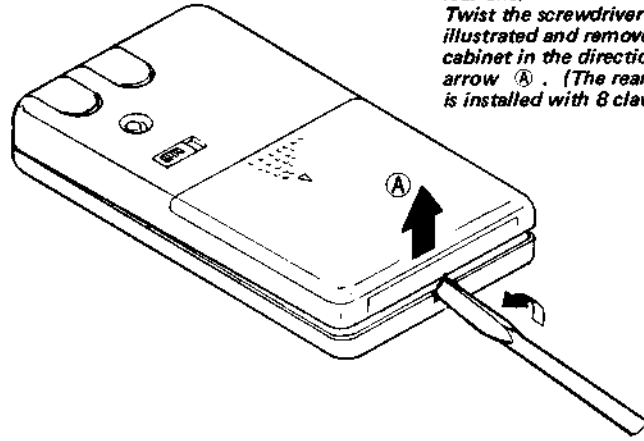


- 1 Press the POWER/AUTO OFF switch and select FM or AM.
- 2 Press a desired preset button.
- 3 Adjust the VOL control.

SECTION 1 DISASSEMBLY

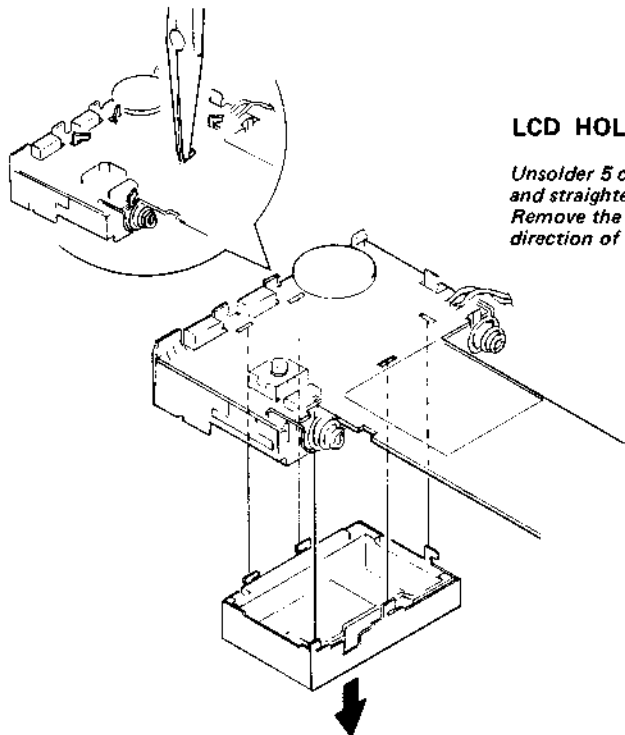
REAR CABINET REMOVAL

*Insert the blade screwdriver between front cabinet and rear one.
Twist the screwdriver as illustrated and remove the rear cabinet in the direction of the arrow **A**. (The rear cabinet is installed with 8 claws.)*



LCD HOLDER REMOVAL

*Unsolder 5 claws of LCD holder and straighten the claws.
Remove the LCD holder in the direction of the arrow.*



SECTION 2

ELECTRICAL ADJUSTMENTS

Ref. Sec. 1.1

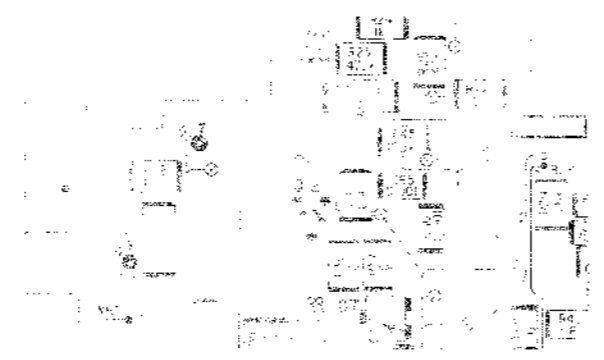
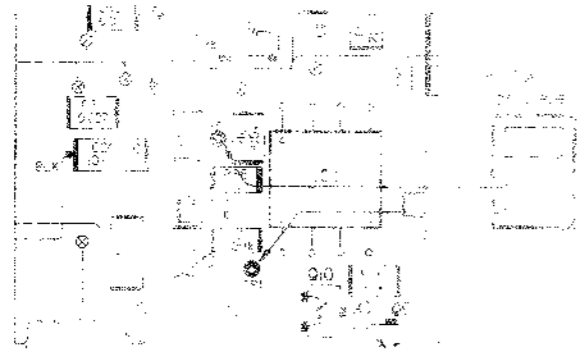
FM Biasing Voltage Adjustment

Conditions

- STAND switch - FM
- VOLUME knob - 100%



22.5 MHz frequency deviation ± 400 Hz signal
 Carrier frequency 99.025 MHz
 Output level 1.8 μ V (0.32 μ V)



Procedure

1. Turn the potentiometer clockwise until the display reads 100.0 MHz.
2. Turn the potentiometer clockwise until the display reads 100.025 MHz.
3. Turn the potentiometer clockwise until the display reads 100.05 MHz.

Note: Biasing voltage is not adjustable (factory set) (see "FM Frequency Control Adjustment").

FM Frequency Control Adjustment

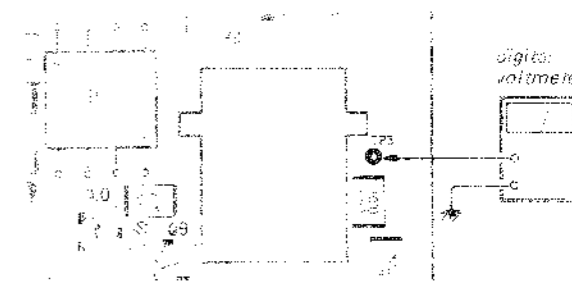
Conditions

BAND switch - FM

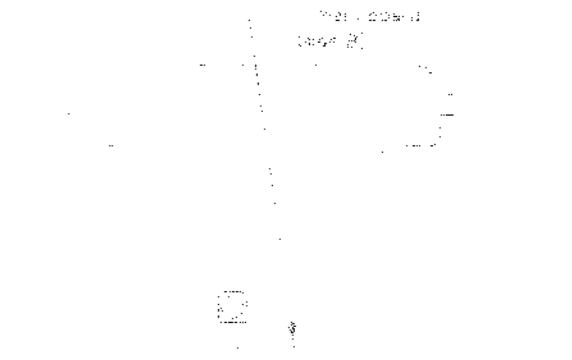
VOLUME knob - 100%



22.5 MHz frequency deviation ± 400 Hz signal



Carrier frequency 99.025 MHz
 Output level 1.8 μ V (0.32 μ V)



FM Frequency Control Adjustment

Procedure

1. Turn the potentiometer clockwise until the display reads 100.0 MHz.
2. Turn the potentiometer clockwise until the display reads 100.025 MHz.
3. Turn the potentiometer clockwise until the display reads 100.05 MHz.
4. Turn the potentiometer clockwise until the display reads 100.075 MHz.

Note: Repeat this procedure several times until the carrier frequency is 100.05 MHz.

