

1250

'ERT' SERVICE CHART

REGENTONE RT51

THREE VALVE lightweight tape recorder in two-tone leatherette case, released February, 1959, at 49gns.

Mains. 200-225V and 226-250V, AC 50c/s.

Consumption. Approximately 90W on record or playback.

Valves. ECC83, ECL82, EZ80. Plus two CC11L neon level indicators.

Deck. Motek.

Weight. 24lb.

Dimensions. 17 x 14 x 7½ in.

Output. 3W.

Speaker. 7 x 4in. elliptical, 3ohm.

Microphone. Acos type 40.

Tape speeds. 1½, 3½, 7½ ips.

Maximum spool size. 7in.

Manufacturer. Regentone Radio and Television, Ltd.

Service Department. Combined Radio and TV Service Ltd., Bridge Close, Oldchurch Road, Romford, Essex.

DISMANTLING

Recorder is in three main parts; Tape deck with all its mechanical parts, carrying level indicators and power pack; Printed circuit panel carrying valves and components; Control panel carrying electrical controls, input selector buttons, input sockets and associated components.

Deck removal. Remove all plugs from side control panel and four screws holding template and deck to cabinet. Lift deck from cabinet, but avoid lifting by means of template which can easily be damaged. Unscrew wing nuts fixing control panel to cabinet and disconnect speaker; pull mains lead through cabinet and lift complete deck and panel clear.

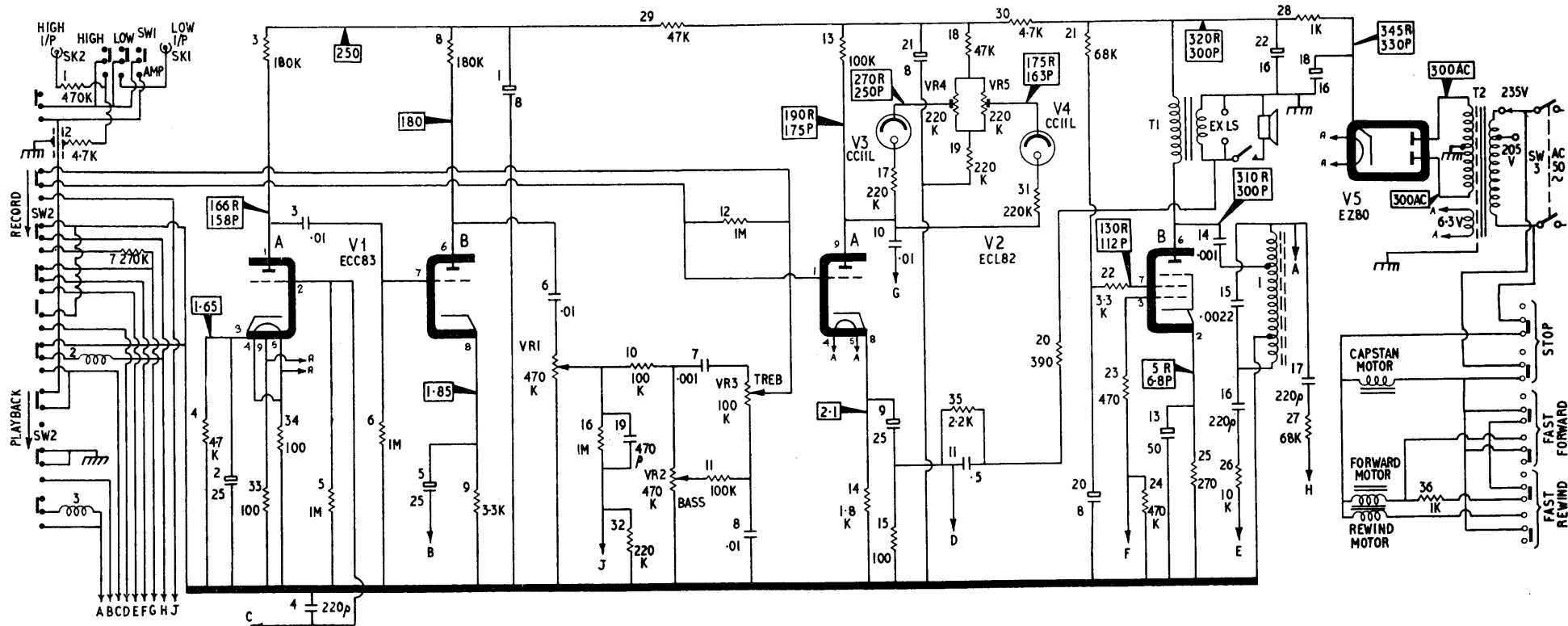
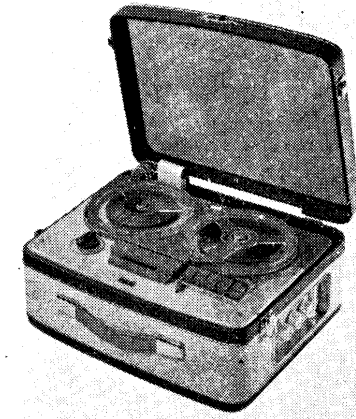
Printed circuit removal. Unscrew two 4BA nuts holding rubber mounted brackets on PC board to motors. Unsolder the six leads and lift board up and towards front of deck for access to components.

