

SK-51F

P

SK-61F

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SK-71F

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MW/SW1/SW2/FM STEREO
RADIO CASSETTE RECORDERMW/SW1/SW2/FM STEREO
RADIO CASSETTE RECORDERMW/SW1/SW2/FM STEREO
RADIO CASSETTE RECORDER

SERVICE MANUAL

Subject: The differences with the model SK-51, 61, 71/KU are mentioned in this service manual. So please make use of this manual together with the one for SK-51, 61, 71/KU.

SPECIFICATIONS

Max. music power	30W (total music power)	(SK-61F)	Clock (LCD), calendor (LCD), timer (LCD), sleep timer (LCD), tape counter (LCD), REC (Red LED), song finder (Red LED), auto repeat (Green LED), FM stereo (Red LED), tuning (Green LED), battery check (Red LED)
Speaker	16 cm (6-1/4 in.) Woofer, 4.2 cm (1-5/8 in.) Tweeter, (2 way system)	(SK-71F)	REC (Red LED × 2), auto repeat (Green LED), memory (Red LED), song finder (Red LED), manual REC (Red LED), Dolby NR (Green LED), FM stereo (Red LED), battery check (Red LED), level meter (2 series 11 point Red and Green LED), access tuning (Red LED, Green LED × 2)
Wow and flutter	0.08% (WRMS)	Frequency range	FM: 88 ~ 108 MHz MW: 525 ~ 1,605 kHz SW1: 2 ~ 6 MHz SW2: 6 ~ 18 MHz
Frequency response	With anti-rolling system 50 ~ 12,000 Hz (SK-51F) 50 ~ 13,000 Hz (Chrome) (SK-61F, 71F)	Power source	120/220V AC 50/60 Hz, 13.5V DC (Nine 1.5V "D" batteries), EXT 12V DC 1.5V DC (One "AA" battery, for timer) (SK-61F)
Input	AUX L/R, EXT MIC L/R (with terminal for remote control use), MIX MIC (with terminal for remote control use), EXT FM ANT	Power consumption	16W (SK-51F, 61F) 19W (SK-71F)
Output	LINE OUT L/R, EXT SP L/R, headphone	Dimensions	
Subfunction		(W × H × D)	530 × 280 × 135 mm (20-7/8 × 11 × 5-3/8 in.)
(SK-51F)	One side repeat, song repeat, programmable repeat, tape counter memory, song finder, editor, one touch recording, loudness switch	Weight	6.5 kg (14.3 lbs) without batteries (SK-51F, 61F) 6.8 kg (15 lbs) without batteries (SK-71F)
(SK-61F)	Sleep/timer/clock/counter, one side repeat, song repeat, song finder, editor, one touch recording, loudness switch, tape selector (Normal/CrO ₂)	Note:	
(SK-71F)	One side repeat, song repeat, programmable repeat, tape counter memory, song finder, editor, one touch recording, Dolby noise reduction, manual recording level control, tape selector (Normal/CrO ₂), loudness switch	Specifications and the design are subject to possible modification without notice due to improvements.	
Indicator		* The word "Dolby" and  are trademarks of Dolby Laboratories.	
(SK-51F)	Play (Green LED), FF (Red LED), REW (Red LED), REC (Red LED), song finder (Red LED), auto repeat (Green LED), memory (Red LED), FM stereo (Red LED), tuning (Green LED), battery check (Red LED)		

 **PIONEER®**

ADJUSTMENT

MW IF ADJUSTMENT

● Connection Diagram

Switch position

Band switchMW

Generator Scope

Sweep center frequency 455 kHz

Input gain 0.3 Vp-p/cm

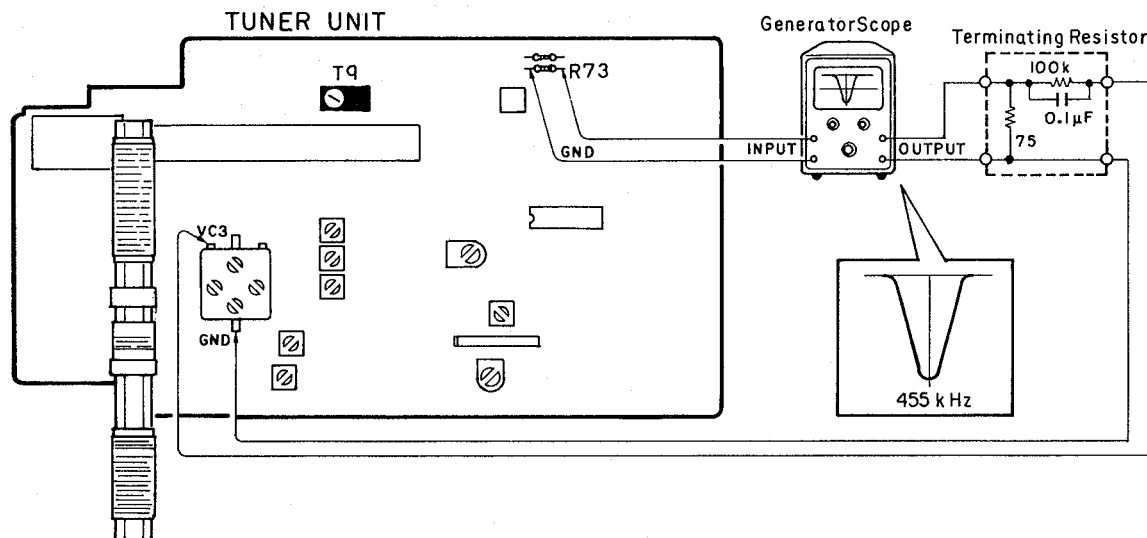


Fig. 1

● To Adjust

1. Set the input of the Generator Scope to the range within which the U curve can be verified and move the T9 until

the U curve is adjusted to its maximum amplitude and optimum symmetry.

MW TRACKING ADJUSTMENT

● Connection Diagram

Switch position

Band switchMW

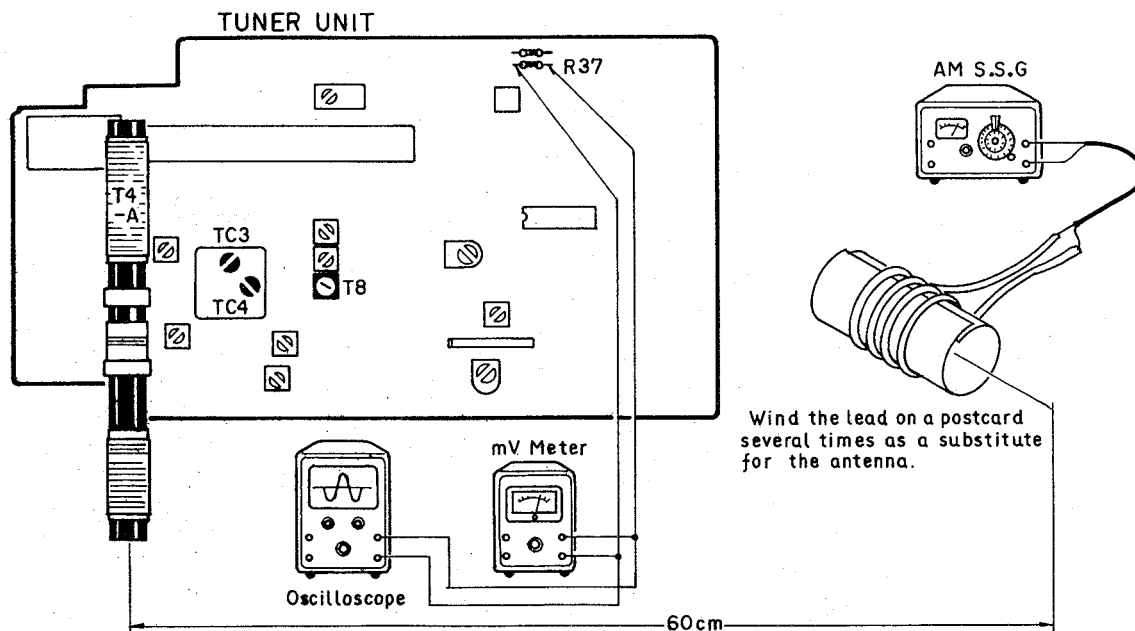


Fig. 2

ADJUSTMENT

SK-51F

SK-61F

SK-71F

● To Adjust

Frequency of SSG	Variable Condenser Position	Adjusting Point	Remarks
1. 510 kHz (400 Hz, 30% modulation) output 40 ~ 60 dB/m.	Maximum (turn the tuning knob counterclockwise.)	T8	510 kHz can be received.
2. 1,650 kHz (400 Hz, 30% modulation) output 40 ~ 60 dB/m.	Minimum (turn the tuning knob clockwise.)	TC4	1,650 kHz can be received.
3. Repeat (1) and (2) alternately and adjust so that 510 ~ 1,650 kHz are received.			
4. 600 kHz (400 Hz, 30% modulation) output 40 ~ 50 dB/m.	Tuned to 600 kHz.	T4-A (Coil of bar antenna)	Maximum output.
5. 1,400 kHz (400 Hz, 30% modulation) output 40 ~ 50 dB/m.	Tuned to 1,400 kHz.	TC3	Maximum output.
6. Repeat (4) and (5) alternately and confirm that they are as specified.			

Note: After adjusting T4-A (Coil of bar antenna), melt electro wax with soldering iron and fix it in position.

SW1 TRACKING ADJUSTMENT

● Connection Diagram

Switch position

Band switchSW1

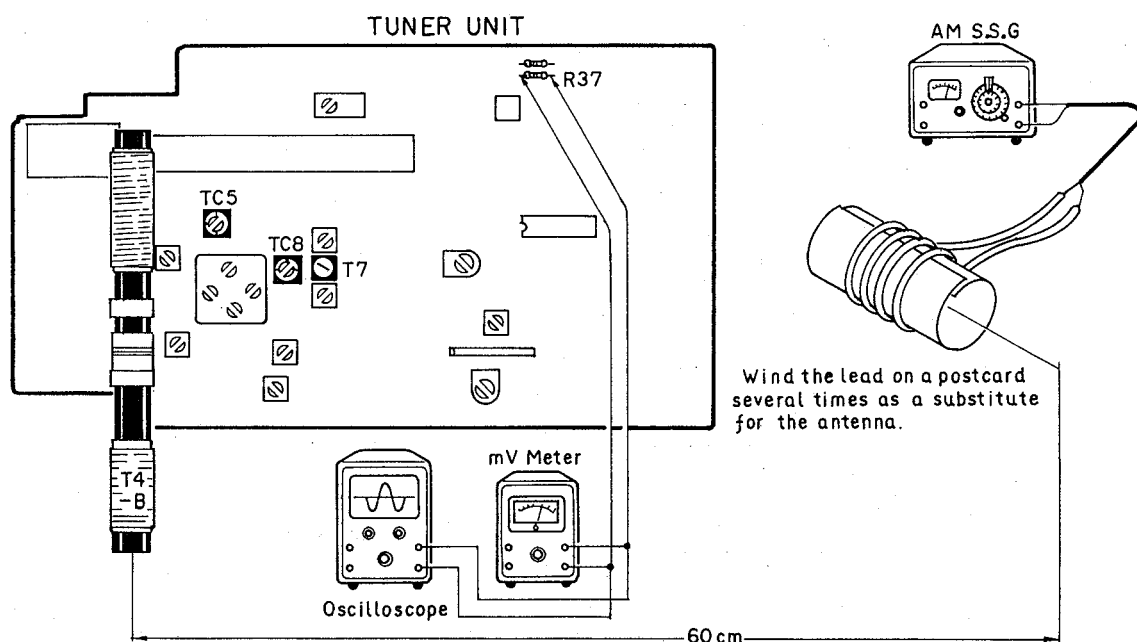


Fig. 3

ADJUSTMENT

● To Adjust

Frequency of SSG	Variable Condenser Position	Adjusting Point	Remarks
1. 1.9 MHz (400 Hz, 30% modulation) output 40 ~ 60 dB/m.	Maximum (turn the tuning knob counterclockwise.)	T7	1.9 MHz can be received.
2. 6.5 MHz (400 Hz, 30% modulation) output 40 ~ 60 dB/m.	Minimum (turn the tuning knob clockwise.)	TC8	6.5 MHz can be received.
3. Repeat (1) and (2) alternately and adjust so that 1.9 ~ 6.5 MHz are received.			
4. 2.5 MHz (400 Hz, 30% modulation) output 40 ~ 50 dB/m.	Tuned to 2.5 MHz.	T4-B (SW coil of bar antenna)	Maximum output.
5. 5.5 MHz (400 Hz, 30% modulation) output 40 ~ 50 dB/m.	Tuned to 5.5 MHz	TC5	Maximum output.
6. Repeat (4) and (5) alternately and confirm that they are as specified.			