100.05 MHz	Adjustment
100.075 MHz	Adjustment
100.10 MHz	Adjustment
100.125 MHz	Adjustment
100.15 MHz	Adjustment
100.175 MHz	Adjustment
100.20 MHz	Adjustment
100.225 MHz	Adjustment
100.25 MHz	Adjustment
100.275 MHz	Adjustment
100.30 MHz	Adjustment
100.325 MHz	Adjustment
100.35 MHz	Adjustment
100.375 MHz	Adjustment
100.40 MHz	Adjustment
100.425 MHz	Adjustment
100.45 MHz	Adjustment
100.475 MHz	Adjustment
100.50 MHz	Adjustment
100.525 MHz	Adjustment
100.55 MHz	Adjustment
100.575 MHz	Adjustment
100.60 MHz	Adjustment
100.625 MHz	Adjustment
100.65 MHz	Adjustment
100.675 MHz	Adjustment
100.70 MHz	Adjustment
100.725 MHz	Adjustment
100.75 MHz	Adjustment
100.775 MHz	Adjustment
100.80 MHz	Adjustment
100.825 MHz	Adjustment
100.85 MHz	Adjustment
100.875 MHz	Adjustment
100.90 MHz	Adjustment
100.925 MHz	Adjustment
100.95 MHz	Adjustment
100.975 MHz	Adjustment
101.00 MHz	Adjustment

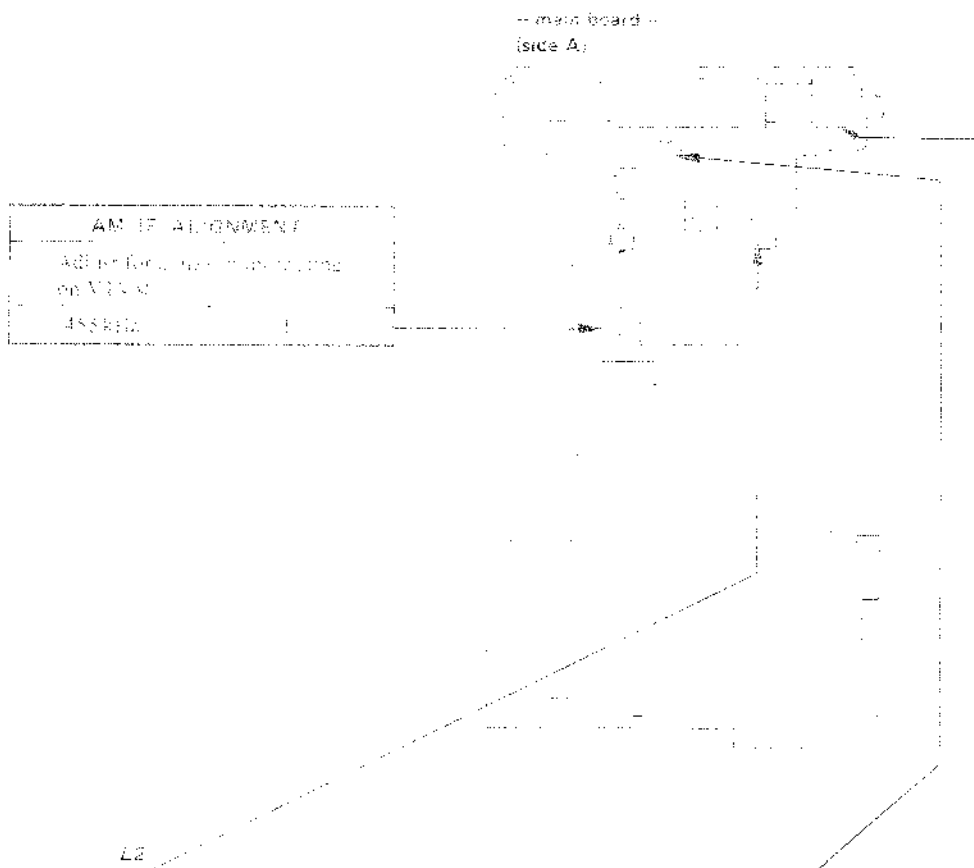
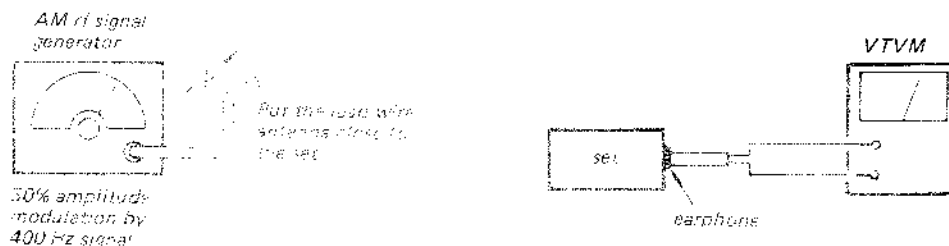
Note: Repeat this procedure for this adjustment several times, until the carrier frequency is 100.05 MHz.

AM SECTION

Note: Be sure to perform "AM tracking adjustment" after "AM frequency coverage adjustment"

Conditions:

- BAND switch: AM
- VOLUME knob: open



AM Frequency Coverage Adjustment

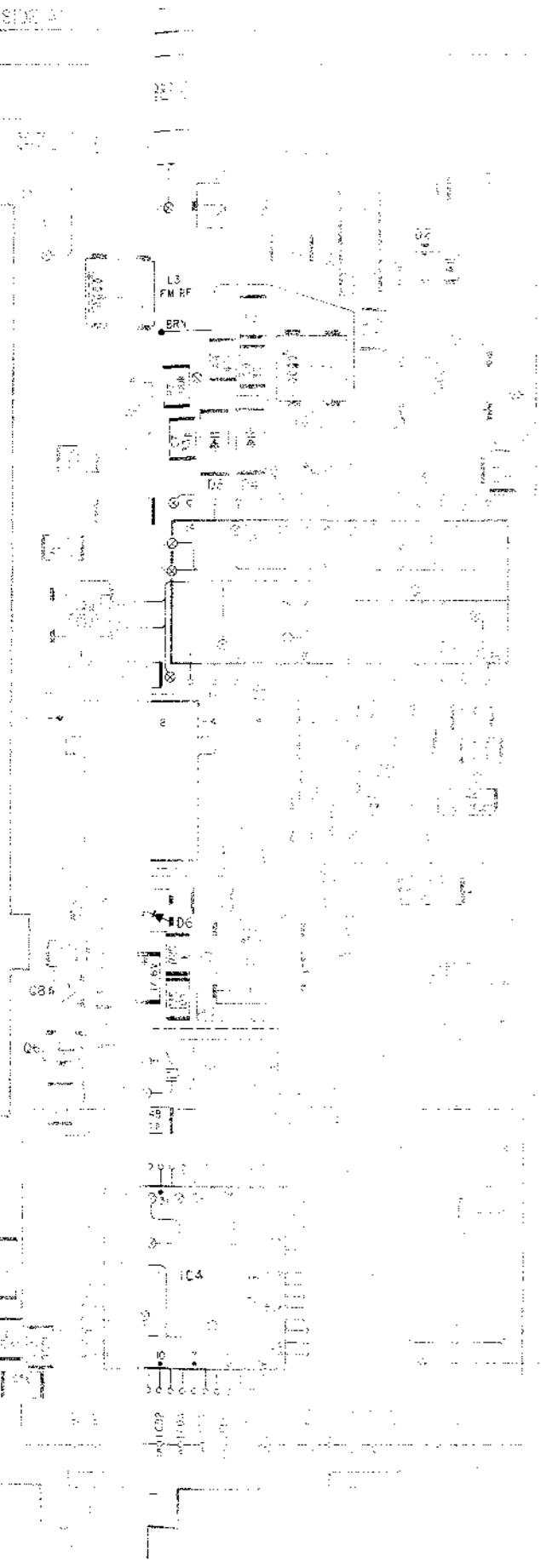
Conditions:

1. Tune the set to 1402 kHz.
2. Adjust L2 for 8V reading on digital voltmeter. (See page 6 for connection diagram.)
3. Tune the set to 585 kHz.
4. To check read reading on digital voltmeter is more than 1V.

