



ELECTRONICS SECTION

*TRADE MARK OF GENERAL ELECTRIC CO., U.S.A.—WORLD'S LARGEST ELECTRICAL ENTERPRISE

RS17T3C

RS17T4C

RS17T5C

CHASSIS SERVICE MANUAL

CHASSIS DESIGNATION

RS17T3C: Basic 17 Transistor Radio Stereogram Chassis

RS17T4C: As above with provision for 7½ V DC Tape deck

RS17T5C: As above with provision for 117 V AC Tape deck

These chassis comprise two printed boards, covering the RF and stereo audio stages, mounted on a base plate incorporating the controls, switches, power supply and permeability tuner. The chassis, with dial scale attached, mount directly to die cast escutcheons and form complete modules ready for mounting in cabinets.

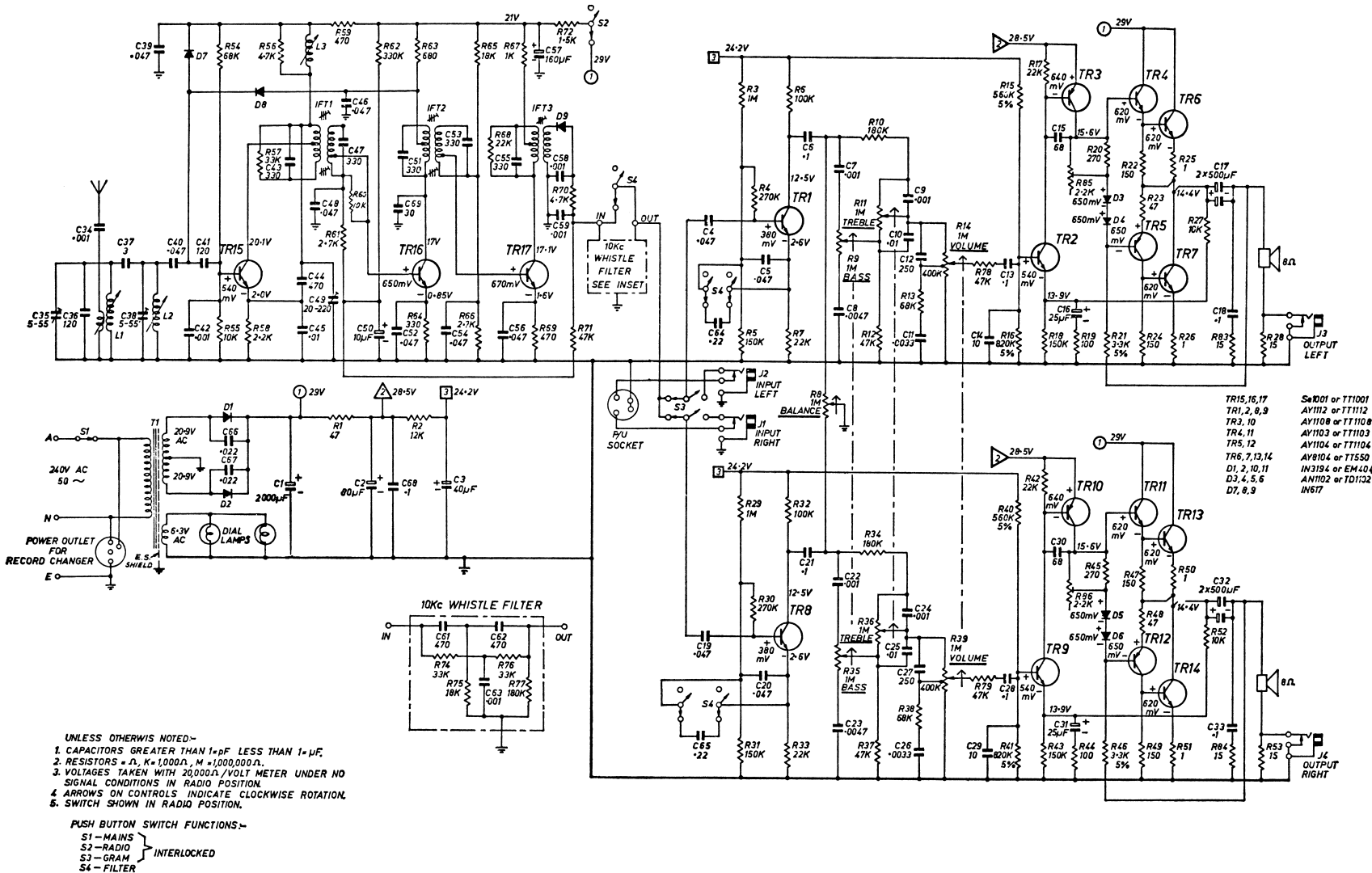
The circuit provides treble and bass boost and cut, a 10 kHz whistle filter and jacks for left and right hand channel input and output.