Note: After adjusting T4-B (SW coil of bar antenna), melt electro wax with soldering iron and fix it in position.

SW2 TRACKING ADJUSTMENT

● Connection Diagram

Switch position

Band switchSW2

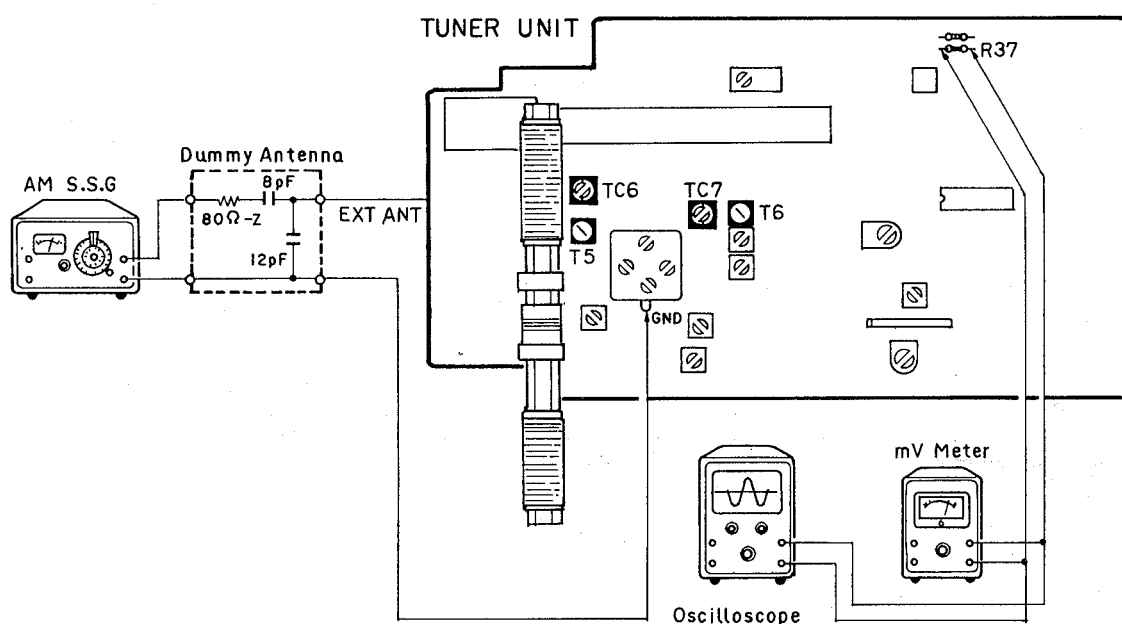


Fig. 4

● To Adjust

Frequency of SSG	Variable Condenser Position	Adjusting Point	Remarks
1. 5.5 MHz (400 Hz, 30% modulation) output 40 ~ 60 dB/m.	Maximum (turn the tuning knob counterclockwise.)	T6	5.5 MHz can be received.
2. 18.5 MHz (400 Hz, 30% modulation) output 40 ~ 60 dB/m.	Minimum (turn the tuning knob clockwise.)	TC7	18.5 MHz can be received.
3. Repeat (1) and (2) alternately and adjust so that 5.5 ~ 18.5 MHz are received.			
4. 7 MHz (400 Hz, 30% modulation) output 40 ~ 50 dB/m.	Tuned to 7 MHz.	T5	Maximum output.
5. 17 MHz (400 Hz, 30% modulation) output 40 ~ 50 dB/m.	Tuned to 17 MHz.	TC6	Maximum output.
6. Repeat (4) and (5) alternately and confirm that they are as specified.			

FM IF ADJUSTMENT

● Connection Diagram

Switch position
Band switch FM AUTO

Generator Scope
Sweep center frequency 10.7 MHz
Input gain 0.3 Vp-p/cm
Marker OFF or minimum

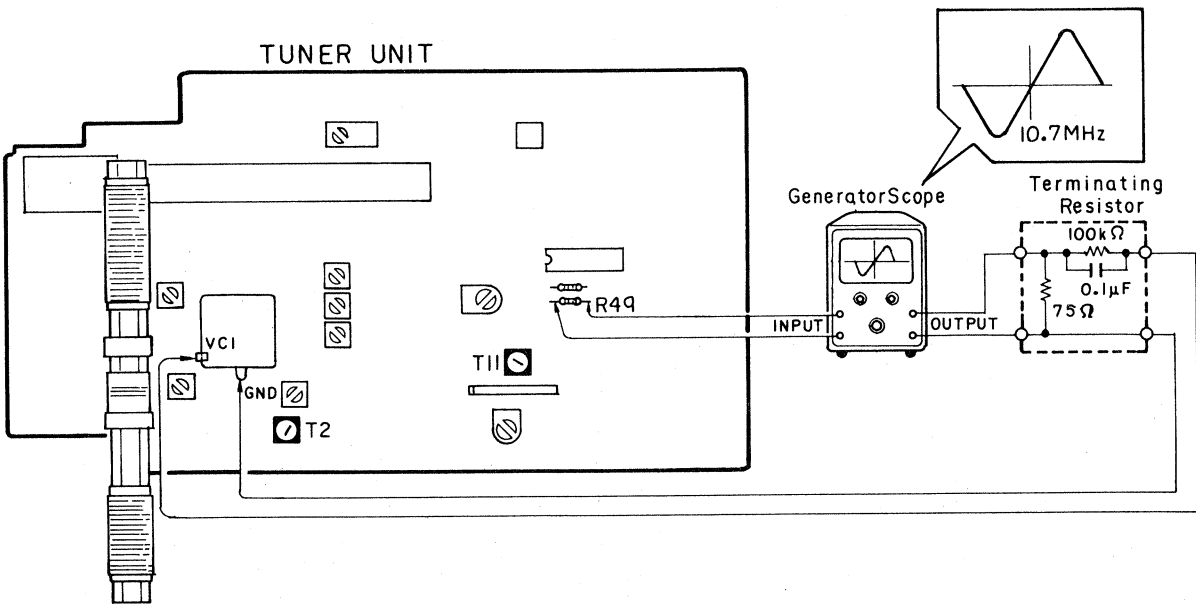


Fig. 5

● To Adjust

1. Apply an output of about 70 dB (μV) from the Generator Scope, adjust T2 and T11 and adjust so that the S curve becomes vertically symmetrical and optimum linearity is obtained.

FM TRACKING and ACCESS TUNING ADJUSTMENT

● Connection Diagram

Switch position
Band switch FM AUTO

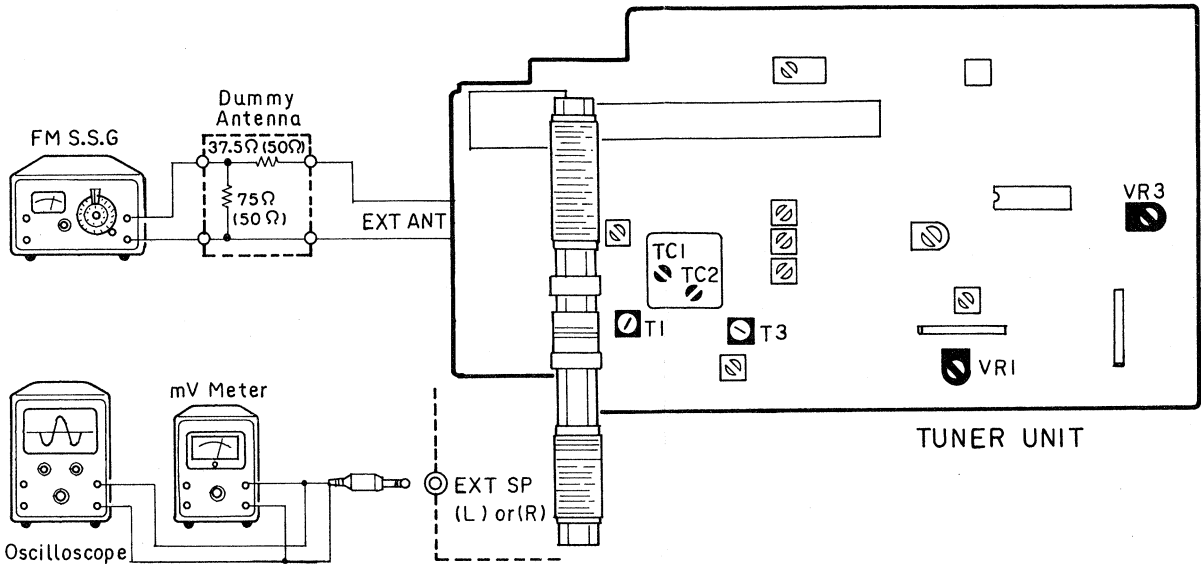


Fig. 6

● To Adjust

Frequency of FM SSG	Variable Condenser Position	Adjusting Point	Remarks
1. 86.5 MHz (400 Hz, 75 kHz deviation) output 20 ~ 60 dB (μV).	Maximum (turn the tuning knob counterclockwise.)	T3	86.5 MHz can be received.
2. 109.5 MHz (400 Hz, 75 kHz deviation) output 20 ~ 60 dB (μV).	Minimum (turn the tuning knob clockwise.)	TC2	109.5 MHz can be received.
3. Repeat (1) and (2) alternately and adjust so that 86.5 ~ 109.5 MHz are received.			
4. 90 MHz (400 Hz, 75 kHz deviation) output 20 ~ 30 dB (μV).	Tuned to 90 MHz.	T1	Maximum output.
5. 106 MHz (400 Hz, 75 kHz deviation) output 20 ~ 30 dB (μV).	Tuned to 106 MHz.	TC1	Maximum output.
6. Repeat (4) and (5) alternately and adjust until tracking error disappears.			

SK-51F, 61F

98 MHz (400 Hz, 75 kHz deviation) output 25 dB (μV).	Tune to 98 MHz.	VR1	Tuning LED must light.
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SK-71F

98 MHz (400 Hz, 75 kHz deviation) output 25 dB (μV).	Perform detuning to right and left with 98 MHz as the center.	VR3	Check if the green LEDs on both ends light in a well-balanced manner.
98 MHz (400 Hz, 75 kHz deviation) output 25 dB (μV).	Tune to 98 MHz.	VR1	Red LED must light.

