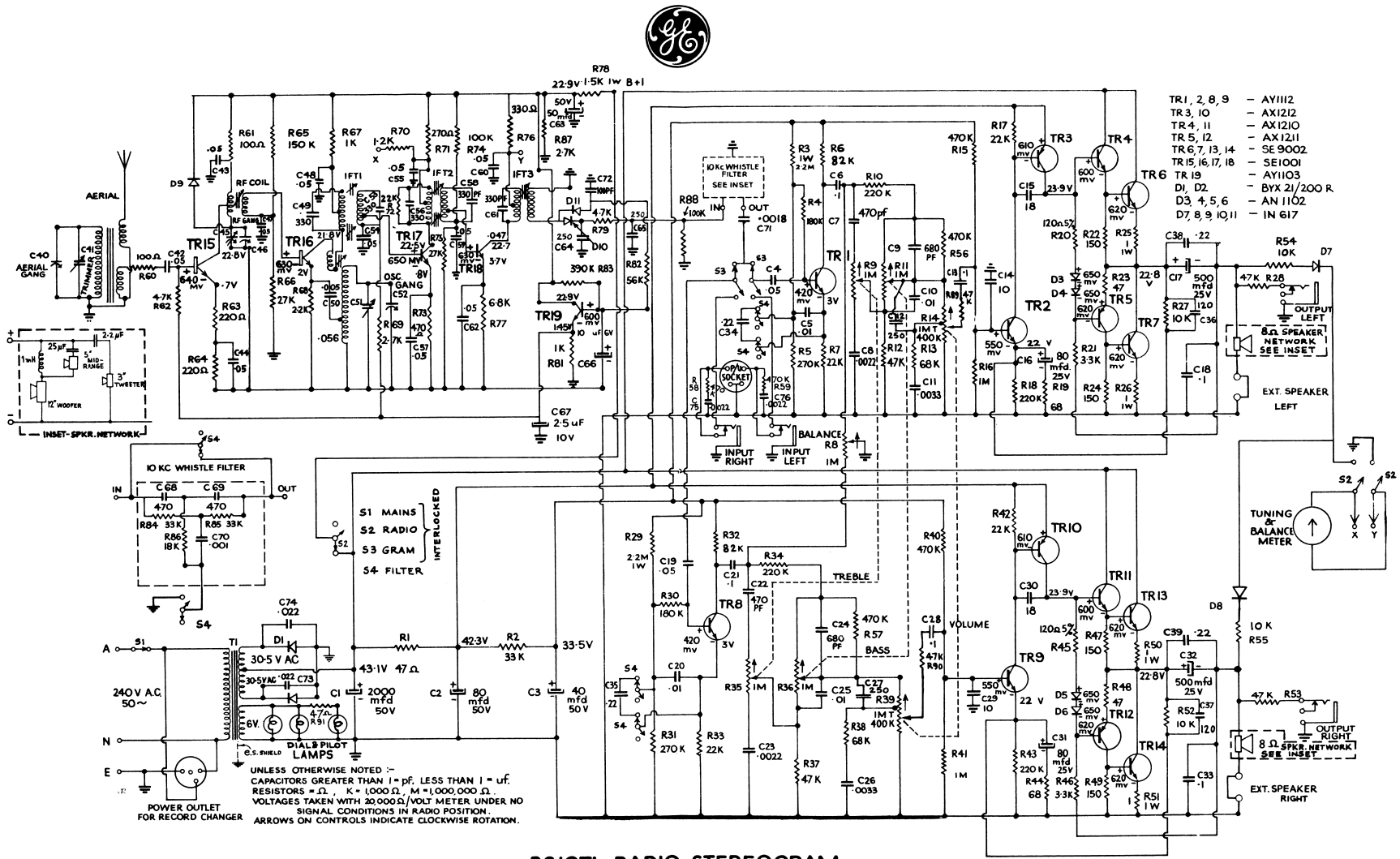
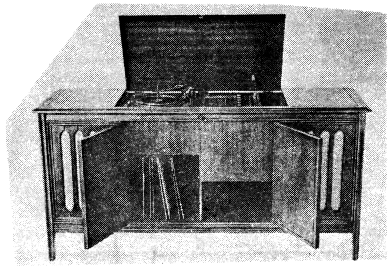


RS19TI RADIO-STEREOGRAM

GENERAL ELECTRIC RS19T1



SPECIFICATION

RS19T1 IS A 19 TRANSISTOR HIGH FIDELITY RADIO – STEREOGRAM.

