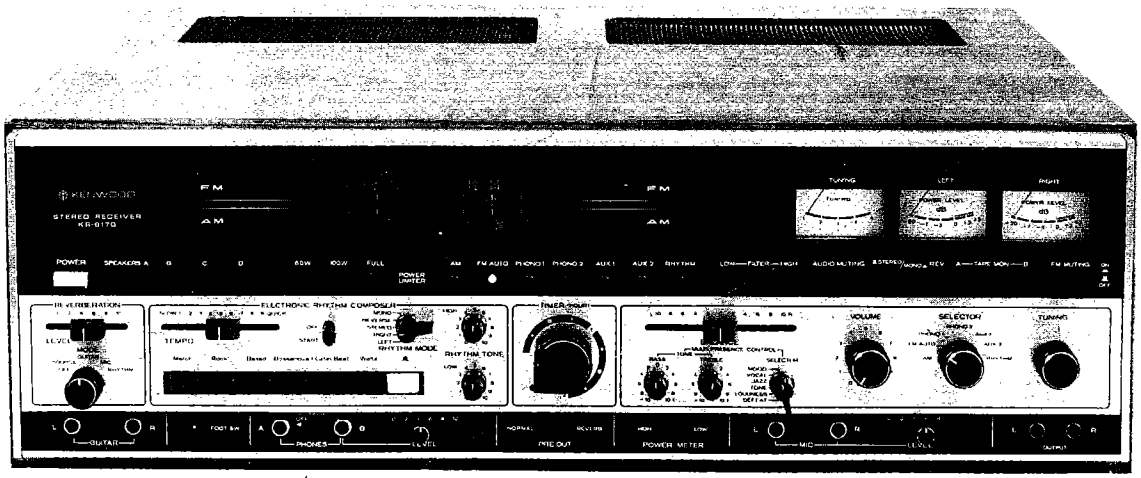
KENWOOD

HI/FI STEREO COMPONENTS

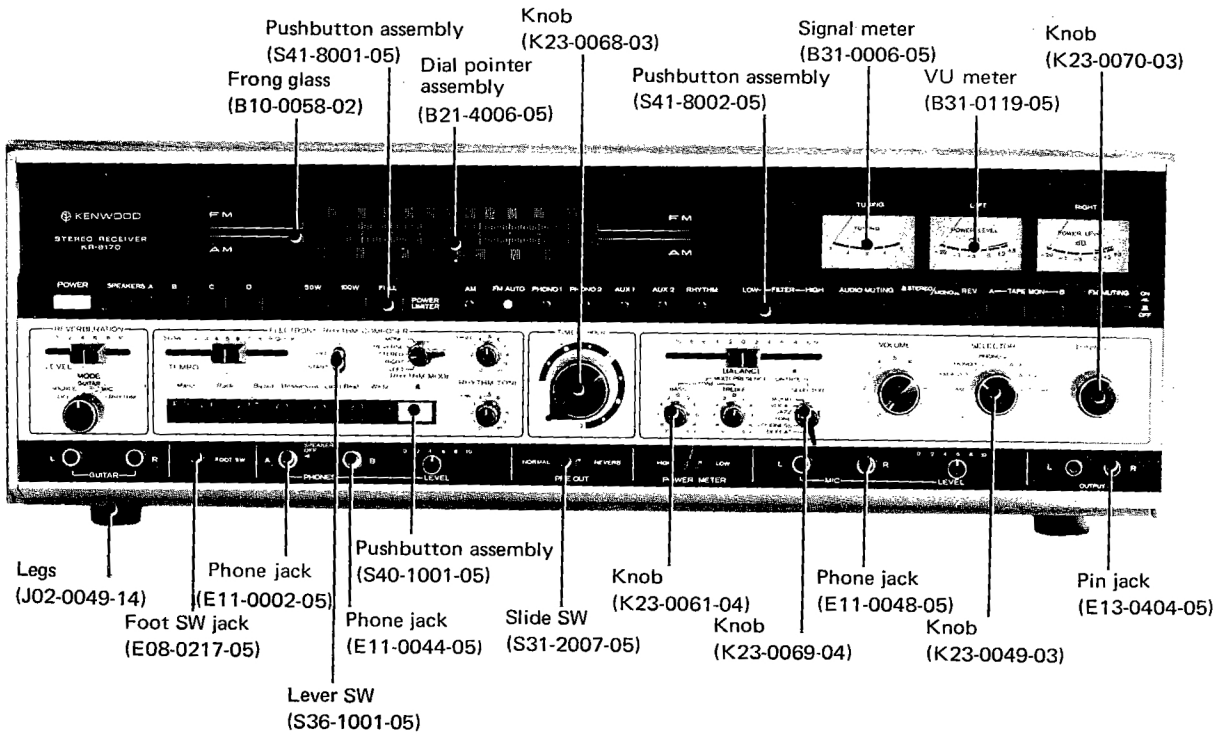
SERVICE MANUAL

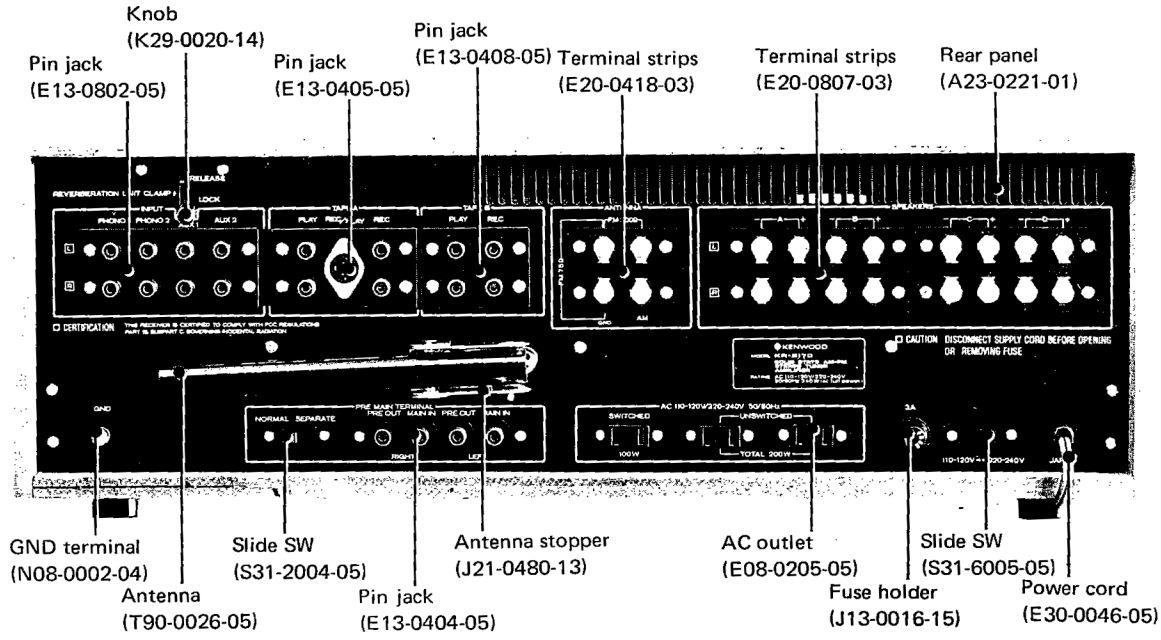
KR-6170



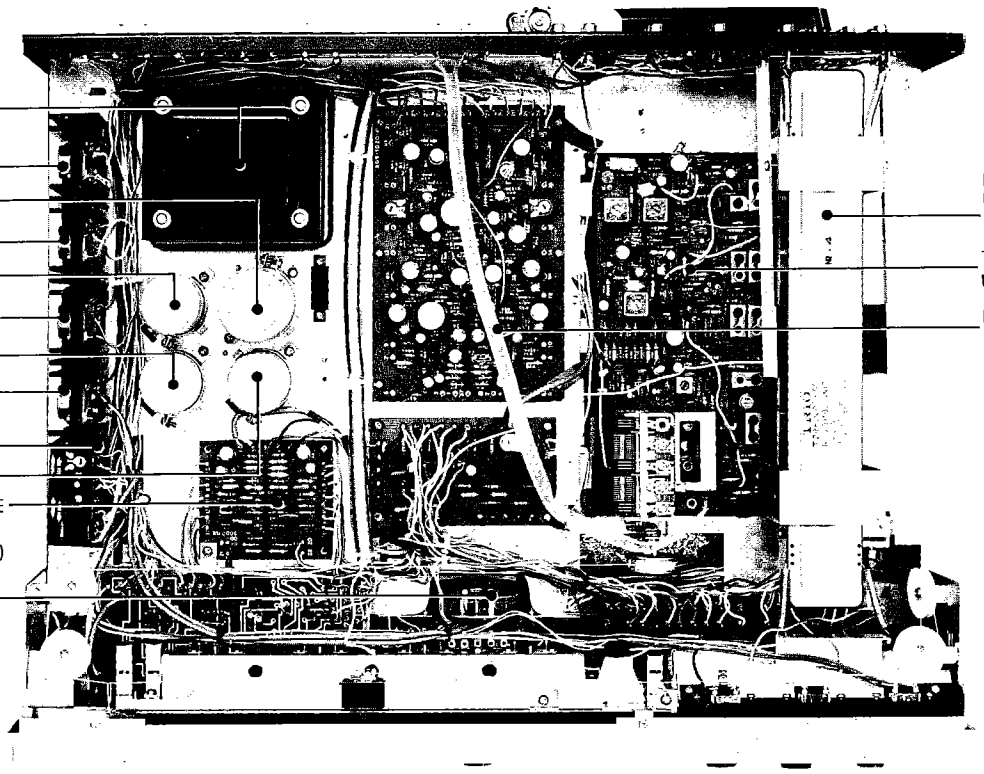
SOLID STATE AM-FM STEREO RECEIVER
WITH ELECTRONIC RHYTHM COMPOSER

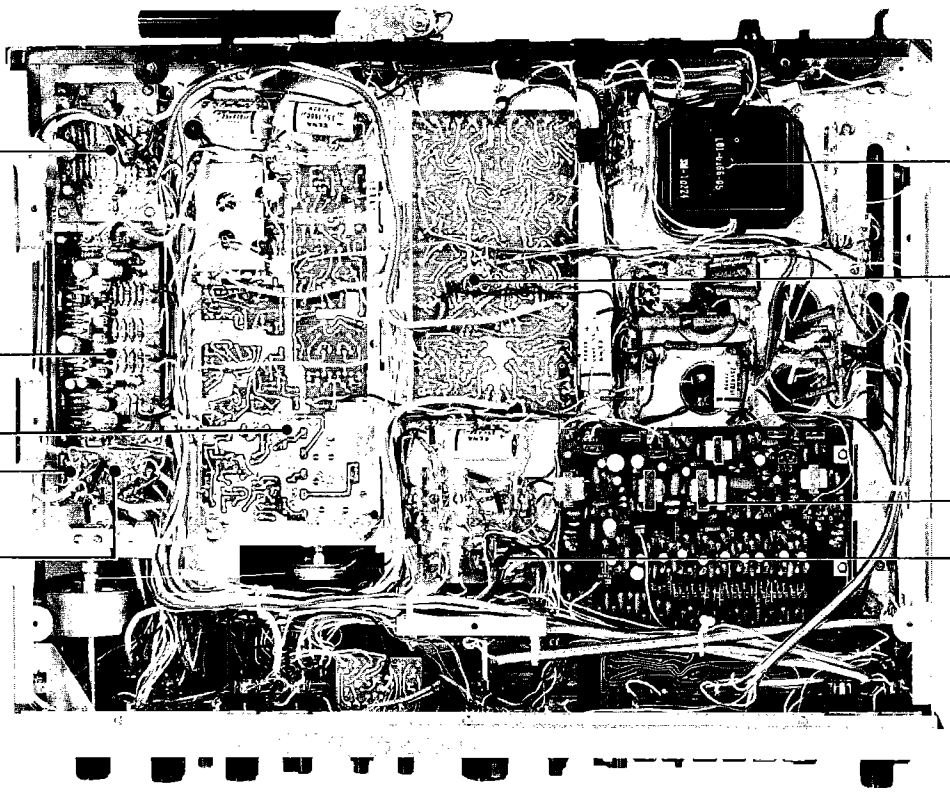
● EXTERNAL VIEW





● TOP & BOTTOM CHASSIS VIEW





● ADJUSTMENT

■ FM-RF/IF ADJUSTMENT

STEP	ALIG.	FM SSG/SWEEP G.		TUNING DIAL SETTING	VTVM or SCOPE COUPLING	ADJUST	CHECK
		COUPLING	SIGNAL				
1	IF trans.	*FM antenna terminal or TEST POINT (A)	10.7MHz (Unmod.)	Any non-interfering setting	SCOPE to the TEST POINT (B)	(X05-0010-13) Ta3, 5 Prim. & Sec.	Maximum amplitude and symmetry with 10.7MHz marker centered on the response.
2	IF trans.	*FM antenna terminal or TEST POINT (A)	10.7MHz (Unmod.)	Any non-interfering setting	SCOPE to the TEST POINT (C)	(X05-0010-13) Ta6 Prim. & Sec.	Maximum amplitude and symmetry with 10.7MHz marker centered on the response.
Check the MUTING SW to the OFF and emitter voltage of transistor Qa6 to be more 1.9V. If voltage does not appear disconnect the wire of "C" terminal in X05-0010-13. And then connect the resistor 560Ω to the capacitor Ca38 in parallel.							
3	IF trans.	*FM antenna terminal or TEST POINT (A)	10.7MHz (Unmod.)	Any non-interfering setting	SCOPE to the TEST POINT (D)	(X05-0010-13) Ta7 Prim. & Sec.	Maximum amplitude and symmetry with 10.7MHz marker centered on the response
4	DISCRIMI-NATOR	*FM antenna terminal or TEST POINT (A)	98MHz 400Hz (Mod.) 75kHz (Dev.) 0.5~1mV	Tune for maximum using tuning indicator	SCOPE to the recording jack	(X05-0010-13) Ta8 Prim. & Sec.	S-response and its symmetry on each side of 10.7MHz center frequency.
5	RF	FM antenna terminal	90MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	90MHz	VTVM to the recording jack	(X05-0010-13) Ta4	Turn it to receive the SSG freq.
6	RF	FM antenna terminal	90MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	90MHz	VTVM to the recording jack	(X05-0010-13) Ta1, 2	Adjust the sensitivity to be maximum.
7	RF	FM antenna terminal	106MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	106MHz	VTVM to the recording jack	(X05-0010-13) CTa3	Turn it to receive the SSG freq.
8	RF	FM antenna terminal	106MHz 400Hz (Mod.) 75kHz (Dev.) 1.5~2μV	106MHz	VTVM to the recording jack	(X05-0010-13) CTa1, 2	Adjust sensitivity to the maximum
9	Repeat steps 5 ~ 8 until no further improvement is possible.						
10	METER	FM antenna terminal	98MHz 400Hz (Mod.) 75kHz (Dev.) 1mV	Tune for maximum using tuning indicator	–	(X05-0010-13) VRa1	"4" indicates
11	OUT	FM antenna terminal	98MHz 400Hz (Mod.) 75kHz (Dev.) 1mV	Tune for maximum using tuning indicator	VTVM to the recording jack	(X05-0010-13) VRa2	Adjust the output to be 1V
* If can't see the waveform on the scope, move the sweep generator to the TEST POINT (A). A across the antenna terminal in series with a capacitor 5 ~ 10pF.							