FM TRACKING and ACCESS TUNING ADJUSTMENT

● Connection Diagram

Switch position

Band switch FM AUTO

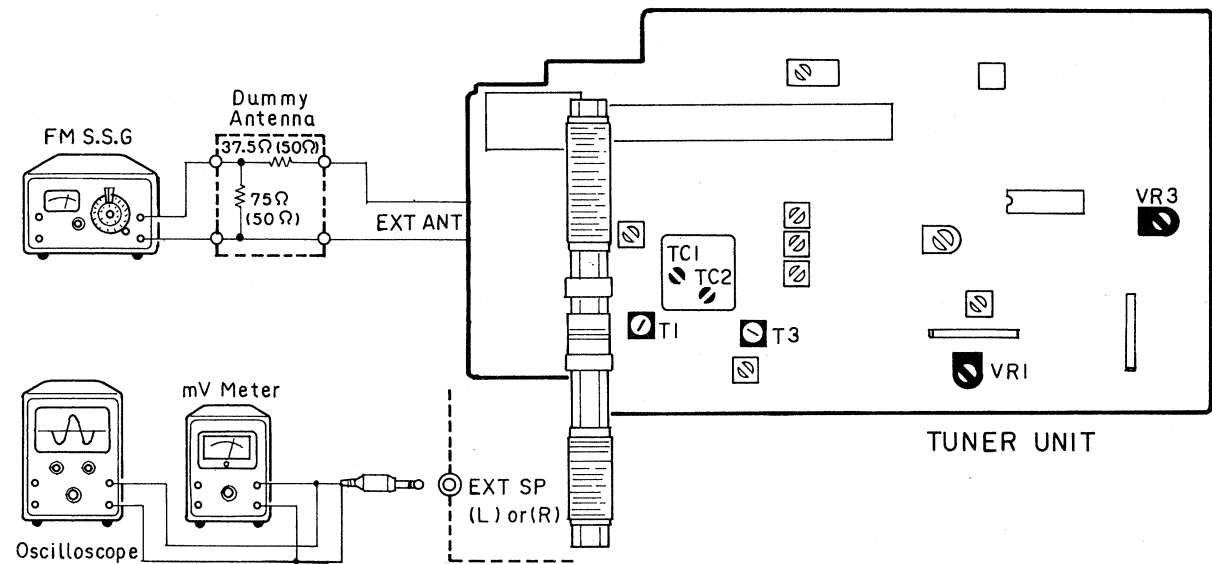


Fig. 6

● To Adjust

Frequency of FM SSG	Variable Condenser Position	Adjusting Point	Remarks
1. 86.5 MHz (400 Hz, 75 kHz deviation) output 20 ~ 60 dB (μV).	Maximum (turn the tuning knob counterclockwise.)	T3	86.5 MHz can be received.
2. 109.5 MHz (400 Hz, 75 kHz deviation) output 20 ~ 60 dB (μV).	Minimum (turn the tuning knob clockwise.)	TC2	109.5 MHz can be received.
3. Repeat (1) and (2) alternately and adjust so that 86.5 ~ 109.5 MHz are received.			
4. 90 MHz (400 Hz, 75 kHz deviation) output 20 ~ 30 dB (μV).	Tuned to 90 MHz.	T1	Maximum output.
5. 106 MHz (400 Hz, 75 kHz deviation) output 20 ~ 30 dB (μV).	Tuned to 106 MHz.	TC1	Maximum output.
6. Repeat (4) and (5) alternately and adjust until tracking error disappears.			

SK-51F, 61F

98 MHz (400 Hz, 75 kHz deviation) output 25 dB (μV).	Tune to 98 MHz.	VR1	Tuning LED must light.
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SK-71F

98 MHz (400 Hz, 75 kHz deviation) output 25 dB (μV).	Perform detuning to right and left with 98 MHz as the center.	VR3	Check if the green LEDs on both ends light in a well-balanced manner.
98 MHz (400 Hz, 75 kHz deviation) output 25 dB (μV).	Tune to 98 MHz.	VR1	Red LED must light.

FM MPX ADJUSTMENT

● Connection Diagram

Switch position

Band switch FM AUTO

MPX modulator

Modulation frequency..... 1 kHz

Modulation 100%

Pilot 7.5 kHz

Main 67.5 kHz

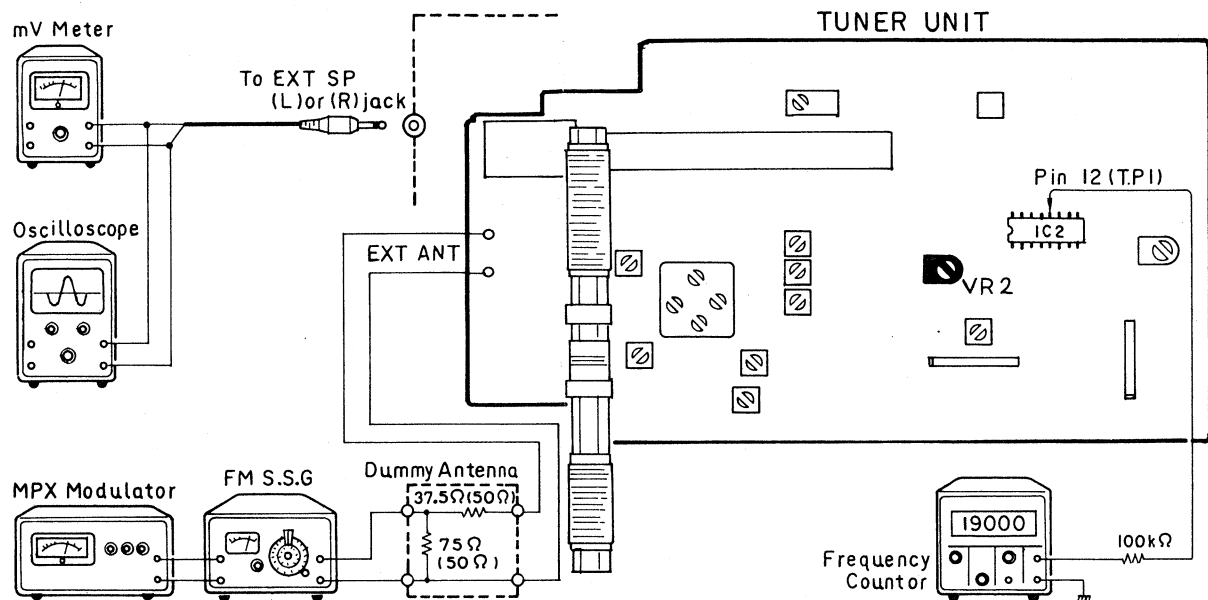
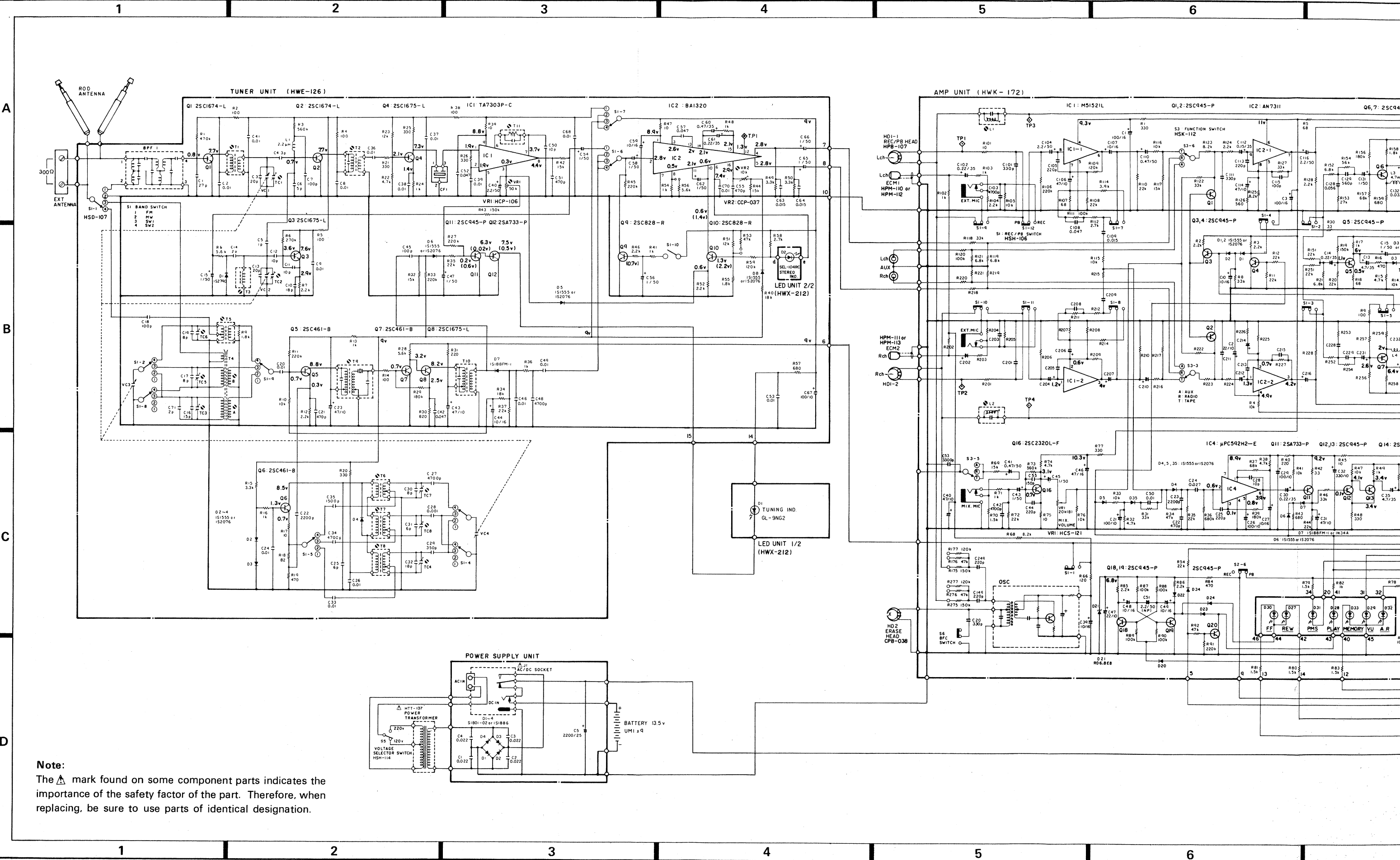


Fig. 7

● To Adjust

1. Apply an 98 MHz 10 dB signal from the FM SSG, and rotate the tuning knob to tune into 98 MHz.
2. Set the FM SSG output to 60 dB and set the modulation to OFF.
3. Adjust VR2 so that the frequency counter indicates 19 kHz ±20 Hz.

SCHEMATIC CIRCUIT DIAGRAM (SK-51F)