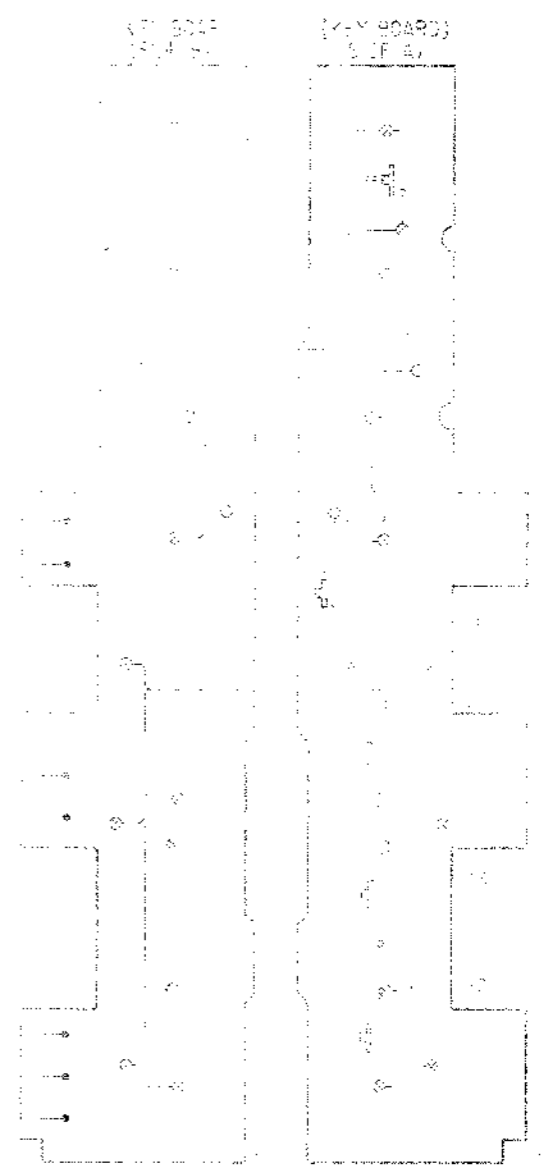
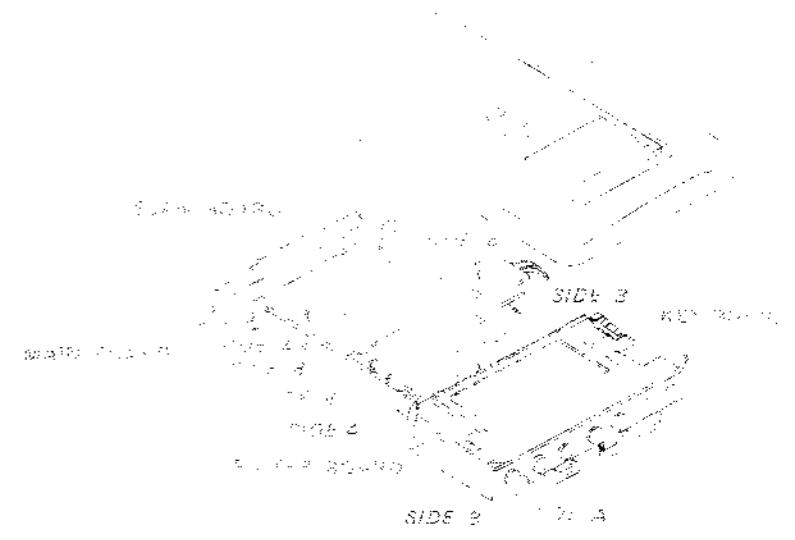
Note: Not use the AM signal generator in this adjustment.

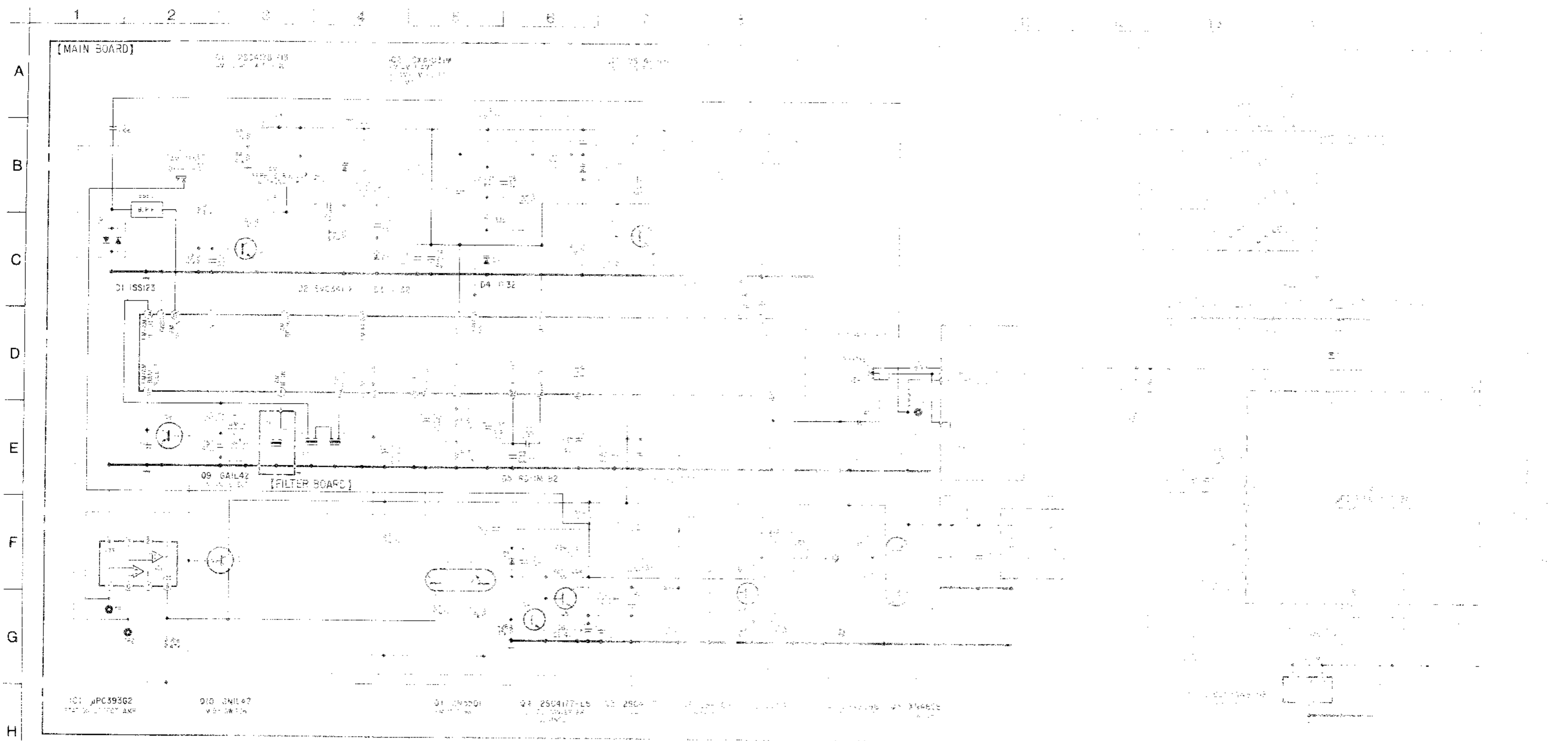
Adjustment parts	C11	L1
Standard frequency	1,413 kHz	585 kHz
Adjust for a maximum reading on VTVM.		
AM Tracking Adjustment		

Repeat the procedures in this adjustment several times, and this adjustment should be finally done by the trimmer capacitors.