● ADJUSTMENT

■ SCA FILTER ADJUSTMENT

STEP	AUDIO SIGNAL GENERATOR COUPLING	AUDIO SIGNAL GENERATOR FREQ.	AC VTVM & SCOPE COUPLING	ADJUST	CHECK
1	TEST POINT (E)	67kHz 1V	TEST POINT (F)	(X05-0010-13) Ta15	Minimum deflection

■ MPX ADJUSTMENT

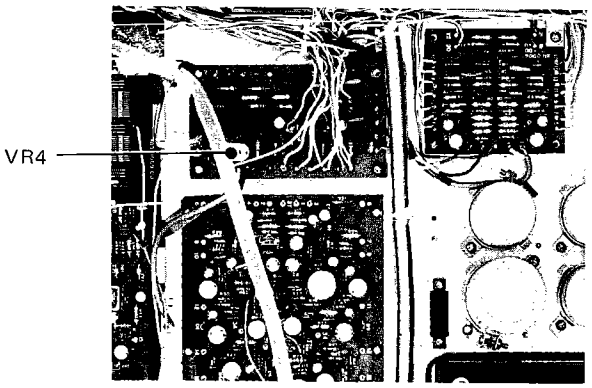
STEP	COUPLING	FM SSG MOD. FREQ.	SELECTOR	19kHz PILOT	VTVM & SCOPE COUPLING	ADJUST	CHECK
1	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	NORMAL or REVERSE	ON	OFF	(X05-0010-13) VRa4, VRa5	"STEREO" indicator illuminate
2	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	REVERSE	ON	Recording jack	(X05-0010-13) Ta13, Ta14	With Ta13 increase the output to be max. and with Ta14 make the best waveform.
3	FM antenna terminal	98MHz 400Hz (Mod.) 40kHz (Dev.)	NORMAL	ON	Recording jack	(X05-0010-13) VRa5	Adjust the variable resistor until the indicator goes out and bring them back to the point where they are turned on again.
4	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 10μV	NORMAL	ON	Recording jack	(X05-0010-13) VRa4	
5	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	LEFT	ON	Recording jack of RIGHT	(X09-1020-00) VRe3	Minimum RIGHT output.
6	FM antenna terminal	98MHz 400Hz (Mod.) 67.5kHz (Dev.) 1mV	RIGHT	ON	Recording jack of LEFT	(X09-1020-00) VRe3	Minimum LEFT output.

* As can't get the same value, set the variable resistor to the point taking the average.

■ MUTING ADJUSTMENT

Coupling the SSG to the antenna terminal, setting MUTING SW to be OFF, and VTVM to recording jack. As supply the signal (98MHz, modulation at 400Hz, deviation of 75kHz, input 1mV) to the set VTVM indicates 1V. Next set the MUTING SW to ON and adjust the variable resistor VR4 (50kΩ) so that VTVM indicates 0.5 ~ 0.7V.

More check whether AM broadcast is received or not. If not, check whether base voltage of transistor Q1 is supplied more 0.6V or not.



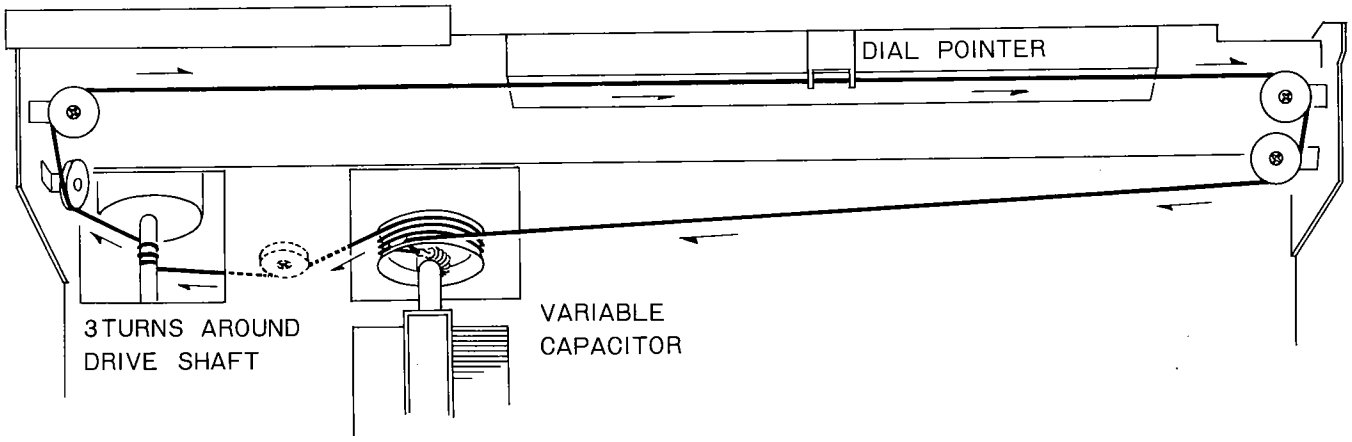
TOP CHASSIS VIEW

● ADJUSTMENT

■ AM ADJUSTMENT

STEP	ALIG	SSG		TUNING DIAL SETTING	VTVM & OSC COUPLING	ADJUST	CHECK
		COUPLING	SIGNAL				
1	IF Trans.	AM antenna terminal	455kHz	Any non-interfering	Recording jack	X05-0010-13 Ta10	Maximum amplitude and symmetry with 455kHz marker centered on response
2	IF Trans.	AM antenna terminal	455kHz	Any non-interfering	Recording jack	X05-0010-13 Ta11	Maximum amplitude and symmetry with 455kHz marker centered on response
3	IF Trans.	AM antenna terminal	455kHz	Any non-interfering	Recording jack	X05-0010-13 Ta12	Maximum amplitude and symmetry with 455kHz marker centered on response
4	RF	AM antenna terminal	600kHz 400Hz (30% Mod.) 1mV	600kHz	Recording jack	X05-0010-13 Ta9, Loop-stick antenna	With Ta9 correspond to SSG freq. With Loopstick antenna the sensitivity to be maximum.
5	RF	AM antenna terminal	1,400kHz 400Hz (30% Mod.)	1,400kHz	Recording jack	X05-0010-13 CTa4	With CTa4 correspond to SSG freq.
* Repeat steps 4, 5 until no further improvement is possible.							
6	METER	AM antenna terminal	1000kHz 400Hz (30% Mod.)	1000kHz	Recording jack	X05-0010-13 VRa3	"4" indicates

■ DIAL CORD STRINGING



● ADJUSTMENT

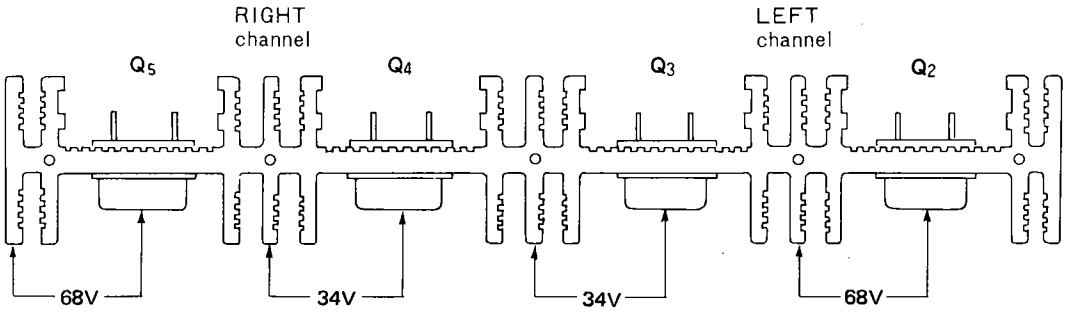
■ TESTING PROCEDURES

Perform the test according to the following procedures.

1. Using a tester, measure the voltage between the chassis and collector of the power transistor Q2 or Q5. If a tester indicates approximately 68V, it is normal.
2. Also measure the voltage between the chassis and collector of the power transistor Q3 or Q4. If a tester indicates approximately 34V, it is normal.

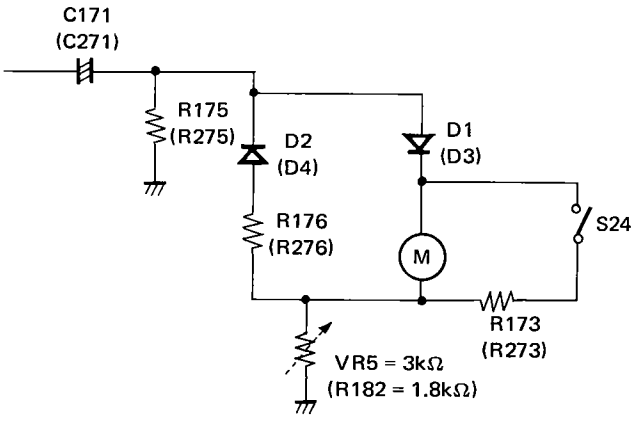
■ IDLING CURRENT

1. Connect the dummy load (8Ω, 80 watts) to the output terminal.
2. Connect the audio generator to the main unit. Oscilloscope and AC VTVM are connected across the dummy.
3. Before checking the idling current, turn on power switch in a few minutes, adjust the variable resistor (VRe1, 2) so that tester (or DC VTVM) coupling to the collector of transistors indicates 30mA. And also check the waveform to be correct feeding the signal (1kHz) to the set.



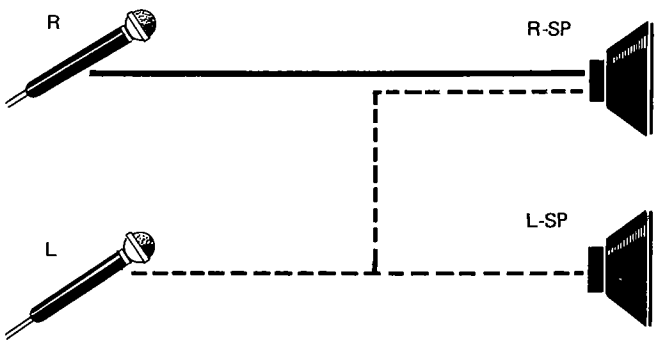
■ ON METER SETTING

As supply the signal (1kHz, 100mV) to the MAIN-IN jack, setting POWER LIMITER at FULL, PRE-MAIN SEPARATE SW at SEPARATE, right meter indicates around the 0VU. And then adjust the PC trimmer potentiometer VR5 (3kΩ) so that left meter indicates the 0VU as well as right.



■ ON MIC JACK

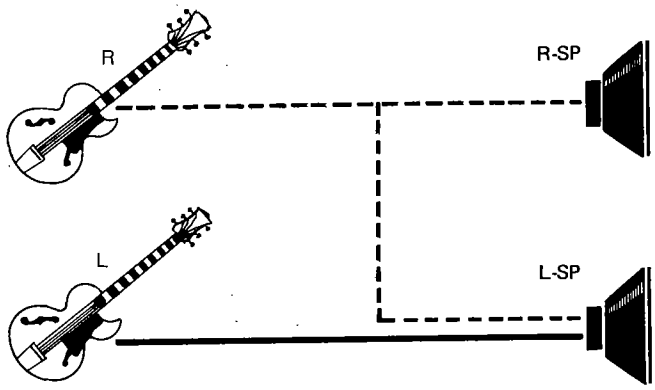
As plug the MIC jack in MIC-L speakers work as monophonic. And then the MIC jack in MIC-R only right speaker does. Next plug MIC jacks in MIC-R and MIC-L each speakers work as stereophonic.



● ADJUSTMENT

■ ON GUITAR JACK

As plug the GUITAR jack in GUITAR-R speakers work as monophonic. And then the GUITAR jack in GUITAR-L only left speaker does. Next plug GUITAR-jacks in GUITAR-R and GUITAR-L each speakers work as stereophonic.



■ ON TIMER

The time lag is often caused by the bend and aberration of TIMER shaft. Check whether the shaft is the proper connection or not.

■ RELATION OF SPEAKERS SELECTOR AND SPEAKERS

See the right table. It is the table that the relation of speaker connection and speaker selector. For example, push the selector button B or A & B, connecting the speakers to A terminal, they don't work. And also push the button A or A & B, connecting the speakers to B terminal, they don't.

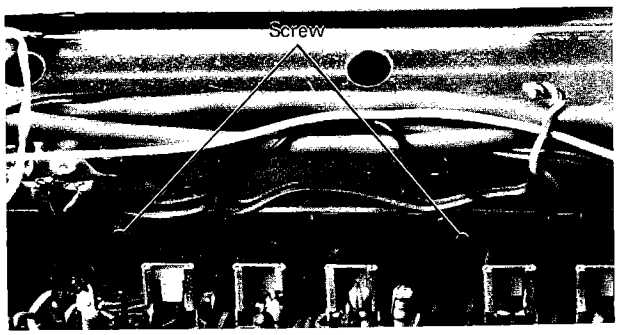
SP / Selector	A (C)	B (D)	A & B (C & D)
A (C)	♪	𝄽	♪
B (D)	𝄽	♪	♪
A & B (C & D)	𝄽	𝄽	♪

♪ speakers to wrok

𝄽 speakers not to work

■ HOW TO REPLACE THE PC BOARD

Pc boards are stopped by screws. As replace them loose screws.



● SPECIFICATIONS

FM TUNER SECTION:

ANTENNA IMPEDANCE: 300 ohms balanced & 75 ohms unbalanced.
USABLE SENSITIVITY (IHF): 1.9 μV
HARMONIC DISTORTION MONO: 0.5%
(at 400Hz 100% Mod.) STEREO: 0.8%
SIGNAL TO NOISE RATIO: 60 dB
CAPTURE RATIO (IHF): 4.0 dB
SELECTIVITY (ALT. CH.) (IHF): 45 dB
IMAGE REJECTION: 60 dB
IF REJECTION: 100 dB
AM SUPPRESION: 45 dB
STEREO SEPARATION (at 1 kHz): 30 dB
(at 10 kHz): 20 dB
SUB CARRIER SUPPRESSION: 40 dB
STEREO AUTO-SWITCHING LEVEL: 10 μV
FRONT END: 1-FET, 3-Gang
IF-STAGE: 1-IC

AM TUNER SECTION:

ANTENNA: Bult-in ferrite bar antenna & External antenna terminals
USABLE SENSITIVITY (IHF): 25 μV
SELECTIVITY (IHF): 25 dB
IMAGE REJECTION: 45 dB
IF REJECTION: 35 dB
FRONT END: 2-Gang

AMPLIFIER SECTION:

POWER OUTPUT:
both ch. at 4 ohms: 180 watts
both ch. at 8 ohms: 130 watts
DYNAMIC POWER OUTPUT:
both ch. at 4 ohms: 150 watts
both ch. at 8 ohms: 110 watts
CONTINUOUS POWER OUTPUT:
each ch. at 4 ohms: 50/50 watts
each ch. at 8 ohms: 40/40 watts
both ch. at 4 ohms: 39/39 watts
both ch. at 8 ohms: 33/33 watts
HARMONIC DISTORTION (at rated): 0.5%
(at −3 dB rated): 0.1%
INTERMODULATION DISTORTION:
(at rated): 0.5%
(at −3 dB rated): 0.2%
FREQUENCY RESPONSE:
HIGH LEVEL (AUX) INPUT: 20 ~ 40,000 Hz ±1.5 dB
POWER BANDWIDTH (IHF): 17 ~ 30,000 Hz
HUM & NOISE:
PHONO 1, 2: 65 dB
MIC: 58 dB
AUX/TAPE PLAY: 75 dB
INPUT SENSITIVITY (for rated output):
PHONO 1: 2.5 mV 50 K ohms
PHONO 2: 2.5 mV 50 K ohms
MIC: 2.0 mV 10 K ohms
GUITAR: 20 mV 30 K ohms
AUX 1: 180 mV 50 K ohms
AUX 2: 180 mV 50 K ohms
TAPE PLAY A: 180 mV 50 K ohms
TAPE PALY B: 180 mV 50 K ohms
MAIN INPUT: 100 mV
DAMPING FACTOR (at 8 ohms): 50
SPEAKER IMPEDANCE: accept 4 to 16 ohms
MULTI PRESENCE CONTROL
SELECTOR:
DEFEAT, LOUDNESS at 100 Hz: +10 dB
TONE, JAZZ, VOCAL, MOOD
BASS CONTROL (at 100 Hz): ±10 dB
TREBLE CONTROL (at 10,000 Hz): ±10 dB