SK-51F
SK-61F
SK-71F

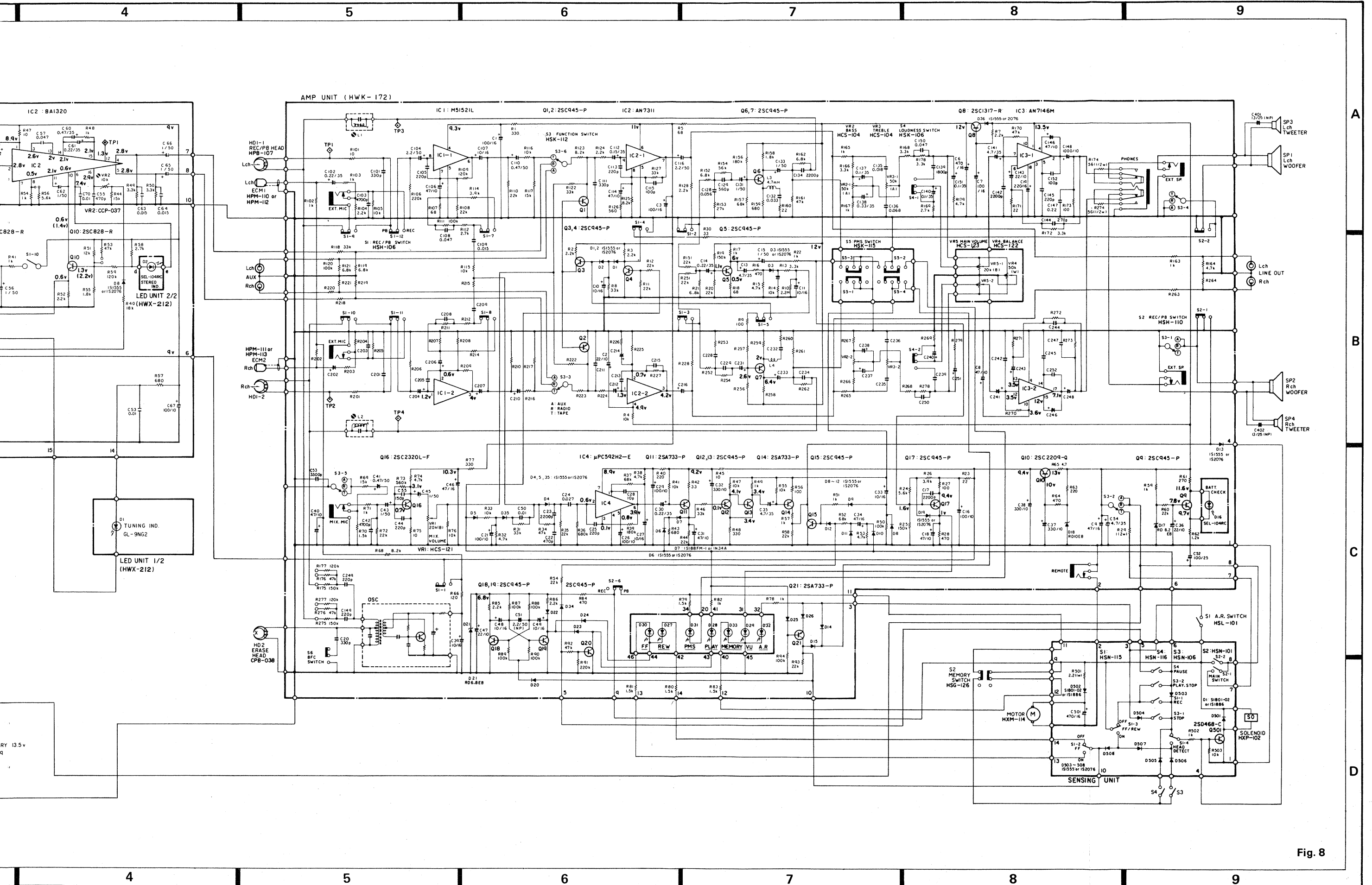
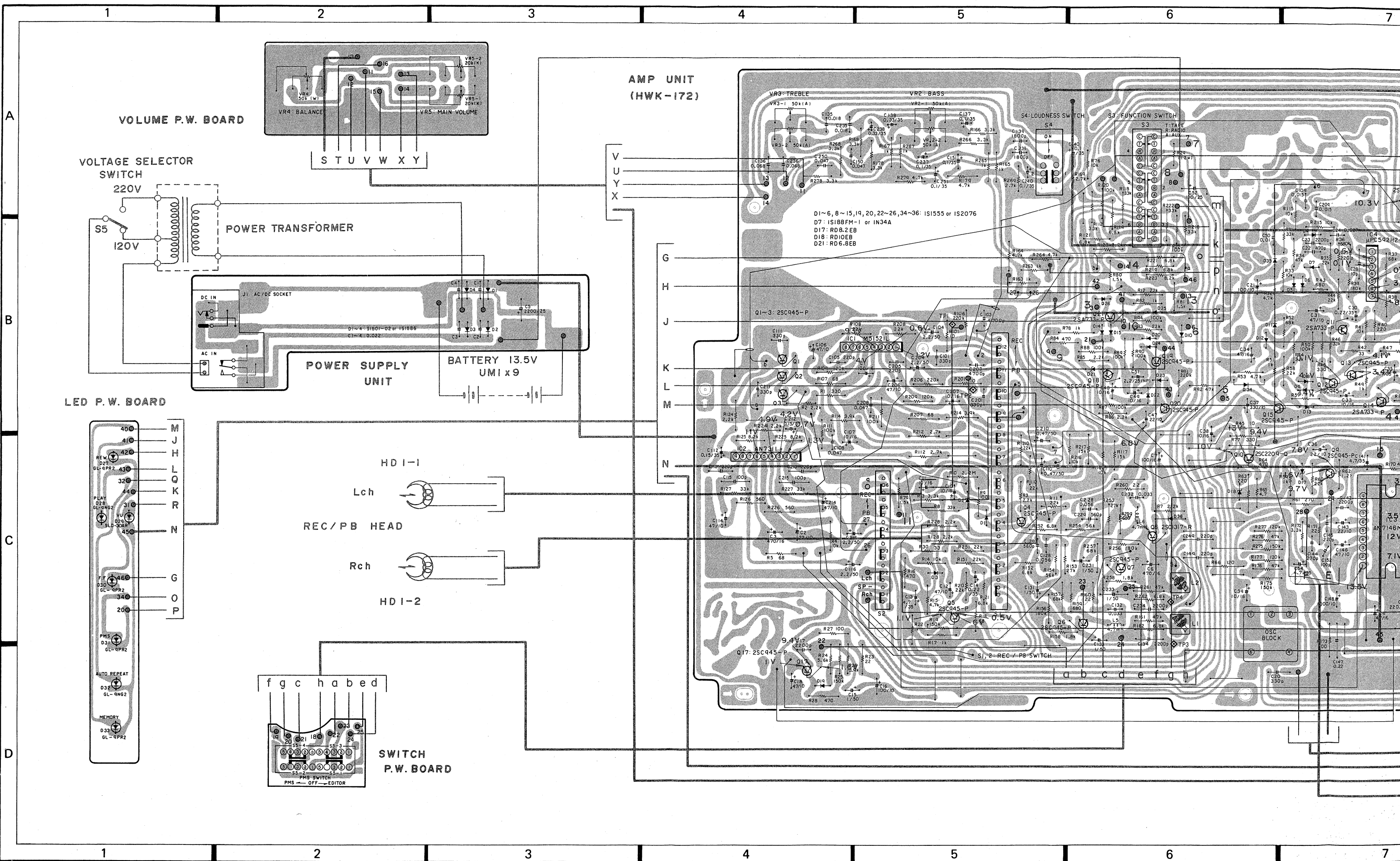


Fig. 8

CONNECTION DIAGRAM (SK-51F)



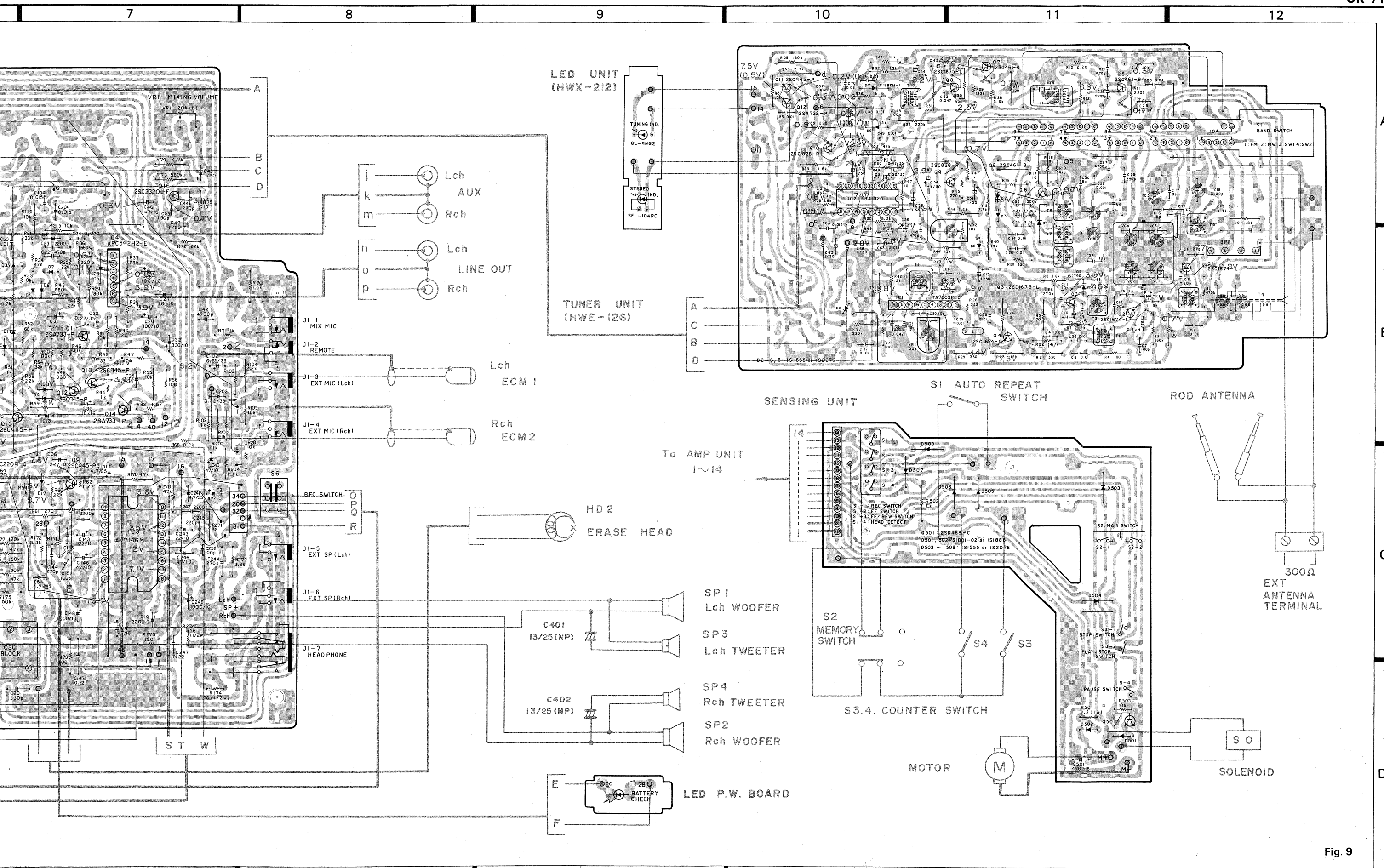
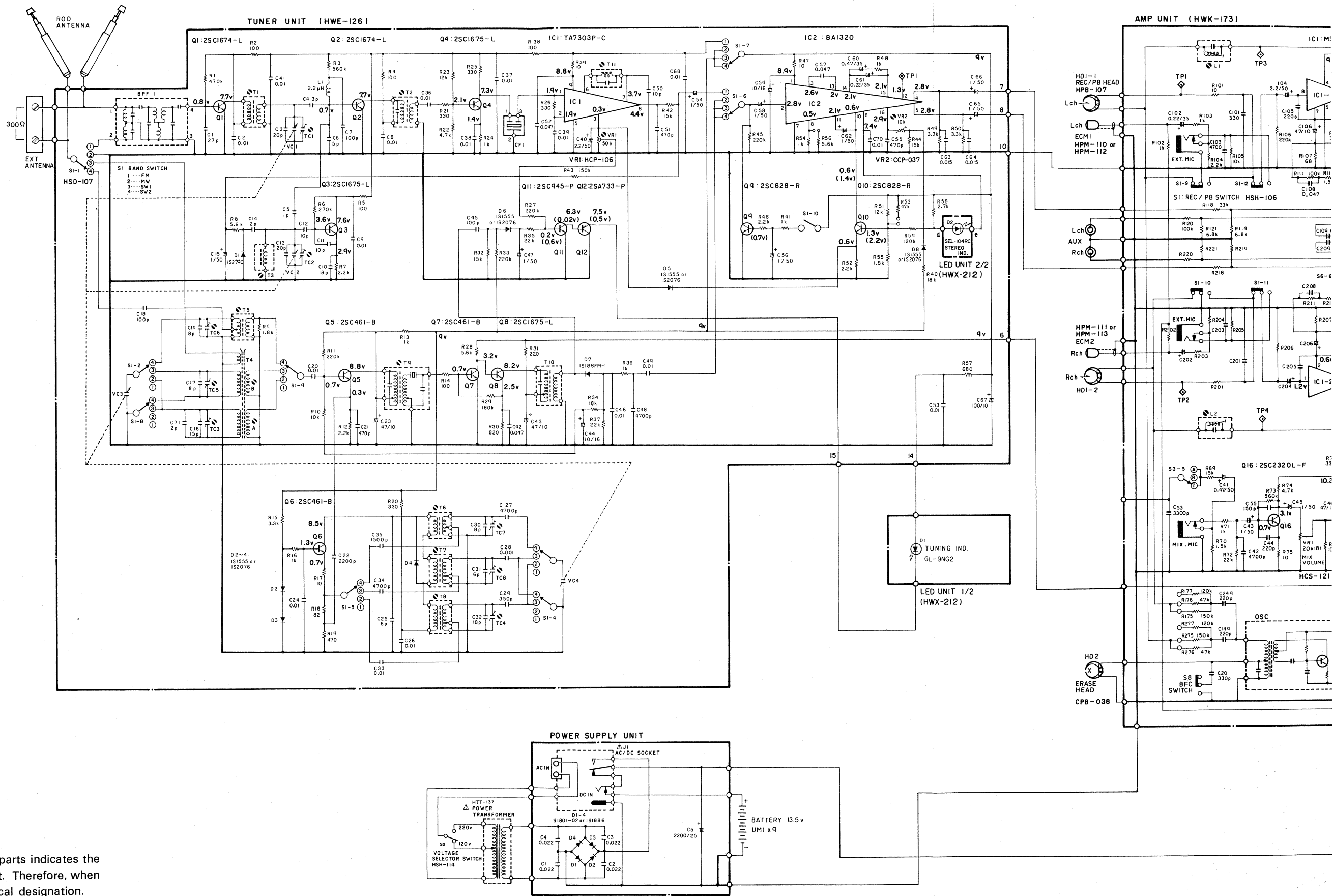
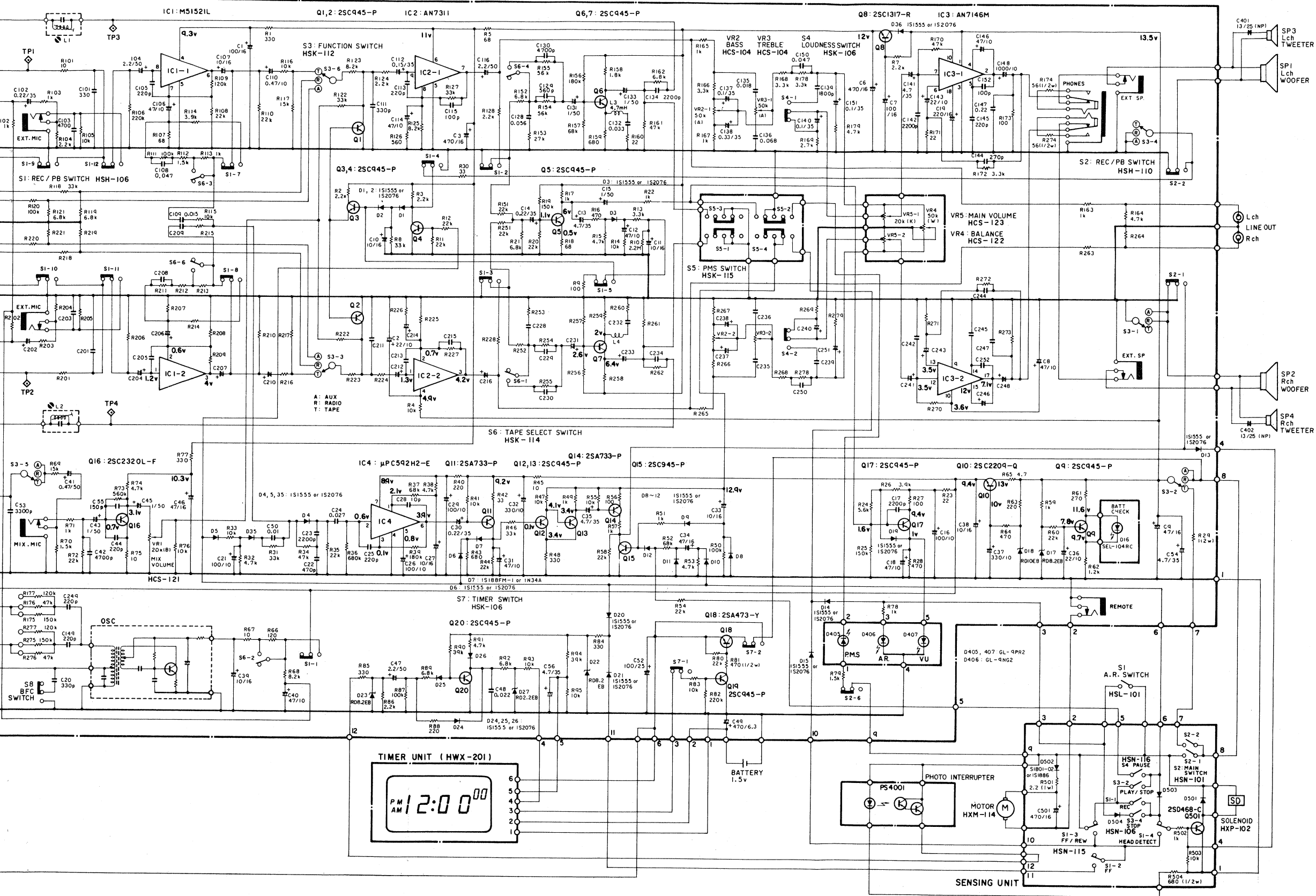


