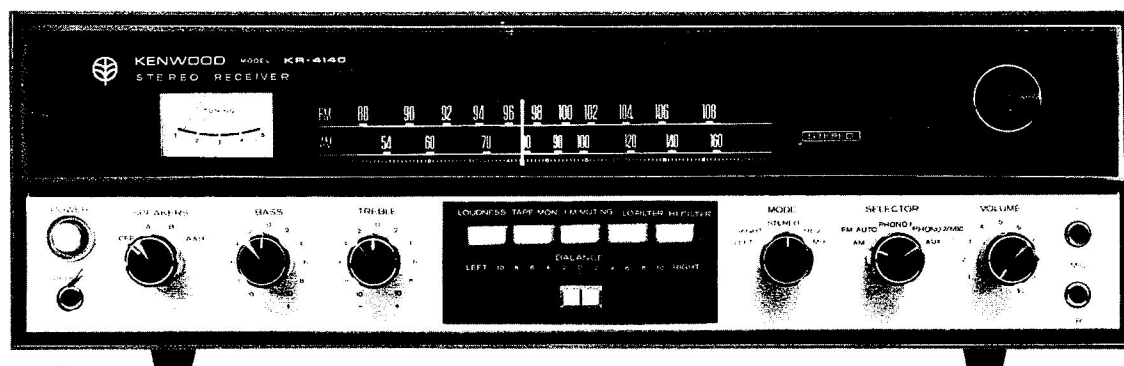


**KENWOOD**

HI/FI STEREO COMPONENTS

# SERVICE MANUAL

## KR-4140



**SOLID STATE AM-FM STEREO RECEIVER**

# PARTS DESCRIPTION LIST

MAIN CHASSIS (AEOK) SECTION						
P C BOARD						
	RF UNIT (UA1125K)			X01-0025-10		
	IF UNIT (UA1224K)			X02-0020-10		
	MPX UNIT (75 $\mu$ S)			X04-0010-10		
	PRE, TONE & MAIN (UA6001J <sub>3</sub> )			X09-0013-03		
Symbol No.	Description			Part No.	Remarks	
<b>CAPACITOR</b>						
C1	Electrolytic Tubular	100 $\mu$ F	3.15WV	CE04W0F101		
C101	Mylar	0.027 $\mu$ F	$\pm$ 20%	CQ92M1H273M		
C111	Mylar	0.0015 $\mu$ F	$\pm$ 20%	CQ92M1H152M		
C112	Mylar	0.068 $\mu$ F	$\pm$ 20%	CQ92M1H683M		
C113	Mylar	0.018 $\mu$ F	$\pm$ 20%	CQ92M1H183M		
C114	Mylar	0.0056 $\mu$ F	$\pm$ 20%	CQ92M1H562M		
C171	Electrolytic Block	2200 $\mu$ F	35WV	CE62AW1V222		
C201	Mylar	0.027 $\mu$ F	$\pm$ 20%	CQ92M1H273M		
C211	Mylar	0.0015 $\mu$ F	$\pm$ 20%	CQ92M1H152M		
C212	Mylar	0.068 $\mu$ F	$\pm$ 20%	CQ92M1H683M		
C213	Mylar	0.018 $\mu$ F	$\pm$ 20%	CQ92M1H183M		
C214	Mylar	0.0056 $\mu$ F	$\pm$ 20%	CQ92M1H562M		
C301	Oil Impregnated	0.01 $\mu$ F	+100%, -0%	CP052W103P		
C302, 303	Oil Impregnated	0.02 $\mu$ F	$\pm$ 20%	CP02B2J203M		
C304	Electrolytic Block	2200 $\mu$ F	50WV	CE62AW1H222		
C305	Electrolytic Tubular	470 $\mu$ F	35WV	CE02W1V471		
C306	Electrolytic Tubular	100 $\mu$ F	16WV	CE02W1C101		
<b>RESISTOR</b>						
R1	Insulated Carbon Film	560 $\Omega$	$\pm$ 10%	1/4W	PD14BY2E561K	
R101	Insulated Carbon Film	100k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E104K	
R102	Insulated Carbon Film	390k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E394K	
R111, 112	Insulated Carbon Film	10k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E103K	
R113	Insulated Carbon Film	4.7k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E472K	
R114	Insulated Carbon Film	27k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E273J	
R171	Fixed Carbon Composition	1k $\Omega$	$\pm$ 10%	1/4W	RC05GF2H102K	
R172	Fixed Carbon Composition	330 $\Omega$	$\pm$ 10%	1/4W	RC05GF2H331K	
R173	Insulated Carbon Film	10k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E102K	
R201	Insulated Carbon Film	100k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E104K	
R202	Insulated Carbon Film	390k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E394K	
R211, 212	Insulated Carbon Film	10k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E103K	
R213	Insulated Carbon Film	4.7k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E472K	
R214	Insulated Carbon Film	27k $\Omega$	$\pm$ 10%	1/4W	PD14BY2E273J	
R271	Fixed Carbon Composition	1k $\Omega$	$\pm$ 10%	1/2W	RC05GF2H102K	
R272	Fixed Carbon Composition	330 $\Omega$	$\pm$ 10%	1/2W	RC05GF2H331K	
R273	Fixed Carbon Composition	560 $\Omega$	$\pm$ 10%	1/2W	RC05GF2H560K	
R301	Fixed Carbon Composition	1M $\Omega$	$\pm$ 10%	1/2W	RC05GF2H102K	
R302	Insulated Carbon Film	150 $\Omega$	$\pm$ 5%	6W	RW14AG3S151J	
R303	Insulated Carbon Film	560 $\Omega$	$\pm$ 5%	4W	RW14AG3G561J	
R304	Insulated Carbon Film	680 $\Omega$	$\pm$ 5%	6W	RW14AG3S681J	
R305	Metal Film	1k $\Omega$	$\pm$ 5%	2W	RN14AB3D102J	
R306	Fixed Carbon Composition	1.5k $\Omega$	$\pm$ 10%	1/2W	RC05GF2H152K	
R307, 308	Fixed Carbon Composition	22 $\Omega$	$\pm$ 10%	1/2W	RC05GF2H220K	
R309	Fixed Carbon Composition	2.2k $\Omega$	$\pm$ 10%	1/2W	RC05GF2H222K	

# PARTS DESCRIPTION LIST

Symbol No.	Description	Part No.	Remarks
<b>POTENTIOMETER</b>			
VR1	VOLUME (50kΩB) Dual	R06-4005-05	
VR2	BALANCE (100kΩW) Slide	R13-4005-05	
VR3	BASS (50kΩA) Dual	R08-4042-05	
VR4	TREBLE (50kΩA) Dual	R08-4042-05	
<b>TRANSISTOR/DIODE/THERMISTOR</b>			
Q1 ~4	2SD155		
Q5	2SD234		
D1	S1B02-03B		
D2	1S338T		
TH1, 2	5T-31		
<b>SWITCH</b>			
S1	SELECTOR (Rotary) F · 4 · 14 · 4	S04-4012-05	
S2	MODE (Rotary) F · 2 · 4 · 5	S04-2037-05	
S3	LOUDNESS (FIVE Pushbutton)	S41-5001-05	
S4	TAPE MONITOR (FIVE Pushbutton)	S41-5001-05	
S5	MUTING (FIVE Pushbutton)	S41-5001-05	
S6	LOW FILTER (FIVE Pushbutton)	S41-5001-05	
S7	HIGH FILTER (FIVE Pushbutton)	S41-5001-05	
S8	SPEAKERS (Rotary) F · 1 · 4 · 4	S04-1024-05	
S10	PRE-MAIN SEPARATE SW (Slide)	S10-22D	
<b>MISCELLANEOUS</b>			
—	Chassis	A10-0210-01	
—	Frame	A15-0002-04	
—	Panel	A20-0326-05	
—	Sub-Panel	A23-0076-02	
—	Reflector (A)	A33-0009-03	
—	Sole Plate	A40-0058-03	
—	Thermistor Holder x 2	A90-310B	
—	Antenna Holder	A5065	
—	Meter Holder	A5107B	
—	Ring	B07-0064-04	
—	Name Plate (for Antenna)	B09-190	
—	Front Glass	B10-0033-02	
—	Filter	B19-0087-03	
—	Decorated Panel	B42-0225-02	
—	Dial	B20-0160-03	
—	Dial Pointer	B21-4001-05	
P. L.	Pilot Lamp (Fuse Type) x 4	B30-0015-15	
P. L.	Pilot Lamp	B30-0033-03	
M	Meter	B31-0006-05	
—	Certification	B42-0009-04	
—	Decorated Panel	B42-0225-03	
—	Schematic Diagram	B52-0076-00	
—	Flywheel	D05-52B	
—	Dial Spring	D06-02	
—	Small Pulley x 2	D09-14B	
—	Small Bushing x 4	D10-05	
—	Small Bushing x 4	D10-09	
—	Dial Metal Fittings	D11-13	
—	Pulley	D15-0058-04	

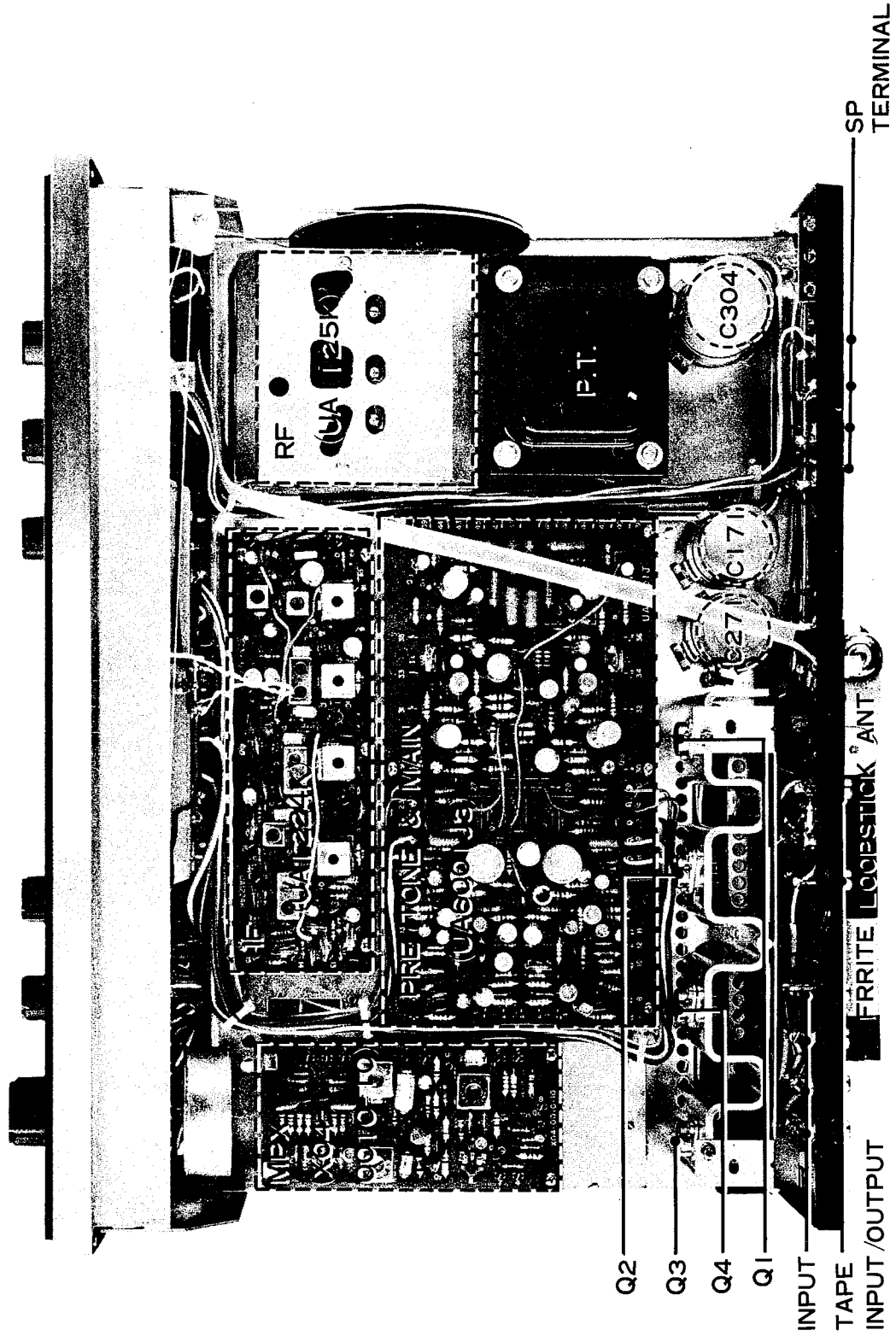
# PARTS DESCRIPTION LIST

Symbol No.	Description	Part No.	Remarks
—	Dial Shaft	D20-0079-03	
J	Pin Jack (1P)	E08-11C	
J	Pin Jack (4P)	E08-14G	
J	Pin Jack (6P)	E08-16D	
—	AC Outlet x 2	E08-0205-05	
J	PHONE Jack	E11-0002-05	
J	Pin Jack with DIN Connector (4P)	E13-0401-05	
—	Pilot Lamp Socket	E15-0033-05	
J	MIC Jack x 2	E16-22	
—	Transistor Socket x 4	E4086	
—	Radiator	F01-0001-13	
—	Felt with Sticker	F15-0008-04	
—	Dust Sheet	F15-0054-04	
—	Shield Plate (for Radiator)	F10-0185-03	
—	Insulating Plate (for Power SW)	F20-0027-04	
—	Rubber Bushing	G02-020	
—	Legs x 4	G10-02	
—	Cord Bushing	G11-19	
—	AC Cord Bushing	G11-25	
—	Corrugated Cardboard Case	H01-0507-03	
—	Warranty Card	H26-02	
—	Fuse Holder x 4	J13-0023-05	
—	Front Glass Holder x 2	J19-0029-14	
—	Front Glass Holder x 3	J19-0062-04	
—	Meter Holder	J19-0063-03	
—	Dial Holder	J19-0064-04	
—	Meter Holder	J19-0065-03	
—	Front Glass Holder x 2	J19-0091-04	
—	Switch Holder	J21-0703-04	
—	P. C. Board	J25-0062-04	
—	P. C. Board	J25-0063-04	
—	Knob (TUNING)	K23-0047-03	
—	Knob (SPEAKERS, BASS, TREBLE, MODE, SELECTOR, VOLUME)	K23-0049-03	
—	Knob (BALANCE)	K23-0051-04	
P.T.	Power Transformer	L03-0006-05	
—	FM Antenna	L10-04	
—	Ferrite Loopstick Antenna	L15-39	
L1	Chocke Coil	L20-010	
—	Fuse Holder	S15-13	
—	Feeder Holder	S21-29	
—	Switch Stopper	S4103	
—	Slider	S4132	
—	AC Cord with Plug	W09-15	
<i>In USA added to the parts of (K),</i>			
<i>In PX added to the parts of (U)</i>			
—	Case (K)	A01-0124-02	
—	Rear Panel (K)	A23-0165-02	
—	Rear Panel (U)	A23-0167-02	
—	Amp Holder x 2 (K)	A3882	
—	Holey Plate (U)	B04-0017-14	
—	Caution Sticker (U)	B09-192	