PC BOARD LOCATION

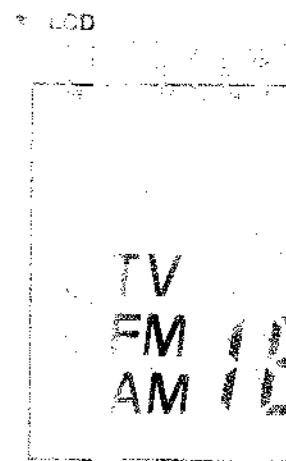
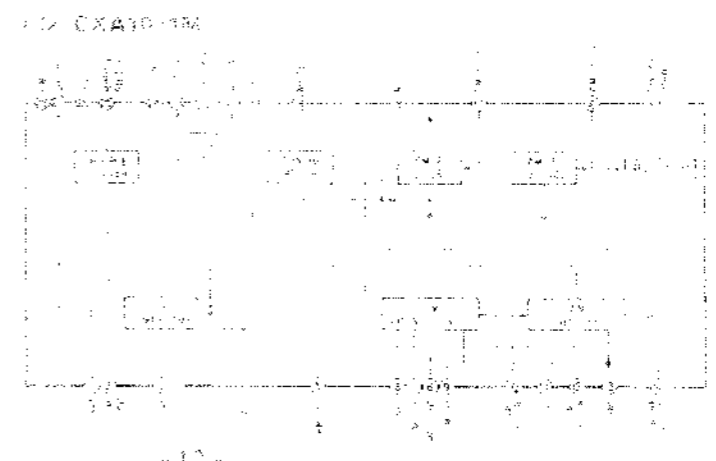




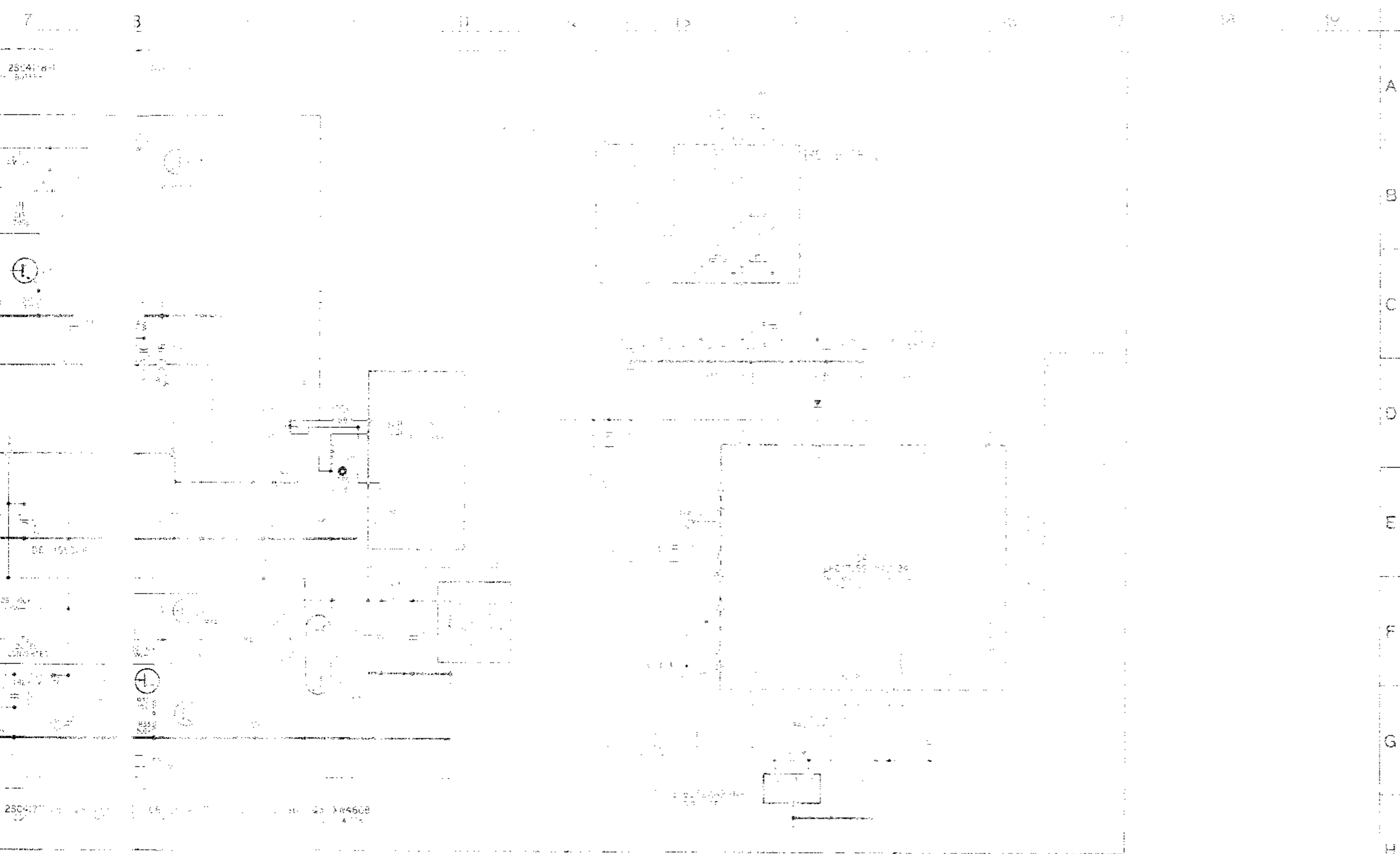
- IC1: μ PC39362
- D10: 5N1407
- D11: 2N2501
- Q1: 2S09177-L5
- Q2: 2S09177-L5
- Q3: 2S09177-L5
- Q4: 2S09177-L5
- Q5: 2S09177-L5
- Q6: 2S09177-L5
- Q7: 2S09177-L5
- Q8: 2S09177-L5
- Q9: 2S09177-L5
- Q10: 2S09177-L5
- Q11: 2S09177-L5
- Q12: 2S09177-L5
- Q13: 2S09177-L5
- Q14: 2S09177-L5
- Q15: 2S09177-L5
- Q16: 2S09177-L5
- Q17: 2S09177-L5
- Q18: 2S09177-L5
- Q19: 2S09177-L5
- Q20: 2S09177-L5
- Q21: 2S09177-L5
- Q22: 2S09177-L5
- Q23: 2S09177-L5
- Q24: 2S09177-L5
- Q25: 2S09177-L5
- Q26: 2S09177-L5
- Q27: 2S09177-L5
- Q28: 2S09177-L5
- Q29: 2S09177-L5
- Q30: 2S09177-L5
- Q31: 2S09177-L5
- Q32: 2S09177-L5
- Q33: 2S09177-L5
- Q34: 2S09177-L5
- Q35: 2S09177-L5
- Q36: 2S09177-L5
- Q37: 2S09177-L5
- Q38: 2S09177-L5
- Q39: 2S09177-L5
- Q40: 2S09177-L5
- Q41: 2S09177-L5
- Q42: 2S09177-L5
- Q43: 2S09177-L5
- Q44: 2S09177-L5
- Q45: 2S09177-L5
- Q46: 2S09177-L5
- Q47: 2S09177-L5
- Q48: 2S09177-L5
- Q49: 2S09177-L5
- Q50: 2S09177-L5
- Q51: 2S09177-L5
- Q52: 2S09177-L5
- Q53: 2S09177-L5
- Q54: 2S09177-L5
- Q55: 2S09177-L5
- Q56: 2S09177-L5
- Q57: 2S09177-L5
- Q58: 2S09177-L5
- Q59: 2S09177-L5
- Q60: 2S09177-L5
- Q61: 2S09177-L5
- Q62: 2S09177-L5
- Q63: 2S09177-L5
- Q64: 2S09177-L5
- Q65: 2S09177-L5
- Q66: 2S09177-L5
- Q67: 2S09177-L5
- Q68: 2S09177-L5
- Q69: 2S09177-L5
- Q70: 2S09177-L5
- Q71: 2S09177-L5
- Q72: 2S09177-L5
- Q73: 2S09177-L5
- Q74: 2S09177-L5
- Q75: 2S09177-L5
- Q76: 2S09177-L5
- Q77: 2S09177-L5
- Q78: 2S09177-L5
- Q79: 2S09177-L5
- Q80: 2S09177-L5
- Q81: 2S09177-L5
- Q82: 2S09177-L5
- Q83: 2S09177-L5
- Q84: 2S09177-L5
- Q85: 2S09177-L5
- Q86: 2S09177-L5
- Q87: 2S09177-L5
- Q88: 2S09177-L5
- Q89: 2S09177-L5
- Q90: 2S09177-L5
- Q91: 2S09177-L5
- Q92: 2S09177-L5
- Q93: 2S09177-L5
- Q94: 2S09177-L5
- Q95: 2S09177-L5
- Q96: 2S09177-L5
- Q97: 2S09177-L5
- Q98: 2S09177-L5
- Q99: 2S09177-L5
- Q100: 2S09177-L5