Fig. 9

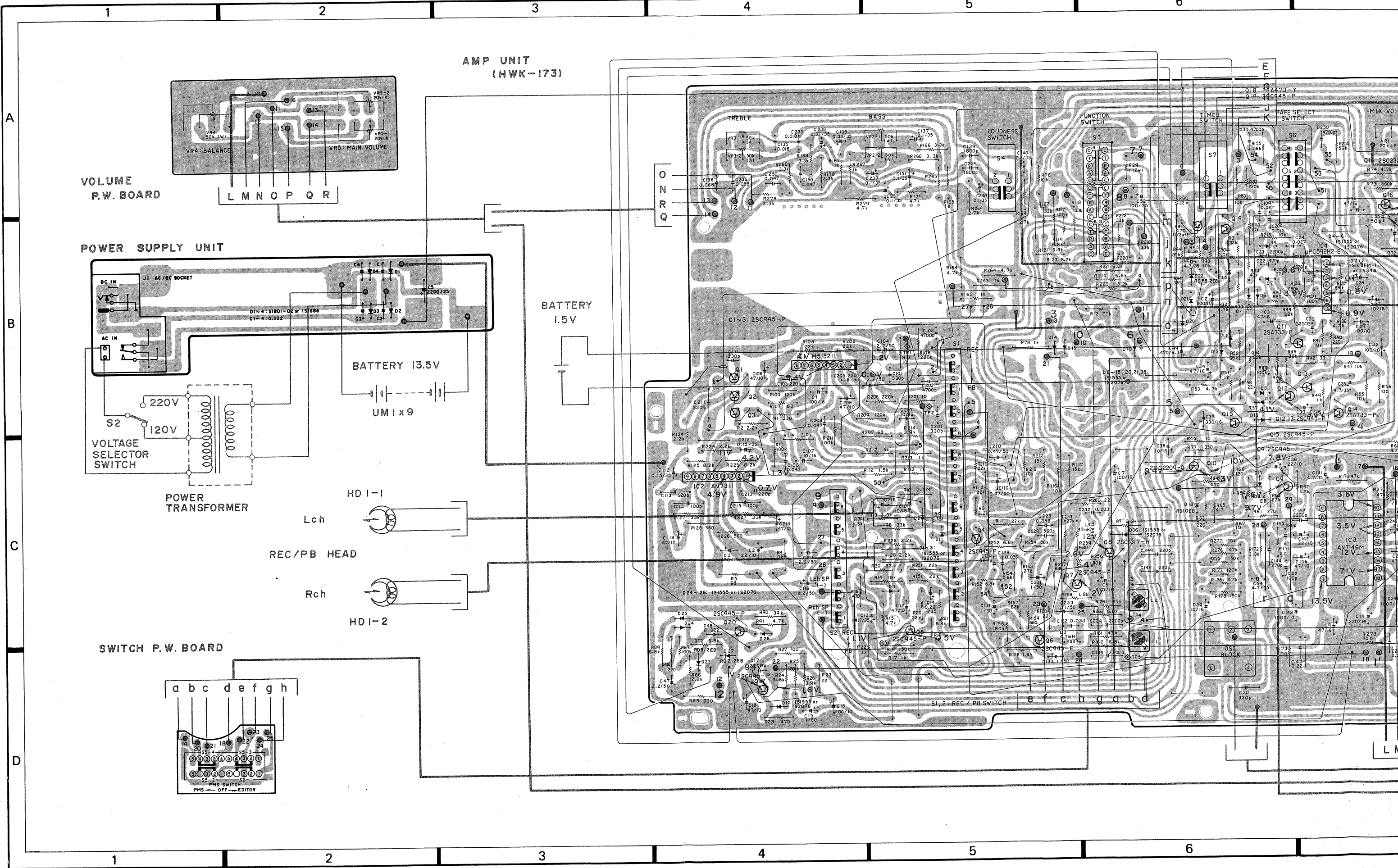
CHEMATIC CIRCUIT DIAGRAM (SK-61F)



UNIT (HWK-173)



CONNECTION DIAGRAM (SK-61F)