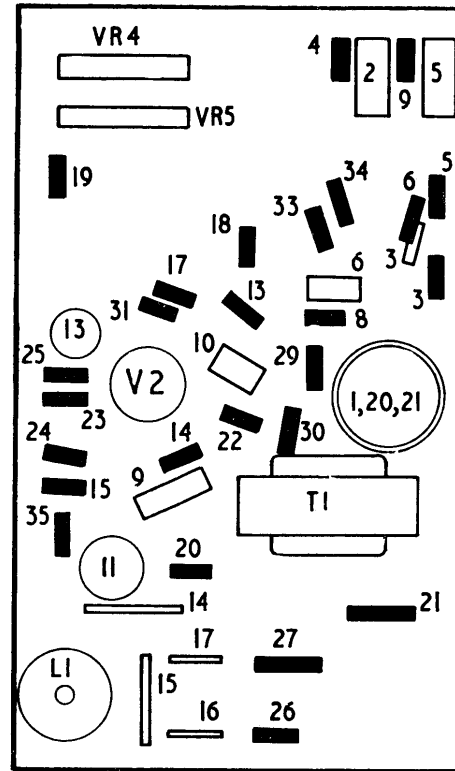
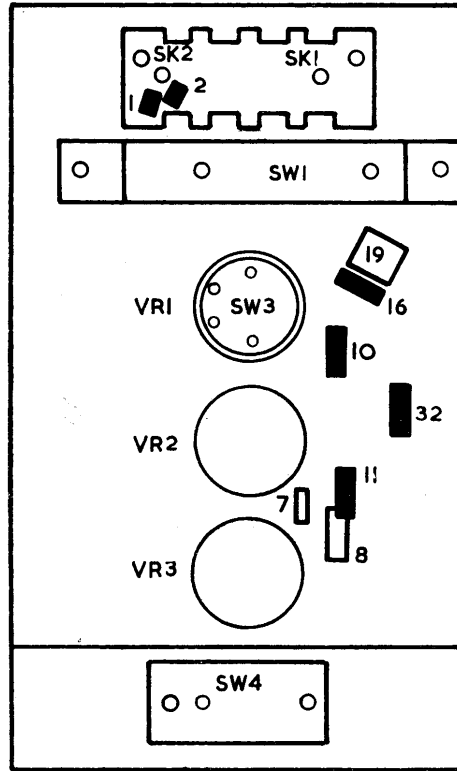
SERVICE NOTES

Controls. These are in three parts:

1. Main deck push-buttons interlocked with circuit and providing Stop, Record, Playback, Fast forward and Fast rewind.
2. Input selector push button on control panel, providing for low and high level inputs and for use as straight-through amplifier.
3. Volume (VR1) ganged with on/off switch, Bass (VR2), Treble (VR3) and speaker isolating switch for use when external speaker is fed.

Continued overleaf





Straight through amplifier. For use in this manner, amplifier button is pressed together with appropriate input button. With volume, bass and treble controls set to maximum the sensitivity at 1kc/s should be 1.8mV for 2.1W output (2.5V in 3ohms).

Bias level. Frequency of bias signal should be 53kc/s \pm 3kc/s. Amplitude is measured as follows: Connect 100ohm resistor in series with red lead on record/playback head; using a valve voltmeter, check that voltage across this is between 100 and 130mV.

Inputs and outputs. Socket 1 is for microphone or diode input and socket 2 for gramophone pickup or speaker terminals of radio. External speaker socket feeds 3ohm speaker when internal unit is switched off. Both input selector buttons may be pressed together for mixing two input signals.

Sensitivity and level indicator. Input level for full output at 1kc/s is 3mV at Socket 1. Neon level indicators are preset by VR4 and VR5 to indicate overload and correct recording levels respectively, and should not normally be altered.

If readjustment proves necessary, proceed as follows: Disconnect R27 from L2 and insert a 100ohm resistor in series with red lead on record/playback head. Connect a valve voltmeter across this resistor and turn volume to maximum.

Feed a 1kc/s signal to Socket 1 and adjust input to give 5mV on meter; adjust VR5 until left-hand neon (V4) just glows. Increase level to 10mV and set VR4 until right-hand neon (V3) just glows.

COMPONENT RATINGS

Capacitors
 350V: C1 3 6 8 10 20 21
 150V: C11
 Electrolytic 450V: C18
 22
 Electrolytic 25V: C13
 Electrolytic 12V: C2 5 9
 All others 750V wkg.

Resistors
 10W: R36
 1W: R28
 $\frac{1}{2}$ W: R21 27
 All others $\frac{1}{4}$ W.

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The self healing characteristic is retained in this range and provides an additional safety factor; end connections are extremely robust. Temperature range: -10°C to $+85^{\circ}\text{C}$.



... TYPE W 48



TYPE W 48 STANDARD RANGE			
Capacitance Tolerance $\pm 20\%$			
List No.	Capacitance μF .	Dimensions L. D.	List Price s. d.
150 VOLTS D.C. WORKING			
A300	0.1	7/8" x 1/4"	1 6
A301	0.25	7/8" x 1/4"	2 0
A302	0.5	7/8" x 1/4"	2 6
A303	1	7/8" x 1/4"	3 3
A304	2	7/8" x 1/4"	5 0
250 VOLTS D.C. WORKING			
A305	0.05	7/8" x 1/4"	1 6
A306	0.1	7/8" x 1/4"	1 6
A307	0.25	7/8" x 1/4"	2 3
A308	0.5	7/8" x 1/4"	2 9
A309	1	7/8" x 1/4"	3 9
A310	2	7/8" x 1/4"	6 0
350 VOLTS D.C. WORKING			
A311	0.05	7/8" x 1/4"	1 6
A312	0.1	7/8" x 1/4"	1 9
A313	0.25	7/8" x 1/4"	2 6
A314	0.5	7/8" x 1/4"	3 3
A315	1	7/8" x 1/4"	4 6

Note: A wide range of lower capacitances down to 50pF and up to 600V. D.C. Working is available in the famous Type W 99 Midget Moldseal Metallised Paper

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