ELECTRONIC RHYTHM COMPOSER SECTION:

RHYTHM SELECTOR:
(1) March, (2) Fox Trot, (3) Rock, (4) R & B, (5) Ballad, (6) Shuffle, (7) Bossanova 1, (8) Bossanova 2, (9) Latin Beat (10) Mambo, (11) Waltz, (12) Jazz Waltz.
ELECTRONIC PERCUSSIONS: 5 different Sounds
RHYTHM MODE SWITCH: Left, Right, Stereo, Reverse, Mono
FOOT SWITCH JACK: Yes.
ACCESSORY PARTS: Foot Switch (Remote Control Switch of START and BREAK for E, R, C,)

REVERBERATION SECTION:

LEVEL CONTROL: 0 to 2 seconds
MODE: OFF–SOURCE–GUITAR–MIC– RHYTHM

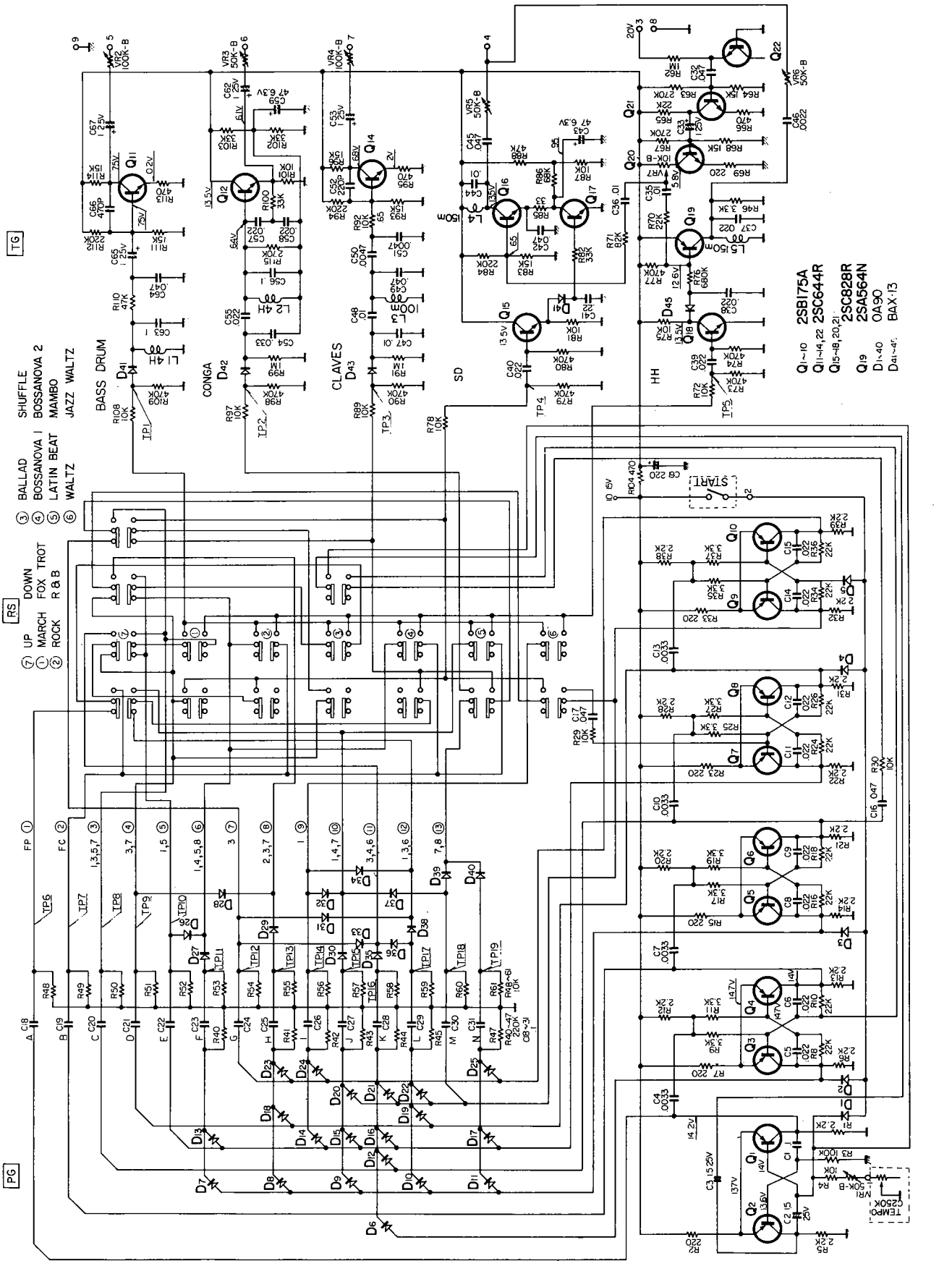
TIMER SECTION:

2 hours

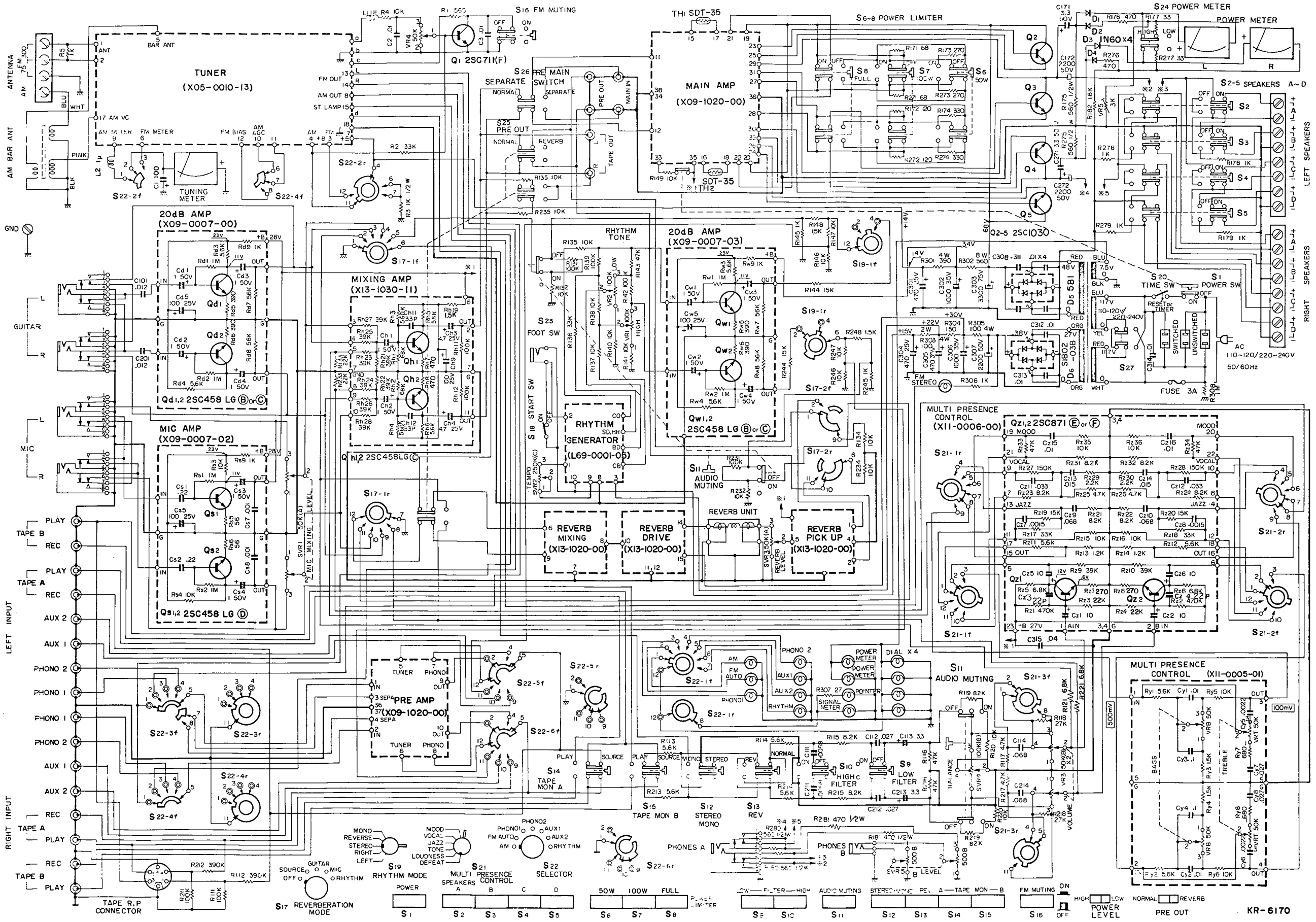
GENERAL:

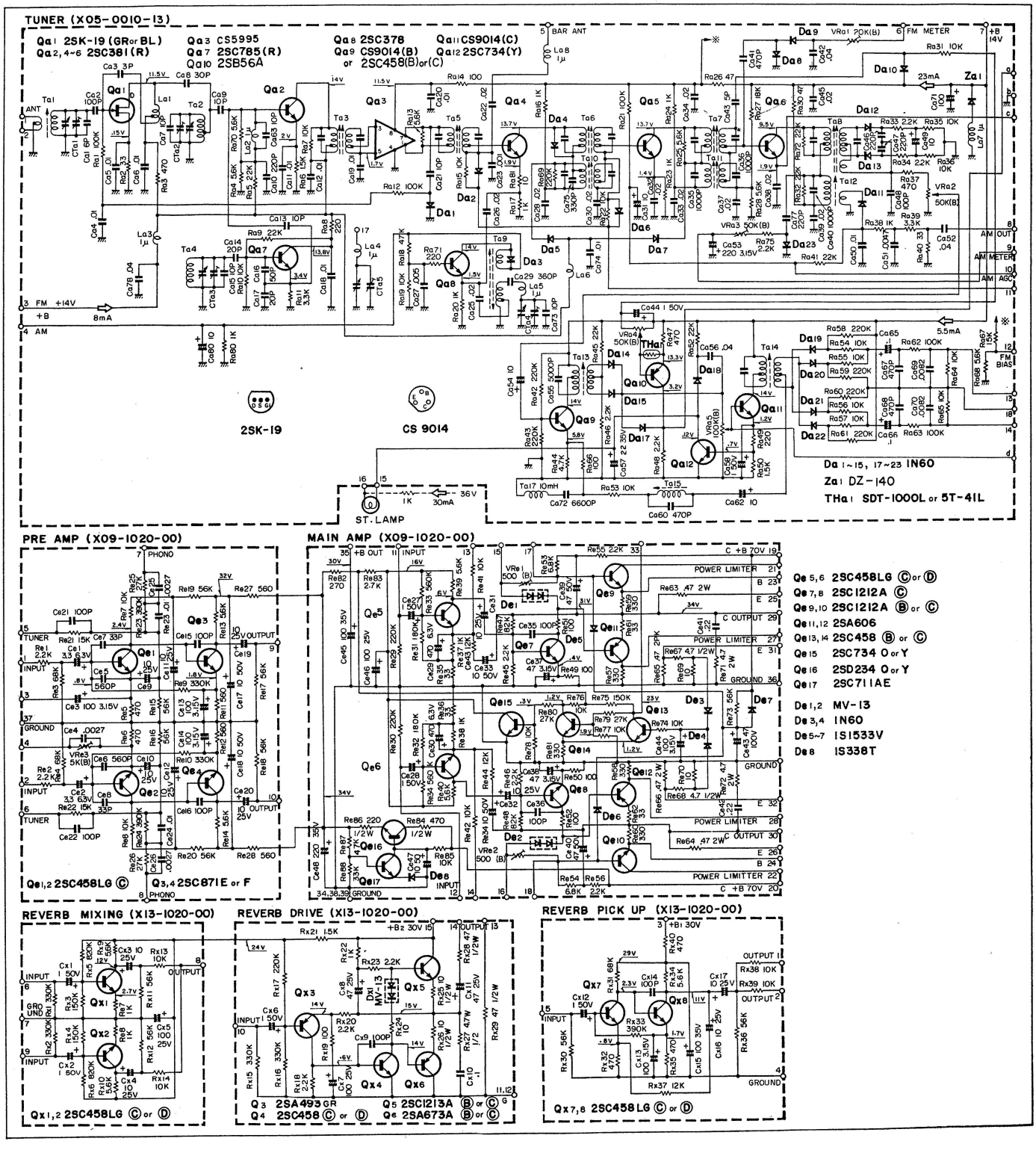
SWITCHES: SPEAKERS: A, B, C, D.
SELECTOR: AM, FM AUTO, PHONO 1, PHONO 2, AUX 1, AUX 2, RHYTHM
POWER LIMITER: 50 watts, 100 watts, Full Power.
MODE SWITCHES: STEREO-MONO, NORMAL-REVERSE
TAPE MONITOR A: SOURCE, PLAY
TAPE MONITOR B: SOURCE, PLAY
AUDIO MUTING: ON (–20 dB), OFF
FM MUTING: ON, OFF
LOW FILTER: ON, OFF
HIGH FILTER: ON, OFF
POWER METER: LOW, HIGH
PRE OUT: NORMAL, REVERB (Front)
PRE OUT-MAIN IN: NORMAL, SEPARATE (Rear)
(for Separate Use of Pre and Main Amplifier)
OTHERS: B PHONES LEVEL
MIC LEVEL
GUITAR JACK (L, R)
MIC JACK (L, R)
PHONES JACK (A, B)
OUTPUT TERMINALS (Front)
PRE OUT – MAIN IN TERMINALS (Rear)
AC OUTLETS: SWITCHED 1
UNSWITCHED 2
POWER CONSUMPTION:
at full power: 240 watts
at no signal: 45 watts
DIMENSIONS: W 21-3/4" x H 6-3/4" x D 16-1/4"
WEIGHT: 29 lbs (16 kg)
ACCESSORY PARTS: Dynamic MIC
WALNUT CABINET: Yes