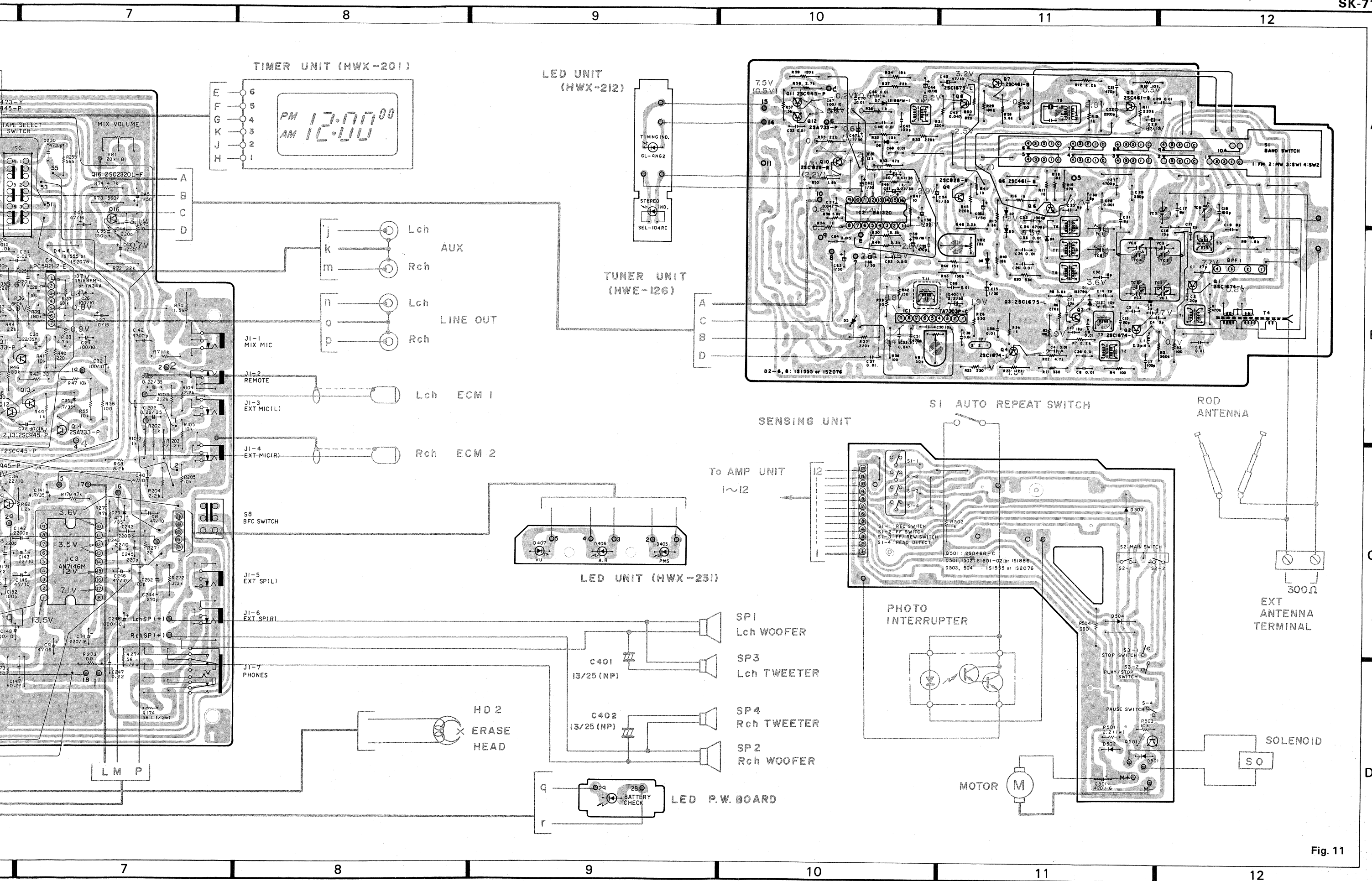
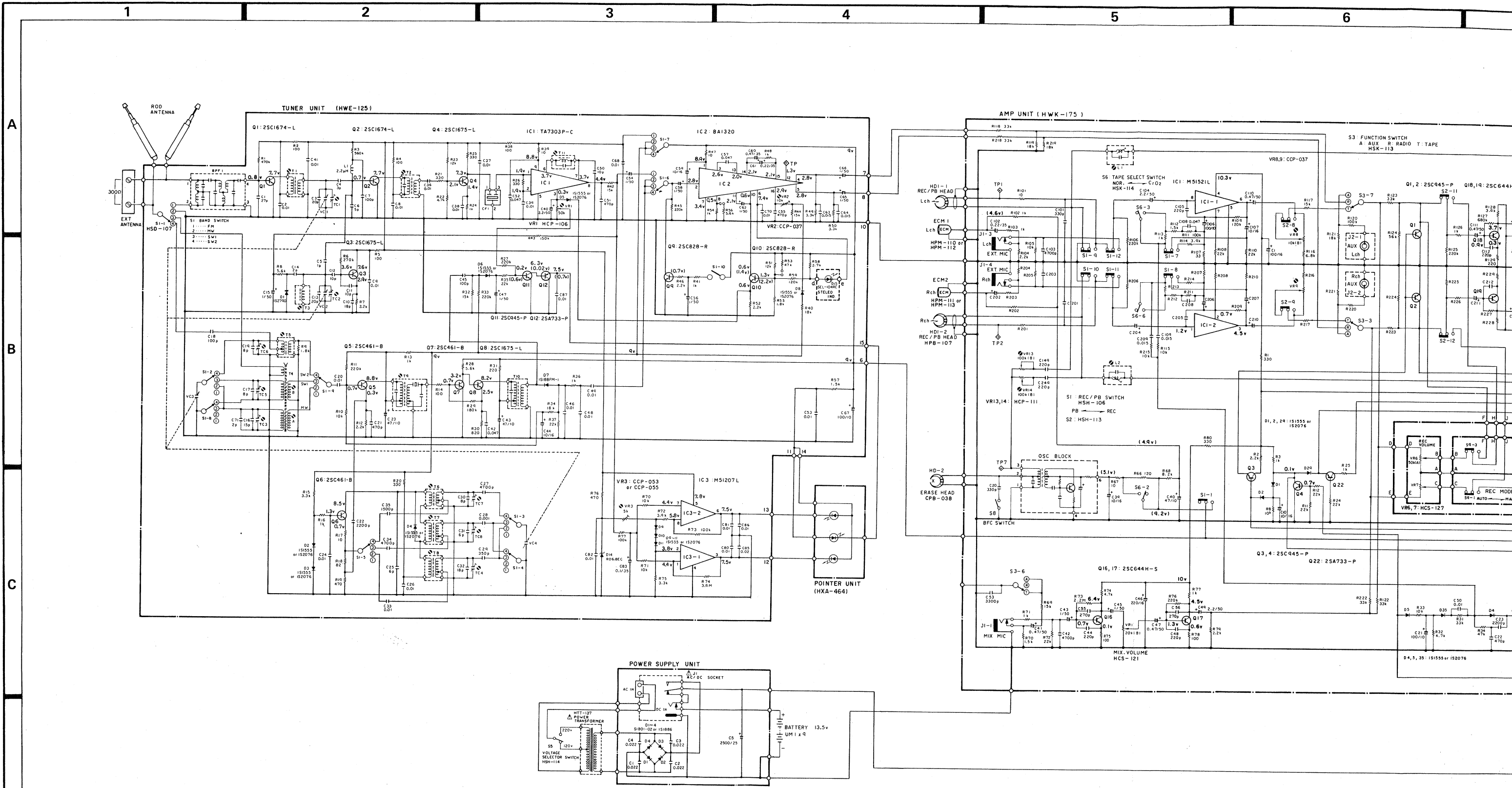


Fig. 11

SCHEMATIC CIRCUIT DIAGRAM (SK-71F)



SK-51F
SK-61F
SK-71F

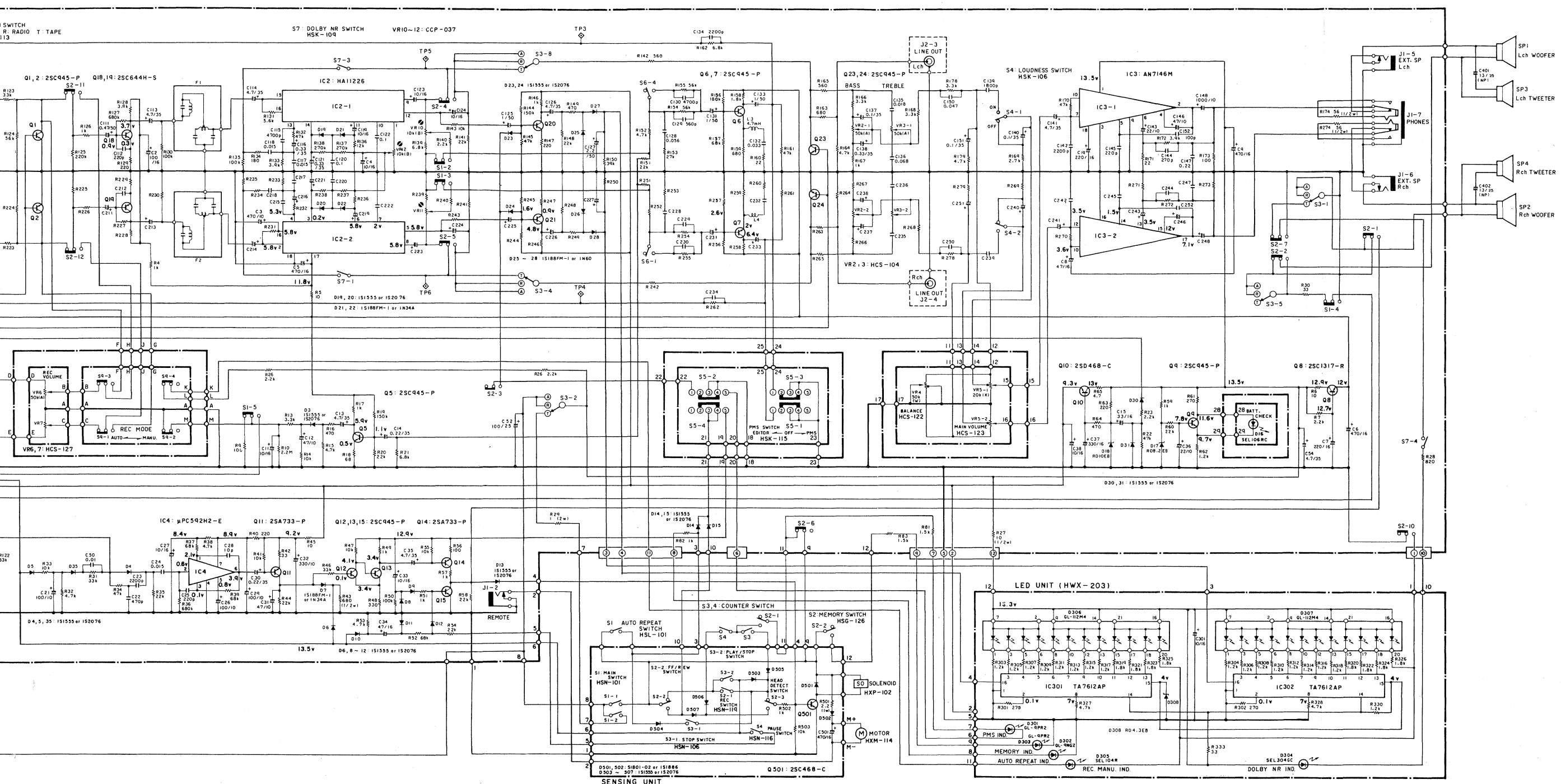
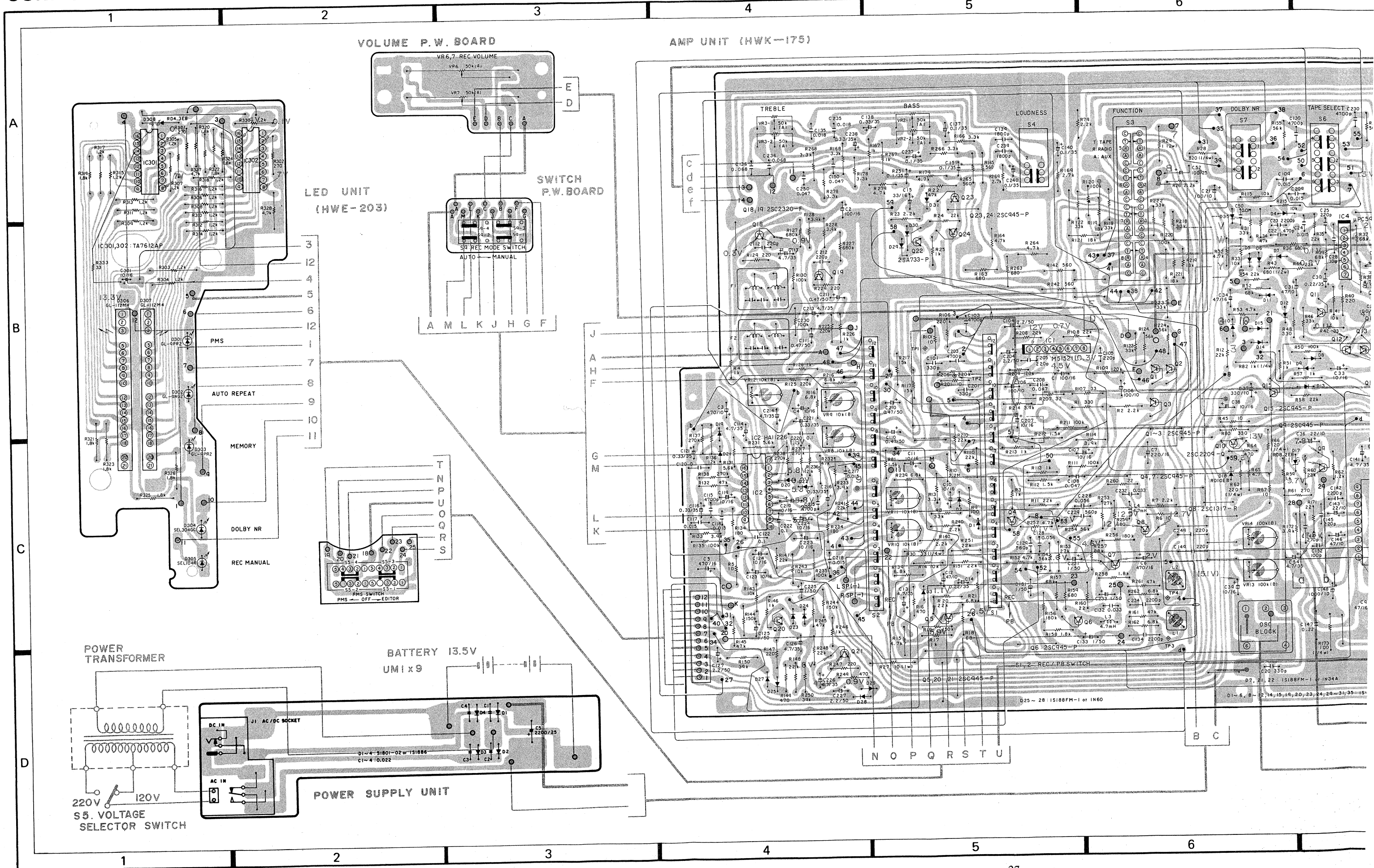


Fig. 12

CONNECTION DIAGRAM (SK-71F)



PARTS LIST

NOTE:
When ordering resistors,first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).
560Ω 56×10¹ 561..... RD1/4PS 561 J
47kΩ 47×10³ 473..... RD1/4PS 473 J
0.5Ω 0R5 RN2H 05 K
1Ω 010..... RS1P 010 K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62kΩ 562×10¹..... RN1/4SR 562 F

- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts whose parts numbers are omitted are subject to being not supplied.