SPECIFICATION

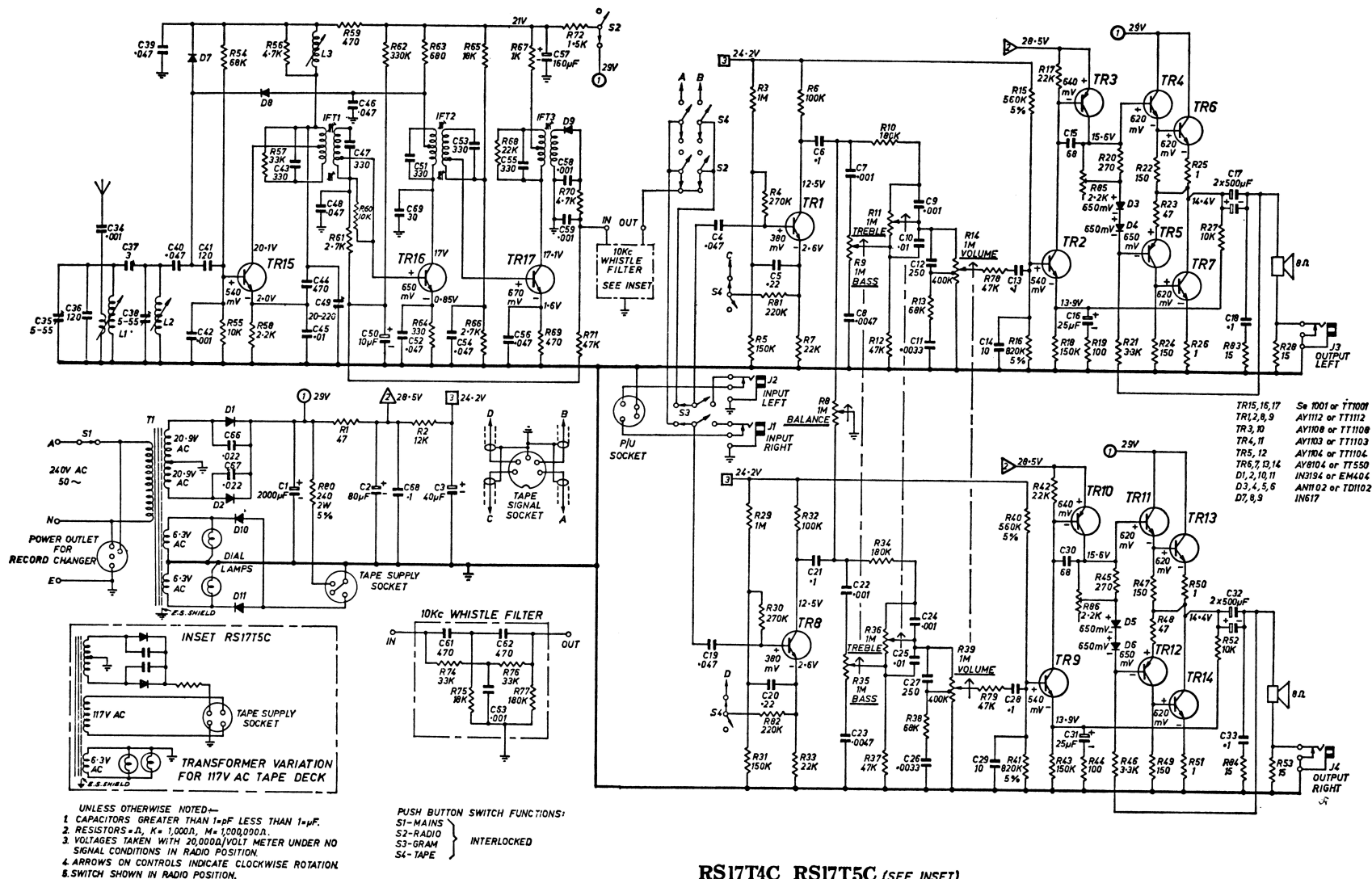
Tuning Range	520-1620 kHz	Power Output per Channel	5 watts R.M.S.
IF Frequency	455 kHz	Power Consumption	35 watts maximum
Load Impedance	8 ohms at 400 Hz		