## PARTS DESCRIPTION LIST

Symbol No.	Description	Part No.	Remarks
—	Caution Sticker (K)	B42-0046-04	
—	Caution Sticker (K)	B42-0219-04	
—	Caution Sticker (K)	B42-0220-04	
—	Instruction Manual (K)	B50-0480-00	
—	Instruction Manual (U)	B50-0481-00	
—	Caution Card (U)	B58-0003-00	
—	Pin Plug x 4 (U)	E09-410	
F	Fuse (2A) (K)	F05-2021-05	
—	Dial Cover (U)	F07-0171-03	
—	Insulating Plate (K)	F20-0023-03	
—	Insulating Plate (K)	F20-0030-03	
—	Corrugated Cardboard Case (K)	H02-0110-03	
—	Warranty Card (U)	H26-17	
—	Caution Card (for Case) (K)	H4068	
—	Address (U)	H4156	
—	Caution Card (for AC VOLTAGE SELECT) (U)	H4190	
—	Switch Stopper (U)	J19-0082-04	
—	Decorated Screw x 4 (K)	N08-0003-04	
—	Decorated Screw x 4 (U)	N08-0005-04	
F	Fuse (2A) (U)	S17-02	
S	AC VOLTAGE SELECT (U)	S31-2004-05	
S9	Power SW (Pushbutton) (U)	S39-1010-05	
S9	Power SW (Pushbutton) (K)	S39-1011-05	

# CHASSIS TOP VIEW



Q2

Q3

Q4

Q1

INPUT

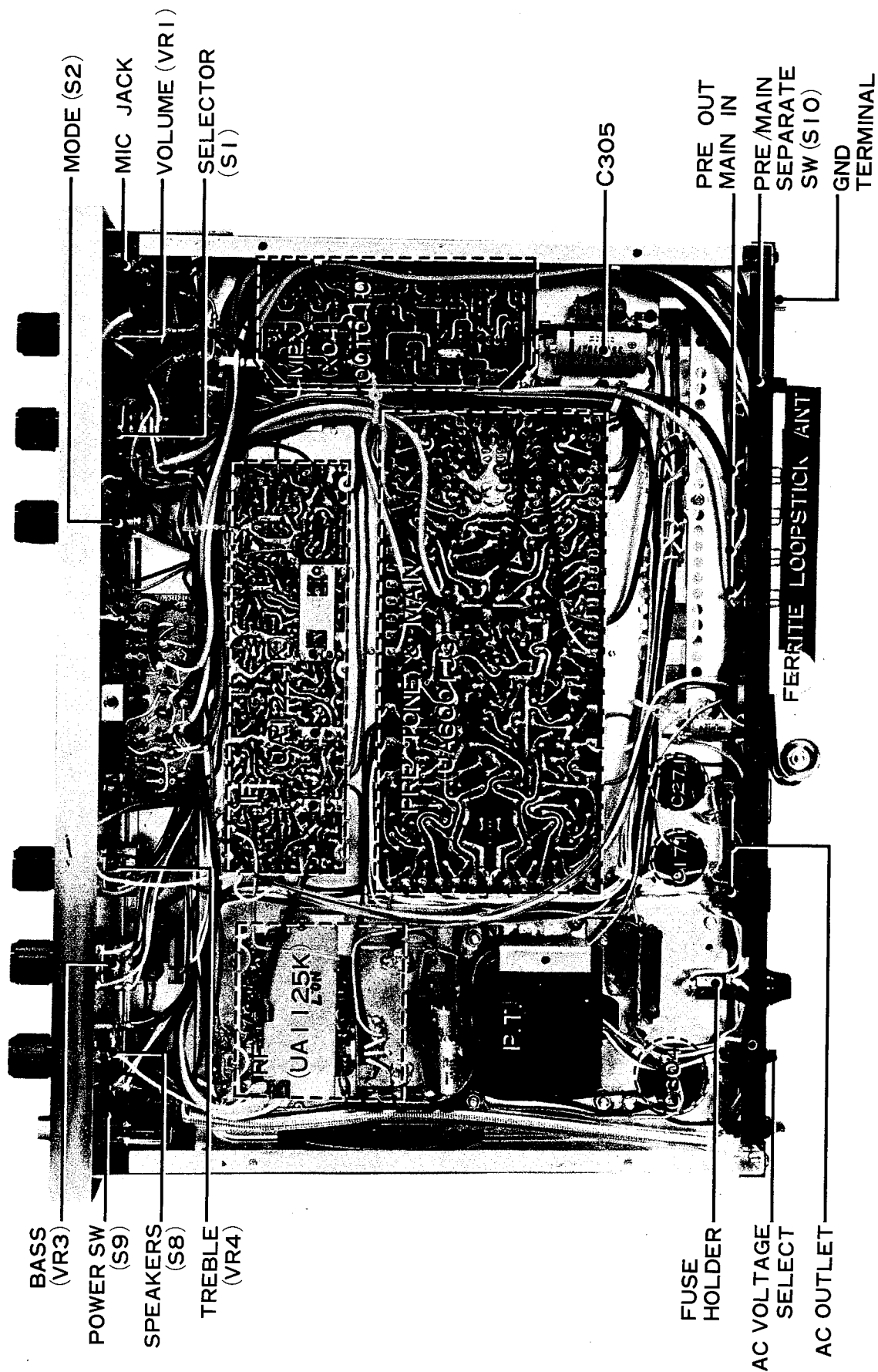
TAPE

INPUT / OUTPUT

FRRITE LOOSESTICK ANT

SP TERMINAL

# CHASSIS BOTTOM VIEW



# PROCEDURE FOR REPLACING OUTPUT TRANSISTOR

## SYMPTOMS:

- A. When there is load hum at the speakers.
- B. When there is no output at all.
- C. When you cannot get rated output.

## REPLACING METHOD:

Replace all the four transistors, 2SD155.

## TESTING PROCEDURES:

Until replacement is completed, do not operate the unit without first testing.

Perform the test according to the following procedures.

1. Using variable transformer, lower the AC line voltage to approximately 30 V.
2. Also measure the voltage between the chassis and Collector of the power transistor Q2 or Q3. If a tester indicates approximately 25 V, it is normal.
3. Using a tester, measure the voltage between the chassis and Collector of the power transistor Q1 or Q4. If a

*VOM indicates  $\approx 50V$ , it is normal.*

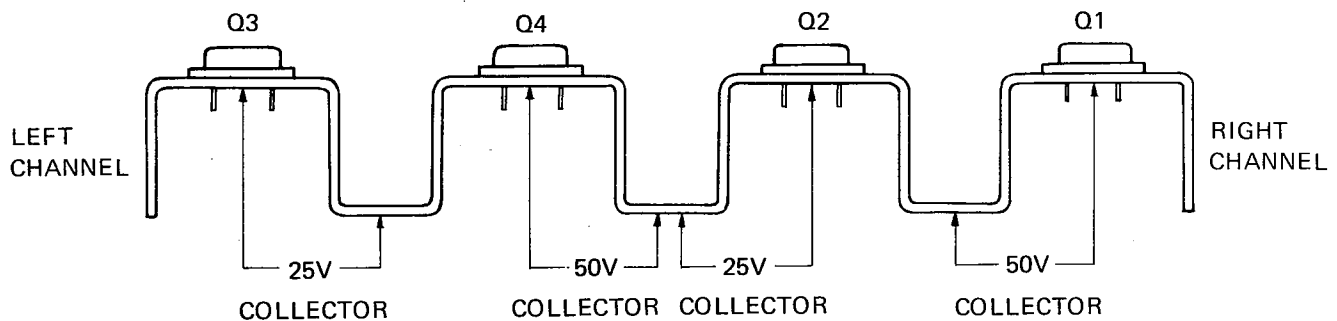
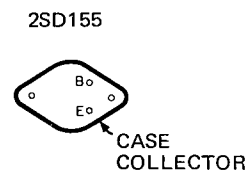
## PROTECTION ADJUSTMENT PROCEDURES:

The protection circuit in "UA6001J3" is a non-adjustment circuit. But, check the circuit for normal operation as follows for cautions sake;

With a 8 ohms dummy load and an oscilloscope connected in parallel to the output terminal, place the controls on "KR-4140" in their normal positions.

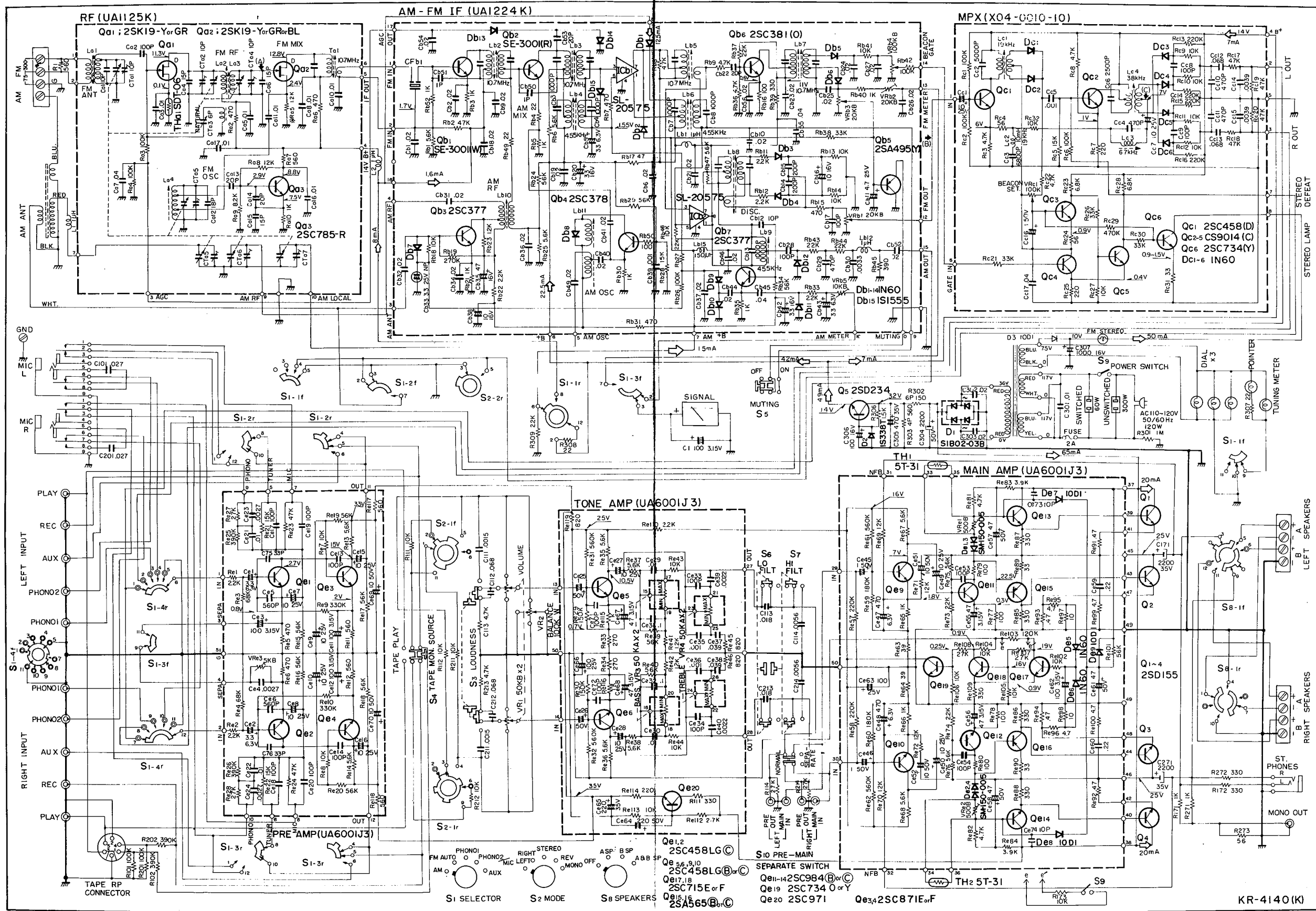
Apply a signal of 1,000 Hz to the input and adjustment the volume control until "UA6001J3" provides an output of 10 W as measured across the dummy load. Try to short across the dummy and then restore it to the normal connection under the above conditions and check to see that the scope sweeps with no waveform once and then with the waveform represented, thereby showing that the protection circuit is operated normally. If the protection circuit fails to operate, turn off the power switch immediately, otherwise the final stage transistors may be damaged. And then check transistors, Qe17 ~ 19 and Diodes, De5, 6 whether they are good or not.

## BOTTOM VIEW OF TRANSISTOR





# SCHEMATIC DIAGRAM



## ALIGNMENT PROCEDURE

### TUNER SECTION

#### FM ALIGNMENT PROCEDURE

1. Instruments: FM SG, AC VTVM & Oscilloscope
2. Warm-up: Allow 30 minutes warm-up period for receiver and equipments
3. Selector SW: Always place in FM AUTO position
4. Alignment tool: IF transformers require a plastic screwdriver-type alignment tool.

STEP	Align	Dummy Antenna	FM SSG		Tuning Dial Setting	Output Indicator	Adjust	Remarks
			Coupling	Input Signal				
1	IFT	Direct	High side to (A) Low side to Chassis	10.7 MHz (Unmod.)	Any non-interfering setting	Tuning Indicator	(UA1125K) Ta1 (UA1224K) Lb2, 3, 5 Top & Bottom	Maximum Deflection
2	DISCRIMINATOR	300 ohm Carbon Resistor	FM Antenna Terminal	98 MHz 400 Hz (Mod.) 75 kHz (Dev.) 0.5 ~ 1 mV (Input)	Tune for maximum using tuning indicator	VTVM at LEFT output jack of TAPE REC	(UA1224K) Lb8 Top & Bottom	Maximum Deflection
3	RF AMP CIRCUIT	300 ohm Carbon Resistor	FM Antenna Terminal	90 MHz 400 Hz (Mod.) 75 kHz (Dev.) 1.5 ~ 2μV (Input)	90 MHz	VTVM & X-tal earphone at jack of TAPE REC	(UA1125K) La1 ~ La4	Maximum Deflection
4	RF AMP CIRCUIT	300 ohm Carbon Resistor	FM Antenna Terminal	106 MHz 400 Hz (Mod.) 75 kHz (Dev.) 1.5 ~ 2μV (Input)	106 MHz	VTVM & X-tal earphone at LEFT output jack of TAPE REC	(UA1125K) CTa1 ~ CTa5	Maximum Deflection
5	Repeat steps 3 & 4 until no further improvement is possible.							
6	OUTPUT LEVEL	300 ohm Carbon Resistor	FM Antenna Terminal	98 MHz 400 Hz (Mod.) 75 kHz (Dev.) 1m V (Input)	Tune for maximum using tuning indicator	VTVM & X-tal earphone at LEFT output jack of TAPE REC	(UA1224K) VRb1	Set the output level to 1V
7	METER SETTING	300 ohm Carbon Resistor	FM Antenna Terminal	98 MHz 400 Hz (Mod.) 75 kHz (Dev.) 1 mV (Input)	Tune for maximum deflection VTVM & X-tal earphone at LEFT output jack of TAPE REC	Tuning Indicator	(UA1224K) Lb7 VRb2	"4" indicator

## ALIGNMENT PROCEDURE

#### FM MPX ALIGNMENT PROCEDURE

##### (a) SCA FILTER

1. Instruments: Audio SG, AC VTVM & Oscilloscope
2. Selector SW: Always place in FM AUTO position
3. Warm-up: Allow 30 minutes warm-up period for Receiver and equipments

STEP	Audio Signal Generator Coupling	Audio Signal Generator Frequency	AC VTVM & Oscilloscope Coupling	Adjust	Remarks
1	High side to (B) Low side to chassis	67 kHz (0.5 V)	High side to (C) Low side to chassis	(X04-0010-10) Lc3	Minimum Deflection

##### (b) MPX

1. Instruments: FM SG, Audio SG, AC VTVM & Oscilloscope
2. Selector SW: Always place in FM AUTO position
3. Warm-up: Allow 30 minutes warm-up period for Receiver and equipments

(Field Strength: 1000μV at Antenna Terminal)

STEP	FM SSG			19 kHz Carrier Switch	VTVM & Oscilloscope Connection	Adjust	Remarks
	Coupling	Modulation Frequency	Input Selector				
1	FM Antenna Terminal	OFF	OFF	ON	High side to (C) Low side to chassis	(X04-0010-10) Lc1, Lc4	Maximum Deflection
2	FM Antenna Terminal	OFF or 400 Hz	A + B or REVERSE	ON	OFF	(X04-0010-10) VRc1	Beacon Lamp "ON"
3	To distant of Antenna Terminal	400 Hz	A PHASE REVERSE	ON	LEFT or RIGHT output jack of TAPE REC	(X04-0010-10) Lc4	To obtain a wave form with maximum amplitude at 400 Hz on oscilloscope
4	FM Antenna Terminal	400 Hz	A or LEFT	ON	RIGHT output	(UA6001J3) VRd1	Minimum Deflection
5	FM Antenna Terminal	400 Hz	B or RIGHT	ON	LEFT output	(UA6001J3) VRd1	Minimum Deflection
6	Repeat steps 4 & 5 until no further improvement is possible.						

