

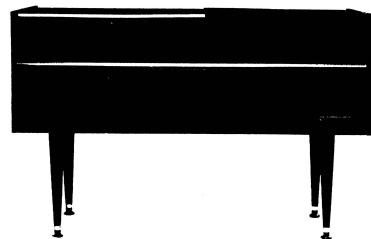


Electronics Division

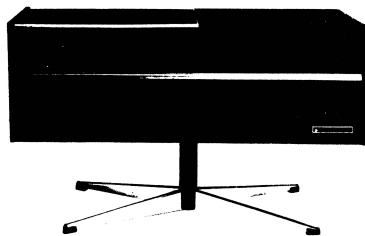
RS11T1C

Service Manual

INCORPORATING RS3 & RS3S
RADIO STEREOGRAM



RS3



RS3S

RS3 & RS3S

REMOVAL OF OR SERVICE TO CHASSIS

- Disconnect two speaker plug connections at rear of cabinet.
- Remove (5) "pull-off" type knobs from control panel.
- Remove (2) Philips head screws retaining escutcheon and remove same.
(Note that escutcheon is fitted into recess in front panel of cabinet therefore lift from back end and slide out.)
- Remove four hexagon head screws securing chassis to mounting brackets, placed front and back of cabinet.
- Chassis may now be lifted from well and placed on top of cabinet providing same is suitable protected.
- In this condition speakers may be re-connected and the unit tested in operating condition.
- For complete removal of chassis, disconnect leads to record changer and withdraw power cord.
- For increased accessibility, frame-carrying printed board may be pivoted through ninety degree arc after removing one hexagon head screw securing lower portion of frame to transformer mounting bracket.

RECORD CHANGER REMOVAL

- Remove cabinet back.
- Disconnect the motor power plug and socket also pickup input from socket on amplifier chassis.
- Release 2 clips beneath motor board securing record changer.
- Changer may now be lifted from cabinet.

RS3 & RS3S CABINET COMPONENTS

Part No.	Used	Description	Part No.	Used	Description
B92582	RS3	Cabinet Flat Walnut	M78214	C	Aerial Rod and Coil assy.
B92584	RS3	Cabinet Teak oiled	B85124	C	Hinge 2" x 1 1/4"
B92588	RS3S	Cabinet Walnut	B61018	C	Switch Oak Type
B92590	RS3S	Cabinet Teak	B50273	C	Control Knobs (5)
B65024	C	Tinted Lid	B49055	C	Insert Knob Tuning
B59076	RS3	Legs black	B49056	C	Plug Changer
B82020	RS3S	Stand Metal legs	B75015	C	Plug Changer
B85121	C	Trim lid	B75022	C	Socket Changer Pick Up.
B85122	C	Trim cabinet	B75024	C	Plug (changer 1, speaker 2)
B97067	C	Record changer BSR	B75024	C	Socket 4 Pin
B97066	C	Speakers (2 off)	B94207	C	Scale Dial glass
B50377	C	Control Panel "Oroglass"	B81004	C	Cord Dial drive
B85123	C	Trim Control Panel surround	B80029	C	Spring Dial drive
B94208	C	Nameplate G.E. Solid State Stereo	B31085	C	Drum Dial drive

C = Common to both models.

PRINTED BOARD LAYOUT — RS11T1C

AUDIO BOARD

LEFT
CHANNELRIGHT
CHANNELB TR4
C E BC109B TR5
C E BC109B TR6
C E BC178B TR7
C E BC178B TR8
C E AC187E TR10
C B AC188E TR9
C B AC187E TR11
C B AC188

Label B99240

RADIO BOARD

TR1
SE1001

OSC.