SEMI-CONDUCTOR COMPLEMENT

TR1, TR8	AY1112 or TT1112	Audio Preamplifier
TR2, TR9	AY1112 or TT1112	Audio Amplifier
TR3, TR10	AY1108 or TT1108	Audio Amplifier
TR4, TR11	AY1103 or TT1103	Complementary Driver
TR5, TR12	AY1104 or TT1104	Complementary Driver
TR6-7, TR13-14	AY 8104 or TT550	Quasi-Complementary
		Power Output
TR1	SE1001 or TT1001	Converter
TR2-3	SE1001 or TT1001	IF Amplifiers
D1-2	IN3194 or EM404	H.T. Rectifiers
D3-6	AN1102 or TD1102 or TD24A	Temp. Compensating Diodes
D7-8	IN617 or OA90	Overload Diodes
D9	IN617 or OA90	Detector and A.G.C.
D10-11	IN3194 or EM404	12 Volt Rectifiers (T4C)



RS17T3C RADIO-STEREOGRAM CIRCUIT



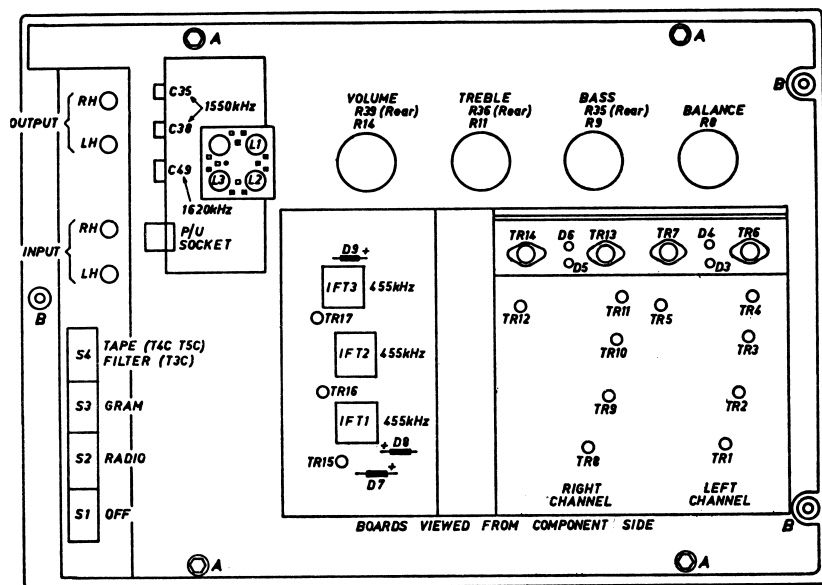


FIG. 2

ALIGNMENT

General:

Keep generator output low to prevent A.G.C. action. That is, with receiver volume set to maximum, adjust generator output on 30% modulation to produce receiver output of 100 mW.