# ALIGNMENT PROCEDURE

## (c) BEACON LAMP

STEP	FM Stereo Signal Generator			19 kHz Pilot Carrier Switch	Selector Switch	AC VTVM Oscilloscope Connection	DC VTVM or Circuit Tester Connection	Adjust	Remarks
	Coupling	Modulation Frequency	Input Selector						
1	FM Antenna Terminal	DEV. 40 kHz 1 mV	NORMAL	ON	FM AUTO	OFF	OFF	(UA1224K) VRb4	Beacon Lamp ON
2	FM Antenna Terminal	DEV. 67.5 kHz 6.5 $\mu$ V	NORMAL	ON	FM AUTO	LEFT or RIGHT output jack	OFF	(X04-0010-10) VRc1	Beacon Lamp Threshold of light ON

## ADJUSTING THE SQUELCH (MUTING)

When the MUTING SW is set to "ON" position with ANT input at 1mV, Remember the audio output (AF). And then at ANT input of 3 $\mu$ V with MUTING SW set to the above, adjust VRb3 (UA1224K) so that the audio output is attenuated to below -40dB.

Next at ANT input of 10 $\mu$ V with MUTING SW set to the same, check the audio output so as to be attenuated to within -1dB.

# ALIGNMENT PROCEDURE

## AM ALIGNMENT PROCEDURE

Alignment tools: IF transformers require a plastic screwdriver-type alignment tool.  
 Instruments: AM SG, AC VTVM & Oscilloscope.  
 Selector SW: Always place in AM position.  
 Warm-up: Allow 30. minutes warm-up period for Receiver and equipments.

STEP	Dummy Antenna	AM Signal Generator Coupling	Signal Generator Frequency	Selector Switch	TuningDial Setting	Indicating Meter	Adjust	Remarks
1	Direct	High side to AM antenna terminal, Low side to chassis	455 kHz (400 Hz 30% AM)	AM	Any non-intefering setting	Tuning Indicator	(UA1224K) Lb4, 6, 9	Maximum Deflection
2	Direct	Connect to short loop of wire, Radiate signal into ferrite loop stick antenna of receiver	600 kHz (400 Hz 30% AM)	AM	600 kHz	Tuning Indicator	(UA1224K) Lb10, 11 AM ANT.	Maximum Deflection
3	Direct	Connect to short loop of wire, Radiate signal into ferrite loop stick antenna of receiver	1400 kHz (400 Hz 30% AM)	AM	1400 kHz	Tuning Indicator	(UA1125K) CTa5 ~ 6	Maximum Deflection
4	Repeat steps 2 & 3 until no further improvement is possible.							

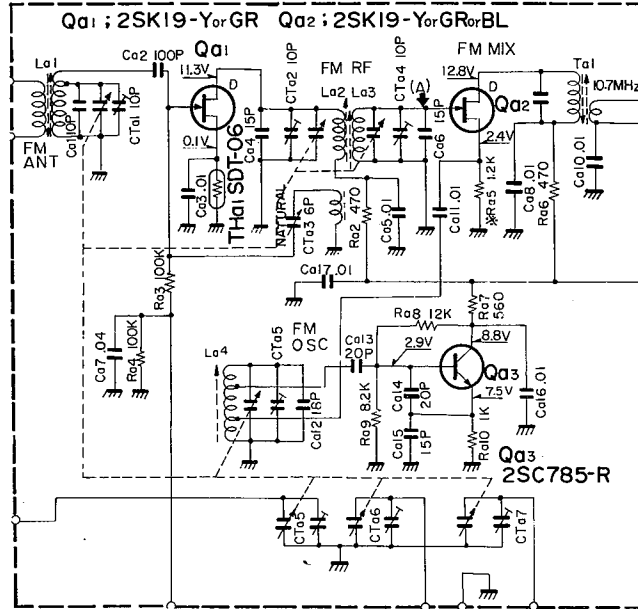
**SCHEMATIC DIAGRAM**

**BOTTOM VIEW OF TRANSISTOR**

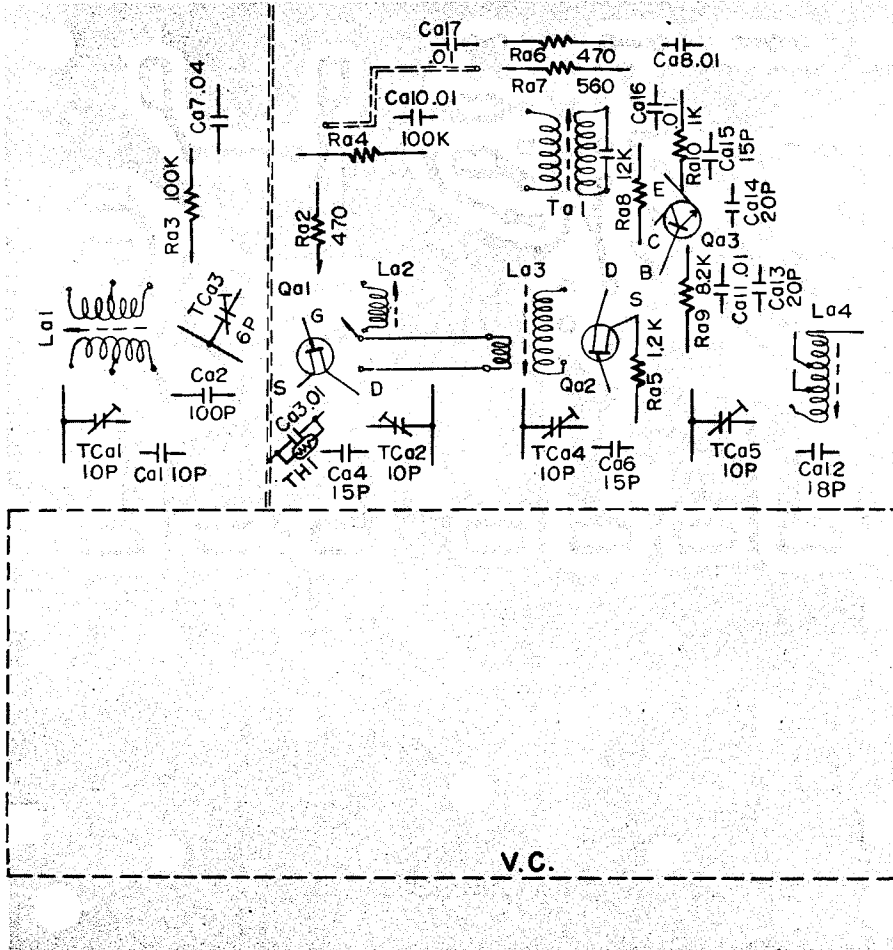
2SK19(GR)or(BL)



2SC785R



**SEALED CIRCUIT ASSEMBLIES-PHANTOM VIEWS**



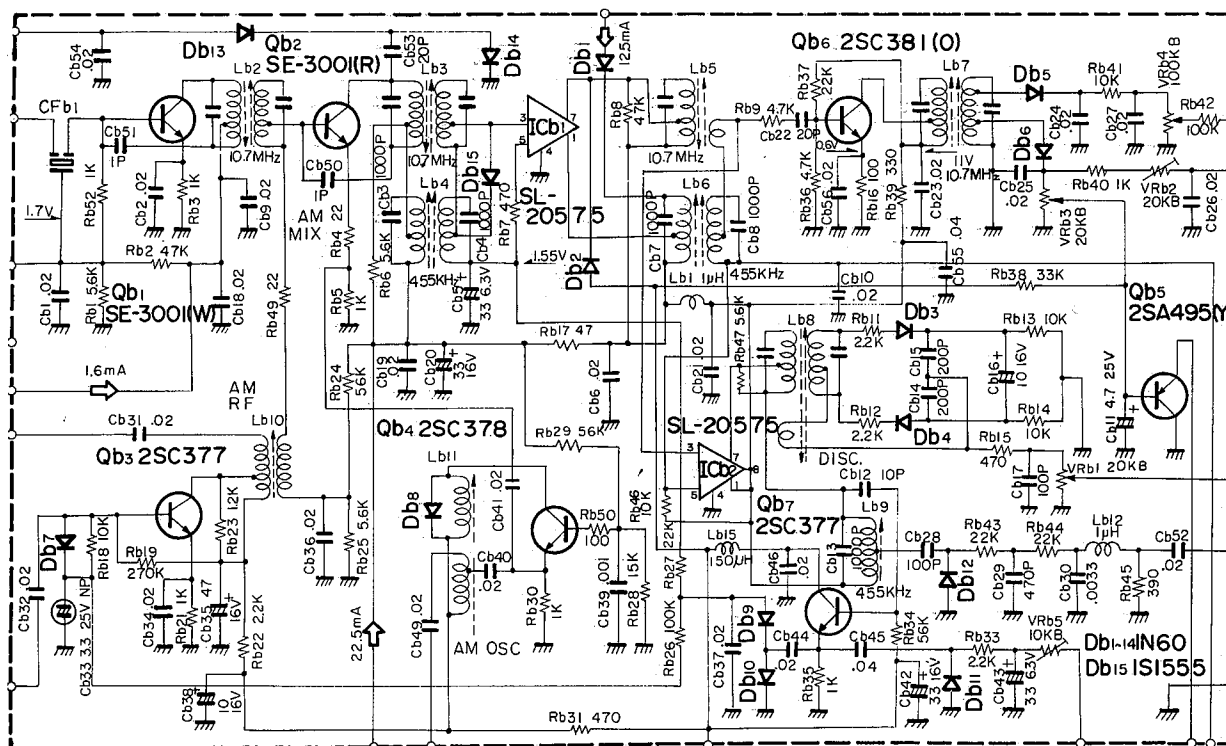
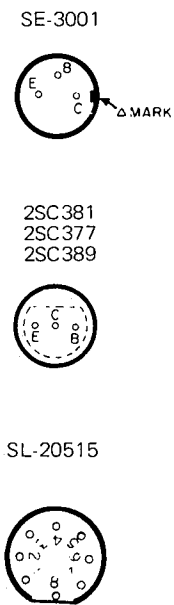
- Qa1 2SK19-(Y)or(GR)
- Qa2 2SK19-(Y)or(BL)or(GR)
- Qa3 2SC785(R)

**PARTS DESCRIPTION LIST**

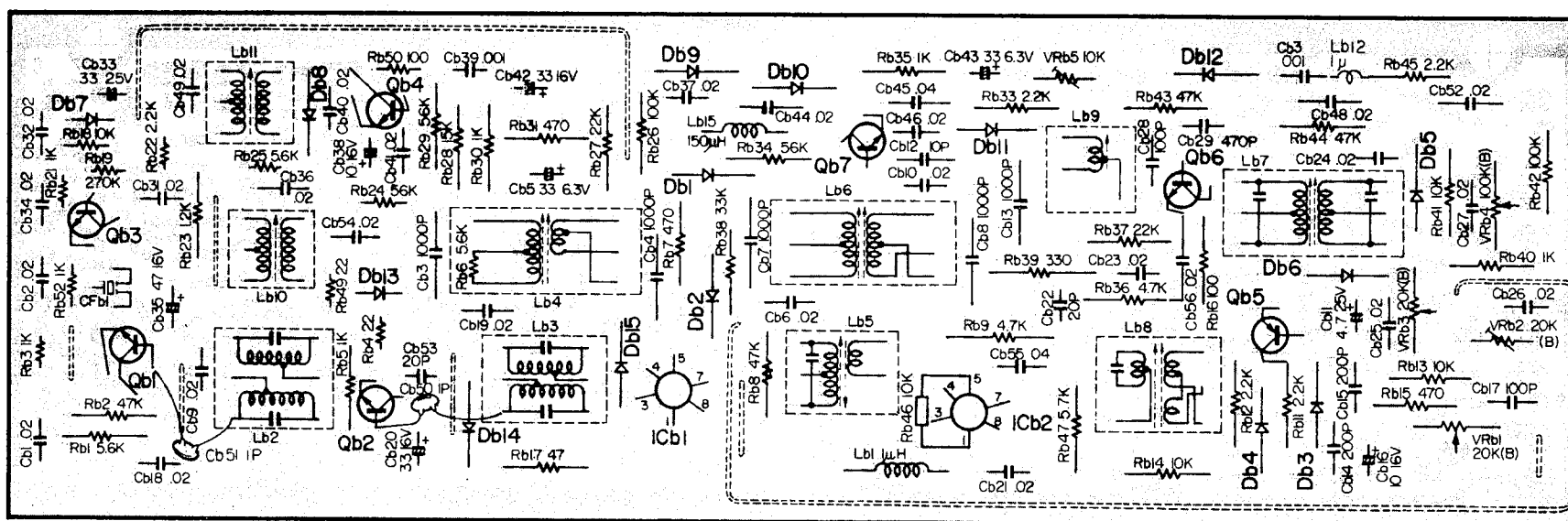
Symbol No.	Description	Part No.	Remarks
<b>CAPACITORS</b>			
Ca1	Ceramic 10pF ±0.5pF	CC94TH1H100D	
Ca2	Ceramic 100pF ±10%	CC94SL1H101K	
Ca3	Ceramic 0.01μF	CK94YG1E103	
Ca4	Ceramic 15pF ±10%	CC94TH1H150K	
Ca5	Ceramic 0.01μF	CK94YG1E103	
Ca6	Ceramic 15pF ±10%	CC94TH1H150K	
Ca7	Ceramic 0.04μF	CK94YG1E403	
Ca8	Ceramic 0.01μF	CC94TH1H103	
Ca10, 11	Ceramic 0.01μF	CC94TH1H103	
Ca12	Ceramic 18pF ±5%	CC94TH1H180K	
Ca13, 14	Ceramic 20pF ±5%	CC94CH1H200J	
Ca15	Ceramic 15pF ±5%	CC94CH1H150J	
Ca16, 17	Ceramic 0.01μF	CK94YG1E103	
CTa1, 2	Ceramic Trimmer	C4036	
CTa3	Ceramic Trimmer	C4035	
CTa4, 5	Ceramic Trimmer	C4036	
V. C.	Variable Capacitor	D01-146	
<b>RESISTORS</b>			
Ra2	Special Insulated Carbon Film 470Ω ±5% or 10% 1/8W	PD14BY2B471J	
Ra3, 4	Special Insulated Carbon Film 100kΩ ±5% or 10% 1/8W	PD14BY2B104J	
Ra5	Special Insulated Carbon Film 1.2kΩ 1.8kΩ or 3.3kΩ ±5% or 10% 1/8W		
	2SK19-Y 1.2kΩ	PD14BY2B122J	
	2SK19-GR 1.8kΩ	PD14BY2B182J	
	2SK19-BL 3.3kΩ	PD14BY2B332J	
Ra6	Special Insulated Carbon Film 470Ω ±5% or 10% 1/8W	PD14BY2B471J	
Ra7	Special Insulated Carbon Film 560Ω ±5% or 10% 1/8W	PD14BY2B561J	
Ra8	Special Insulated Carbon Film 12kΩ ±5% or 10% 1/8W	PD14BY2B123J	
Ra9	Special Insulated Carbon Film 8.2kΩ ±5% or 10% 1/8W	PD14BY2B822J	
Ra10	Special Insulated Carbon Film 1kΩ ±5% or 10% 1/8W	PD14BY2B102J	
<b>TRANSISTORS/THERMISTOR</b>			
Qa1	2SK-19 (Y) or (GR)		
Qa2	2SK-19 (Y), (GR) or (BL)		
Qa3	2SC785-R		
THa1	SDT-06		
<b>COILS/TRANSFORMERS</b>			
La1	RF Coil	L24-UA1125KRA	
La2	RF Coil	L24-UA1125KRB	
La3	RF Coil	L24-UA1125KRC	
La4	VHF OSC Coil	L34-0002-04	
Ta1	FM IFT	L52-10	
<b>MISCELLANEOUS</b>			
-	P C Board	S23-316	
-	Front Chassis	A03-UA1129J	
-	Front Rear Panel	A08-UA1125K	
-	Front Shielding Board	A13-UA1125K	
-	Front Cover	A90-UA1125K	
-	Coil Spacer	J30-0009-14	