Tuner Unit (HWE-126) (SK-51F, 61F),
(HWE-125) (SK-71F)

MISCELLANEOUS

Part No.	Symbol & Description	
TA7303P	IC1	
BA1320	IC2	
M51207L	IC3 (SK-71F)	
2SC1674-L	Q1, Q2	
2SC1675-L	Q3, Q4, Q8	
2SC461-B	Q5—Q7	
2SC828-R	Q9, Q10	
2SC945-P	Q11	
2SA733-P	Q12	
1S2790	D1	
1S2076 or	D2—D6, D8,	
1S1555	D9—D11 (SK-71F)	
1S188FM-1	D7	
VACANT	D9—D13 (SK-51F, 61F)	
	D12, D13 (SK-71F)	
RD6.8EC	D14 (SK-71F)	
SEL104RC	D15 (SK-71F)	
CTF-010	L1	Ferri-Inductor, 2.2μH
CTC-061	T1	Coil
CTC-028 or	T2	IF Transformer
CTC-040		
HTC-135	T3	Coil
HTX-121	T4	Bar Antenna
HTC-139	T5	Coil
HTC-136	T6	Coil
HTC-137	T7	Coil
HTC-164	T8	Coil
HTE-118	T9	IF Transformer
CTE-038	T10	IF Transformer
CTC-080	T11	IF Transformer

Part No.	Symbol & Description	
CTF-038	CF1	Ceramic Filter
HCK-102	TC5—TC8	Trimmer
HWW-106	BPF1	Filter
HCP-106	VR1	Semi-fixed, 50 kΩ
CCP-037	VR2	Semi-fixed, 10 kΩ
CCP-053 or	VR3	Semi-fixed, 5 kΩ (SK-71F)
CCP-055		
HCL-105	VC1—VC4, TC1—TC4	Variable Condenser
HSD-107	S1	Switch

RESISTORS

Part No.	Symbol & Description	
RD1/4PM□□□J	R1—R7, R9—R40, R42—R50, R52—R55, R57—R59, R70—R77 (SK-71F)	
RD1/4VM□□□J	R8, R41, R51, R56	
VACANT	R60—R69 (SK-71F)	

CAPACITORS

Part No.	Symbol & Description	
CCDSL270K50	C1	
VACANT	C2	
CCDSH200K50	C3	
CCDSL030D50	C4	
CCDCK010C50	C5	
CCDSL050D50	C6	
CKDYB101K50	C7, C18, C45	
CKDYF103Z25	C8, C20, C36, C37, C41, C48, C53, C68, C70, C80—C82 (SK-71F), C85—C87 (SK-71F)	
CKDYD103M50	C9, C24, C26, C33, C38, C39, C46	

Part No.	Symbol & Description	
CCDSH180K50	C10	
CCDSH100F50	C11, C12, C50	
CCDPH200K50	C13	
CCDSH020D50	C14, C71	
CEA010M50L	C15, C47, C54, C56, C58, C62, C65	
CCDSH150J50	C16	
CCDSH080D50	C17, C19	
CKDYB471K50	C21, C51	
CQMA222M50	C22	
CEA470M10L	C23	
CCDCH060D50	C25	
CQSH472K50	C27	
CQSH102J50	C28	
CQSH351J50	C29	
CCDWK080J50	C30	
CCDXL060D50	C31	
CCDSH180J50	C32	
CQMA472M50	C34	
CQMA152K50	C35	
CEA2R2M50L	C40	
CKDBC473M25	C42, C52, C57	
CEA470M10L	C43	
CEA100M16L	C44, C59	
CQMA103M50	C49	
CQSH471J50	C55	
CSZAR47M35	C60	
CSZAR22M35	C61	
CQMA153M50	C63, C64	
CEA010M50	C66	
CEA101M10L	C67	
VACANT	C69, C72—C79 (SK-71F)	
CSZAR10M35	C83 (SK-71F)	

Amp Unit (HWK-172) (SK-51F)
(HWK-173) (SK-61F)
(HWK-175) (SK-71F)

MISCELLANEOUS

Part No.	Symbol & Description	
M51521L	IC1	
AN7311	IC2 (SK-51F, 61F)	
HA11226	IC2 (SK-71F)	
AN7146M	IC3	
μPC592H2-E	IC4	
2SC945-P	Q1, Q2, Q15	
2SC945	Q3—Q7, Q9, Q12, Q13, Q20	
2SC1317-R	Q8	
2SC2209	Q10	
2SA733	Q11, Q14	
2SC2320L-F	Q16	
2SC945-P	Q17 (SK-51F, 61F)	
2SC2320L-F	Q17—Q19 (SK-71F)	
2SC945	Q18, Q19 (SK-51F)	
2SA473-Y	Q18 (SK-61F)	

Part No.	Symbol & Description	
2SC945-P	Q19 (SK-61F)	
2SA733	Q21 (SK-51F)	
2SC945	Q21 (SK-71F)	
2SA733	Q22 (SK-71F)	
2SC945-P	Q23, Q24 (SK-71F)	
1S1555 or	D1—D6, D8—D15, D19, D20, D24, D35	
1S2076	D7	
1S188FM-1 or		
1N34A		
SEL104RC	D16	
RD8.2EB	D17	
RD10EB	D18	
RD6.8EB	D21 (SK-51F)	
1S1555 or	D21 (SK-61F)	
1S2076		
1S188FM-1 or	D21, D22 (SK-71F)	
1N34A		
1S1555 or	D22, D23, (SK-51F)	
1S2076		
RD8.2EB	D22, D23 (SK-61F)	
1S1555 or	D23 (SK-71F)	
1S2076		
1S1555 or	D25, D26 (SK-51F, 61F)	
1S2076		
1S188FM-1 or	D25—D28 (SK-71F)	
1N60		
GL-9PR2	D27 (SK-51F)	
RD2.2EB	D27 (SK-61F)	
GL-9NG2	D28 (SK-51F)	
VACANT	D28—D34 (SK-61F)	
SLR-30UR	D29 (SK-51F)	
1S1555 or	D29—D31 (SK-71F)	
1S2076		
GL-9PR2	D30, D31, D33 (SK-51F)	
VACANT	D32—D34 (SK-71F)	
GL-9NG2	D32 (SK-51F)	
1S1555 or	D34, D36 (SK-51F)	
1S2076		
HTF-112	L1, L2	Coil
HTH-105	L3, L4	Coil, 4.7 mH
HTX-115	OSC	Oscillator Unit
HTX-116	F1, F2 (SK-71F)	Filter Unit
HKN-115	J1	Jack Unit
HSH-106	S1	Switch
HSH-110	S2 (SK-51F, 61F)	Switch
HSH-113	S2 (SK-71F)	Switch
HSK-112	S3 (SK-51F, 61F)	Switch
HSK-113	S3 (SK-71F)	Switch
HSK-106	S4	Switch
HSK-115	S5	Switch
HSK-114	S6 (SK-61F, 71F)	Switch
HSK-106	S7 (SK-61F)	Switch
HSK-109	S7 (SK-71F)	Switch
HSG-127	S9 (SK-71F)	Switch
HCS-121	VR1	Volume, 20 kΩ(B)

Part No.
HCS-104
HCS-122
HCS-123
HCS-127
CCP-037

HCP-111

RESISTORS (SK-51F)

Part No.
RD1/4PM□□□J
RN2P□□□K
RD1/4PS□□□J
RD1/2VS□□□J
RD1/2PS□□□J
VACANT

RESISTORS (SK-61F)

Part No.
RD1/4PM□□□J
RN2P□□□K
RD1/4PS□□□J
RD1/2VS□□□J
RD1/2PS□□□J
RD1/4VS□□□J
VACANT

RESISTORS (SK-71F)

Part No.
RD1/4PM□□□J
RD1/2PS□□□J
RD1/4PS□□□J
RN2P□□□K
RD1/2VS□□□J
VACANT

Part No.	Symbol & Description	
HCS-104	VR2, VR3	Volume, 50 kΩ(A)
HCS-122	VR4	Volume, 50 kΩ(W)
HCS-123	VR5	Volume, 20 kΩ(K)
HCS-127	VR6, 7 (SK-71F)	Volume, 50 kΩ(A)
CCP-037	VR8—VR12 (SK-71F)	
HCP-111	VR13, VR14 (SK-71F)	Semi-fixed, 10 kΩ(B)
		Semi-fixed, 100 kΩ(B)

RESISTORS (SK-51F)

Part No.	Symbol & Description	
RD1/4PM□□□J	R1—R5, R7—R28, R31—R42, R44—R62, R64, R65, R68—R77, R79—R94, R101—R112, R114—R128, R151—R154, R156—R172, R176—R179, R201—R212, R214—R228, R251—R254, R256—R272,	
RN2P□□□K	R275—R279	
RD1/4PS□□□J	R29	
RD1/2VS□□□J	R30, R63, R66, R78, R173, R273	
RD1/2PS□□□J	R43	
	R174, R274	
VACANT	R6, R67, R95—R100, R113, R129—R150, R155, R180—R200, R213, R229—R250, R255	

RESISTORS (SK-61F)

Part No.	Symbol & Description	
RD1/4PM□□□J	R1—R5, R7—R28, R31—R42, R44—R62, R64, R65, R67—R77, R79, R80, R82, R83, R86—R95, R101—R128, R151—R172, R175—R179, R201—R228, R251—R272, R275—R279	
RN2P□□□K	R29	
RD1/4PS□□□J	R30, R63, R66, R78, R85, R173, R273	
RD1/2VS□□□J	R43	
RD1/2PS□□□J	R81, R174, R274	
RD1/4VS□□□J	R84	
VACANT	R6, R96—R100, R129—R150, R180—R200, R229—R250	

RESISTORS (SK-71F)

Part No.	Symbol & Description	
RD1/4PM□□□J	R1—R26, R31—R42, R44—R62, R64, R65, R67—R81, R83, R101—R172, R178, R179, R201—R272, R278, R279	
RD1/2PS□□□J	R27, R174, R274	
RD1/4PS□□□J	R28, R30, R63, R66, R82, R173, R273	
RN2P□□□K	R29	
RD1/2VS□□□J	R43	
VACANT	R84—R100, R175—R177, R180—R200, R275—R277	

CAPACITORS (SK-51F, 61F)