● RHYTHM SCHEMATIC DIAGRAM



● SCHEMATIC DIAGRAM





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● PARTS LIST

Circuit No.	Parts No.	Description				Remarks
		UNIT				
–	X05-0010-13	TUNER unit				
–	X09-0007-00	GUITAR AMP unit				
–	X09-0007-02	MIC AMP unit				
–	X09-0007-03	RHYTHM AMP unit				
–	X09-1020-00	PRE & MAIN unit				
–	X11-0005-01	MULTI PRESENCE unit				
–	X11-0006-00	MULTI PRESENCE unit				
–	X13-1020-00	REVERB AMP unit				
–	X13-1030-11	MIXING AMP unit				
–	L69-0001-05	RHYTHM GENERATOR unit				
		CAPACITOR				
C1	CE04W0F101	PC electrolytic	100μF	3.15WV		
C2, 3	CK94YY1H103M	Ceramic	0.01μF	±20%		
C101	CQ92M1H123M	Mylar	0.012μF	±20%		
C111	CQ92M1H682M	Mylar	0.0068μF	±20%		
C112	CQ92M1H273M	Mylar	0.027μF	±20%		
C113	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C114	CQ92M1H683M	Mylar	0.068μF	±20%		
C171	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C172	CE62AW1H222	Electrolytic block	2200μF	50WV		
C201	CQ92M1H123M	Mylar	0.012μF	±20%		
C211	CQ92M1H682M	Mylar	0.0068μF	±20%		
C212	CQ92M1H273M	Mylar	0.027μF	±20%		
C213	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C214	CQ92M1H683M	Mylar	0.068μF	±20%		
C271	CE04W1H3R3	PC electrolytic	3.3μF	50WV		
C272	CE62AW1H222	Electrolytic block	2200μF	50WV		
C301	CE02W1E471	Electrolytic tubular	470μF	25WV		
C302	CE02W1V102	Electrolytic tubular	1000μF	35WV		
C303	CE62AW1K332	Electrolytic block	3300μF	75WV		
C304	CE02W1E471	Electrolytic tubular	470μF	25WV		
C305	CE02W1V471	Electrolytic tubular	470μF	35WV		
C306	CE02W1V102	Electrolytic tubular	1000μF	35WV		
C307	CE62AW1H222	Electrolytic block	2200μF	50WV		
C308～313	CP02B2J103M	Oil filled	0.01μF	±20%		
C314	C90-0036-05	Oil filled (UL, CSA)	0.01μF	±20%		
C315	CK94YX1H403M	Ceramic	0.04μF	±20%		
		RESISTOR				
R1	PD14BY2E561J	Insulated carbon film	560Ω	±5%	1/4W	
R2	PD14BY2E333J	Insulated carbon film	33kΩ	±5%	1/4W	
R3	RC05GF2H102K	Carbon composition	1kΩ	±10%	1/2W	
R4	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R5	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
R111	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
R112	PD14BY2E394J	Insulated carbon film	390kΩ	±5%	1/4W	
R113, 114	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
R115	PD14BY2E822J	Insulated carbon film	8.2kΩ	±5%	1/4W	
R116	PD14BY2E473J	Insulated carbon film	47kΩ	±5%	1/4W	
R117	PD14BY2E472J	Insulated carbon film	4.7kΩ	±5%	1/4W	
R118	PD14BY2E273J	Insulated carbon film	27kΩ	±5%	1/4W	
R119	PD14BY2E823J	Insulated carbon film	82kΩ	±5%	1/4W	
R120	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R121	PD14BY2E682J	Insulated carbon film	6.8kΩ	±5%	1/4W	
R131	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	

● PARTS LIST

Circuit No.	Parts No.	Description				Remarks
R132	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R133	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
R134, 135	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R136	PD14BY2E333J	Insulated carbon film	33kΩ	±5%	1/4W	
R137, 138	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R139	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
R140, 141	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R142	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
R143	PD14BY2E473J	Insulated carbon film	47kΩ	±5%	1/4W	
R144	PD14BY2E153J	Insulated carbon film	15kΩ	±5%	1/4W	
R145	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
R146, 147	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R148	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
R149	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R171	PD14BY2E680J	Insulated carbon film	68Ω	±5%	1/4W	
R172	PD14BY2E121J	Insulated carbon film	120Ω	±5%	1/4W	
R173	PD14BY2E271J	Insulated carbon film	270Ω	±5%	1/4W	
R174	PD14BY2E331J	Insulated carbon film	330Ω	±5%	1/4W	
R175	RC05GF2H561J	Carbon composition	560Ω	±5%	1/4W	
R176	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
R177	PD14BY2E330J	Insulated carbon film	33Ω	±5%	1/4W	
R178, 179	RC05GF2H102K	Carbon composition	1kΩ	±10%	1/2W	
R180	RC05GF2H561J	Carbon composition	560Ω	±5%	1/2W	
R181	RC05GF2H471J	Carbon composition	470Ω	±5%	1/2W	
R182	PD14BY2E182J	Insulated carbon film	1.8kΩ	±5%	1/4W	
R211	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
R212	PD14BY2E394J	Insulated carbon film	390kΩ	±5%	1/4W	
R213, 214	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
R215	PD14BY2E822J	Insulated carbon film	8.2kΩ	±5%	1/4W	
R216	PD14BY2E473J	Insulated carbon film	47kΩ	±5%	1/4W	
R217	PD14BY2E472J	Insulated carbon film	4.7kΩ	±5%	1/4W	
R218	PD14BY2E273J	Insulated carbon film	27kΩ	±5%	1/4W	
R219	PD14BY2E823J	Insulated carbon film	82kΩ	±5%	1/4W	
R220	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R221	PD14BY2E682J	Insulated carbon film	6.8kΩ	±5%	1/4W	
R231	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
R232	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R233	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
R234, 235	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R244	PD14BY2E153J	Insulated carbon film	15kΩ	±5%	1/4W	
R245	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
R246, 247	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
R248	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
R271	PD14BY2E680J	Insulated carbon film	68Ω	±5%	1/4W	
R272	PD14BY2E121J	Insulated carbon film	120Ω	±5%	1/4W	
R273	PD14BY2E271J	Insulated carbon film	270Ω	±5%	1/4W	
R274	PD14BY2E331J	Insulated carbon film	330Ω	±5%	1/4W	
R275	RC05GF2H561J	Carbon composition	560Ω	±5%	1/2W	
R276	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
R277	PD14BY2E331J	Insulated carbon film	330Ω	±5%	1/4W	
R278, 279	RC05GF2H102K	Carbon composition	1kΩ	±10%	1/2W	
R280	RC05GF2H561J	Carbon composition	560Ω	±5%	1/2W	
R281	RC05GF2H471J	Carbon composition	470Ω	±5%	1/2W	
R301	RW14AG3G391J	Wire wound	390Ω	±5%	4W	
R302	RW14AG3K561J	Wire wound	560Ω	±5%	8W	
R303	RW14AG3D101J	Wire wound	100Ω	±5%	2W	

● PARTS LIST

Circuit No.	Parts No.	Description			Remarks
R304	RW14AG3G151J	Wire wound	150Ω	±5% 4W	
R305	RW14AG3G101J	Wire wound	100Ω	±5% 4W	
R306	RW14AG3D101J	Wire wound	100Ω	±5% 2W	
R307	RC05GF2H270K	Carbon composition	27Ω	±5% 1/2W	
R308	RC05GF2H105K	Carbon composition	1MΩ	±10% 1/2W	
		POTENTIOMETER			
VR1	R01-5006-05	HIGH RHYTHM TONE	100kΩ (B)		
VR2	R01-5006-05	LOW RHYTHM TONE	100kΩ (B)		
VR3	R01-4004-05	VOLUME	50kΩ (B) dual		
VR4	R12-4015-05	PC trimmer potentiometer	50kΩ		
VR5	R12-1016-05	PC trimmer potentiometer	3kΩ		
SVR1	R13-4008-05	MIXING LEVEL	50kΩ (A) slide 2-gang		
SVR2	R13-6002-05	TEMPO	250kΩ (C) slide		
SVR3	R13-4007-05	REVERB LEVEL	50kΩ (A) slide		
SVR4	R13-5001-05	BALANCE	100kΩ (G) slide		
SVR5	R13-0001-05	PHONES LEVEL	500Ω (B) slide 2-gang		
		SWITCH			
S1	S41-8001-05	POWER	(eight-pushbutton A)		
S2	S41-8001-05	SPEAKERS A	(eight-pushbutton A)		
S3	S41-8001-05	SPEAKERS B	(eight-pushbutton A)		
S4	S41-8001-05	SPEAKERS C	(eight-pushbutton A)		
S5	S41-8001-05	SPEAKERS D	(eight-pushbutton A)		
S6	S41-8001-05	50W POWER LIMITER	(eight-pushbutton A)		
S7	S41-8001-05	100W POWER LIMITER	(eight-pushbutton A)		
S8	S41-8001-05	FULL POWER	(eight-pushbutton A)		
S9	S41-8002-05	LOW FILTER	(eight-pushbutton B)		
S10	S41-8002-05	HIGH FILTER	(eight-pushbutton B)		
S11	S41-8002-05	AUDIO MUTING	(eight-pushbutton B)		
S12	S41-8002-05	STEREO/MONO	(eight-pushbutton B)		
S13	S41-8002-05	REV.	(eight-pushbutton B)		
S14	S41-8002-05	TAPE MONITOR A	(eight-pushbutton B)		
S15	S41-8002-05	TAPE MONITOR B	(eight-pushbutton B)		
S16	S41-8002-05	FM MUTING	(eight-pushbutton B)		
S17	S01-2008-05	REVERB MODE (rotary) F · 2 · 6 · 5			
S18	S40-1001-05	RHYTHM SELECTOR			
S19	S01-1009-05	RHYTHM MODE (rotary) F · 1 · 2 · 5			
S20	S59-1025-05	TIMER			
S21	S01-3006-05	MULTI PRESENCE TONE (rotary) F · 3 · 6 · 6			
S22	S01-6001-05	SELECTOR (rotary) F · 6 · 15 · 7			
S23	Y15-1000-80	FOOT SW			
S24	S31-6005-05	VU LEVEL (slide)			
S25	S31-6005-05	PRE OUT (slide)			
S26	S31-2007-05	PRE/MAIN SEPARATE SW (slide)			
S27	S31-2004-05	VOLTAGE SELECTOR (slide)			
S28	S36-1001-05	START SW (lever)			
		TRANSISTOR/DIODE/THERMISTOR			
Q1		2SC711(F)			
Q2~5		2SC1030			
D1~4		1N60			
D5		5B1			
D6		S1B02-03B			
TH1, 2		SDT-35			
		MISCELLANEOUS			
—	A03-0078-22	Cabinet			

● PARTS LIST

Circuit No.	Parts No.	Description	Remarks
—	A10-0260-11	Chassis	
—	A20-0408-21	Panel	
—	A21-0066-22	Ornamental plate	
—	A22-0100-11	Sub panel	
—	A23-0221-01	Rear panel	
—	A33-0014-03	Reflector	
—	A42-0007-12	Bottom plate	
—	A70-0055-23	Panel assembly	
—	B01-0049-04	Left side escutcheon	
—	B01-0050-04	Right side escutcheon	
—	B04-0033-04	Screen	
—	B04-0035-04	Screen	
—	B08-2010-04	Indicator (blue)	
—	B10-0058-02	Front glass	
—	B19-0104-03	Filter	
—	B20-0201-03	Dial calibrations	
—	B21-4006-05	Dial pointer assembly	
P.L	B30-0015-15	Fuse type pilot lamp	
P.L	B30-0026-15	STEREO indicator (30mA, 8V)	
P.L	B30-0039-05	Pilot lamp (50mA, 8V)	
M	B31-0006-05	Signal meter	
M	B31-0119-05	VU meter	
—	B40-0504-04	Destination plate (P)	
—	B41-0105-04	Power voltage plate (P)	
—	B41-0110-04	Voltage selector catuion card (P)	
—	B42-0009-04	Passed sticker	
—	B42-0046-14	UL caution card (K)	
—	B42-0161-04	Loopstick antenna caution sticker	
—	B42-0219-04	UL caution card (K)	
—	B42-0267-04	UL caution card (K, U)	
—	B46-0002-00	Warranty card (K, U)	
—	B46-0003-00	Warranty card (U)	
—	B46-0021-00	Warranty card (P)	
—	B47-0029-04	TIMER caution card	
—	B47-0032-04	REVERB CRAMP caution card	
—	B50-0667-00	Instruction manual (K, P)	
—	B50-0668-00	Instruction manual (U)	
—	B52-0101-00	Schematic diagram	
—	B58-0003-00	Power supply caution card (U)	
—	B58-0043-00	Carton case caution card (K, P)	
—	B58-0101-00	Voltage selector caution card (U)	
—	B58-0114-04	Voltage selector caution card (P)	
—	B58-0125-00	Caution card	
—	B59-0018-00	KENWOOD service stations lists (U)	
—			
—	D01-0009-05	Flywheel	
—	D15-0037-04	Small pulley	
—	D15-0038-04	Pulley	
—	D15-0073-04	Pulley x 4	
—	D20-0087-03	Dial shaft	
—	D21-0182-03	Shaft	
—	D22-0018-05	Shaft coupling	
—	D23-0060-04	Shaft bearing	
—	D32-0021-04	Switch stopper	
—	E02-0207-05	Transistor socket	

● PARTS LIST

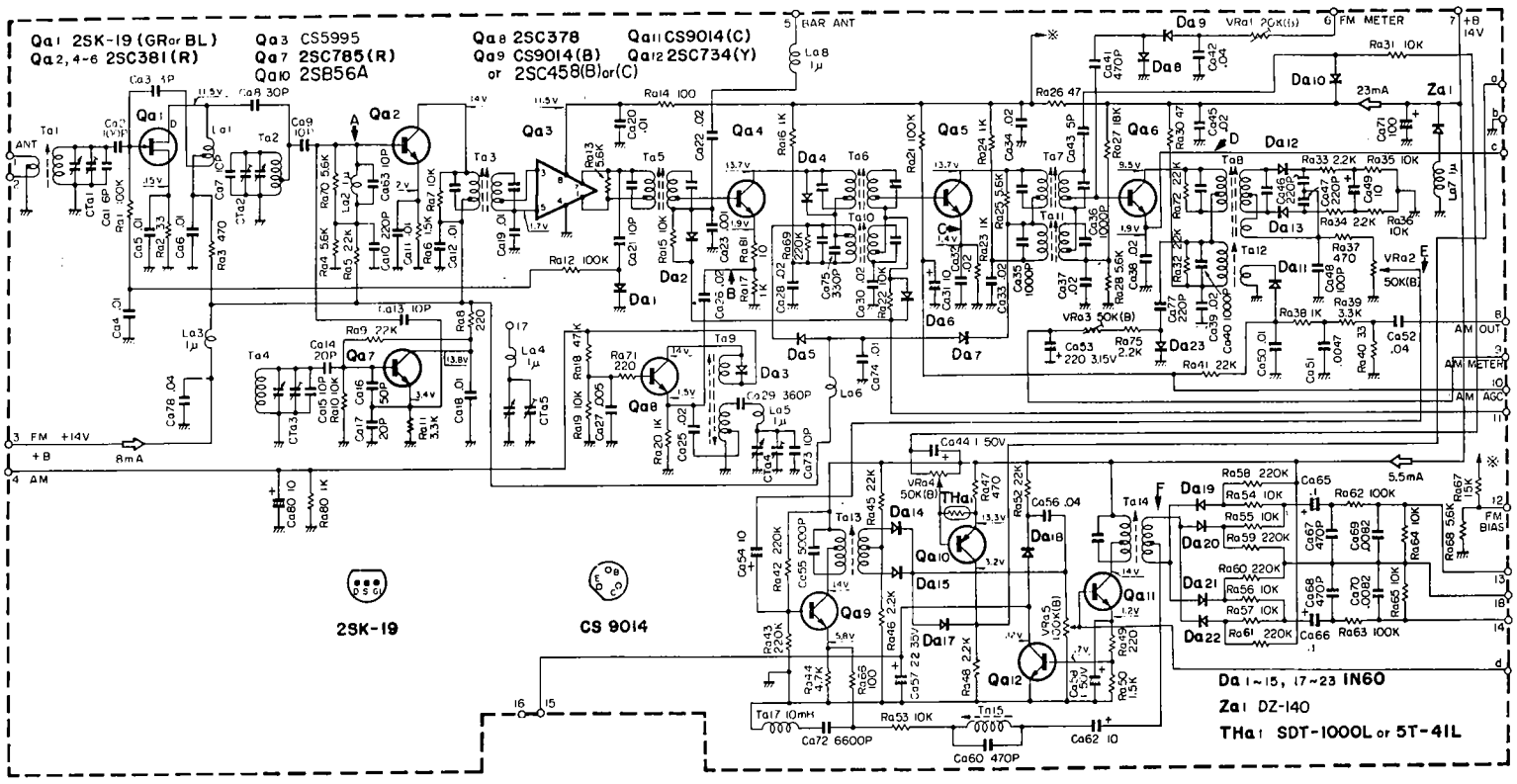
Circuit No.	Parts No.	Description	Remarks
—	E05-0203-05	Power plug (W)	
—	E08-0205-05	AC outlet	
J	E08-0217-05	Foot switch jack	
J	E11-0002-05	Phone jack (A)	
J	E11-0044-05	Phone jack	
J	E11-0048-05	Phone jack x 4	
J	E13-0205-05	2P pin jack	
J	E13-0401-05	4P pin jack (TAPE A)	
J	E13-0404-05	4P pin jack	
J	E13-0408-05	4P pin jack (TAPE B)	
J	E13-0802-05	8P pin jack	
—	E20-0418-03	4P terminal strips	
—	E20-0807-03	8P terminal strips	
—	E30-0046-05	Power cord (K, U, P)	
—	F01-0069-03	Head sink	
F	F05-3022-05 or F05-3024-05	Fuse (3A)	
—	F10-0205-04	Shield plate	
—	F10-0232-04	Shield plate	
—	F11-0141-04	Reflector box	
—	F30-0020-04	Bottom plate armature	
—	F31-0059-04	Armature	
—	F31-0060-04	Chassis armature	
—	F31-0061-04	Chassis armature	
—	G01-0045-14	Dial spring	
—	G01-0049-14	Dial spring x 5	
—	G13-0047-04	Reverb cushion	
—	G13-0050-04	Dial stopper	
—	G13-0051-04	Dial stopper	
—	H01-0648-04	Carton Case (K, U, P)	
—	H03-0047-04	Carton case (K, P)	
—	J02-0049-14	Legs	
—	J13-0016-15	Fuse holder	
—	J13-0023-05	Fuse holder x 7	
—	J19-0147-03	Meter stopper	
—	J19-0148-04	Dial stopper	
—	J19-0149-03	Push switch stopper	
—	J19-0150-04	Push switch stopper	
—	J19-0160-04	Dial stopper	
—	J20-0181-03	Switch stopper	
—	J21-0192-04	Amp. hardware	
—	J21-0480-13	Antenna stopper	
—	J21-0798-04	Pilot lamp hardware	
—	J21-0799-04	Pulley hardware	
—	J21-0800-03	Reverb hardware (A)	
—	J21-0801-03	Reverb hardware (B)	
—	J21-0801-04	Reverb hardware (C)	
—	J21-0546-04	Thermistor holder	
—	J21-0682-04	PC board hardware	
—	J25-0564-02	PC board (push switch with power)	
—	J25-0565-02	PC board (push switch)	