**SCHEMATIC DIAGRAM**

**BOTTOM VIEW OF TRANSISTORS**



**SEALED CIRCUIT ASSEMBLIES-PHANTOM VIEWS**



Qb1 SE300(W), Qb2 SE300(R), Qb3 2SC377, Qb4 2SC378, Qb5 2SA495(Y), Qb6 2SC38(O), Qb7 2SC377, ICb1 SL-20575(B), ICb2 SL-20575(R), Db1-14 IN60, Db15 IS1555

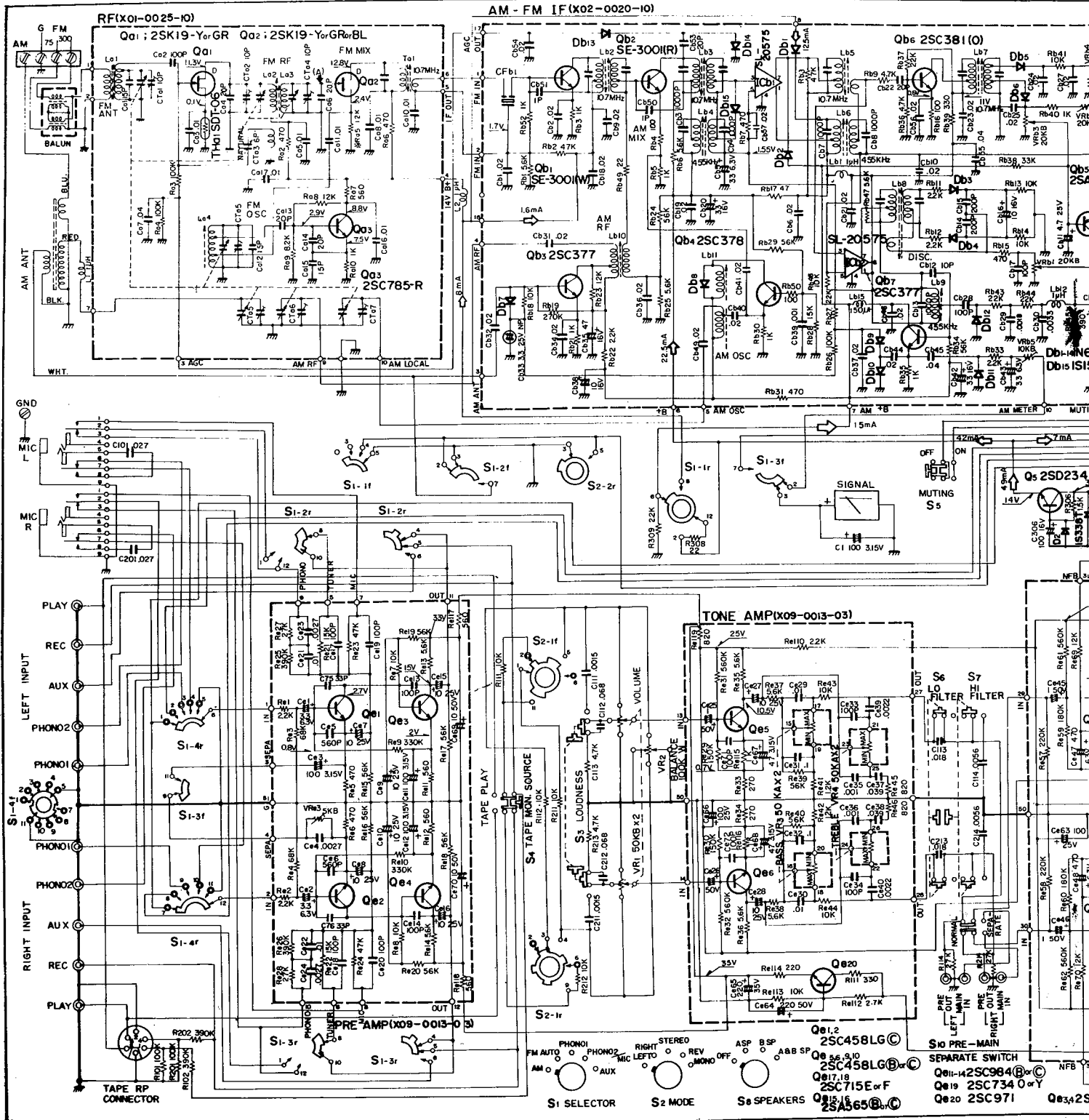
**PARTS DESCRIPTION LIST**

Symbol No.	Description	Part No.	Re- marks
<b>CAPACITORS</b>			
Cb1, 2	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb3, 4	Polystyrene Film 1000pF $\pm$ 10%	CQ08S1E102K03	
Cb5	Electrolytic Tubular 33 $\mu$ F 6.3WV	CE04W1J330	
Cb6	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb7, 8	Polystyrene Film 1000pF $\pm$ 10%	CQ08S1E102K03	
Cb9, 10	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb11	Electrolytic Tubular 4.7 $\mu$ F 25WV	CE04W1E4R7	
Cb12	Ceramic 10pF $\pm$ 0.5pF	CC94SL1H100D	
Cb13	Polystyrene Film 1000pF $\pm$ 10%	CQ08S1E102K03	
Cb14, 15	Ceramic 200pF $\pm$ 10%	CC94SL1H201K	
Cb16	Electrolytic Tubular 10 $\mu$ F 16WV	CE04W1C100	
Cb17	Ceramic 100pF $\pm$ 10%	CC94SL1H101K	
Cb18, 19	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb20	Electrolytic Tubular 33 $\mu$ F 16WV	CE04W1C330	
Cb21	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb22	Ceramic 20pF $\pm$ 10%	CC94SL1H200K	
Cb23 ~ 27	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb28	Ceramic 100pF $\pm$ 10%	CC94SL1H101K	
Cb29	Ceramic 470pF $\pm$ 20%	CK94YY2E471M	
Cb30	Ceramic 0.033 $\mu$ F $\pm$ 20%	CK94YY2E332M	
Cb31, 32	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb33	Electrolytic Tubular 3.3 $\mu$ F 25WV	CE04W1E3R3NP	
Cb34	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb35	Electrolytic Tubular 47 $\mu$ F 16WV	CE04W1C470	
Cb36, 37	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb38	Electrolytic Tubular 10 $\mu$ F 16WV	CE94YG1E203Z	
Cb39	Ceramic 0.001 $\mu$ F +80% -20%	CK94YG1E102Z	
Cb40, 41	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb42	Electrolytic Tubular 33 $\mu$ F 16WV	CE04W1C330	
Cb43	Electrolytic Tubular 33 $\mu$ F 6.3WV	CE04W1J330	
Cb44	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb45	Ceramic 0.04 $\mu$ F +80% -20%	CK94YG1E403Z	
Cb46	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E103Z	
Cb48, 49	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E103Z	
Cb50, 51	Ceramic 1pF $\pm$ 0.5pF	CC94SL1H010D	
Cb52	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb53	Ceramic 20pF $\pm$ 10%	CC94SL1H200K	
Cb54	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
Cb55	Ceramic 0.04 $\mu$ F +80% -20%	CK94YG1E403Z	
Cb56	Ceramic 0.02 $\mu$ F +80% -20%	CK94YG1E203Z	
<b>RESISTORS</b>			
Rb1	Insulated Carbon Film 5.6k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B562J	
Rb2	Insulated Carbon Film 47k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B473J	
Rb3	Insulated Carbon Film 1k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B102J	
Rb4	Insulated Carbon Film 22 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B220J	
Rb5	Insulated Carbon Film 1k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B102J	
Rb6	Insulated Carbon Film 5.6k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B562J	
Rb7	Insulated Carbon Film 470 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B471J	
Rb8	Insulated Carbon Film 47k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B473J	
Rb9	Insulated Carbon Film 4.7k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2E472K	
Rb11, 12	Insulated Carbon Film 2.2k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B222J	
Rb13, 14	Insulated Carbon Film 10k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B103J	
Rb15	Insulated Carbon Film 470 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B471J	
Rb16	Insulated Carbon Film 100 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B101J	
Rb17	Insulated Carbon Film 47 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B470J	
Rb18	Insulated Carbon Film 10k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B103J	
Rb19	Insulated Carbon Film 270 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B274J	
Rb21	Insulated Carbon Film 1k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B102J	
Rb22	Insulated Carbon Film 2.2k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B222J	
Rb23	Insulated Carbon Film 1.2k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B122J	
Rb24	Insulated Carbon Film 56k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B563J	
Rb25	Insulated Carbon Film 5.6k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B562J	
Rb26	Insulated Carbon Film 100k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B104J	
Rb27	Insulated Carbon Film 22k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B223J	
Rb28	Insulated Carbon Film 15k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B153J	
Rb29	Insulated Carbon Film 56k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B563J	
Rb30	Insulated Carbon Film 1k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B102J	
Rb31	Insulated Carbon Film 470 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B471J	
Rb33	Insulated Carbon Film 2.2k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B222J	

Symbol No.	Description	Part No.	Re- marks
Rb34	Insulated Carbon Film 56k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B563J	
Rb35	Insulated Carbon Film 1k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B102J	
Rb36	Insulated Carbon Film 4.7k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B472J	
Rb37	Insulated Carbon Film 22k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B223J	
Rb38	Insulated Carbon Film 33k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B333J	
Rb39	Insulated Carbon Film 330 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2E331K	
Rb40	Insulated Carbon Film 1k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B102J	
Rb41	Insulated Carbon Film 10k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B103J	
Rb42	Insulated Carbon Film 100k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B104J	
Rb43, 44	Insulated Carbon Film 22k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B223J	
Rb45	Insulated Carbon Film 390 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B391J	
Rb46	Insulated Carbon Film 10k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B103J	
Rb47	Insulated Carbon Film 5.6k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B562J	
Rb49	Insulated Carbon Film 22 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14CY2B220J	
Rb50	Insulated Carbon Film 100 $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B101J	
Rb52	Insulated Carbon Film 1k $\Omega$ $\pm$ 5% or $\pm$ 10% 1/8W	PD14BY2B102J	
<b>IF TRANSFORMER/COIL</b>			
Lb1	Choke Coil	L20-010C	
Lb2	FM IFT	L02-104	
Lb3	FM IFT	L02-104	
Lb4	AM IFT	L01-88	
Lb5	AM IFT	L02-109	
Lb6	AM IFT	L01-88	
Lb7	AM IFT (MUTING)	L02-95	
Lb8	FM IFT (DICS)	L02-64	
Lb9	AM IFT	L01-89	
Lb10	AM RF Coil	L12-61	
Lb11	AM OSC Coil	L11-70	
Lb12	Choke Coil	L20-010C	
Lb15	Ferri-Inductor (FL5H 151K)	L4019	
CFb1	Ceramic Filter		
<b>TRANSISTOR/IC/DIODE</b>			
Qb1	SE-3001-(W)		
Qb2	SE-3001-(R)		
Qb3	2SC377		
Qb4	2SC378		
Qb5	2SA495 (Y)		
Qb6	2SC381 (O)		
Qb7	2SC377		
Icb1	SC-20575 (B)		
Icb2	SL-20575 (R)		
Db1 ~ 14	1N60		
Db15	1S1555		
<b>POTENTIOMETER</b>			
VRb1	IF OUT 20k $\Omega$ (B)	R10-75	
VRb2	FM METER 20k $\Omega$ (B)	R10-115	
VRb3	MUTING 20k $\Omega$ (B)	R10-75	
VRb4	FM METER 100k $\Omega$ (B)	R10-91	
VRb5	AM METER 10k $\Omega$ (B)	R10-114	
<b>MISCELLANEOUS</b>			
-	P. C. Board	S23-327	
-	Shielding Board	F10-0002-04	



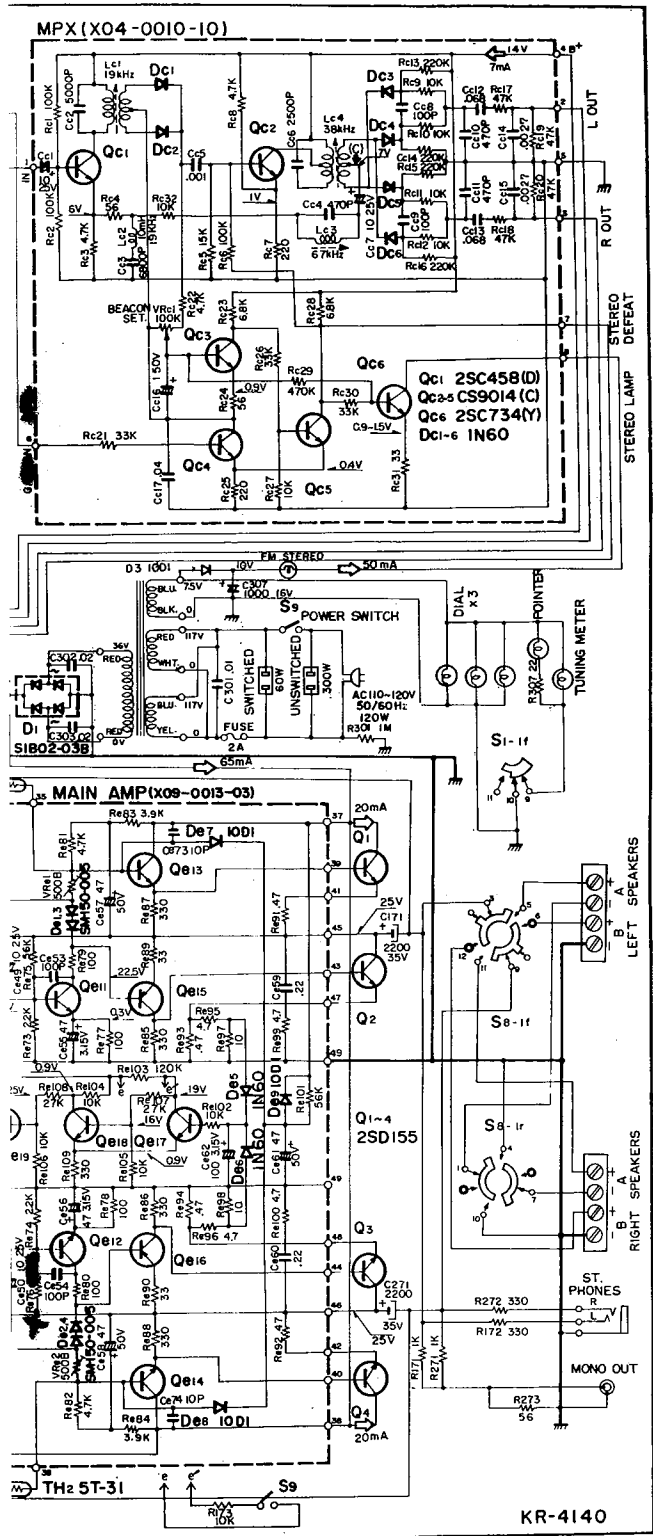
# KR-4140 SCHEMATIC



**Note:** The schematic diagram above is for the KR-4140 receivers made for operation in the 50-60 Hz AC areas. Revised power transformer circuits for those receivers made to operate in the 60-70 Hz AC areas are shown at the right.