Part No.	Symbol & Description	
CEA101P16	C1, C7	
CEA220P10	C2, C36, C143, C243	
CEA471M16L	C3, C6	
VACANT	C4, C5	
CEA470P10	C8, C18, C31, C40, C106, C114,	
CEA470P16	C146, C206, C214, C246	
CEA100P16L	C9, C34, C46	
CEA470P10L	C10, C11, C33, C38, C39, C107, C207	
CEA4R7P35	C12	
	C13, C35, C54, C141, C241	
CSZAR22M35	C14, C30, C102, C202	
CEA010P50	C15, C43, C45, C131, C133, C231, C233	
CEA101P10	C16, C21, C26, C29	
CKDYB222K50	C17, C23, C142, C242	
CEA221P16	C19	
CKDYB331K50	C20, C101, C111, C201, C211	
CKDYB471K50	C22	
CQMA273K50	C24	
CKDYB221K50	C25, C44, C105, C145, C205, C245	
CEA100P16	C27	
CCPSL100J50	C28	
CEA331P10	C32, C37	
CEAR47P50	C41, C110, C210	
CKDYB472K50	C42, C103, C203	
CEA220P10	C47 (SK-51F)	
CEA2R2P50	C47 (SK-61F)	
CEA100P16	C48 (SK-51F)	
CKDYF223Z25	C48 (SK-61F)	
CEA100P16	C49 (SK-51F)	
CEA471P6	C49 (SK-61F)	
CQMA103M50	C50	
CEA2R2M25NP	C51 (SK-51F)	
VACANT	C51 (SK-61F)	
CEA101P25	C52	
CQMA332K50	C53	
CKDYB151K50	C55	
VACANT	C56 (SK-51F)	
CEA4R7P35	C56 (SK-61F)	
VACANT	C57—C100	
CEA2R2P50	C104, C116, C204, C216	
CQMA473K50	C108, C150, C208, C250	
CQMA153M50	C109, C209	
CSZAR15M35	C112, C212	
CKPYB221K50	C113, C149, C213, C249	
CCPSL101J50	C115, C215	
VACANT	C117—C127, C217—C227	
CQMA563M50	C128, C228	
CKDYB561K50	C129, C229	
VACANT	C130, C230 (SK-51F)	
CKDYB472K50	C130, C230 (SK-61F)	
CQMA333K50	C132, C232	
CKPYX222M50	C134, C234	
CQMA183M50	C135, C235	
CQMA683M50	C136, C236	
CSZAR10M35	C137, C140, C151, C237, C240, C251	

Part No.	Symbol & Description	
CSZAR33M35	C138, C238	
CKDYB182K50	C139, C239	
VACANT	C140—C143, C240—C243	
CKPYB271K50	C144, C244	
VACANT	C145, C146, C245, C246	
CQMA224M50	C147, C247	
CEA102P10	C148, C248	
VACANT	C149—C151, C249—C251	
CKDYB101K50	C152, C252	

CAPACITORS (SK-71F)

Part No.	Symbol & Description	
CEA101P16	C1, C2	
CEA471P10L	C3	
CEA100P16	C4, C11, C27, C33, C38, C39, C107, C119, C123, C124, C207, C219, C223, C224	
CEA471P16	C5, C6	
CEA221P16	C7, C19, C46	
CEA470P10	C8, C31, C40, C146, C246	
CEA470P16	C9, C34	
CEA100P16L	C10	
CEA470P10L	C12	
CEA4R7P35L	C13	
CSZAR22M35	C14, C30, C102, C202	
CEA330P16	C15	
VACANT	C16—C18	
CKDYB331K50	C20, C101, C201	
CEA101P10	C21, C26, C29, C106, C206	
CKDYB471K50	C22	
CKDYB222K50	C23, C134, C142, C234, C242	
CQMA153M50	C24, C109, C209	
CKDYB221K50	C25, C44, C48, C105, C112, C145,	
CCPSL100J50	C205, C212, C245	
CEA331P10	C28	
CEA4R7P35	C32, C37	
	C35, C54, C113, C114, C126, C141, C213, C214, C226, C241	
CEA220P10	C36, C143, C243	
CEAR47P50	C41, C47, C110, C111, C210, C211	
CKDYB472K50	C42, C103, C130, C203, C230	
CEA010P50	C43, C45, C125, C131, C133, C225, C231, C233	
CEA2R2P50	C49, C104, C127, C204, C227	
CQMA103M50	C50	
VACANT	C51	
CEA101P25	C52	
CQMA332K50	C53	
CKDYB271K50	C55, C56, C144, C244	
VACANT	C57—C100	
CQMA473K50	C108, C150, C208, C250	
CQMA472J50	C115, C215	
CSZAR33M35	C116, C121, C138, C216, C221, C238	

Part No.	Symbol & Description	
CQMA153J50	C117, C118, C217, C218	
CQMA104K50	C120, C122, C220, C222	
CQMA563M50	C128, C228	
CKDYB561K50	C129, C229	
CQMA333K50	C132, C232	
CQMA183M50	C135, C235	
CQMA683M50	C136, C236	
CSZAR10M35	C137, C140, C151, C237, C240, C251	
CKDYB182K50	C139, C239	
CQMA224M50	C147, C247	
CEA102P10	C148, C248	
CKPYB221K50	C149, C249	
CKDYB101K50	C152, C252	
VACANT	C153—C200	

LED Unit (HWX-212) (SK-51F, 61F)

Part No.	Symbol & Description	
SEL-104RC	D1	
GL-9NG2	D2	

LED Unit (HWX-231) (SK-61F)

Part No.	Symbol & Description	
GL-9PR2	D405, D407	
GL-9NG2	D406	

LED Unit (HWX-203) (SK-71F)

Part No.	Symbol & Description	
TA7612AP	IC301, IC302	
GL-9PR2	D301, D303	
GL-9NG2	D302	
SEL304GC	D304	
SEL104R	D305	
GL-112M4	D306, D307	
RD4.3EB	D308	
RD1/4HS□□□J	R301, R302, R305—R332	
RD1/4PS□□□J	R303, R304	
CEA100P16	C301	

Sensing Unit

Part No.	Symbol & Description	
2SD468-C	Q501	
SIB01-02 or 1S1886	D501, D502	
1S1555 or 1S2076	D503—D504, D505—D507 (SK-51F, 71F), D508 (SK-51F)	
HSN-115	S1	Switch (SK-51F, 61F)
HSN-101	S1	Switch (SK-71F)
HSN-101	S2	Switch (SK-51F, 61F)
HSN-119	S2	Switch (SK-71F)
HSN-106	S3	Switch

PARTS LIST

Part No.	Symbol & Description	Part No.	Symbol & Description
HSN-116	S4 Switch	HXA-464	Pointer Unit
RN1P□□□K	R501	HCH-116	C401, C402
RD1/4PS□□□J	R502	△ HTT-137	T Power Transformer
RD1/4VS□□□J	R503	HPM-110 or	ECM1 Microphone Unit
CEA471P16	C501	HPM-112	
Power Supply Unit		HPM-111 or	ECM2 Microphone Unit
Part No.	Symbol & Description	HPM-113	
1S1886 or	D1 — D4	HPW-106	SP1, SP2 Speaker
SIB01-02		HPW-105	SP3, SP4 Speaker
△ CKP-020	J1 AC/DC Socket	HSL-101	S1 Switch
CKDYF223Z25	C1 — C4	HSG-126	S2 Switch (SK-51F, 71F)
CEA222P25	C5	HSH-114	S2 Switch (SK-61F)
Miscellaneous Parts List		HSH-114	S5 Switch (SK-51F, 71F)
<i>Note:</i>		HXM-114	M Motor
For "ECM1 and ECM2" employ parts combination of either		HXP-102	SO Solenoid
"HPM-110 and HPM-111" or "HPM-112 and HPM-113".		HPB-107	HD1 Head
		CPB-038	HD2 Head
		HWX-200	Timer Unit (SK-61F)
		PS4001	Photo Interrupter (SK-61F)

Cabinet (Page 31) (SK-51F)

SK-51/KU			SK-51F/P	
Key No.	Part No.	Description	Part No.	Description
1.	HNM-214	Cover	HNM-198	Cover
4.	HNS-342	Case	HNS-312	Case
28.	HXA-579	Door Unit	HXA-577	Door Unit
36.	HNM-213	Cover	HNM-183	Cover

Chassis (Page 32)

SK-51/KU			SK-51F/P	
Key No.	Part No.	Description	Part No.	Description
1.	HWK-176	Amp Unit	HWK-172	Amp Unit
32.	HNM-212	Cover	HNM-182	Cover
34.	HWE-123	Tuner Unit	HWE-126	Tuner Unit
△ 70.	CKP-025	AC/DC Socket	CKP-020	AC/DC Socket
△ 72.	HTT-135	Power Transformer	HTT-137	Power Transformer
			HSH-114	Switch (Voltage Selector)

Packing Method (Page 34)

SK-51/KU			SK-51F/P	
Key No.	Part No.	Description	Part No.	Description
△ 2.	CDG-029	AC Cord	HDG-114	AC Cord
3.		Card		Deleted
4.	HHA-417	Carton	HHA-447	Carton
5.	HRB-147	Owner's Manual	HRD-129	Owner's Manual (English, Spanish)
			HRD-137	Owner's Manual (Persian, Arabic)

PARTS LIST

Cabinet (Page 32) (SK-61F)

SK-61/KU			SK-61F/P	
Key No.	Part No.	Description	Part No.	Description
1.	HNM-215	Cover	HNM-197	Cover
4.	HNS-343	Case	HNS-313	Case
28.	HXA-580	Door Unit	HXA-578	Door Unit
36.	HNM-213	Cover	HNM-183	Cover
48.	HNM-216	Cushion	HNM-194	Cushion
58.	HWX-231	LED Unit		LED Unit

Chassis (Page 32)

SK-61/KU			SK-61F/P	
Key No.	Part No.	Description	Part No.	Description
1.	HWK-177	Amp Unit	HWK-173	Amp Unit
32.	HNM-212	Cover	HNM-182	Cover
34.	HWE-123	Tuner Unit	HWE-126	Tuner Unit
70.	CKP-025	AC/DC Socket	CKP-020	AC/DC Socket
72.	HTT-135	Transformer	HTT-137	Transformer
75.	CBH-438	Spring	HBH-273	Spring
26.	CASE ASSY	HXA-535	HSH-114	Switch (Voltage Selector)
			HXA-575	CASE ASSY

Packing Method (Page 34)

SK-61/KU			SK-61F/P	
Key No.	Part No.	Description	Part No.	Description
2.	CDG-029	AC Cord	HDG-114	AC Cord
3.		Card		Deleted
4.	HHA-418	Carton	HHA-449	Carton
5.	HRB-148	Owner's Manual	HRD-130	Owner's Manual (English, Spanish)
			HRD-138	Owner's Manual (Persian, Arabic)

PARTS LIST

SK-51F
SK-61F
SK-71F

Cabinet (Page 34) (SK-71F)

SK-71/KU			SK-71F/P	
Key No.	Part No.	Description	Part No.	Description
1.	HNМ-215	Cover	HNМ-197	Cover
28.	HXA-580	Door Unit	HXA-578	Door Unit
29.	HAC-169	Knob	HAC-175	Knob
36.	HNМ-213	Cover	HNМ-183	Cover
26	HXA-536	CASE ASSY	HXA-576	CASE ASSY

Chassis (Page 34)

SK-71/KU			SK-71F/P	
Key No.	Part No.	Description	Part No.	Description
1.	HWX-178	Amp Unit	HWX-175	Amp Unit
32.	HNМ-212	Cover	HNМ-182	Cover
34.	HWE-124	Tuner Unit	HWE-125	Tuner Unit
⚠ 70.	CKP-025	AC/DC Socket	CKP-020	AC/DC Socket
⚠ 72.	HTT-135	Transformer	HTT-137	Transformer
75.	CBH-438	Spring	HBH-273	Spring
76.	HXA-537	Pointer Unit	HXA-464	Pointer Unit
			HSH-114	Switch (Voltage Selector)

Packing Method (Page 36)

SK-71/KU			SK-71F/P	
Key No.	Part No.	Description	Part No.	Description
⚠ 2.	CDG-029	AC Cord	HDG-114	AC Cord
3.		Card		Deleted
4.	HHA-419	Carton	HHA-451	Carton
5.	HRB-149	Owner's Manual	HRD-131	Owner's Manual (English, Spanish)
			HRD-139	Owner's Manual (Persian, Arabic)