● PARTS LIST

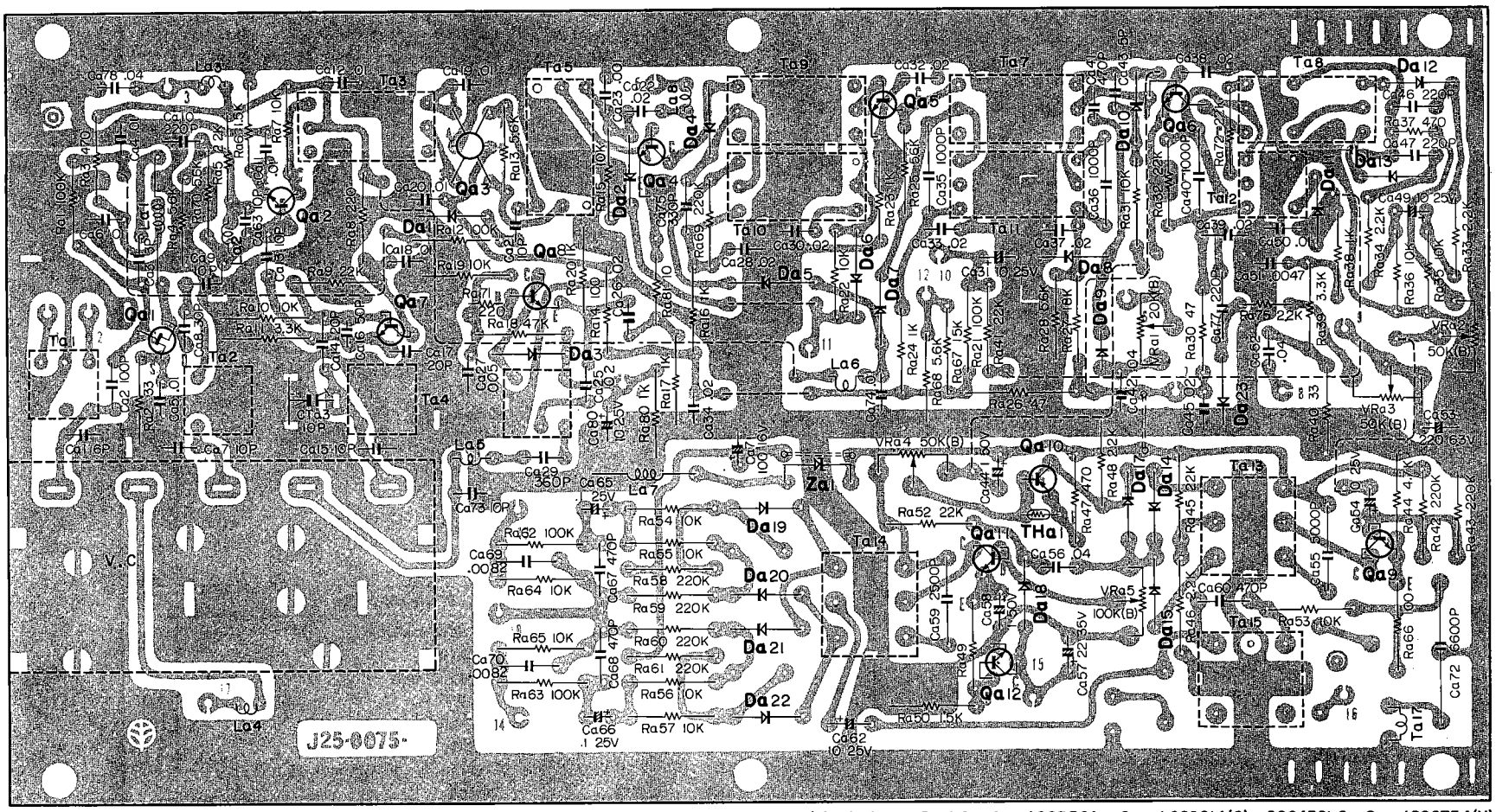
Circuit No.	Parts No.	Description	Remarks
–	J25-0566-04	PC board (FM MUTING)	
–	J25-0574-04	PC board (FM MUTING)	
–	K23-0049-03	Knob (VOLUME, SELECTOR)	
–	K23-0050-03	Knob (REVERB MODE)	
–	K23-0051-14	Knob (BALANCE, TEMPO, REVERB LEVEL)	
–	K23-0061-04	Knob (RHYTHM TONE, BASS, TREBLE)	
–	K23-0068-03	Knob (TIMER)	
–	K23-0069-04	Knob (RHYTHM MODE, MULTIPRESENCE, CONTROL SELECTOR)	
–	K23-0070-03	Knob (TUNING)	
–	K29-0020-14	Knob (REVERB CRAMP, PHONES LEVEL, MIC LEVEL)	
–	K29-0073-04	Knob (START SW)	
P.T	L03-0047-05	Power transformer (47V-2.2A, 27V-0.4A, 7.5V-2.8A)	
L1, 2	L15-0009-05	Choke coil (4H) in RHYTHM GENERATOR	
L3	L15-0010-05	Choke coil (100mH) in RHYTHM GENERATOR	
L1, 2	L33-0086-05	Ferri-inductor (1μH)	
–	T29-0003-05	Reverbration unit	
ANT	T90-0002-05	FM indoor antenna	
ANT	T90-0026-05	Loopstick antenna	
MIC	T91-0016-05	Microphone	

* In America add to the parts of (K), in Canada do to that of (P), and in other area do to that of (U).

SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



SCHEMATIC DIAGRAM

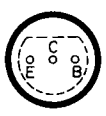


Qa1 : 2SK19(GRorBL), Qa2,4~6 : 2SC381(R), Qa3 : CS5995(RorB), Qa7 : 2SC785(R), Qa9 : CS9014(B)or2SC458LBorLC, Qa10 : 2SB56A, Qa11 : CS9014(C)or2SC458LC, Qa12 : 2SC734(Y)
Da1,2,4~15,17~23 : IN60orIN34A, Za1 : ZB1-14, THa1 : SDT-1000Lor5T-41L

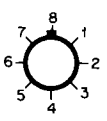
BOTTOM VIEW OF TRANSISTOR

2SK19

2SC734
2SC381R
2SC785R
2SC378

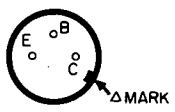


CS5995



2SB56A

CS9014



2SC458L

PARTS DESCRIPTION LIST

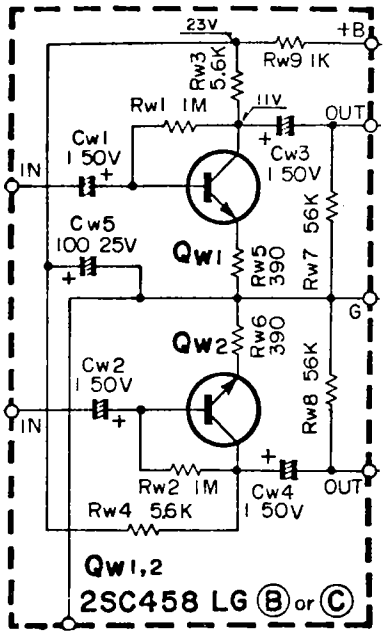
Circuit No.	Parts No.	Description			Remarks
CAPACITOR					
Ca1	CC94SL1H060D	TC ceramic	6pF	±0.5pF	
Ca2	CC94SL1H101K	TC ceramic	100pF	±10%	
Ca3	CC94SL1H030C	TC ceramic	3pF	±0.25pF	
Ca4~6	CK94YG1E103Z	Ceramic	0.01μF	+80%, −20%	
Ca7	CC94TH1H100D	TC ceramic	10pF	±0.5pF	
Ca8	CC94SH1H300K	TC ceramic	30pF	±10%	
Ca9	CC94SL1H100D	TC ceramic	10pF	±0.5pF	
Ca10	CC94YX1H221K	TC ceramic	220pF	±10%	
Ca11, 12	CK94YG1E103Z	Ceramic	0.01μF	+80%, −20%	
Ca13	CC94TH1H100D	TC ceramic	10pF	±0.5pF	
Ca14	CC94RG1H200K	TC ceramic	20pF	±10%	
Ca15	CC94SG1H100D	TC ceramic	10pF	±0.5pF	
Ca16	CC94TH1H500K	TC ceramic	50pF	±10%	
Ca17	CC94TH1H200K	TC ceramic	20pF	±10%	
Ca18~20	CK94YG1E103Z	Ceramic	0.01μF	+80%, −20%	
Ca21	CC94SL1H100D	TC ceramic	10pF	±0.5pF	
Ca22	CK94YG1E203Z	Ceramic	0.02μF	+80%, −20%	
Ca23	CK94YY1H102M	Ceramic	0.001μF	±20%	
Ca25, 26	CK94YG1E203Z	Ceramic	0.02μF	+80%, −20%	
Ca27	CK94YG1E502Z	Ceramic	0.005μF	+80%, −20%	
Ca28	CK94YG1E203Z	Ceramic	0.02μF	+80%, −20%	
Ca29	CK94YX1H361K	Ceramic	360pF	±10%	
Ca30	CK94YG1E203Z	Ceramic	0.02μF	+80%, −20%	
Ca31	CE04W1E100	PC electrolytic	10μF	25WV	
Ca32~34	CK94YG1E203Z	Ceramic	0.02μF	+80%, −20%	
Ca35, 36	CQ08S2B102J	Polystyrene	1000pF	±5%	
Ca37~39	CK94YG1E203Z	Ceramic	0.02μF	+80%, −20%	
Ca40	CQ08S2B102J	Polystyrene	1000pF	±5%	
Ca41	CK94YX1H471K	Ceramic	470pF	±10%	
Ca42	CK94YG1E403Z	Ceramic	0.04μF	+80%, −20%	
Ca43	CC94SL1H050D	TC ceramic	5pF	±0.5pF	
Ca44	CE04W1H010	PC electrolytic	1μF	50WV	
Ca45	CK94YG1E203Z	Ceramic	0.02μF	+80%, −20%	
Ca46, 47	CC94SL1H221K	TC ceramic	220pF	±10%	
Ca48	CC94SL1H101K	TC ceramic	100pF	±10%	
Ca49	CE04W1E100	PC electrolytic	10μF	25WV	
Ca50	CK94YY1H103M	Ceramic	0.01μF	±20%	
Ca51	CK94YY1H472M	Ceramic	0.047μF	±20%	
Ca52	CK94YG1E403Z	Ceramic	0.04μF	+80%, −20%	
Ca53	CE04W0J221	PC electrolytic	220μF	6.3WV	
Ca54	CE04W1E100	PC electrolytic	10μF	25WV	
Ca55	CQ08S2B502J	Polystyrene	5000pF	±5%	
Ca56	CK94YG1E403Z	Ceramic	0.04μF	+80%, −20%	
Ca57	CE04W1V220	PC electrolytic	22μF	35WV	
Ca58	CE04W1H010	PC electrolytic	1μF	50WV	
Ca59	CQ08S2B252J	Polystyrene	2500pF	±5%	
Ca60	CM93D1H471J(Z)	Polystyrene	470pF	±5%	
Ca62	CE04W1E100	PC electrolytic	10μF	25WV	
Ca63	CC94SL1H100D	TC ceramic	10pF	±0.5pF	
Ca65, 66	CA06E1E410M	Solid aluminum	0.1μF	25WV	
Ca67, 68	CK94YX1H471K	Ceramic	470pF	±10%	
Ca69, 70	CQ93M1H822J	Mylar	0.0082μF	±5%	
Ca71	CE04W1C101	PC electrolytic	100μF	16WV	
Ca72	CQ08S2B662J	Polystyrene	6600pF	±5%	
Ca73	CC94TH1H100D	TC ceramic	10pF	±0.5pF	
Ca74	CK94YY1H103M	Ceramic	0.01μF	±20%	
Ca75	CM93D1H331J(Z)	Polystyrene	330pF	±5%	
Ca77	CC94SL1H221K	TC ceramic	220pF	±10%	
Ca78	CK94YG1E403Z	Ceramic	0.04μF	+80%, −20%	
Ca80	CE04W1E100	PC electrolytic	10μF	25WV	
CTa3	C05-0010-05	Ceramic trimmer (10P)			
RESISTOR					
Ra1	PD14BY2E104J	Insulated carbon film	100kΩ	±5% 1/4W	
Ra2	PD14BY2E330J	Insulated carbon film	33Ω	±5% 1/4W	
Ra3	PD14BY2E471J	Insulated carbon film	470Ω	±5% 1/4W	
Ra4	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5% 1/4W	
Ra5	PD14BY2E223J	Insulated carbon film	22kΩ	±5% 1/4W	
Ra6	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5% 1/4W	
Ra7	PD14BY2E103J	Insulated carbon film	10kΩ	±5% 1/4W	
Ra8	PD14BY2E221J	Insulated carbon film	220Ω	±5% 1/4W	
Ra9	PD14BY2E223J	Insulated carbon film	22kΩ	±5% 1/4W	
Ra10	PD14BY2E103J	Insulated carbon film	10kΩ	±5% 1/4W	
Ra11	PD14BY2E332J	Insulated carbon film	3.3kΩ	±5% 1/4W	
Ra12	PD14BY2E104J	Insulated carbon film	100kΩ	±5% 1/4W	
Ra13	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5% 1/4W	
Ra14	PD14BY2E101J	Insulated carbon film	100Ω	±5% 1/4W	
Ra15	PD14BY2E103J	Insulated carbon film	10kΩ	±5% 1/4W	
Ra16, 17	PD14BY2E102J	Insulated carbon film	1kΩ	±5% 1/4W	
Ra18	PD14BY2E473J	Insulated carbon film	47kΩ	±5% 1/4W	
Ra19	PD14BY2E103J	Insulated carbon film	10kΩ	±5% 1/4W	
Ra20	PD14BY2E102J	Insulated carbon film	1kΩ	±5% 1/4W	
Ra21	PD14BY2E104J	Insulated carbon film	100kΩ	±5% 1/4W	
Ra22	PD14BY2E103J	Insulated carbon film	10kΩ	±5% 1/4W	
Ra23, 24	PD14BY2E102J	Insulated carbon film	1kΩ	±5% 1/4W	
Ra25	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5% 1/4W	
Ra26	PD14BY2E470J	Insulated carbon film	47Ω	±5% 1/4W	
Ra27	PD14BY2E183J	Insulated carbon film	18kΩ	±5% 1/4W	
Ra28	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5% 1/4W	