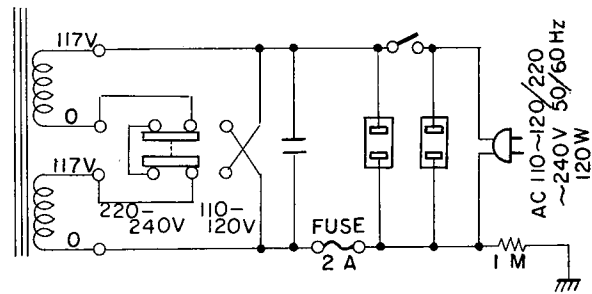
We reserve the right to make modifications in this model in accordance with our engineering requirements.

# DIAGRAM



## POWER TRANSFORMER ARRANGEMENTS

◆ For AC 110-120V/220-240V Sets

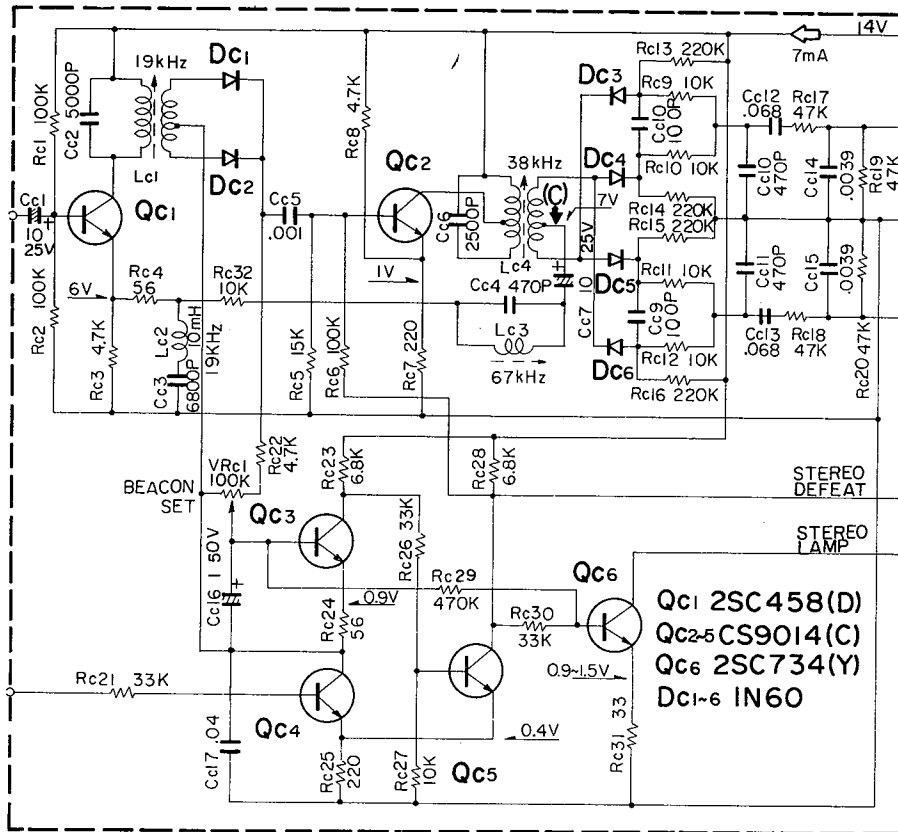


AC 110-120V power source

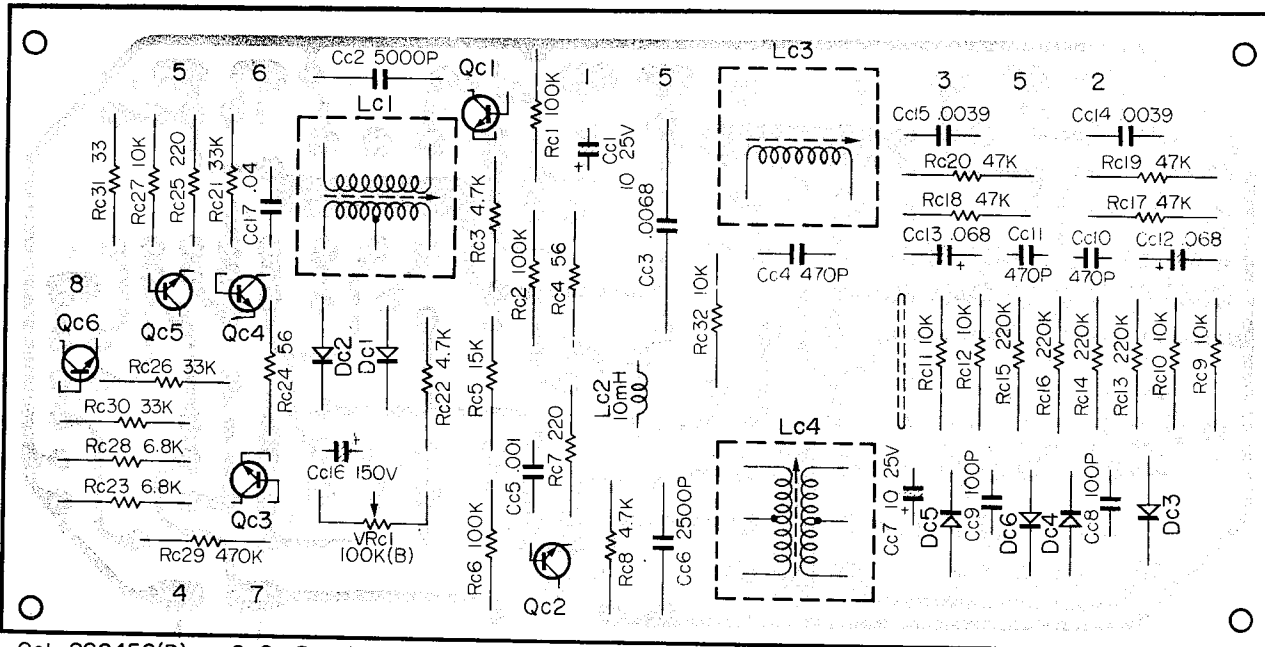
different power source

technical developments.