D1
OA90
UNDER BOARD

IFT1

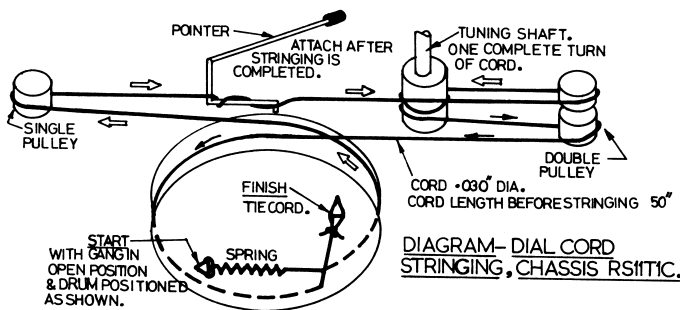
IFT2

B TR2
C E SE1001B TR3
C E SE1001

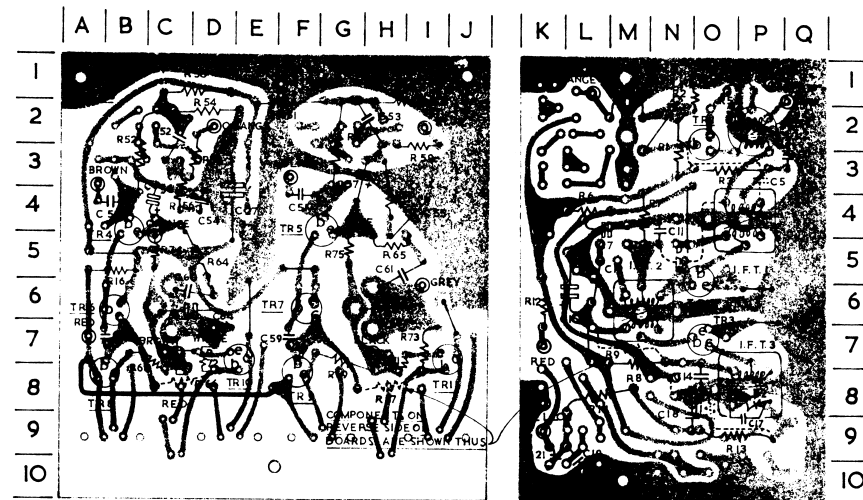
IFT3

D2
OA90

D2 IN CAN

DIAGRAM—DIAL CORD
STRINGING, CHASSIS RS11T1C.

RS3S



AUDIO PRINTED BOARD

Components Side

RADIO PRINTED BOARD

Components Side

RS11T1C CAPACITOR & LOCATION

Position	Location Board	No.	Part No.	Description	Position	Location Board	No.	Part No.	Description
3Q	Radio	C1	B18123	C/C -05mfd. +80% -20% 50V	P1	Radio	C9	B18007	C/C -01mfd. 20% 500V
		IFT2	C2	330 pf.		Tuner assy.	C10	B18121	C/C 1800pf. 10% 500V
		IFT2	C3	330 pf.	N4	Radio	C11	B18123	C/C -05mfd. +80% -20% 50V
		IFT2	C4	330 pf.					
P3	Radio	C5	B18024	C/C 3 pf ±25pf. 500V	L5	Radio	C12	B18123	C/C -05mfd. +80% -20% 50V
		IFT2	C6	330 pf.					
L5	Radio	C7	B16054	C/E 10mfd. 6V	LFT3		C13		330 pf.
M2	Radio	C8	B18007	C/C -01mfd. 20% 500V	O8	Radio	C14	B18123	C/C -05mfd. +80% -20% 50V

RS11T1C SPECIFICATIONS

240 Volt 50 Cycle A.C. - 33 Watts at maximum output (Sine Wave)

Power output, Total 5 Watts - $2\frac{1}{2}$ Watts per channel at less than 2% distortion.

TRANSISTOR COMPLEMENT

TR 1	SE 1001	TR 6	BC 178	D 1	OA 90
TR 2	SE 1001	TR 7	BC 178	D 2	OA 90
TR 3	SE 1001	TR 8	AC 187	D 3	EM 404
TR 4	BC 109	TR 9	AC 187	D 4	EM 404
TR 5	BC 109	TR10	AC 188		
		TR11	AC 188		

RS3 RADIO ALIGNMENT CHART

STEP	SIGNAL GENERATOR CONNECTION	SIGNAL GENERATOR SETTING	TUNING CAPACITOR (GANG)	ADJUSTMENTS
1.	To aerial terminal via 0.01 capacitor	455 Kc modulated 30% at 400 cps. level ad- justed to give approx. 100 mw. of audio out- put.	Closed	Adjust the tuning cores of IFT1, IFT2 & IFT3 for max. output. The top tuning cores of IFT1 & IFT2 are tuned to the inner peaks and all others to the outer peaks.
2.	---	----	Closed	Align the pointer to the low frequency limit mark at 520Kc. on the dial scale.
3.	To aerial terminal via dummy aerial or loosely couple with a length of wire near the aerial rod.	590Kc with modulat- ion and level adjusted as in Step 1.	Adjust the pointer to the alignment mark near 2FC.	Tune the oscillator and aerial coils for maximum output.
4.	Same as Step 3.	1500Kc with modula- tion and level adjusted as in Step 1.	Adjust the pointer to the alignment mark near 2NA.	Adjust the oscillator and aerial trimmer capacitors for maximum output.
5.	Repeat Steps 3 and 4 until no further improvement is obtained, then seal the trimmer capacitor and the aerial coil.			

APPLICATION OF A.C. POWER AFTER REPAIRS

After any repairs have been made to the driver-output stages a low input AC power test should be made to determine if a damaging defect still remains in the circuit.

This check should be made with no signal input in the 'Gram' mode, by monitoring the total current drawn from the power supply, whilst applying AC power to the amplifier through a Variac. A suitable DC current meter should be connected in series with the red lead from C26 which is normally connected to the power supply and starting with zero volts the Variac should be advanced slowly whilst observing the reading of the current meter. Excessive currents (500ma or more) may flow with only 20-40 volts AC input if a fault condition still exists. The normal 'no signal' current at the full supply voltage of 240 volts is of the order of 20-45ma.

D.C. VOLTAGE MEASUREMENTS

DC voltages should be measured with a 20,000 ohms per volt multimeter or for better accuracy a VTVM. Typical bias voltages are shown on the circuit diagram. All transistors can be tested in the circuit by DC voltage measurements with the circuit operated in a DC (no signal) condition. Generally, if the emitter voltage is correct, the stage is functioning properly.