Circuit No.	Parts No.	Description				Remarks
Ra30	PD14BY2E470J	Insulated carbon film	47Ω	±5%	1/4W	
Ra31	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Ra32	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
Ra33, 34	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Ra35, 36	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Ra37	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Ra38	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
Ra39	PD14BY2E332J	Insulated carbon film	3.3kΩ	±5%	1/4W	
Ra40	PD14BY2E330J	Insulated carbon film	33Ω	±5%	1/4W	
Ra41	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
Ra42, 43	PD14BY2E224J	Insulated carbon film	220kΩ	±5%	1/4W	
Ra44	PD14BY2E472J	Insulated carbon film	4.7kΩ	±5%	1/4W	
Ra45	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
Ra46	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Ra47	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Ra48	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Ra49	PD14BY2E331J	Insulated carbon film	330Ω	±5%	1/4W	
Ra50	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
Ra52	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
Ra53 ~ 57	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Ra58 ~ 61	PD14BY2E224J	Insulated carbon film	220kΩ	±5%	1/4W	
Ra62, 63	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
Ra64, 65	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Ra66	PD14BY2E101J	Insulated carbon film	100Ω	±5%	1/4W	
Ra67	PD14BY2E153J	Insulated carbon film	15kΩ	±5%	1/4W	
Ra68	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Ra69	PD14BY2E562J	Insulated carbon film	220kΩ	±5%	1/4W	
Ra70	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Ra71	PD14BY2E331J	Insulated carbon film	330Ω	±5%	1/4W	
Ra72	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
Ra75	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Ra80	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
Ra81	PD14BY2E100J	Insulated carbon film	10Ω	±5%	1/4W	
POTENTIOMETER						
VRa1	R12-3014-05	PC trimmer potentiometer	20kΩ	(B)		
VRa2 ~ 4	R12-4006-05	PC trimmer potentiometer	50kΩ	(B)		
VRa5	R12-5013-05	PC trimmer potentiometer	100kΩ	(B)		
IF TRANSFORMER						
La1	L33-0027-05	Choke coil				
La2	L33-0002-04	Choke coil				
La3~6	L33-0086-05	Ferri-inductor				
La7	L33-0025-05	Choke coil				
La8	L33-0086-05	Ferri-inductor				
Ta1	L34-0348-04	FM ANT coil				
Ta2	L34-0056-04	FM RF coil				
Ta3	L30-0150-05	FM IFT				
Ta4	L34-0057-04	FM OSC coil				
Ta5	L30-0151-05	FM IFT				
Ta6	L30-0152-05	FM IFT				
Ta7	L30-0153-05	FM IFT				
Ta8	L30-0137-05	FM IFT				
Ta9	L30-0082-05	AM OSC				
Ta10	L30-0080-05	AM IFT				
Ta11	L30-0081-05	FM IFT				
Ta12	L30-0052-05	AM IFT				
Ta13	L35-0035-05	19kHz coil				
Ta14	L35-0036-05	38kHz coil				
Ta15	L35-0030-05	72kHz coil				
Ta17	L33-0117-05	Ferri-inductor				
FET/IC/TRANSISTOR						
Qa1		2SK-19 (GR or BL)				
Qa2		2SC381R				
Qa3		CS5995 (R or B)				
Qa4~6		2SC381R				
Qa7		2SC785R				
Qa8		2SC378				
Qa9		CS9014B (2SC458L, B or C)				
Qa10		2SB56A				
Qa11		CS9014C (2SC485L, C)				
Qa12		2SC734Y				
DIODE/THERMISTOR						
Da1~15, 17~23		1N60 or 1N34A (YELLOW				
Za1		DZ-140				
THa1		SDT-1000L or 5T-41L				
MISCELLANEOUS						
–	J25-0075-12	PC board				
V.C.	C01-0137-05	Variable capacitor				
–	F10-0048-03	Shield board A				
–	F10-0004-04	Shield board B				
–	F10-0187-04	Shield board C				

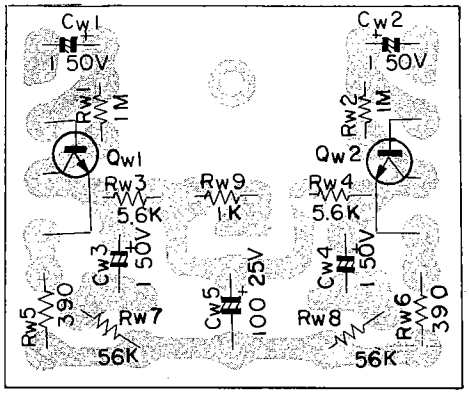
SCHEMATIC DIAGRAM

BOTTOM VIEW OF TRANSISTOR

2SC458LG



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



Qw1, 2 2SC 458LG (B) or (C)

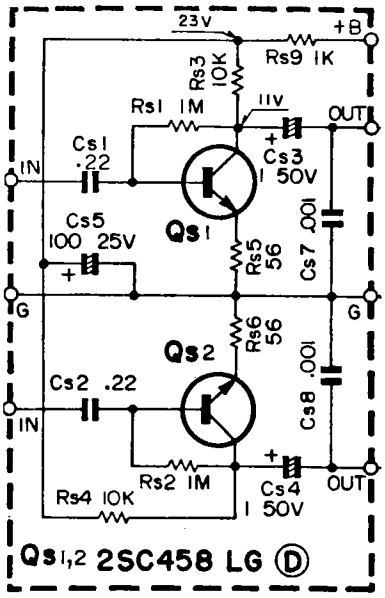
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
		CAPACITOR				
Cd(W)1～4	CE04W1H010	PC electrolytic	1μF	50WV		
Cd(W)5	CE04W1E101	PC electrolytic	100μF	25WV		
		RESISTOR				
Rd(W)1, 2	RC05GF2H105K	Carbon composition	1MΩ	±10%	1/2W	
Rd(W)3, 4	PD14CY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rd(W)5, 6	PD14CY2E391J	Insulated carbon film	390Ω	±5%	1/4W	
Rd(W)7, 8	PD14CY2E563K	Insulated carbon film	56kΩ	±10%	1/4W	
Rd(W)9	PD14CY2E102K	Insulated carbon film	1kΩ	±10%	1/4W	
		TRANSISTOR/PC BOARD				
Qd(S)1, 2		2SC458LG(B) or (C)				
—	J25-0079-04	PC board				

MIC AMP (X09-0007-02) SECTION

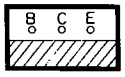
(KR-6170)

SCHEMATIC DIAGRAM

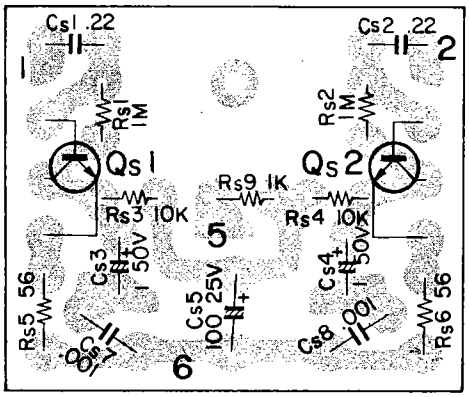


BOTTOM VIEW OF TRANSISTOR

2SC458LG



SEALED CIRCUIT ASSEMBLIES PAHNTOM VIEWS

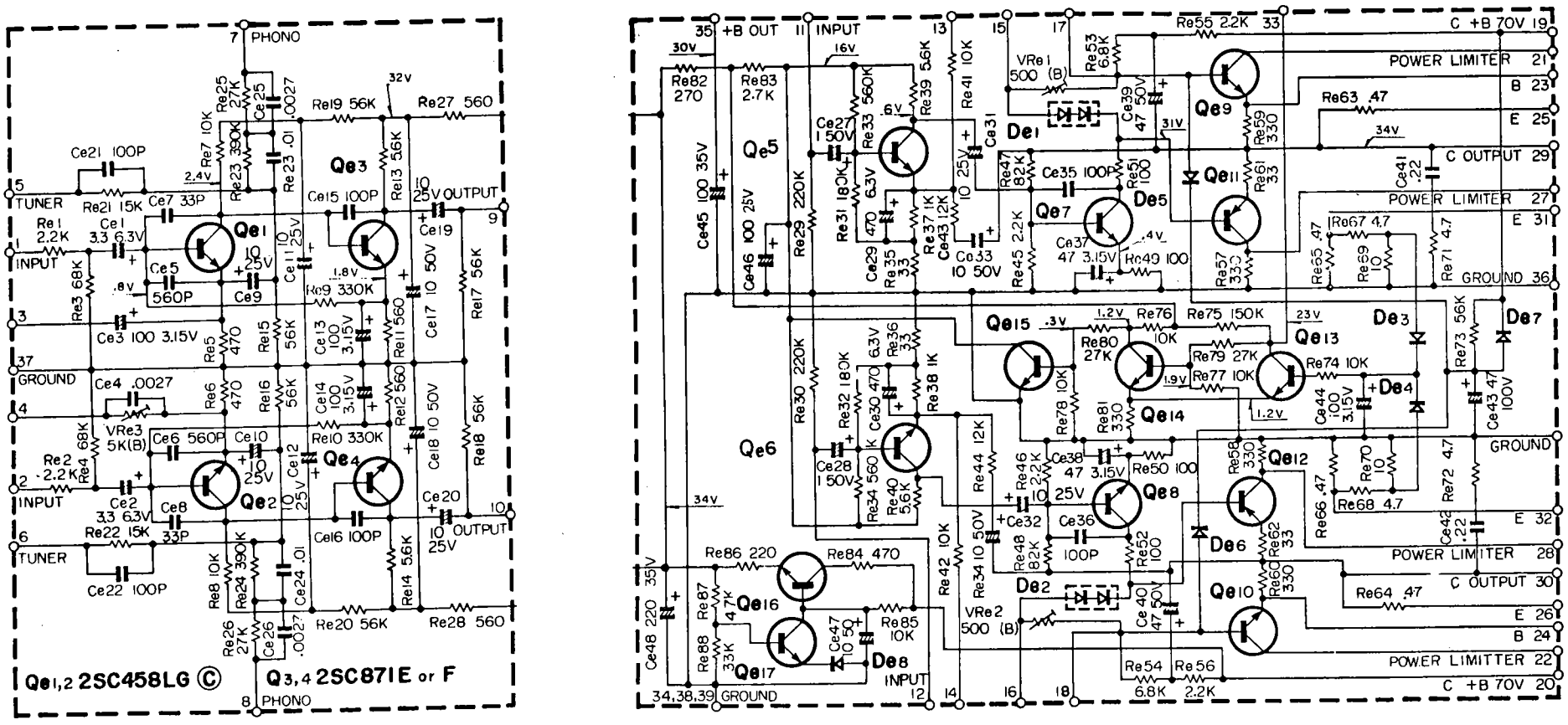


Qs1, 2 2SC458LG (D)

PARTS DESCRIPTION LIST

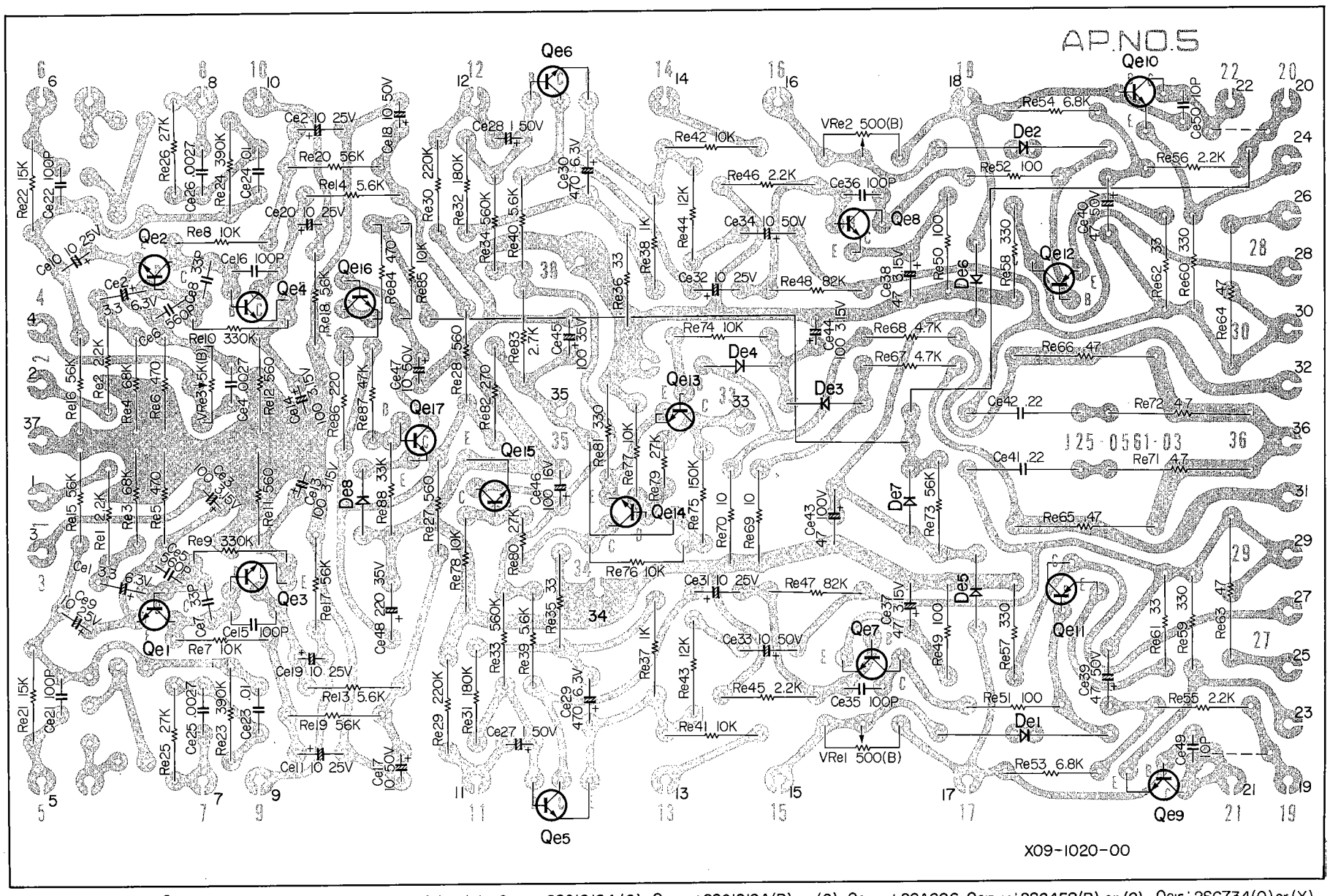
Circuit No.	Parts No.	Description				Remarks
		CAPACITOR				
Cs1, 2	CS04D1ER22MorX	Tantalum	0.22μF	25WV		
Cs3, 4	CE04W1H010	PC electrolytic	1μF	50WV		
Cs5	CE04W1E101	PC electrolytic	100μF	25WV		
Cs7, 8	CK94YY1H102M	Ceramic	0.001μF	±20%		
		RESISTOR				
Rs1, 2	RC05GF2H105K	Carbon composition	1MΩ	±10%	1/2W	
Rs3, 4	PD14CY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rs5, 6	PD14CY2E560J	Insulated carbon film	56Ω	±5%	1/4W	
Rs9	PD14CY2E102K	Insulated carbon film	1kΩ	±10%	1/4W	
		TRANSISTOR/PC BOARD				
Qs1, 2		2SC458LG (D)				
—	J25-0077-04	PC board				