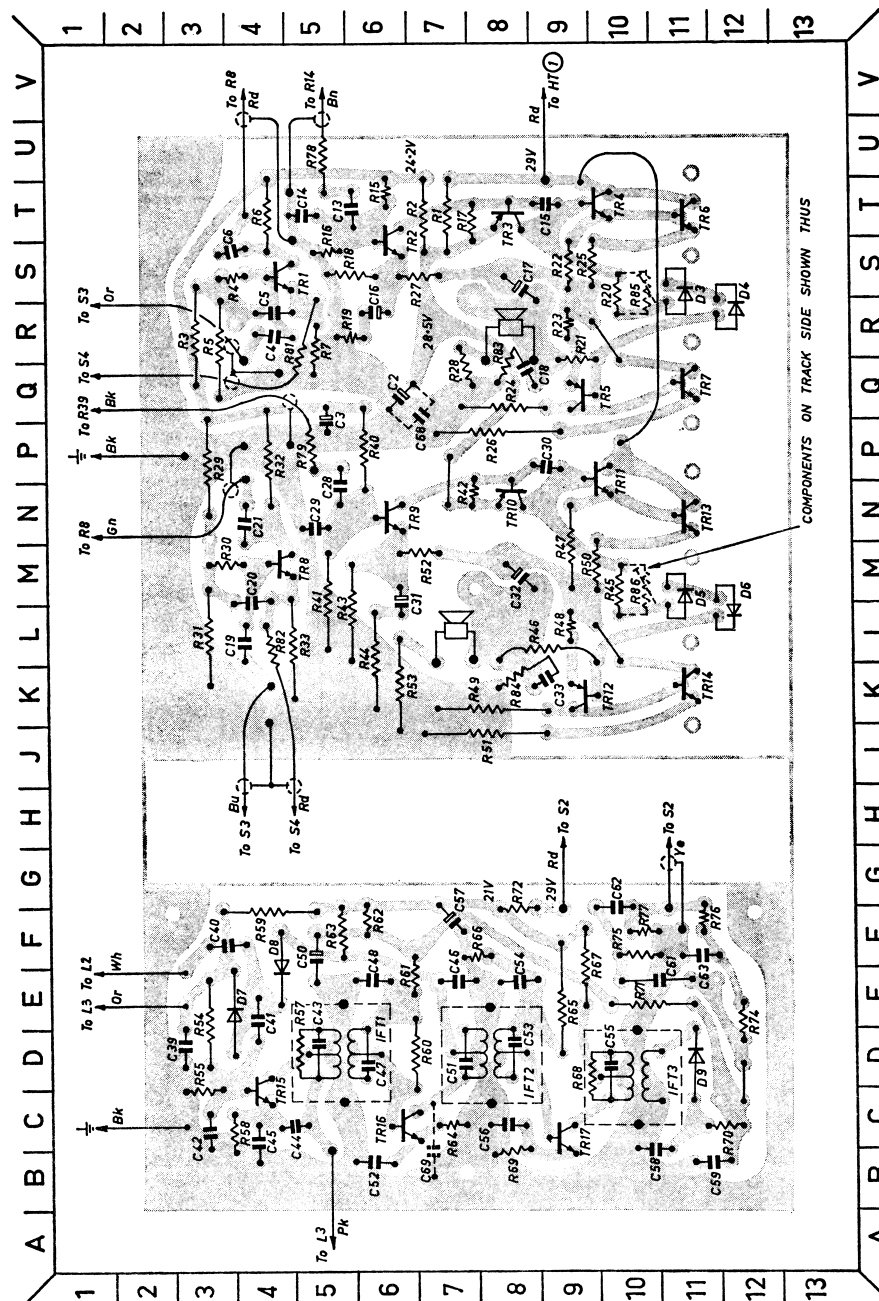
All adjustments peaked for maximum output.

Procedure:

STEP	CONNECT GENERATOR TO	SET GENERATOR TO	TUNE RECEIVER TO	ADJUSTMENT
1	C38 via a 0.01μF	455 kHz	Lowest frequency (tuner fully in)	Peak IF transformer. Tune top cores of IF T1 and IF T2 to inner peaks and all others to the outer peaks
Repeat until maximum output is obtained				
2	Aerial terminal via 100pF	1,620 kHz (accurate)	Highest frequency (tuner fully out)	Peak oscillator trimmer (C49)
3	Aerial terminal via 100pF	1,550 kHz	1,550 kHz	Peak aerial trimmers (C35, C38)
4	Repeat 2 and 3 until no further improvement is obtained, then seal trimmer capacitors.			
5	Adjust pointer for best tracking on local stations.			

IDLING CURRENT ADJUSTMENT:

With 240 volts mains supply and both BIAS controls R85 and R86 set fully anticlockwise, the total current drain of the amplifier should be approximately 10 mA. Correct bias is set when each control is adjusted to increase the current drain by 10 to 15 mA.