- Note:**
- All capacitors are in μ F unless otherwise noted. μ F = μ F, 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\text{k}\Omega$ or less unless otherwise specified.

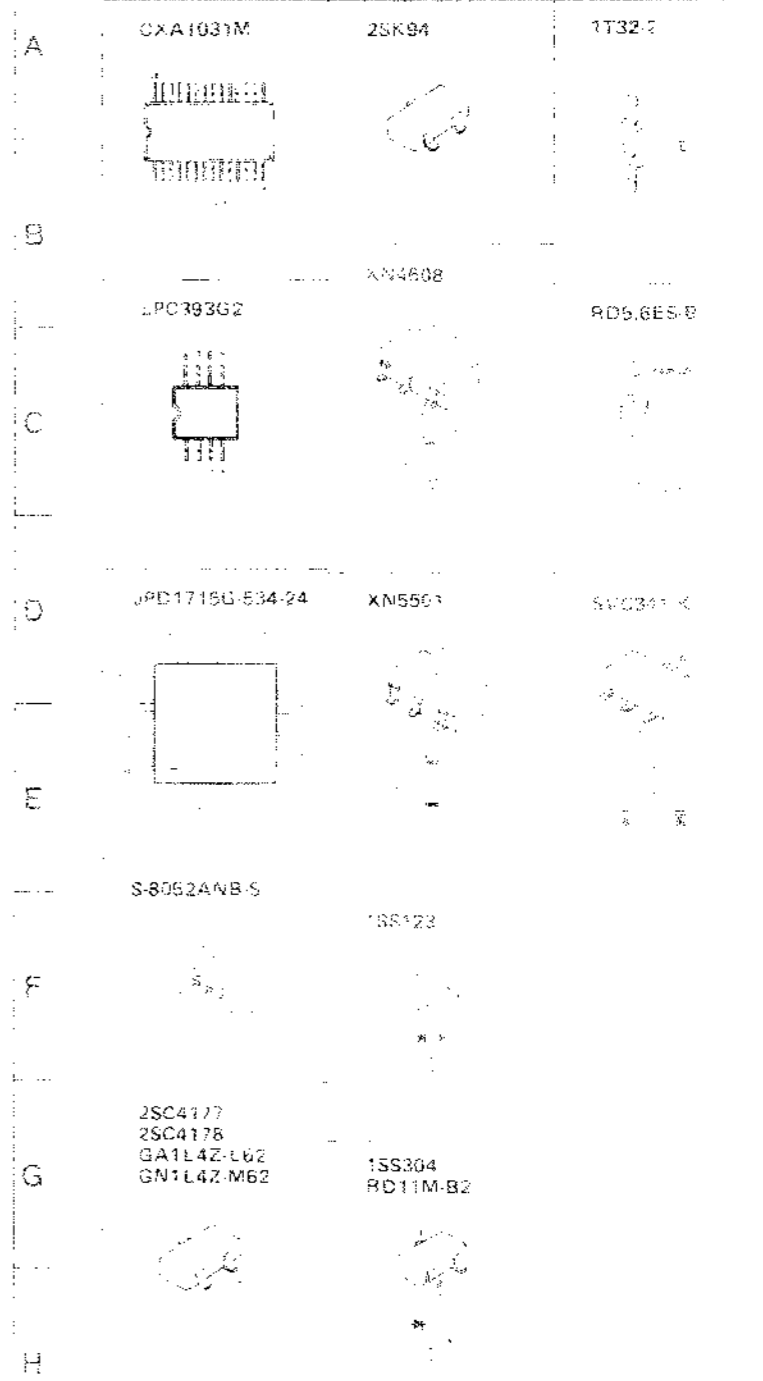
Position	Switch	Position
1	ANT. SELECT	ON
2	EXTERNAL SPEAKER	OFF
3	ENTER	ON
4	POWER AUTO OFF	OFF
5	LANG. FM/AM	OFF
6	SCAN +	OFF
7	SCAN -	OFF
8	1	OFF
9	2	OFF
10	3	OFF
11	4	OFF
12	5	OFF
13	6	OFF
14	7	OFF
15	8	OFF
16	9	OFF
17	10	OFF
18	11	OFF
19	12	OFF
20	13	OFF
21	14	OFF
22	15	OFF
23	16	OFF
24	17	OFF
25	18	OFF
26	19	OFF
27	20	OFF
28	21	OFF
29	22	OFF
30	23	OFF
31	24	OFF
32	25	OFF
33	26	OFF
34	27	OFF
35	28	OFF
36	29	OFF
37	30	OFF
38	31	OFF
39	32	OFF
40	33	OFF
41	34	OFF
42	35	OFF
43	36	OFF
44	37	OFF
45	38	OFF
46	39	OFF
47	40	OFF
48	41	OFF
49	42	OFF
50	43	OFF
51	44	OFF
52	45	OFF
53	46	OFF
54	47	OFF
55	48	OFF
56	49	OFF
57	50	OFF
58	51	OFF
59	52	OFF
60	53	OFF
61	54	OFF
62	55	OFF
63	56	OFF
64	57	OFF
65	58	OFF
66	59	OFF
67	60	OFF
68	61	OFF
69	62	OFF
70	63	OFF
71	64	OFF
72	65	OFF
73	66	OFF
74	67	OFF
75	68	OFF
76	69	OFF
77	70	OFF
78	71	OFF
79	72	OFF
80	73	OFF
81	74	OFF
82	75	OFF
83	76	OFF
84	77	OFF
85	78	OFF
86	79	OFF
87	80	OFF
88	81	OFF
89	82	OFF
90	83	OFF
91	84	OFF
92	85	OFF
93	86	OFF
94	87	OFF
95	88	OFF
96	89	OFF
97	90	OFF
98	91	OFF
99	92	OFF
100	93	OFF