SCHEMATIC DIAGRAM



BOTTOM VIEW OF TRANSISTOR

SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS

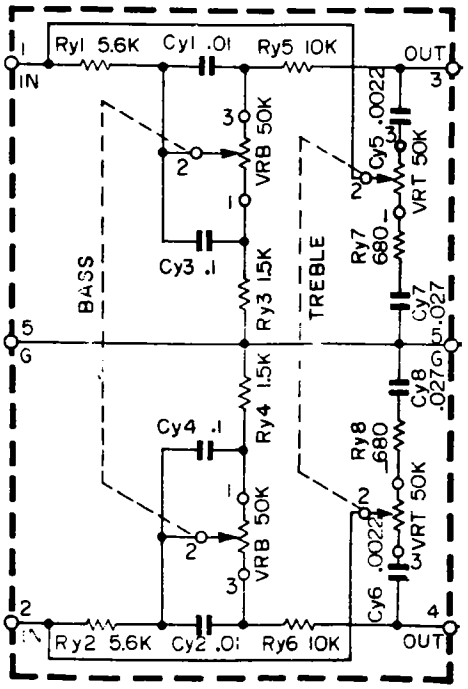


Qe1,2: 2SC458LG(C), Qe3,4: 2SC871E or F, Qe5,6: 2SC458LG(C) or (D), Qe7,8: 2SC1212A(C), Qe9,10: 2SC1212A(B) or (C), Qe11,12: 2SA606, Qe13,14: 2SC458(B) or (C), Qe15: 2SC734(O) or (Y)
Qe16: 2SD234(O) or (Y), Qe17: 2SC711A(E), De1,2: MV-13, De3,4: 1N60, De5,6,7: 1S1553V, De8: 1S338T

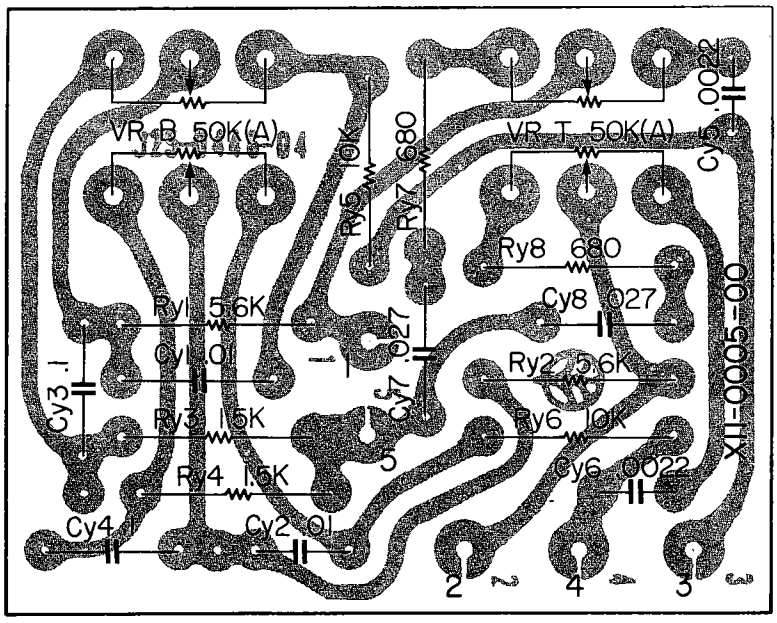
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Ce1, 2	CS04D0J3R3M	Tantalum	3.3μF	6.3WV		
Ce3	CE04W0F101	PC electrolytic	100μF	3.15WV		
Ce4	CQ93M1H272K	Mylar	0.0027μF	±10%		
Ce5, 6	CK94YY1H561M	Ceramic	560pF	±20%		
Ce7, 8	CC94SL1H330K	TC ceramic	33pF	±10%		
Ce9～12	CE04W1E100	PC electrolytic	10μF	25WV		
Ce13, 14	CE04W0F101	PC electrolytic	100μF	3.15WV		
Ce15, 16	CS94SL1H101K	TC ceramic	100pF	±10%		
Ce17, 18	CE04W1H100	PC electrolytic	10μF	50WV		
Ce19, 20	CE04W1E100	PC electrolytic	10μF	25WV		
Ce21, 22	CC94SL1H101K	TC ceramic	100pF	±10%		
Ce23, 24	CQ93M1H103K	Mylar	0.01μF	±10%		
Ce25, 26	CQ93M1H272K	Mylar	0.0027μF	±10%		
Ce27, 28	CE04W1H010	PC electrolytic	1μF	50WV		
Ce29, 30	CE04W0J471	PC electrolytic	470μF	6.3WV		
Ce31, 32	CE04W1E100	PC electrolytic	10μF	25WV		
Ce33, 34	CE04W1H100	PC electrolytic	10μF	50WV		
Ce35, 36	CC94SL1H101K	TC ceramic	100pF	±10%		
Ce37, 38	CE04W0F470	PC electrolytic	47μF	3.15WV		
Ce39, 40	CE04W1H470	PC electrolytic	47μF	50WV		
Ce41, 42	CQ93M1H224M	Mylar	0.22μF	±20%		
Ce43	CE04W2A470	PC electrolytic	47μF	100WV		
Ce44	CE04W0F101	PC electrolytic	100μF	3.15WV		
Ce45	CE04W1V101	PC electrolytic	100μF	35WV		
Ce46	CE04W1E101	PC electrolytic	100μF	25WV		
Ce47	CE04W1H100	PC electrolytic	10μF	50WV		
Ce48	CE04W1V221	PC electrolytic	220μF	35WV		
RESISTOR						
Re1, 2	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Re3, 4	PD14BY2E683J	Insulated carbon film	68kΩ	±5%	1/4W	
Re5, 6	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Re7, 8	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Re9, 10	PD14BY2E334J	Insulated carbon film	330kΩ	±5%	1/4W	
Re11, 12	PD14BY2E561J	Insulated carbon film	560Ω	±5%	1/4W	
Re13, 14	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Re15～20	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Re21, 22	PD14BY2E153J	Insulated carbon film	15kΩ	±5%	1/4W	
Re23, 24	PD14BY2E394J	Insulated carbon film	390kΩ	±5%	1/4W	
Re25, 26	PD14BY2E273J	Insulated carbon film	27kΩ	±5%	1/4W	
Re27, 28	PD14BY2E561J	Insulated carbon film	560Ω	±5%	1/4W	
Re29, 30	PD14BY2E224J	Insulated carbon film	220kΩ	±5%	1/4W	
Re31, 32	PD14BY2E184J	Insulated carbon film	180kΩ	±5%	1/4W	
Re33, 34	PD14BY2E564J	Insulated carbon film	560kΩ	±5%	1/4W	
Re35, 36	PD14BY2E330J	Insulated carbon film	33Ω	±5%	1/4W	
Re37, 38	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
Re39, 40	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Re41, 42	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Re43, 44	PD14BY2E123J	Insulated carbon film	12kΩ	±5%	1/4W	
Re45, 46	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Re47, 48	PD14BY2E823J	Insulated carbon film	82kΩ	±5%	1/4W	
Re49～52	PD14BY2E101J	Insulated carbon film	100Ω	±5%	1/4W	
Re53, 54	PD14BY2E682J	Insulated carbon film	6.8kΩ	±5%	1/4W	
Re55, 56	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Re57～60	PD14BY2E331J	Insulated carbon film	330Ω	±5%	1/4W	
Re61, 62	PD14BY2E330J	Insulated carbon film	33Ω	±5%	1/4W	
Re63～66	RN14AB3DR47K	Metal film	0.47Ω	±10%	1W	
Re67, 68	RC05GF2H4R7K	Carbon composition	4.7Ω	±10%	1/2W	
Re69, 70	PD14BY2E100J	Insulated carbon film	10Ω	±5%	1/4W	
Re71, 72	RN14AB3D4R7K	Metal film	4.7Ω	±10%	1W	
Re73	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Re74	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Re75	PD14BY2E154J	Insulated carbon film	150kΩ	±5%	1/4W	
Re76～78	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Re79, 80	PD14CY2E273J	Insulated carbon film	27kΩ	±5%	1/4W	
Re81	PD14BY2E331J	Insulated carbon film	330Ω	±5%	1/4W	
Re82	PD14BY2E271J	Insulated carbon film	270Ω	±5%	1/4W	
Re83	PD14BY2E272J	Insulated carbon film	2.7kΩ	±5%	1/4W	
Re84	RC05GF2H471K	Carbon composition	470Ω	±10%	1/2W	
Re85	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Re86	RC05GF2H221K	Carbon composition	220Ω	±10%	1/2W	
Re87	PD14BY2E473J	Insulated carbon film	47kΩ	±5%	1/4W	
Re88	PD14BY2E333J	Insulated carbon film	33kΩ	±5%	1/4W	
TRANSISTOR/DIODES						
Qe1, 2		2SC458LG (C)				
Qe3, 4		2SC871 (E) or (F)				
Qe5, 6		2SC458LG (C) or (D)				
Qe7, 8		2SC1212A (C)				
Qe9, 10		2SC1212A (B) or (C)				
Qe11, 12		2SA606				
Qe13, 14		2SC458 (B) or (C)				
Qe15		2SC734 (O) or (Y)				
Qe16		2SD234 (O) or (Y)				
Qe17		2SC711A (E)				
De1, 2		MV-13				
De3, 4		1N60				
De5～7		1S1553V				
De8		1S338T				
POTENITIOMETER/PC BOARD						
VRe1, 2	R12-0039-05	PC trimmer potentiometer 500Ω (B)				
VRe3	R12-2015-05	PC trimmer potentiometer 5kΩ (B)				
–	J25-0561-03	PC board				

SCHEMATIC DIAGRAM



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



PARTS DESCRIPTION LIST

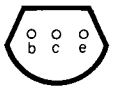
Circuit No.	Parts No.	Description				Remarks
		CAPACITOR				
Cy1, 2	CQ93M1H103K	Mylar	0.01μF	±10%		
Cy3, 4	CQ93M1H104K	Mylar	0.1μF	±10%		
Cy5, 6	CQ93M1H222K	Mylar	0.0022μF	±10%		
Cy7, 8	CQ93M1H273K	Mylar	0.027μF	±10%		
		RESISTOR				
Ry1, 2	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Ry3, 4	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
Ry5, 6	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Ry7, 8	PD14BY2E681J	Insulated carbon film	680Ω	±5%	1/4W	
		POTENTIOMETER/PC BOARD				
VRB	R06-4006-05	BASS 50kΩ(A) dual				
VRT	R06-4006-05	TREBLE 50kΩ(A) dual				
—	J25-0446-14	PC board				

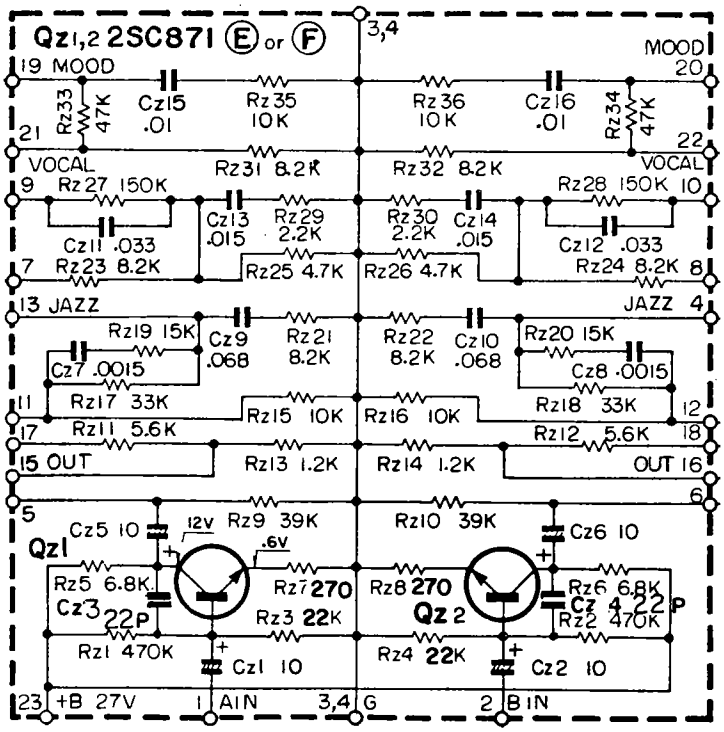
(KR-6170)

SCHEMATIC DIAGRAM

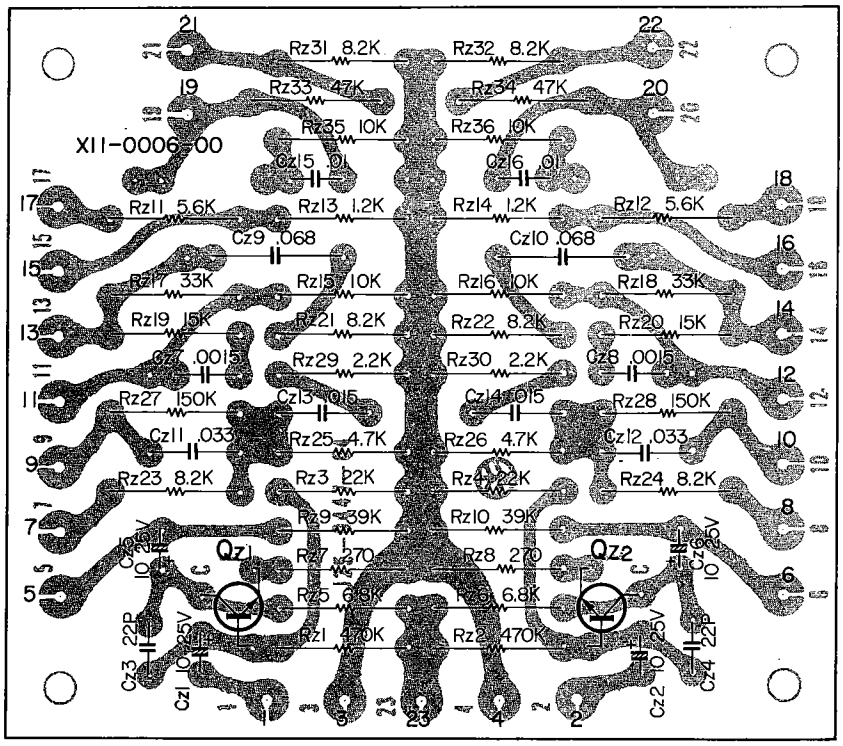
BOTTOM VIEW OF TRANSISTOR

2SC871





SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



Qz1, 2 2SC871 (E) or (F)