**SCHEMATIC DIAGRAM**

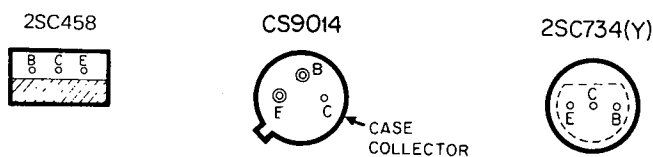


**SEALED CIRCUIT ASSEMBLIES-PHANTOM VIEWS**



Qc1 2SC458(D), Qc2~5 CS9014(C), Qc6 2SC734(Y), Dc1~6 IN60

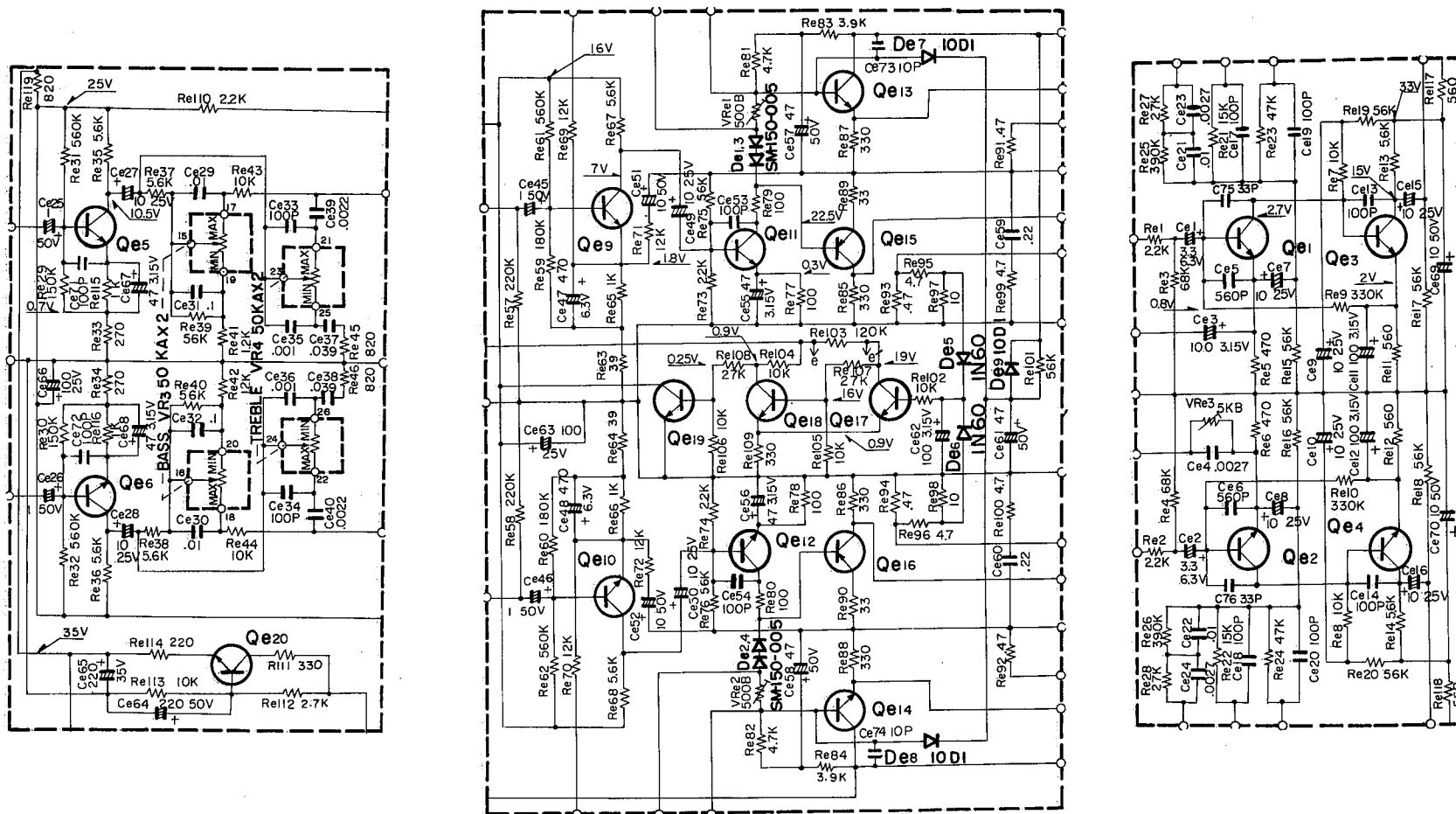
**BOTTOM VIEW OF TRANSISTOR**



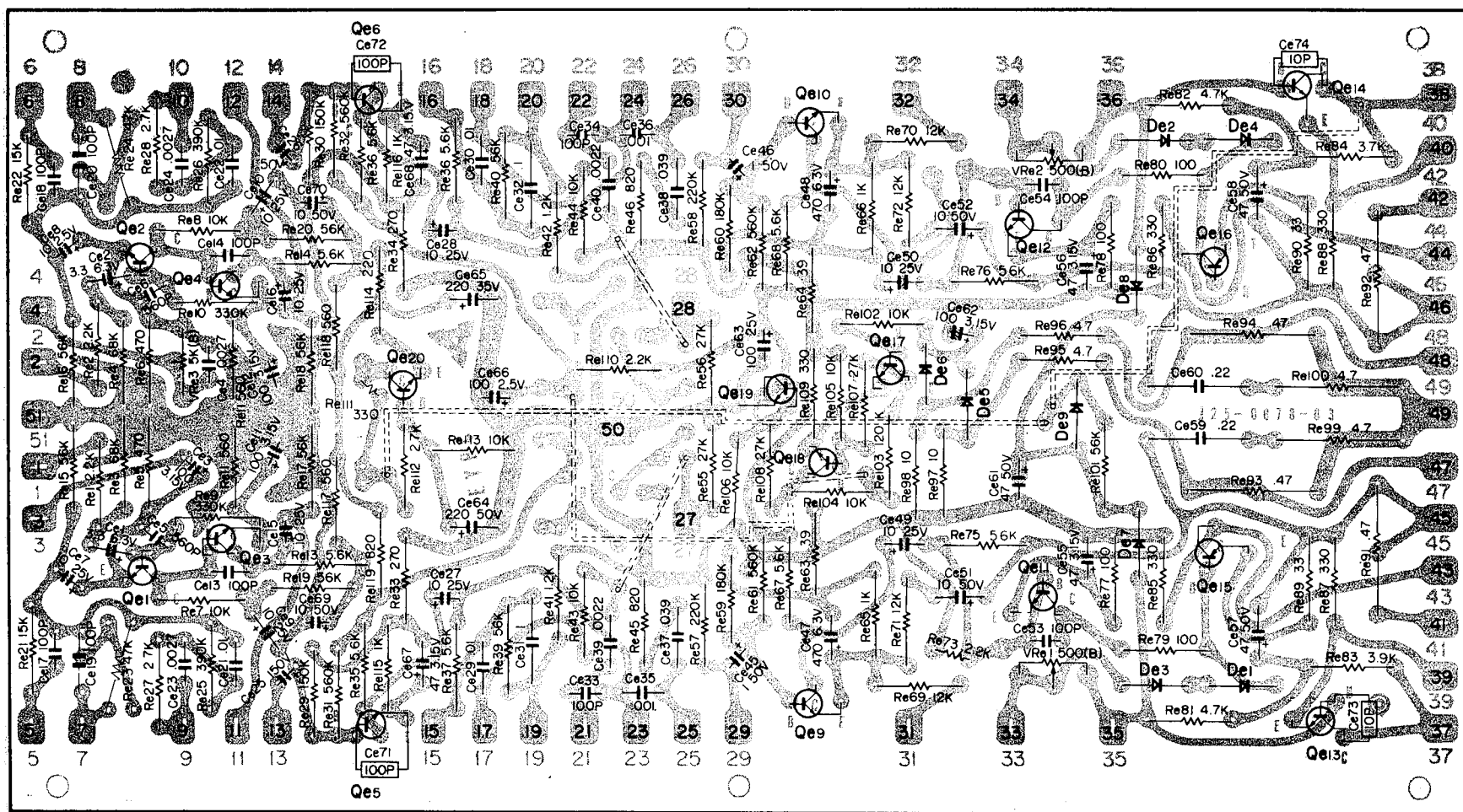
**PARTS DESCRIPTION LIST**

Symbol No.	Description	Part No.	Remarks
<b>CAPACITOR</b>			
Cc1	Electrolytic Tubular	10 $\mu$ F 25WV	CE04W1E100
Cc2	Polyester	5000pF $\pm$ 5%	CQ08S2B502J
Cc3	Polyester	6800pF $\pm$ 5%	CQ08S2B682J
Cc4	Polyester	470pF $\pm$ 5%	CQ08S2B471J
Cc5	Ceramic	0.001 $\mu$ F $\pm$ 10%	CK94YP1H102K
Cc6	Polyester	2500pF $\pm$ 5%	CQ08S2B252J
Cc7	Electrolytic Tubular	10 $\mu$ F 25WV	CE04W1B100
Cc8, 9	Mica	100pF $\pm$ 5%	CM93F1H101J
Cc10, 11	Ceramic	470pF $\pm$ 10%	CK94YP1H471K
Cc12, 13	Solid Aluminum	0.068 $\mu$ F $\pm$ 20%	CA06E1ER068M
Cc14, 15	Mylar	0.0039 $\mu$ F $\pm$ 5%	CQ93M1H392J
Cc16	Electrolytic Tubular	1 $\mu$ F 50WV	CE04W1H010
<b>RESISTOR</b>			
Rc1, 2	Insulated Carbon Film	100k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E104K
Rc3	Insulated Carbon Film	4.7k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E472K
Rc4	Insulated Carbon Film	56 $\Omega$ $\pm$ 10% 1/4W	PD14BY2E560K
Rc5	Insulated Carbon Film	15k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E153K
Rc6	Insulated Carbon Film	100k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E104K
Rc7	Insulated Carbon Film	220 $\Omega$ $\pm$ 10% 1/4W	PD14BY2E221K
Rc8	Insulated Carbon Film	4.7k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E472K
Rc9 ~ 12	Insulated Carbon Film	10k $\Omega$ $\pm$ 5% 1/4W	PD14BY2E103J
Rc13 ~ 16	Insulated Carbon Film	220k $\Omega$ $\pm$ 5% 1/4W	PD14BY2E224J
Rc17 ~ 20	Insulated Carbon Film	47k $\Omega$ $\pm$ 5% 1/4W	PD14BY2E473J
Rc21	Insulated Carbon Film	33k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E333K
Rc22	Insulated Carbon Film	4.7k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E472K
Rc23	Insulated Carbon Film	6.8k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E682K
Rc24	Insulated Carbon Film	56 $\Omega$ $\pm$ 10% 1/4W	PD14BY2E560K
Rc25	Insulated Carbon Film	220 $\Omega$ $\pm$ 10% 1/4W	PD14BY2E221K
Rc26	Insulated Carbon Film	33k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E333K
Rc27	Insulated Carbon Film	10k $\Omega$ $\pm$ 5% 1/4W	PD14BY2E103K
Rc28	Insulated Carbon Film	4.7k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E472K
Rc29	Insulated Carbon Film	470k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E474K
Rc30	Insulated Carbon Film	33k $\Omega$ $\pm$ 10% 1/4W	PD14BY2E333K
Rc31	Insulated Carbon Film	33 $\Omega$ $\pm$ 10% 1/4W	PD14BY2E330K
Rc32	Insulated Carbon Film	10k $\Omega$ $\pm$ 5% 1/4W	PD14BY2E103J
<b>TRANSISTOR/DIODE</b>			
Qc1	2SC458 (D)		
Qc2 ~ 5	CS9014 (C)		
Qc6	2SC734 (Y)		
Dc1 ~ 6	1N60		
<b>COIL/POTENTIOMETER</b>			
Lc1	19kHz TUNING COIL	L17-49	
Lc2	Ferri-Inductor (FL9H-103J)	L33-0117-05	
Lc3	67kHz TUNING COIL	L17-44	
Lc4	38kHz TUNING COIL	L35-0038-05	
VRc1	100k $\Omega$ (B) BEACON SET	R10-65	
<b>MISCELLANEOUS</b>			
—	P C Board	J25-0435-03	

**SCHEMATIC DIAGRAM**

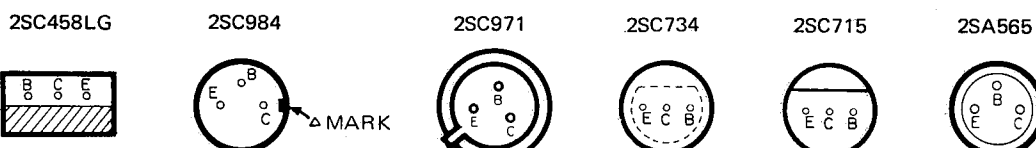


**SEALED CIRCUIT ASSEMBLIES-PHANTOM VIEWS**



- |                     |                           |                           |                  |            |
|---------------------|---------------------------|---------------------------|------------------|------------|
| Qe1,2 2SC458LG (C)  | Qe11-14 2SC984 (B) or (C) | Qe17,18 2SC715 (E) or (F) | Qe20 2SC971      | De5,6 1N60 |
| Qe3-6 2SC458LG (B)  | Qe15,16 2SA565 (B) or (C) | Qe19 2SC734 (D) or (Y)    | De1-4 SM-150-005 | De7-9 10DI |
| Qe9,10 2SC458LG (C) |                           |                           |                  |            |

**BOTTOM VIEW OF TRANSISTOR**





# PRE, TONE & MAIN (UA6001J3) SECTION

## PARTS DESCRIPTION LIST

Symbol No.	Description	Part No.	Remarks
<b>CAPACITOR</b>			
Ce1, 2	Solid Aluminum	3.3μF 6.3WV	CA04E0J3RXJ
Ce3	Electrolytic Tubular	100μF 3.15WV	CE04W0F101
Ce4	Mylar	0.0027μF ±10%	CQ93M1H272K
Ce5, 6	Ceramic	560pF ±20%	CK94YY1H561M
Ce7 ~ 10	Electrolytic Tubular	10μF 25WV	CE04W1E100
Ce11, 12	Electrolytic Tubular	100μF 3.15WV	CE04W0F101
Ce13, 14	Ceramic	100pF ±10%	CC94SL1H101K
Ce15, 16	Electrolytic Tubular	10μF 25WV	CE04W1E100
Ce17 ~ 20	Ceramic	100pF ±10%	CC94SL1H101K
Ce21, 22	Mylar	0.01μF ±10%	CQ93M1H103K
Ce23, 24	Mylar	0.0027μF ±10%	CQ93M1H272K
Ce25, 26	Electrolytic Tubular	1μF 50WV	CE04W1H010
Ce27, 28	Electrolytic Tubular	10μF 25WV	CE04W1E100
Ce29, 30	Mylar	0.01μF ±10%	CQ93M1H103K
Ce31, 32	Mylar	0.1μF ±10%	CQ93M1H104K
Ce33, 34	Ceramic	100pF ±10%	CC94SL1H101K
Ce35, 36	Mylar	0.001μF ±10%	CQ93M1H102K
Ce37, 38	Mylar	0.039μF ±10%	CQ93M1H393K
Ce39, 40	Mylar	0.0022μF ±10%	CQ93M1H222K
Ce45, 46	Electrolytic Tubular	1μF 50WV	CE04W1H010
Ce47, 48	Electrolytic Tubular	470μF 6.3WV	CE04W0J471
Ce49, 50	Electrolytic Tubular	10μF 25WV	CE04W1E100
Ce51, 52	Electrolytic Tubular	10μF 50WV	CE04W1H100
Ce53, 54	Ceramic	100pF ±10%	CC94SL1H101K
Ce55, 56	Electrolytic Tubular	47μF 3.15WV	CE04W0F470
Ce57, 58	Electrolytic Tubular	47μF 50WV	CE04W1H470
Ce59, 60	Mylar	0.22μF ±20%	CQ93M1H224M
Ce61	Electrolytic Tubular	47μF 50WV	CE04W1H470
Ce62	Electrolytic Tubular	100μF 3.15WV	CE04W0F101
Ce63	Electrolytic Tubular	100μF 25WV	CE04W1E101
Ce64	Electrolytic Tubular	220μF 50WV	CE04W1H221
Ce65	Electrolytic Tubular	220μF 35WV	CE04W1V221
Ce66	Electrolytic Tubular	100μF 25WV	CE04W1E101
Ce67, 68	Electrolytic Tubular	47μF 3.15WV	CE04W0F470
Ce69, 70	Electrolytic Tubular	10μF 50WV	CE04W1H100
Ce71, 72	Ceramic	100pF ±10%	CC94SL1H101K
Ce73, 74	Ceramic	10pF ±0.5pF	CC94SL1H100D

Symbol No.	Description	Part No.	Remarks
<b>RESISTOR</b>			
Re1, 2	Insulated Carbon Film	2.2kΩ ±5% 1/4W	PD14BY2E222J
Re3, 4	Insulated Carbon Film	68kΩ ±5% 1/4W	PD14BY2E683J
Re5, 6	Insulated Carbon Film	470Ω ±5% 1/4W	PD14BY2E471J
Re7, 8	Insulated Carbon Film	10kΩ ±5% 1/4W	PD14BY2E103J
Re9, 10	Insulated Carbon Film	330kΩ ±5% 1/4W	PD14BY2E334J
Re11, 12	Insulated Carbon Film	560Ω ±5% 1/4W	PD14BY2E561J
Re13, 14	Insulated Carbon Film	5.6kΩ ±5% 1/4W	PD14BY2E562J
Re15 ~ 20	Insulated Carbon Film	56kΩ ±5% 1/4W	PD14BY2E563J
Re21, 22	Insulated Carbon Film	15kΩ ±5% 1/4W	PD14BY2E153J
Re23, 24	Insulated Carbon Film	47kΩ ±5% 1/4W	PD14BY2E473J
Re25, 26	Insulated Carbon Film	390kΩ ±5% 1/4W	PD14BY2E394J
Re27, 28	Insulated Carbon Film	27kΩ ±5% 1/4W	PD14BY2E273J
Re29, 30	Insulated Carbon Film	150kΩ ±5% 1/4W	PD14BY2E154J
Re31, 32	Insulated Carbon Film	560kΩ ±5% 1/4W	PD14BY2E564J
Re33, 34	Insulated Carbon Film	270Ω ±5% 1/4W	PD14BY2E271J
Re35 ~ 38	Insulated Carbon Film	5.6kΩ ±5% 1/4W	PD14BY2E562J
Re39, 40	Insulated Carbon Film	56kΩ ±5% 1/4W	PB14BY2E563J
Re41, 42	Insulated Carbon Film	1.2kΩ ±5% 1/4W	PD14BY2E122J
Re43, 44	Insulated Carbon Film	10kΩ ±5% 1/4W	PD14BY2E103J
Re45, 46	Insulated Carbon Film	820Ω ±5% 1/4W	PD14BY2E821J
Re55, 56	Insulated Carbon Film	27kΩ ±5% 1/4W	PD14BY2E273J
Re57, 58	Insulated Carbon Film	220kΩ ±5% 1/4W	PD14BY2E273J
Re59, 60	Insulated Carbon Film	180kΩ ±5% 1/4W	PD14BY2E184J
Re61, 62	Insulated Carbon Film	560kΩ ±5% 1/4W	PD14BY2E564J
Re63, 64	Insulated Carbon Film	39Ω ±5% 1/4W	PD14BY2E390J
Re65, 66	Insulated Carbon Film	1kΩ ±5% 1/4W	PD14BY2E102J
Re67, 68	Insulated Carbon Film	5.6kΩ ±5% 1/4W	PD14BY2E562J
Re69 ~ 72	Insulated Carbon Film	12kΩ ±5% 1/4W	PD14BY2E123J
Re73, 74	Insulated Carbon Film	2.2kΩ ±5% 1/4W	PD14BY2E222J
Re75, 76	Insulated Carbon Film	56kΩ ±5% 1/4W	PD14BY2E563J
Re77 ~ 80	Insulated Carbon Film	100Ω ±5% 1/4W	PD14BY2E101J
Re81, 82	Insulated Carbon Film	4.7kΩ ±5% 1/4W	PD14BY2E472J
Re83, 84	Insulated Carbon Film	3.9kΩ ±5% 1/4W	PD14BY2E392J
Re85 ~ 88	Insulated Carbon Film	330Ω ±5% 1/4W	PD14BY2E331J
Re89, 90	Insulated Carbon Film	33Ω ±5% 1/4W	PD14BY2E330J
Re91 ~ 94	Metal Film	0.47Ω ±10% 2W	RN14AB3DR47K
Re95, 96	Fixed Carbon Composition	4.7Ω ±10% 1/2W	RC05GF2H4R7K
Re97, 98	Insulated Carbon Film	10Ω ±5% 1/4W	PD14BY2E100J
Re99, 100	Metal Film	4.7Ω ±10% 2W	RN14AB3DR47K
Re101	Insulated Carbon Film	56kΩ ±5% 1/4W	PD14BY2E563J
Re102	Insulated Carbon Film	10kΩ ±5% 1/4W	PD14BY2E103J
Re103	Insulated Carbon Film	120kΩ ±5% 1/4W	PD14BY2E124J
Re104 ~ 106	Insulated Carbon Film	10kΩ ±5% 1/4W	PD14BY2E103J
Re107, 108	Insulated Carbon Film	27kΩ ±5% 1/4W	PD14BY2E273J
Re109	Insulated Carbon Film	330Ω ±5% 1/4W	PD14BY2E331J
Re110	Insulated Carbon Film	2.2kΩ ±5% 1/4W	PD14BY2E222J
Re111	Fixed Carbon Composition	330Ω ±10% 1/2W	RC05GF2H331K