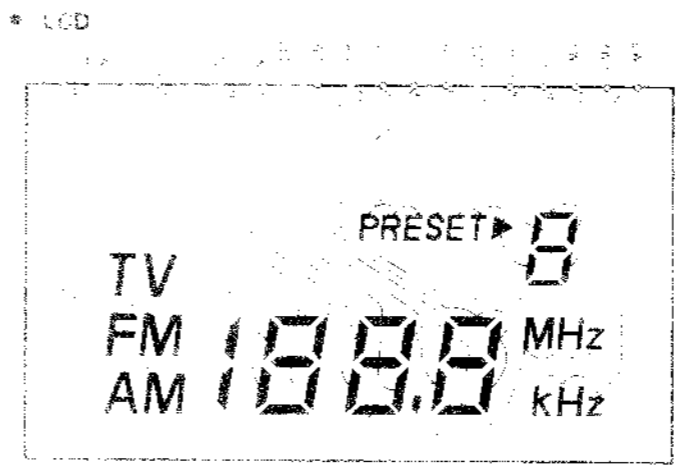
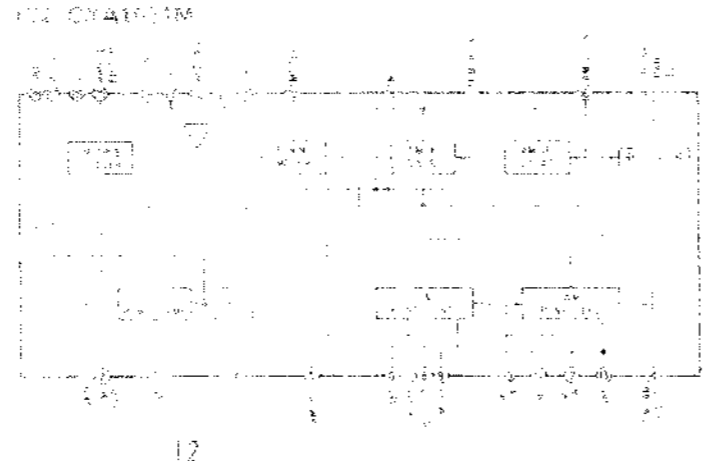
TV
FM
AM



• Semiconductor Lead Layouts

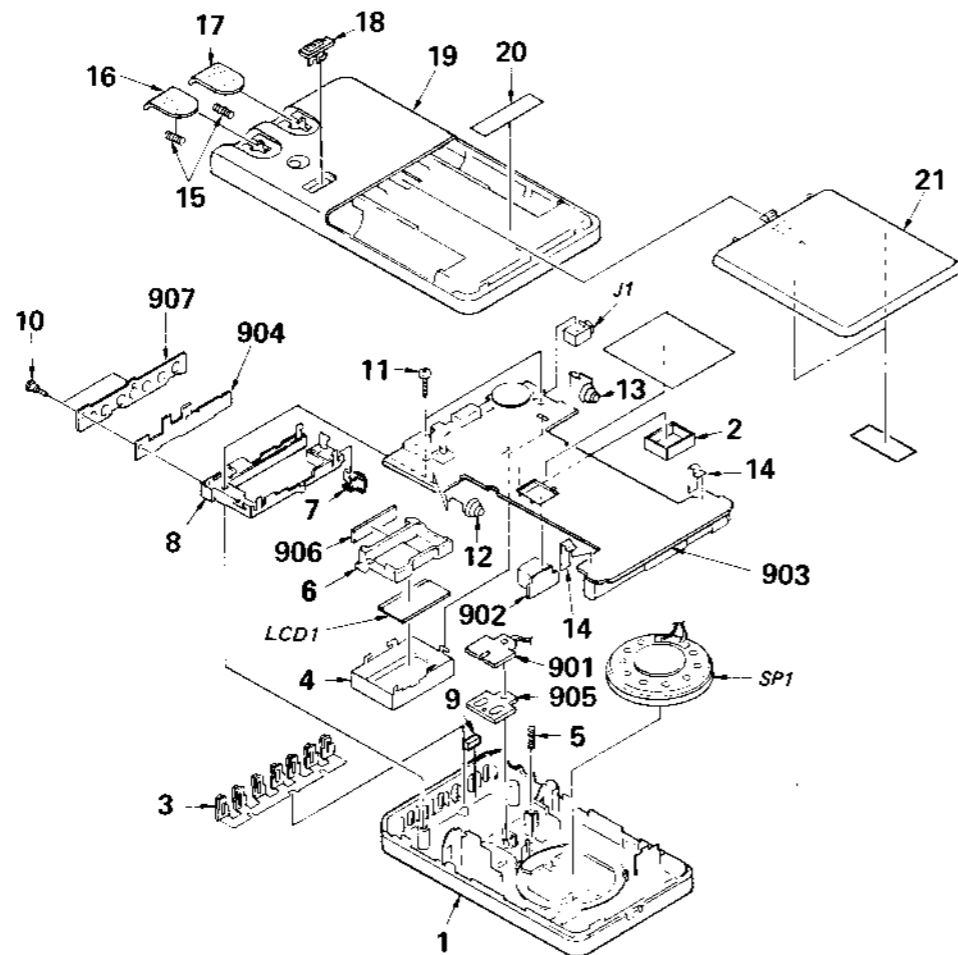


Rev. No.	Switch	Position
1	POWER	OFF
2	MONOSPEAKER	earphone
3	ENTER	OFF
4	POWER-AUTO OFF	OFF
5	FM/AM	OFF
6	SEARCH	OFF
7	RECALL	OFF
8	PRESET	OFF
9	MEMORY	OFF
10	MEMORY	OFF
11	MEMORY	OFF
12	MEMORY	OFF
13	MEMORY	OFF
14	MEMORY	OFF
15	MEMORY	OFF
16	MEMORY	OFF
17	MEMORY	OFF
18	MEMORY	OFF
19	MEMORY	OFF
20	MEMORY	OFF



SECTION 4 EXPLODED VIEW AND PARTS LIST

- NOTE:**
- The mechanical parts with no reference number in the exploded views are not supplied.
 - Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The construction parts of an assembled part are indicated with a collation number in the remark column.
 - Color Indication of Appearance Parts
Example: (RED)..... KNOB, BALANCE (WHITE)
Cabinet's Color Parts' Color



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	X-3896-625-1 X-3896-627-1	{BLACK}...CABI FRONT ASSY {SILVER}...CABI FRONT ASSY		17	3-896-652-01 3-896-652-21	{BLACK}...BUTTON (B){BAND} {SILVER}...BUTTON (B){BAND}	
2	*3-896-659-01	PLATE, SHIELD		18	3-896-650-01 3-896-650-11	{BLACK}...KNOB (B){AM SENS} {SILVER}...KNOB (B){AM SENS}	
3	X-3896-620-1 X-3896-622-1	{BLACK}...BUTTON (A) ASSY {SILVER}...BUTTON (A) ASSY		19	3-896-665-21 3-896-665-31	{BLACK}...CABINET (REAR) {SILVER}...CABINET (REAR)	
4	*3-896-658-01	HOLDER (A)		20	3-703-264-11	LABEL (B), SERIAL NO	
5	3-896-675-01	SPRING, COMPRESSION		21	3-896-663-01 3-896-663-11	{BLACK}...LID, BATTERY CASE {SILVER}...LID, BATTERY CASE	
6	*3-896-673-01	HOLDER (B)		901	*1-623-731-21	PC BOARD, SCAN	
7	3-896-649-01 3-896-649-11	{BLACK}...KNOB (A){EARPHONE/SPEAKER} {SILVER}...KNOB (A){EARPHONE/SPEAKER}		902	*1-623-732-21	PC BOARD, FILTER	
8	*3-896-662-01	CHASSIS		903	A-3689-102-A	MOUNTED PCB, MAIN	
9	9-911-839-XX	CUSHION, LED		904	1-623-730-21	PC BOARD, KEY	
10	3-896-655-01	SCREW (1.4), TAPPING		905	1-571-271-11	SWITCH, RUBBER KEY (S6.7)	
11	3-318-203-31	SCREW (B1.7X8), TAPPING		906	1-535-683-11	CONDUCTOR (CONNECTION)	
12	3-896-656-01	SPRING (A)		907	1-571-270-11	SWITCH, RUBBER KEY (S8-14)	
13	3-896-657-01	SPRING (B)		J1	1-566-896-11	JACK (EARPHONE)	
14	3-896-661-01	TERMINAL BOARD, BATTERY		LCD1	1-808-124-11	DISPLAY PANEL, LIQUID CRYSTAL	
15	3-896-660-01	SPRING, COMPRESSION		SP1	1-503-854-11	SPEAKER	
16	3-896-652-11	BUTTON (B){POWER}					