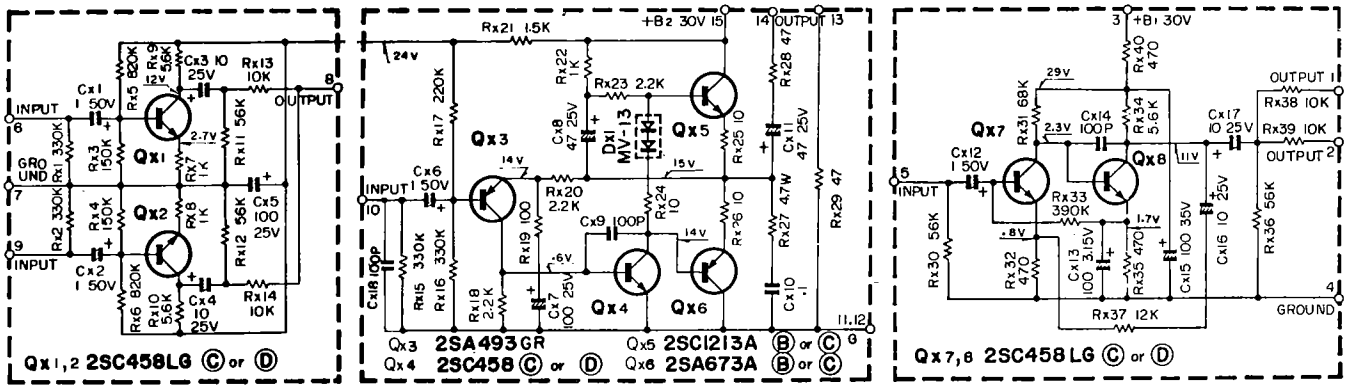
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Cz1, 2	CE04W1E100	PC electrolytic	10μF	25WV		
Cz3, 4	CC94SL1H220K	TC ceramic	22pF	±10%		
Cz5, 6	CE04W1E100	PC electrolytic	10μF	25WV		
Cz7, 8	CQ93M1H152K	Mylar	0.0015μF	±10%		
Cz9, 10	CQ93M1H683K	Mylar	0.068μF	±10%		
Cz11, 12	CQ93M1H333K	Mylar	0.033μF	±10%		
Cz13, 14	CQ93M1H153K	Mylar	0.015μF	±10%		
Cz15, 16	CQ93M1H103K	Mylar	0.01μF	±10%		
RESISTOR						
Rz1, 2	PD14BY2E474J	Insulated carbon film	470kΩ	±5%	1/4W	
Rz3, 4	PD14BY2E223J	Insulated carbon film	22kΩ	±5%	1/4W	
Rz5, 6	PD14BY2E682J	Insulated carbon film	6.8kΩ	±5%	1/4W	
Rz7, 8	PD14BY2E271J	Insulated carbon film	270Ω	±5%	1/4W	
Rz9, 10	PD14BY2E393J	Insulated carbon film	390kΩ	±5%	1/4W	
Rz11, 12	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rz13, 14	PD14BY2E122J	Insulated carbon film	1.2kΩ	±5%	1/4W	
Rz15, 16	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rz17, 18	PD14BY2E333J	Insulated carbon film	33kΩ	±5%	1/4W	
Rz19, 20	PD14BY2E153J	Insulated carbon film	15kΩ	±5%	1/4W	
Rz21～24	PD14BY2E822J	Insulated carbon film	8.2kΩ	±5%	1/4W	
Rz25, 26	PD14BY2E472J	Insulated carbon film	4.7kΩ	±5%	1/4W	
Rz27, 28	PD14BY2E154J	Insulated carbon film	150kΩ	±5%	1/4W	
Rz29, 30	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rz31, 32	PD14BY2E822J	Insulated carbon film	8.2kΩ	±5%	1/4W	
Rz33, 34	PD14BY2E473J	Insulated carbon film	47kΩ	±5%	1/4W	
Rz35, 36	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
TRANSISTOR/PC BOARD						
Qz1, 2		2SC871(E) or (F)				
—	J25-0447-04	PC board				

REVERB AMP (X13-1020-00) SECTION

(KR-6170)

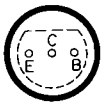
SCHEMATIC DIAGRAM



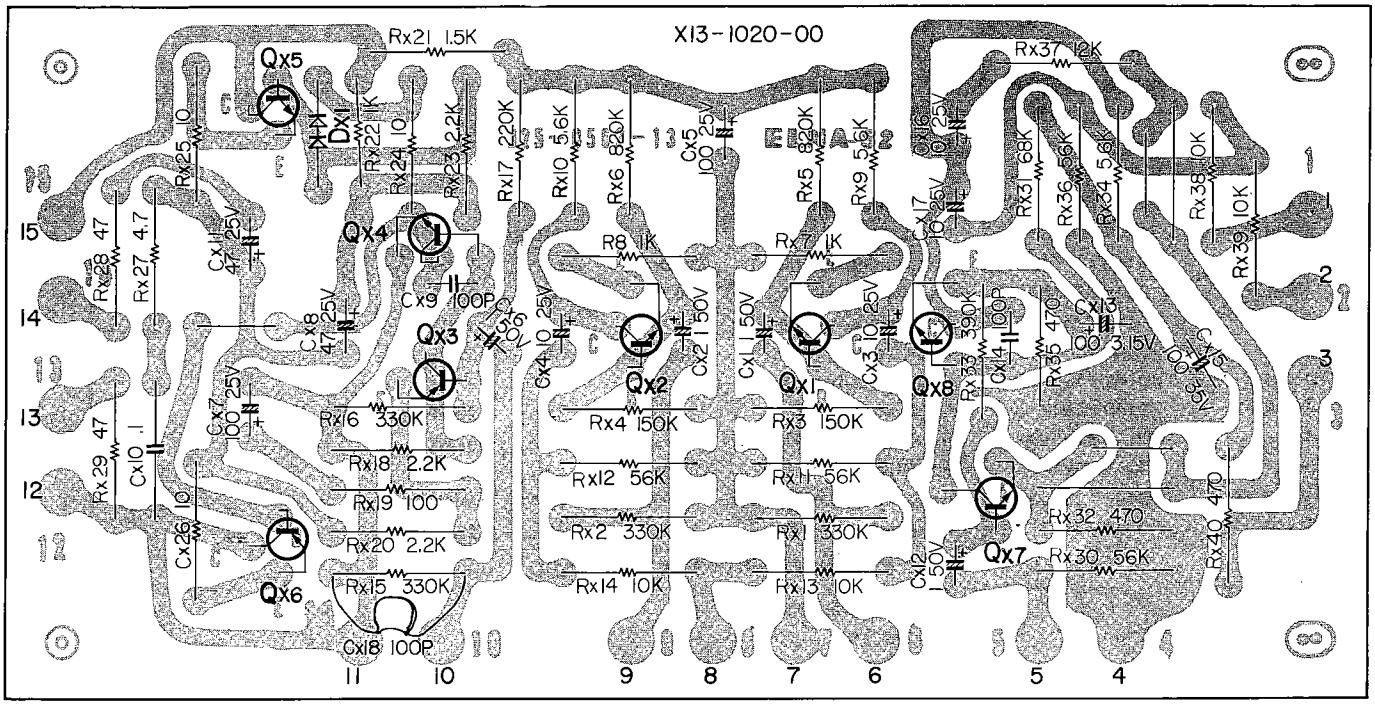
BOTTOM VIEW OF TRANSISTOR

2SA673A
2SC458
2SC1213

2SA493



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



Qx1,2,7,8: 2SC458LG (C) or (D), Qx3: 2SA493GR, Qx4: 2SC458(C) or (D), Qx5: 2SC1213A(B) or (C), Qx6: 2SA673A(B) or (C)
Dx1: MV-13

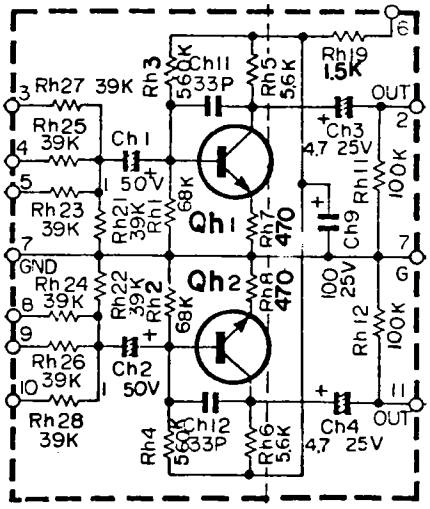
PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
		CAPACITOR				
Cx1, 2	CE04W1H010	PC electrolytic	1μF	50WV		
Cx3, 4	CE04W1E100	PC electrolytic	10μF	25WV		
Cx5	CE04W1E101	PC electrolytic	100μF	25WV		
Cx6	CE04W1H010	PC electrolytic	1μF	50WV		
Cx7	CE04W1E101	PC electrolytic	100μF	25WV		
Cx8	CE04W1E470	PC electrolytic	47μF	25WV		
Cx9	CC94SL1H101K	TC ceramic	100pF	±10%		
Cx10	CQ93M1H104M	Mylar	0.1μF	±20%		
Cx11	CE04W1E470	PC electrolytic	47μF	25WV		
Cx12	CE04W1H010	PC electrolytic	1μF	50WV		
Cx13	CE04W0F101	PC electrolytic	100μF	3.15WV		
Cx14	CC94SL1H101K	TC ceramic	100pF	±10%		
Cx15	CE04W1V101	PC electrolytic	100μF	35WV		
Cx16, 17	CE04W1E100	PC electrolytic	10μF	25WV		
Cx18	CC94SL1H101K	TC ceramic	100μF	±10%		
		RESISTOR				
Rx1, 2	PD14BY2E334J	Insulated carbon film	330kΩ	±5%	1/4W	
Rx3, 4	PD14BY2E154J	Insulated carbon film	150kΩ	±5%	1/4W	
Rx5, 6	PD14BY2E824J	Insulated carbon film	820kΩ	±5%	1/4W	
Rx7, 8	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
Rx9, 10	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rx11, 12	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Rx13, 14	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rx15, 16	PD14BY2E334J	Insulated carbon film	330kΩ	±5%	1/4W	
Rx17	PD14BY2E224J	Insulated carbon film	220kΩ	±5%	1/4W	
Rx18	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rx19	PD14BY2E101J	Insulated carbon film	100Ω	±5%	1/4W	
Rx20	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rx21	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
Rx22	PD14BY2E102J	Insulated carbon film	1kΩ	±5%	1/4W	
Rx23	PD14BY2E222J	Insulated carbon film	2.2kΩ	±5%	1/4W	
Rx24	PD14BY2E100J	Insulated carbon film	10Ω	±5%	1/4W	
Rx25, 26	RC05GF2H100K	Carbon composition	10Ω	±10%	1/2W	
Rx27	RC05GF2H4R7K	Carbon composition	4.7Ω	±10%	1/2W	
Rx28, 29	RC05GF2H470K	Carbon composition	47Ω	±10%	1/2W	
Rx30	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Rx31	PD14BY2E683J	Insulated carbon film	68kΩ	±5%	1/4W	
Rx32	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Rx33	PD14BY2E394J	Insulated carbon film	390kΩ	±5%	1/4W	
Rx34	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rx35	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Rx36	PD14BY2E563J	Insulated carbon film	56kΩ	±5%	1/4W	
Rx37	PD14BY2E123J	Insulated carbon film	12kΩ	±5%	1/4W	
Rx38, 39	PD14BY2E103J	Insulated carbon film	10kΩ	±5%	1/4W	
Rx40	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
		TRANSISTOR/DIODE/PC BOARD				
Qx1, 2		2SC458LG(C) or (D)				
Qx3		2SA493(GR)				
Qx4		2SC458(C) or (D)				
Qx5		2SC1213A(B) or (C)				
Qx6		2SA673A(B) or (C)				
Qx7, 8		2SC458LG(C) or (D)				
Dx1		MV-13				
—	J25-0562-13	PC board				

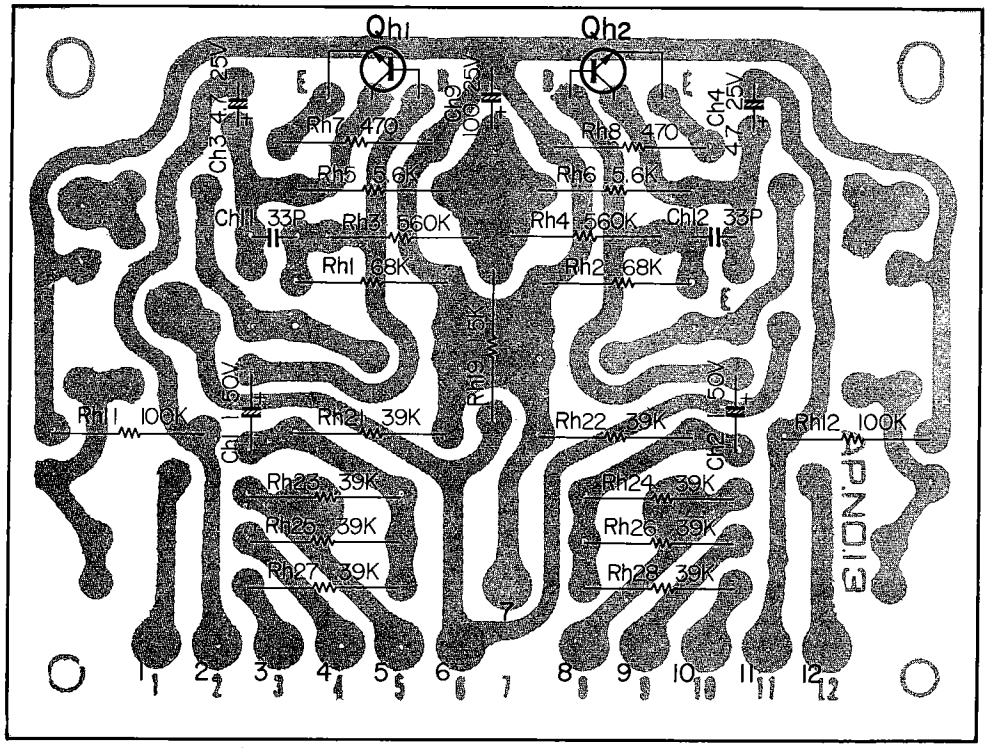
SCHEMATIC DIAGRAM

BOTTOM VIEW OF TRANSISTOR

2SC458



SEALED CIRCUIT ASSEMBLIES PHANTOM VIEWS



Qh1,2: 2SC458LG (C)

PARTS DESCRIPTION LIST

Circuit No.	Parts No.	Description				Remarks
CAPACITOR						
Ch1, 2	CE04W1H010	PC electrolytic	1μF	50WV		
Ch3, 4	CE04W1E4R7	PC electrolytic	4.7μF	25WV		
Ch9	CE04W1E101	PC electrolytic	100μF	25WV		
Ch11, 12	CC94SL1H330K	TC ceramic	33pF	±10%		
RESISTOR						
Rh1, 2	PD14BY2E683J	Insulated carbon film	68kΩ	±5%	1/4W	
Rh3, 4	PD14BY2E564J	Insulated carbon film	560kΩ	±5%	1/4W	
Rh5, 6	PD14BY2E562J	Insulated carbon film	5.6kΩ	±5%	1/4W	
Rh7, 8	PD14BY2E471J	Insulated carbon film	470Ω	±5%	1/4W	
Rh11, 12	PD14BY2E104J	Insulated carbon film	100kΩ	±5%	1/4W	
Rh19	PD14BY2E152J	Insulated carbon film	1.5kΩ	±5%	1/4W	
Rh21～28	PD14BY2E393J	Insulated carbon film	39kΩ	±5%	1/4W	
TRANSISTOR/PC BOARD						
Qh1, 2		2SC458LG(C)				
—	J25-0077-04	PC board				

TRIO

Manufactured by TRIO ELECTRONICS INC., TOKYO, JAPAN.