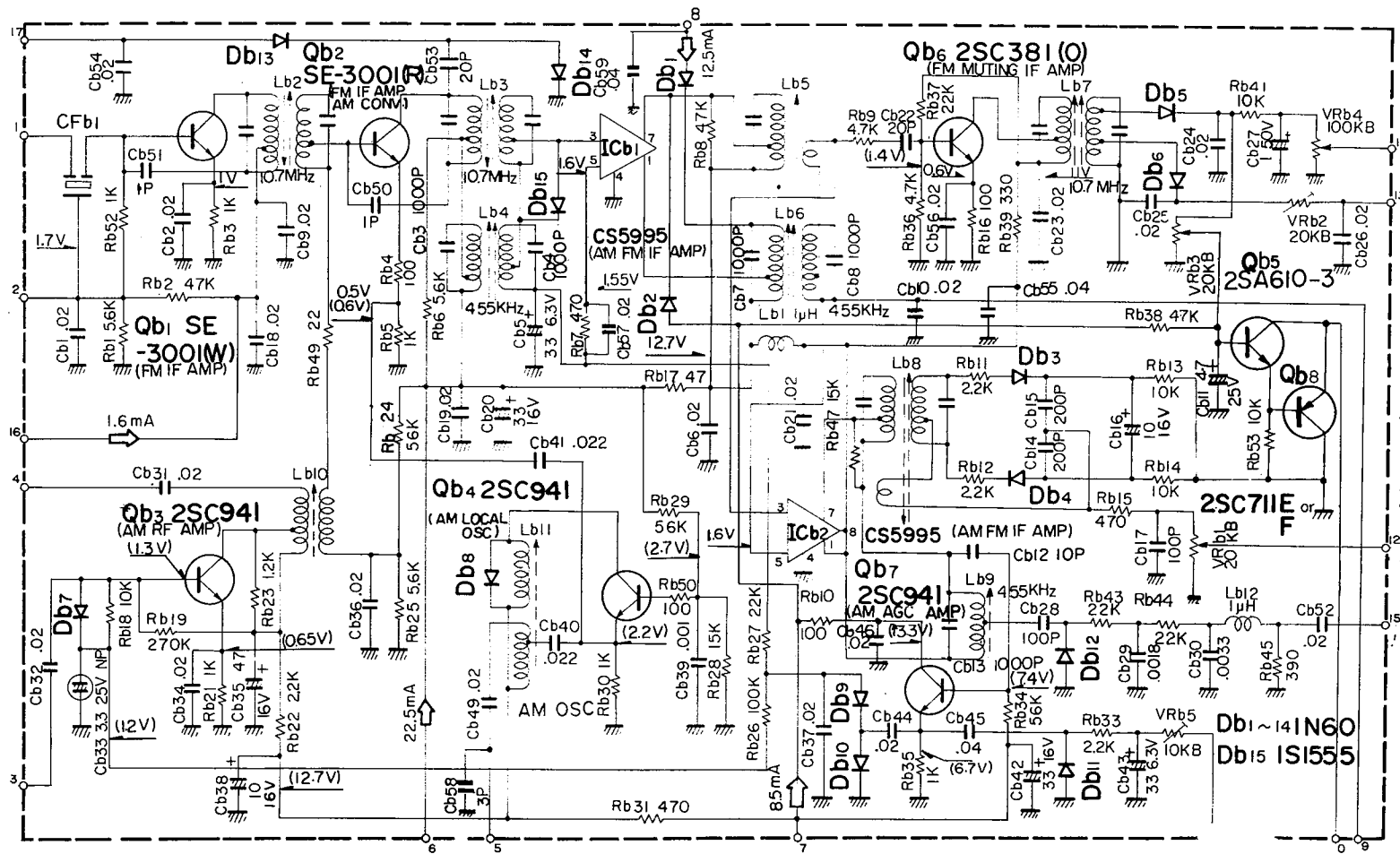
Symbol No.	Description	Part No.	Remarks
Re112	Insulated Carbon Film	2.7kΩ ±5% 1/4W	PD14BY2E272J
Re113	Insulated Carbon Film	10kΩ ±5% 1/4W	PD14BY2E103J
Re114	Fixed Carbon Composition	220Ω ±10% 1/2W	RC05GF2H221K
Re115, 116	Insulated Carbon Film	1kΩ ±5% 1/4W	PD14BY2E102J
Re117, 118	Insulated Carbon Film	560Ω ±5% 1/4W	PD14BY2E561J
Re119	Insulated Carbon Film	820Ω ±5% 1/4W	PD14BY2E821J

Symbol No.	Description	Part No.	Remarks
<b>TRANSISTOR/DIODE</b>			
Qe1, 2	2SC458LG (C)		
Qe3 ~ 6	2SC458LG (B) or (C)		
Qe9, 10	2SC458LG (B) or (C)		
Qe11 ~ 14	2SC984 (B) or (C)		
Qe15, 16	2SA565 (B) or (C)		
Qe17, 18	2SC715 (E) or (F)		
Qe19	2SC734 (O) or (Y)		
Qe20	2SC971		
De1 ~ 4	SM-150-005		
De5, 6	1N60		
De7 ~ 9	10DA		

### POTENTIOMETER/P C BOARD

Symbol No.	Description	Part No.	Remarks
VRe1, 2	500Ω (B) DC BALANCE	R10-69	
VRe3	5kΩ (B) SEPARATE CONTROL	R10-70	
-	P C Board	J25-0078-03	

**SCHEMATIC DIAGRAM**

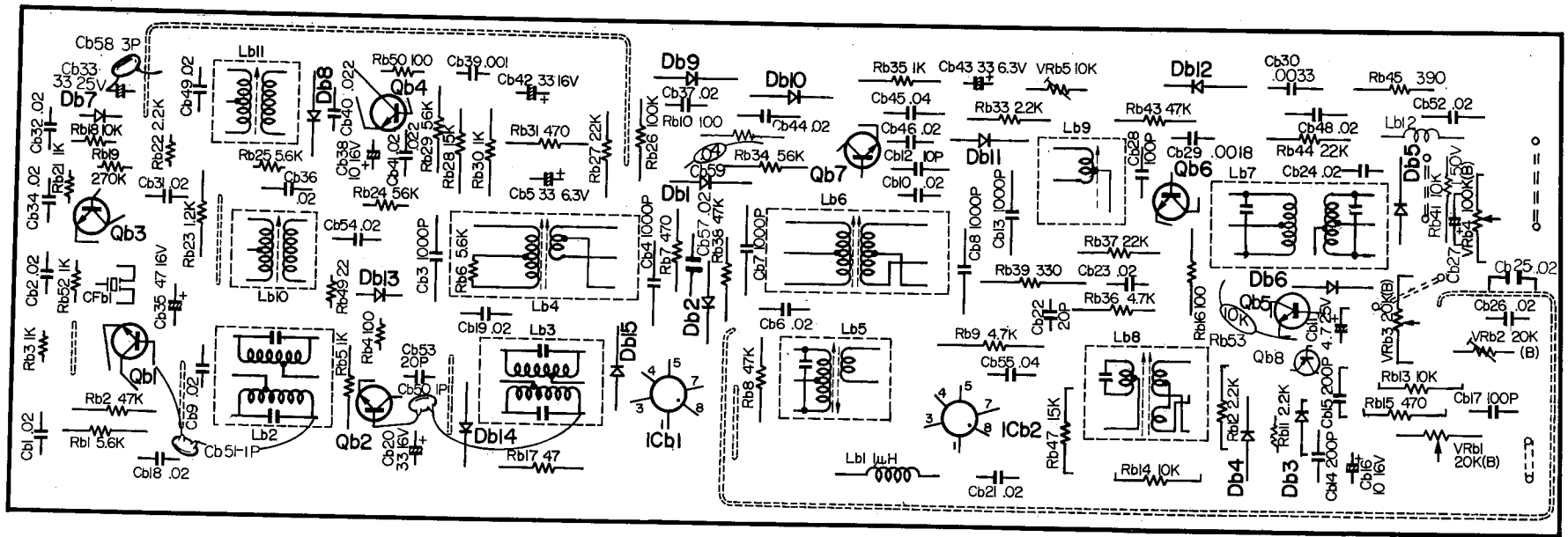


**PARTS DESCRIPTION LIST**

Circuit No.	Parts No.	Description	Re- marks
<b>CAPACITOR</b>			
Cb1, 2	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb3, 4	CM93D1H102JZ	Mica 1000pF ±5%	
Cb5	CE04W0J330	PC electrolytic 33μF 6.3WV	
Cb6	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb7, 8	CM93D1H102JZ	Mica 1000pF ±5%	
Cb9, 10	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb11	CE04W1E4R7	PC electrolytic 4.7μF 25WV	
Cb12	CC94SL1H100D	Ceramic 10pF ±0.5pF	
Cb13	CM93D1H102JZ	Mica 1000pF ±5%	
Cb14, 15	CC94SL1H201K	Ceramic 200pF ±10%	
Cb16	CE04W1C100	PC electrolytic 10μF 16WV	
Cb17	CC94SL1H101K	Ceramic 100pF ±10%	
Cb18, 19	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb20	CE04W1C330	PC electrolytic 33μF 16WV	
Cb21	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb22	CC94SL1H200K	Ceramic 20pF ±10%	
Cb23 ~ 26	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb27	CE04W1H010	PC electrolytic 1μF 50WV	
Cb28	CC94SL1H101K	Ceramic 100pF ±10%	
Cb29	CQ93M1H182K	Mylar 0.0018μF ±10%	
Cb30	CQ93M1H332K	Mylar 0.0033μF ±10%	
Cb31, 32	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb33	CE04W1E3R3NP	PC electrolytic 3.3μF 25WV	
Cb34	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb35	CE04W1C470	PC electrolytic 47μF 16WV	
Cb36	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb38	CE04W1C100	PC electrolytic 10μF 16WV	
Cb39	CC94SL1H102JZ	Ceramic 0.001μF +80% -20%	
Cb40, 4	CM93D1H102JZ	Mylar 0.022μF ±10%	
Cb42	CE04W1C30	PC electrolytic 33μF 16WV	
Cb43	CK94YG1E203Z	PC electrolytic 33μF 6.3WV	
Cb44	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb45	CK94YG1E203Z	Ceramic 0.04μF +80% -20%	
Cb46	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb47	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb48	CK94YG1E203Z	Ceramic 1pF ±0.5pF	
Cb49	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	

Circuit No.	Parts No.	Description	Re- marks
Rb39	PD14BY2E331J	Insulated carbon film 330Ω ±5% 1/4W	
Rb41	PD14BY2B103J	Insulated carbon film 10kΩ ±5% 1/8W	
Rb43, 44	PD14BY2B223J	Insulated carbon film 22kΩ ±5% 1/8W	
Rb45	PD14BY2B391J	Insulated carbon film 390Ω ±5% 1/8W	
Rb47	PD14BY2B153J	Insulated carbon film 15kΩ ±5% 1/8W	
Rb49	PD14CY2E220J	Insulated carbon film 22Ω ±5% 1/4W	
Rb50	PD14BY2B101J	Insulated carbon film 100Ω ±5% 1/8W	
Rb52	PD14BY2B102J	Insulated carbon film 1kΩ ±5% 1/8W	
Rb53	PD14BY2E103J	Insulated carbon film 10kΩ ±5% 1/4W	
<b>IF TRANSFORMER/COIL</b>			
Lb1	L33-0026-04	Choke coil	
Lb2	L30-0149-05	FM IFT	
Lb3	L30-0149-05	FM IFT	
Lb4	L30-0075-05	AM IFT	
Lb5	L30-0154-05	FM IFT	
Lb6	L30-0075-05	AM IFT	
Lb7	L30-0194-05	FM IFT (MUTING)	
Lb8	L30-0114-05	FM IFT (DICS)	
Lb9	L30-0076-05	AM IFT	
Lb10	L31-0111-05	AM RF coil	
Lb11	L32-0090-05	AM OSC coil	
Lb12	L33-0026-04	Choke coil	
CFb1	L72-0010-05	Ceramic filter	
<b>SEMICONDUCTOR</b>			
Qb1		SE-3001 (W)	
Qb2		SE-3001 (R)	
Qb3, 4		2SC941 (R or O)	
Qb5		2SA610-3	
Qb6		2SC381 (O)	
Qb7		2SC941 (R or O)	
Qb8		2SC711 (E or F)	
ICb1		CS5995 (B)	
ICb2		CS5995 (R)	
Db1 ~ 14		1N60	
Db15		1S1555	

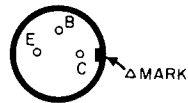




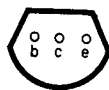
Qb1 SE-3001 (W), Qb2 SE-3001 (R), Qb3, 4 2SC941 (R or O), Qb5 2SA610-3, Qb6 2SC381 (O), Qb7 2SC941 (R or O), Qb8 2SC711 (E or F), ICb1 CS5995 (B), ICb2 CS5995 (R), Db1 ~ 14 1N60, Db15 1S1555

### BOTTOM VIEW OF TRANSISTORS

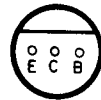
SE3001



2SC711

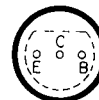


2SA610-3

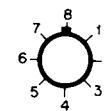


2SC941

2SC381

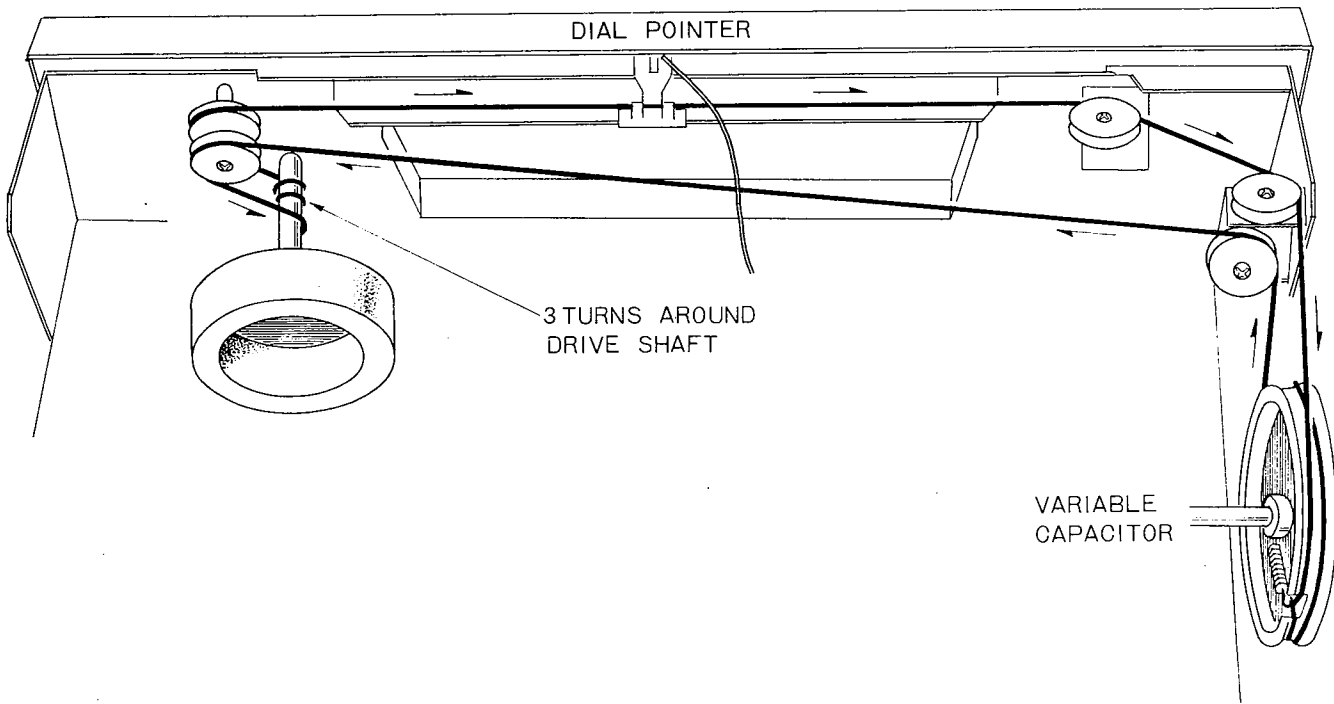


CS5995



FROM THE SERIAL NO. 261101, KR-4140 IS CHANGED PREVIOUS FOR THIS.