SECTION 5 ELECTRICAL PARTS LIST

- NOTE:**
- 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:µF, PF:µµF.
- RESISTORS:**
All resistors are in ohms.
F: nonflammable
- COILS:**
MMH: mH, UH: µH
- SEMICONDUCTORS:**
In each case, U: µ, for example:
UA...: µA..., UPA...: µPA..., UPC...: µPC..., UPD...: µPD...

ELECTRICAL PARTS					ELECTRICAL PARTS				
Ref.No.	Part No.	Description			Ref.No.	Part No.	Description		
901	*1-623-731-21	PC BOARD, SCAN			C44	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
902	*1-623-732-21	PC BOARD, FILTER			C45	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
903	A-3689-102-A	MOUNTED PCB, MAIN			C48	1-162-943-11	CERAMIC CHIP 15PF	5%	50V
904	1-623-730-21	PC BOARD, KEY			C49	1-164-149-11	CERAMIC CHIP 36PF	5%	50V
905	1-571-271-11	SWITCH, RUBBER KEY (S6.7)			C50	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
906	1-535-683-11	CONDUCTOR (CONNECTION)			C51	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
907	1-571-270-11	SWITCH, RUBBER KEY (S8-14)			C52	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
BP1	1-236-053-11	FILTER, BAND PASS			C53	1-162-638-11	CERAMIC CHIP 1MF	16V	
C1	1-162-953-11	CERAMIC CHIP 100PF	5%	50V	C54	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C2	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	C55	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C3	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	C56	1-163-038-00	CERAMIC CHIP 0.1MF	25V	
C4	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	C57	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C5	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	C58	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
C6	1-135-104-00	TANTAL. CHIP 22MF	20%	4V	C59	1-162-638-11	CERAMIC CHIP 1MF	16V	
C7	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	C60	1-135-104-00	TANTAL. CHIP 22MF	20%	4V
C8	1-162-934-11	CERAMIC CHIP 3PF	0.25PF	50V	C61	1-135-104-00	TANTAL. CHIP 22MF	20%	4V
C9	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	C62	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
C10	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	C63	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
C11	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	C64	1-135-100-21	TANTAL. CHIP 6.8MF	10%	6.3V
C12	1-162-945-11	CERAMIC CHIP 22PF	5%	50V	C65	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C13	1-164-145-11	CERAMIC CHIP 390PF	5%	50V	C66	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C14	1-162-941-11	CERAMIC CHIP 10PF	0.5PF	50V	C67	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C15	1-135-091-00	TANTAL. CHIP 1MF	10%	16V	C68	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C16	1-164-005-11	CERAMIC CHIP 0.47MF		25V	C69	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C17	1-163-021-00	CERAMIC CHIP 0.01MF	10%	50V	C70	1-135-098-21	TANTAL. CHIP 47MF	20%	4V
C18	1-135-099-00	TANTAL. CHIP 2.2MF	10%	6.3V	C71	1-161-379-00	CERAMIC CHIP 0.01MF	30%	16V
C19	1-135-103-00	TANTAL. CHIP 3.3MF	10%	4V	CF1	1-567-919-11	FILTER, CERAMIC		
C20	1-135-103-00	TANTAL. CHIP 3.3MF	10%	4V	CF2	1-567-921-21	FILTER, CERAMIC		
C21	1-163-986-00	CERAMIC CHIP 0.027MF	10%	25V	CF3	1-567-921-21	FILTER, CERAMIC		
C22	1-164-005-11	CERAMIC CHIP 0.47MF		25V	CF4	1-567-920-21	FILTER, CERAMIC		
C23	1-163-986-00	CERAMIC CHIP 0.027MF	10%	25V	CT1	1-141-313-11	CAP, VAR, TRIMMER (CHIP TYPE)		
C24	1-135-104-00	TANTAL. CHIP 10MF	10%	4V	CT2	1-141-325-11	CAP, VAR, TRIMMER (CHIP TYPE)		
C25	1-135-098-21	TANTAL. CHIP 47MF	20%	4V	D1	8-719-101-23	DIODE 1SS123		
C26	1-164-004-11	CERAMIC CHIP 0.1MF		25V	D2	8-719-945-30	DIODE SVC341-K		
C27	1-164-004-11	CERAMIC CHIP 0.1MF		25V	D3	8-713-220-00	DIODE 1T32-2		
C28	1-126-246-11	ELECT 220MF	20%	4V	D4	8-713-220-00	DIODE 1T32-2		
C29	1-162-638-11	CERAMIC CHIP 1MF		16V	D5	8-719-106-62	DIODE RD11M-B2		
C30	1-162-638-11	CERAMIC CHIP 1MF		16V	D6	8-719-123-85	DIODE 1SS304		
C31	1-126-210-11	ELECT 220MF	20%	4V	D7	8-719-123-85	DIODE 1SS304		
C33	1-164-005-11	CERAMIC CHIP 0.47MF		25V	D8	8-719-109-87	DIODE RD5.6ES-B		
C34	1-162-938-11	CERAMIC CHIP 7PF	0.5PF	50V	IC1	8-759-100-93	IC UPC39362		
C35	1-162-941-11	CERAMIC CHIP 10PF	0.5PF	50V	IC2	8-752-030-47	IC CXA1031M		
C36	1-135-091-00	TANTAL. CHIP 1MF	10%	16V	IC3	8-759-945-21	IC S-8052ANB-S		
C37	1-162-957-11	CERAMIC CHIP 220PF	5%	50V	IC4	8-759-140-39	IC UPD1715G-534-24		
C38	1-162-962-11	CERAMIC CHIP 470PF	10%	50V	J1	1-566-896-11	JACK (EARPHONE)		
C39	1-164-006-11	CERAMIC CHIP 0.33MF	10%	16V	L1	1-402-323-11	ANTENNA, FERRITE-ROD (MM)		
C40	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V	L2	1-406-258-21	COIL (OSC)		
C41	1-126-246-11	ELECT 220MF	20%	4V	L3	1-459-818-11	COIL (WITH CORE)		
C42	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V	L4	1-459-785-21	COIL (WITH CORE)		
C43	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V	L5	1-410-200-31	INDUCTOR CHIP 4.7UH		
					L6	1-410-200-31	INDUCTOR CHIP 4.7UH		