ESCUTCHEON REMOVAL.

Remove five rotary control knobs.

Remove four hexagon head screws (A, fig. 2) securing chassis to escutcheon.

Carefully lift escutcheon and glass panel from chassis.

Note: Panel is lightly attached to escutcheon by adhesive tape. If glass is not moved then registration will be maintained.

Reassembly is reverse of above, taking care glass surfaces are clean.

DIAL SCALE REMOVAL.

Remove escutcheon as above.

Dial scale is held by two clamp plates. Remove one and slacken off the other.

Gently slide dial glass out.

Reassembly is reverse of above.

POTENTIOMETER REMOVAL.

Remove escutcheon as above.

Remove control backing plate secured by two screws and spacers.

Straighten potentiometer mounting lugs to remove appropriate control.

Reassembly is reverse of above.

PERMEABILITY TUNER REMOVAL.

Remove escutcheon as above.

Remove dial cord.

Disconnect electrical connections to tuner.

Remove two screws, nuts, lockwashers and spacers mounting tuner bracket assembly to chassis.

Remove brass pulley and flywheel from tuner spindle.

Remove two screws securing tuner to mounting bracket and remove tuner.

Reassembly. (Refer fig. 1.)

Fit flywheel loosely on tuner shaft.

Fit tuner drive pulley onto shaft and align small hole in pulley with corresponding hole in tuner shaft. Tighten grub screw with $\frac{3}{32}$ " allen key.

Slide flywheel down to the pulley and tighten its grub screw.

Remaining assembly is reverse of dismantling order.

DIAL CORD REPLACEMENT. (Refer fig. 1.)

Use length of cord no less than five feet long.

Tie one end to spring and anchor this spring via $\frac{3}{8}$ " wire hook to control backing plate mounting screw.

Turn tuning control fully anti-clockwise to make sure the tuner core carriage is fully in.

Keep tension on cord and follow route as indicated.

Winding around tuner pulley will be facilitated by using a paper clip and tweezers as shown in the diagram.

Feed cord behind pulley, use tweezers to grab cord and use straightened out wire clip to retain tension as cord loop is taken in.

With cord route fully traced out, remove spring anchor and tie cord to spring (extended to at least one inch for correct tension).

Check movement, fit and adjust pointer. Note: Dial scale has small dashes on it to indicate extremes of pointer travel.

Note: In some chassis a fourth pulley is added to reduce side pressure on the tuner spindle.

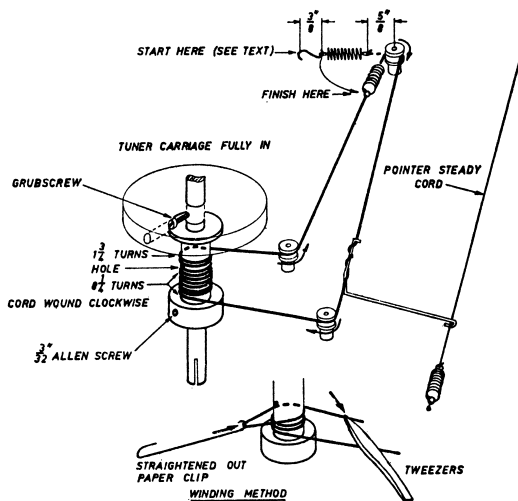


FIG. 1

TUNER ALIGNMENT.

Adjustment of the tuner cores should not be made unless a coil has been replaced or it is suspected that the alignment has been interfered with, in which case carefully follow the procedure below:

1. Adjust the tuner to the H.F. end stop and back all cores out of the coils as far as possible.
2. Tune the signal generator accurately to 1,620 kHz and adjust the oscillator and aerial trimmers for maximum output.
3. Tune the signal generator accurately to 600 kHz and the core carriage to a point 0.680" from the H.F. end stop. Adjust the oscillator and aerial cores for maximum output.
4. Tune the signal generator to 1,620 kHz and tuner to the H.F. end stop and readjust the oscillator trimmer for maximum output.
5. Tune the signal generator and tuner to 1,550 kHz and adjust the aerial trimmers for maximum output.
6. Repeat steps 3, 4 and 5 until no further improvement is obtained.
7. Seal the tuning core studs.