# DIAL CORD STRINGING

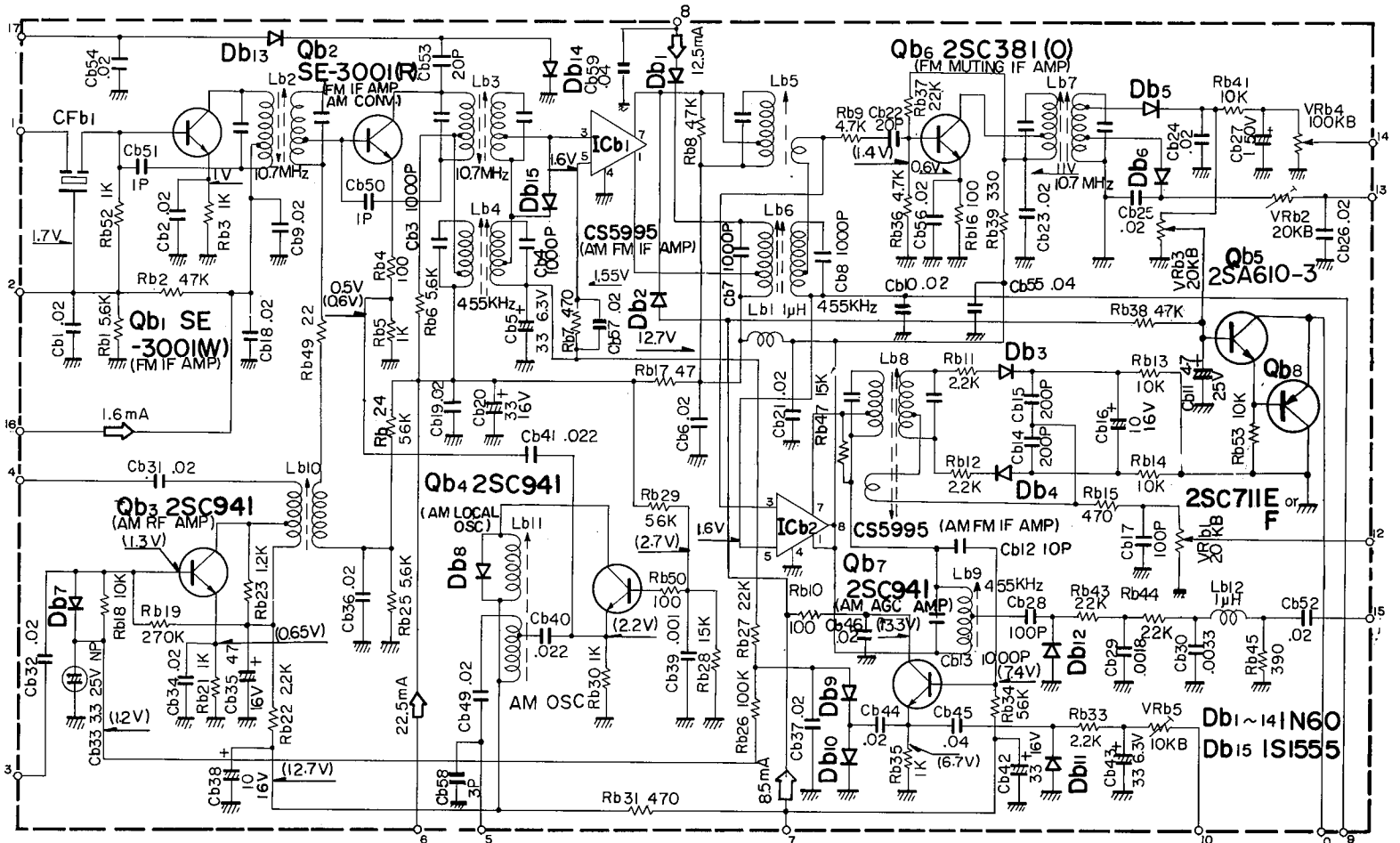


**PARTS DESCRIPTION LIST**

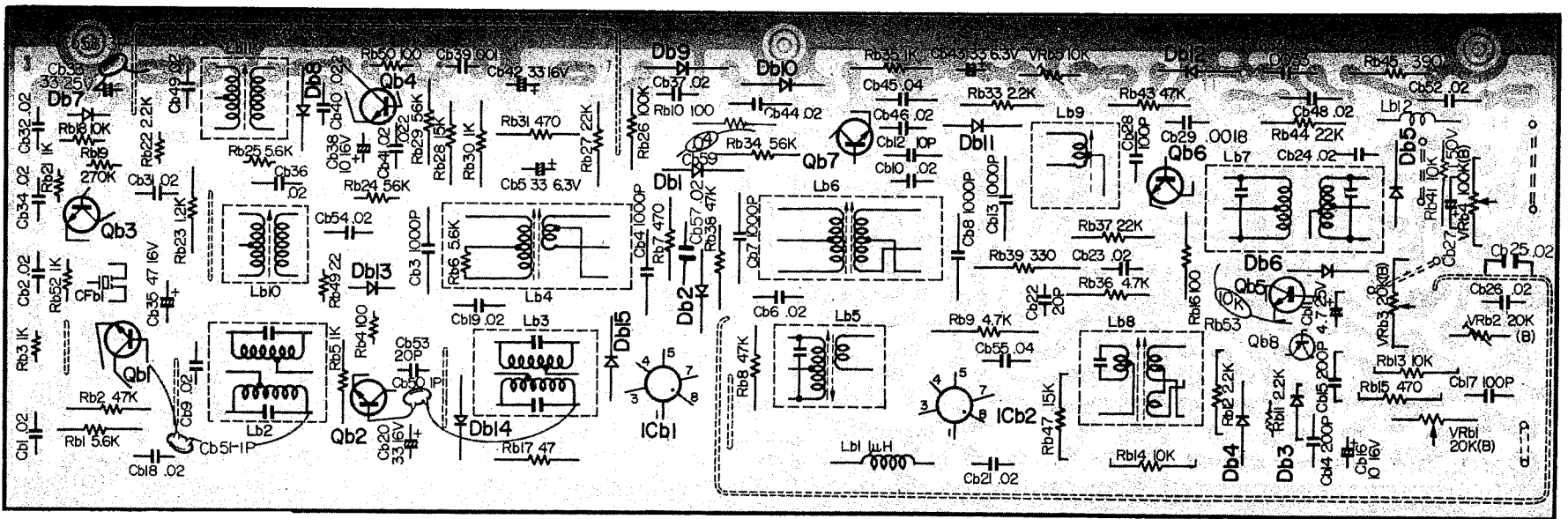
Circuit No.	Parts No.	Description	Re- marks
<b>CAPACITOR</b>			
Cb1, 2	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb3, 4	CM93D1H102JZ	Mica 1000pF ±5%	
Cb5	CE04W0J330	PC electrolytic 33μF 6.3WV	
Cb6	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb7, 8	CM93D1H102JZ	Mica 1000pF ±5%	
Cb9, 10	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb11	CE04W1E4R7	PC electrolytic 4.7μF 25WV	
Cb12	CC94SL1H100D	Ceramic 10pF ±0.5pF	
Cb13	CM93D1H102JZ	Mica 1000pF ±5%	
Cb14, 15	CC94SL1H201K	Ceramic 200pF ±10%	
Cb16	CE04W1C100	PC electrolytic 10μF 16WV	
Cb17	CC94SL1H101K	Ceramic 100pF ±10%	
Cb18, 19	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb20	CE04W1C330	PC electrolytic 33μF 16WV	
Cb21	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb22	CC94SL1H200K	Ceramic 20pF ±10%	
Cb23 ~ 26	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb27	CE04W1H010	PC electrolytic 1μF 50WV	
Cb28	CC94SL1H101K	Ceramic 100pF ±10%	
Cb29	CQ93M1H182K	Mylar 0.0018μF ±10%	
Cb30	CQ93M1H332K	Mylar 0.0033μF ±10%	
Cb31, 32	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb33	CE04W1E3R3NP	PC electrolytic 3.3μF 25WV	
Cb34	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb35	CE04W1C470	PC electrolytic 47μF 16WV	
Cb36, 37	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb38	CE04W1C100	PC electrolytic 10μF 16WV	
Cb39	CK94YG1E102Z	Ceramic 0.001μF +80% -20%	
Cb40, 41	CQ93M1H223K	Mylar 0.022μF ±10%	
Cb42	CE04W1C330	PC electrolytic 33μF 16WV	
Cb43	CE04W0J330	PC electrolytic 33μF 6.3WV	
Cb44	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb45	CK94YG1E403Z	Ceramic 0.04μF +80% -20%	
Cb46	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb49	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb50, 51	CC94SL1H010D	Ceramic 1pF ±0.5pF	
Cb52	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb53	CC94SL1H200K	Ceramic 20pF ±10%	
Cb54	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb55	CK94YG1E403Z	Ceramic 0.04μF +80% -20%	
Cb57	CK94YG1E203Z	Ceramic 0.02μF +80% -20%	
Cb58	CC94SL1H030C	Ceramic 3pF ±0.25pF	
Cb59	CK94YG1E403Z	Ceramic 0.04μF +80% -20%	
<b>RESISTOR</b>			
Rb1	PD14BY2B562J	Insulated carbon film 5.6kΩ ±5% 1/8W	
Rb2	PD14BY2B473J	Insulated carbon film 47kΩ ±5% 1/8W	
Rb3	PD14CY2E102J	Insulated carbon film 1kΩ ±5% 1/4W	
Rb4	PD14CY2E101J	Insulated carbon film 100Ω ±5% 1/4W	
Rb5	PD14BY2B102J	Insulated carbon film 1kΩ ±5% 1/8W	
Rb6	PD14CY2E562J	Insulated carbon film 5.6kΩ ±5% 1/4W	
Rb7	PD14BY2B471J	Insulated carbon film 470Ω ±5% 1/8W	
Rb8	PD14BY2B473J	Insulated carbon film 47kΩ ±5% 1/8W	
Rb9	PD14BY2E472J	Insulated carbon film 4.7kΩ ±5% 1/4W	
Rb10	PD14BY2B101J	Insulated carbon film 100Ω ±5% 1/8W	
Rb11, 12	PD14BY2B222J	Insulated carbon film 2.2kΩ ±5% 1/8W	
Rb13, 14	PD14BY2B103J	Insulated carbon film 10kΩ ±5% 1/8W	
Rb15	PD14BY2B471J	Insulated carbon film 470Ω ±5% 1/8W	
Rb16	PD14BY2B101J	Insulated carbon film 100Ω ±5% 1/8W	
Rb17	PD14BY2B470J	Insulated carbon film 47Ω ±5% 1/8W	
Rb18	PD14CY2E103J	Insulated carbon film 10kΩ ±5% 1/4W	
Rb19	PD14CY2E274J	Insulated carbon film 270kΩ ±5% 1/4W	
Rb21	PD14CY2E102J	Insulated carbon film 1kΩ ±5% 1/4W	
Rb22	PD14CY2E222J	Insulated carbon film 2.2kΩ ±5% 1/4W	
Rb23	PD14BY2B122J	Insulated carbon film 1.2kΩ ±5% 1/8W	
Rb24	PD14CY2E563J	Insulated carbon film 56kΩ ±5% 1/4W	
Rb25	PD14CY2E562J	Insulated carbon film 5.6kΩ ±5% 1/4W	
Rb26	PD14BY2B104J	Insulated carbon film 100kΩ ±5% 1/8W	
Rb27	PD14BY2B223J	Insulated carbon film 22kΩ ±5% 1/8W	
Rb28	PD14BY2B153J	Insulated carbon film 15kΩ ±5% 1/8W	
Rb29	PD14BY2B563J	Insulated carbon film 56kΩ ±5% 1/8W	
Rb30	PD14BY2B102J	Insulated carbon film 1kΩ ±5% 1/8W	
Rb31	PD14BY2B471J	Insulated carbon film 470Ω ±5% 1/8W	
Rb33	PD14BY2B222J	Insulated carbon film 2.2kΩ ±5% 1/8W	
Rb34	PD14BY2B563J	Insulated carbon film 56kΩ ±5% 1/8W	
Rb35	PD14BY2B102J	Insulated carbon film 1kΩ ±5% 1/8W	
Rb36	PD14BY2B472J	Insulated carbon film 4.7kΩ ±5% 1/8W	
Rb37	PD14BY2B223J	Insulated carbon film 22kΩ ±5% 1/8W	
Rb38	PD14BY2B473J	Insulated carbon film 47kΩ ±5% 1/8W	

Circuit No.	Parts No.	Description	Re- marks
Rb39	PD14BY2E331J	Insulated carbon film 330Ω ±5% 1/4W	
Rb41	PD14BY2B103J	Insulated carbon film 10kΩ ±5% 1/8W	
Rb43, 44	PD14BY2B223J	Insulated carbon film 22kΩ ±5% 1/8W	
Rb45	PD14BY2B391J	Insulated carbon film 390Ω ±5% 1/8W	
Rb47	PD14BY2B153J	Insulated carbon film 15kΩ ±5% 1/8W	
Rb49	PD14CY2E220J	Insulated carbon film 22Ω ±5% 1/4W	
Rb50	PD14BY2B101J	Insulated carbon film 100Ω ±5% 1/8W	
Rb52	PD14BY2B102J	Insulated carbon film 1kΩ ±5% 1/8W	
Rb53	PD14BY2E103J	Insulated carbon film 10kΩ ±5% 1/4W	
<b>IF TRANSFORMER/COIL</b>			
Lb1	L33-0026-04	Choke coil	
Lb2	L30-0149-05	FM IFT	
Lb3	L30-0149-05	FM IFT	
Lb4	L30-0075-05	AM IFT	
Lb5	L30-0154-05	FM IFT	
Lb6	L30-0075-05	AM IFT	
Lb7	L30-0194-05	FM IFT (MUTING)	
Lb8	L30-0114-05	FM IFT (DICS)	
Lb9	L30-0076-05	AM IFT	
Lb10	L31-0111-05	AM RF coil	
Lb11	L32-0090-05	AM OSC coil	
Lb12	L33-0026-04	Choke coil	
CFb1	L72-0010-05	Ceramic filter	
<b>SEMICONDUCTOR</b>			
Qb1		SE-3001 (W)	
Qb2		SE-3001 (R)	
Qb3, 4		2SC941 (R or O)	
Qb5		2SA610-3	
Qb6		2SC381 (O)	
Qb7		2SC941 (R or O)	
Qb8		2SC711 (E or F)	
ICb1		CS5995 (B)	
ICb2		CS5995 (R)	
Db1 ~ 14		1N60	
Db15		1S1555	
<b>POTENTIOMETER</b>			
VRb1	R12-3014-05	FM OUT 20kΩ (B)	
VRb2	R12-3018-05	FM METER 20kΩ (B)	
VRb3	R12-3014-05	MUTING 20kΩ (B)	
VRb4	R12-5013-05	BEANCON OUT 100kΩ (B)	
VRb5	R12-3017-05	AM METER 10kΩ (B)	
<b>MISCELLANEOUS</b>			
-	J25-0410-13	PC board	
-	F10-0002-04	Shielding plate	

**SCHEMATIC DIAGRAM**

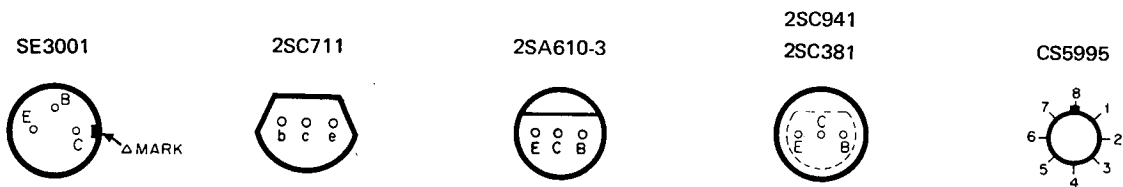


**SEALED CIRCUIT ASSEMBLIES-PHANTOM VIEWS**



Qb1 SE-3001 (W), Qb2 SE-3001 (R), Qb3, 4 2SC941 (R or O), Qb5 2SA610-3, Qb6 2SC381 (O), Qb7 2SC941 (R or O), Qb8 2SC711 (E or F), ICb1 CS5995 (B), ICb2 CS5995 (R), Db1 ~ 14 1N60, Db15 1S1555

**BOTTOM VIEW OF TRANSISTORS**



FROM THE SERIAL NO. 261101, KR-4140 IS CHANGED PREVIOUS FOR THIS.

## **KENWOOD ELECTRONICS, INC.**

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