ELECTRICAL PARTS

Ref.No.	Part No.	Description
L7	1-410-180-41	INDUCTOR CHIP 0.1UH
L8	1-410-200-31	INDUCTOR CHIP 4.7UH
L9	1-410-200-31	INDUCTOR CHIP 4.7UH
LCD1	1-808-124-11	DISPLAY PANEL, LIQUID CRYSTAL
Q1	8-729-402-75	TRANSISTOR XN5501
Q3	8-729-402-16	TRANSISTOR XN4608
Q4	8-729-117-32	TRANSISTOR 2SC4177
Q5	8-729-117-32	TRANSISTOR 2SC4177
Q6	8-729-109-44	TRANSISTOR 2SK94
Q7	8-729-109-44	TRANSISTOR 2SK94
Q8	8-729-117-32	TRANSISTOR 2SC4177
Q9	8-729-118-12	TRANSISTOR GAIL4Z-L62
Q10	8-729-118-21	TRANSISTOR GNIL4Z-M62
Q11	8-729-117-72	TRANSISTOR 2SC4178
Q12	8-729-117-32	TRANSISTOR 2SC4177
Q13	8-729-117-72	TRANSISTOR 2SC4178
R1	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R2	1-216-841-11	METAL GLAZE 47K 5% 1/16W
R3	1-216-823-11	METAL GLAZE 1.5K 5% 1/16W
R4	1-216-133-00	METAL GLAZE 3.3M 5% 1/10W
R5	1-216-838-11	METAL GLAZE 27K 5% 1/16W
R6	1-216-841-11	METAL GLAZE 47K 5% 1/16W
R7	1-216-845-11	METAL GLAZE 100K 5% 1/16W
R8	1-216-841-11	METAL GLAZE 47K 5% 1/16W
R9	1-216-833-11	METAL GLAZE 10K 5% 1/16W
R10	1-216-857-11	METAL GLAZE 1M 5% 1/16W
R11	1-216-835-11	METAL GLAZE 15K 5% 1/16W
R12	1-216-814-11	METAL GLAZE 270 5% 1/16W
R13	1-216-865-11	METAL GLAZE 3K 5% 1/16W
R14	1-216-805-11	METAL GLAZE 47 5% 1/16W
R16	1-216-845-11	METAL GLAZE 100K 5% 1/16W
R17	1-216-845-11	METAL GLAZE 100K 5% 1/16W
R18	1-216-841-11	METAL GLAZE 47K 5% 1/16W
R19	1-216-841-11	METAL GLAZE 47K 5% 1/16W
R20	1-216-833-11	METAL GLAZE 10K 5% 1/16W
R21	1-216-829-11	METAL GLAZE 4.7K 5% 1/16W
R22	1-216-809-11	METAL GLAZE 100 5% 1/16W
R23	1-216-853-11	METAL GLAZE 470K 5% 1/16W
R24	1-216-821-11	METAL GLAZE 1K 5% 1/16W
R25	1-216-841-11	METAL GLAZE 47K 5% 1/16W
R26	1-216-841-11	METAL GLAZE 47K 5% 1/16W
R27	1-216-845-11	METAL GLAZE 100K 5% 1/16W
R28	1-216-845-11	METAL GLAZE 100K 5% 1/16W
R29	1-216-821-11	METAL GLAZE 1K 5% 1/16W
R30	1-216-833-11	METAL GLAZE 10K 5% 1/16W
R31	1-216-829-11	METAL GLAZE 4.7K 5% 1/16W
R32	1-216-833-11	METAL GLAZE 10K 5% 1/16W
R33	1-216-830-11	METAL GLAZE 5.6K 5% 1/16W
R34	1-216-828-11	METAL GLAZE 3.9K 5% 1/16W
R35	1-216-837-11	METAL GLAZE 22K 5% 1/16W
R36	1-216-797-11	METAL GLAZE 10 5% 1/16W
R37	1-216-830-11	METAL GLAZE 5.6K 5% 1/16W
R38	1-216-830-11	METAL GLAZE 5.6K 5% 1/16W
R39	1-216-830-11	METAL GLAZE 5.6K 5% 1/16W
R42	1-216-830-11	METAL GLAZE 5.6K 5% 1/16W
R43	1-216-831-11	METAL GLAZE 6.8K 5% 1/16W
R44	1-216-857-11	METAL GLAZE 1M 5% 1/16W
R45	1-216-845-11	METAL GLAZE 100K 5% 1/16W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R46	1-216-817-11	METAL GLAZE 470 5% 1/16W
R47	1-216-845-11	METAL GLAZE 100K 5% 1/16W
R48	1-216-809-11	METAL GLAZE 100 5% 1/16W
R49	1-216-827-11	METAL GLAZE 3.3K 5% 1/16W
R50	1-216-827-11	METAL GLAZE 3.3K 5% 1/16W
R51	1-216-827-11	METAL GLAZE 3.3K 5% 1/16W
R52	1-216-827-11	METAL GLAZE 3.3K 5% 1/16W
R53	1-216-821-11	METAL GLAZE 1K 5% 1/16W
R54	1-216-821-11	METAL GLAZE 1K 5% 1/16W
R55	1-216-821-11	METAL GLAZE 1K 5% 1/16W
R56	1-216-821-11	METAL GLAZE 1K 5% 1/16W
R57	1-216-864-11	METAL GLAZE 0 5% 1/16W
R58	1-216-864-11	METAL GLAZE 0 5% 1/16W
R61	1-216-864-11	METAL GLAZE 0 5% 1/16W
R62	1-216-864-11	METAL GLAZE 0 5% 1/16W
R63	1-216-864-11	METAL GLAZE 0 5% 1/16W
R64	1-216-864-11	METAL GLAZE 0 5% 1/16W
R65	1-216-864-11	METAL GLAZE 0 5% 1/16W
R66	1-216-864-11	METAL GLAZE 0 5% 1/16W
R67	1-216-864-11	METAL GLAZE 0 5% 1/16W
R68	1-216-864-11	METAL GLAZE 0 5% 1/16W
R69	1-216-864-11	METAL GLAZE 0 5% 1/16W
R70	1-216-295-00	METAL GLAZE 0 5% 1/10W
R71	1-216-295-00	METAL GLAZE 0 5% 1/10W
R72	1-216-295-00	METAL GLAZE 0 5% 1/10W
RV1	1-237-870-11	RES, VAR, CARBON 20K (VOLUME)
RV2	1-237-119-11	RES, ADJ, METAL GLAZE 22K
S1	1-571-120-21	SWITCH, SLIDE (AM SENS)
S2	1-571-120-21	SWITCH, SLIDE (EARPHONE/SPEAKER)
S3	1-554-371-21	SWITCH, TACT (ENTER)
S4	1-570-204-11	SWITCH, KEY BOARD (POWER/AUTO OFF)
S5	1-570-204-11	SWITCH, KEY BOARD (BAND)
SP1	1-503-854-11	SPEAKER
T1	1-404-759-21	TRANSFORMER, IF
T2	1-449-021-21	TRANSFORMER, DC-DC CONVERTER
X1	1-567-769-11	VIBRATOR, CRYSTAL (75kHz)

ACCESSORY & PACKING MATERIAL

2-357-928-01	ATTACHMENT
3-703-906-01	LABEL, COLOR
3-703-921-01	LABEL, COLOR
3-892-526-01	BAG, PROTECTION
3-896-683-01	CASE, CARRYING
3-896-687-01	INDIVIDUAL CARTON
3-990-127-11	MANUAL, INSTRUCTION
3-990-127-41	MANUAL, INSTRUCTION
8-952-277-90	EARPHONE MDR-E111 SET