SEMI-CONDUCTOR TYPES & FUNCTIONS

TYPE	FUNCTION	QUANTITY	CIRCUIT REF.
AY1112	Audio Preamplifier	2	TR1-TR8
AY1112	Audio Amplifier	2	TR2-TR9
AX1212	Pre-Driver	2	TR3-TR10
AX1210	Complementary Driver	2	TR4-TR11
AX1211	" "	2	TR5-TR12
SE9002	Quasi-Complementary Power Output	4	TR6-TR7-TR13-TR14
SE1001	R.F. Amplifier	1	TR15
SE1001	Oscillator-Mixer	1	TR16
SE1001	I.F. Amplifier	2	TR17-TR18
AY1103	A.G.C. Amplifier	1	TR19
BYX21/200R	Rectifier	2	D1-D2
AN1102	Temperature Compensating Diodes	4	D3-D4-D5-D6
IN617	Stereo Balance Detector	2	D7-D8
IN617	Damping Diode	1	D9
IN617	Detector Diode	2	D10-D11

CHASSIS REMOVAL

1. Remove Cabinet back 8 screws.
2. Remove all fly-leads and note connections and colour coding of leads.
3. Undo 3 ¼" wing nuts – 2 at rear of chassis and 1 at front of cabinet under chassis. Roll all leads in tidy bundle, including mains lead, and withdraw chassis complete from top of cabinet.

"Special note" — LEAD DRESS.

The white collector leads going to audio O/P transistors on heat sink should be dressed down to chassis – laying on heat sink and close to board otherwise oscillations will be exhibited.

CURRENT: Connect a meter in series with B+1 lead to the board so as to monitor the current drawn by same.

WARNING: Before attempting any repairs connect Variac to AC source and operate unit through Variac. Also commence at low voltage 20-40 volts. If a fault exists in the unit, current of up to 500MA or more will be drawn. By using low voltage, tests can be made to localise faulty components. Actual current should be around 90-95MA.

TYPICAL TRANSISTOR VOLTAGES

TRANSISTOR	COLLECTOR	EMITTER	BASE-EMITTER
TR1-TR8	19 Volts	3	420 m Volts
TR2-TR9	-	22	550 " "
TR3-TR10	23.9		-600 " "
TR4-TR11	-	23.5	600 " "
TR5-TR12	-	22.6	-620 " "
TR6-TR13	-	-	620 " "
TR7-TR14	22.8	-	620 " "
TR15	22.8	0.7	640 " "
TR16	21.8	2.0	630 " "
TR17	22.5	0.8	650 " "
TR18	22.7	3.7	630 " "
TR19	-	1.4	600 " "
VOLTAGES D.C.			
B+1 43.1 Volts ± 10%			
B+2 42.3 Volts "			
B+3 33.5 Volts "			
B+4 22.9 Volts "			

ALIGNMENT PROCEDURES

1. Connect a signal generator tuned to 455 Kc/s with 30% modulation to the base of the oscillator convertor transistor TR16 via a 0.1 MFD condensor from the 37 ohm termination of the T.P.I.A. pad.
2. Short circuit the oscillator gang direct to earth and the R.F. gang to earth via a 0.1 MFD condensor.
3. Peak the I.F. coils for maximum output and check the I.F. sensitivity.
   NOTE: The top slugs on the first and second I.F. coils should be tuned to the INNER peak and all other slugs tuned to OUTER peak.
4. Remove the short circuits on the oscillator and R.F. gangs. Connect generator to antenna terminal on the ferrite rod via a 10 pf condensor from the 37 ohm termination on T.P.I.A. pad. Tune generator to 1650 Kc/s.
5. With gang fully open tune the oscillator trimmer for maximum output.
6. Set the generator and tuner to 1500 Kc/s and peak both antenna and R.F. trimmer's for maximum output.
7. Tune the generator and tuner to 600 Kc/s. Peak the R.F. coil for maximum output. (Note: OUTER peak.)
8. Rock the gang back and forth and tune oscillator coil for maximum output.
9. Repeat steps (4) to (8) till no further adjustments are necessary.
10. Check the R.F. sensitivity at 600 Kc/s, 1,000 Kc/s and 1,500 Kc/s.
11. Check the signal to noise ratio at 1,000 Kc/s.
12. Check spurious response rejection.
13. Check pointer on local station allocations.
14. Check tuning meter operation.

NOTE: Shielded enclosure required for S/N and R.F. sensitivity checks.