

R14 is a twin-track and **R15** a four-track recorder operating at a tape speed of 3 $\frac{3}{4}$ ips. Mixing facilities are provided for one high-level and one low-level input when recording. On playback the signal from the tape can be mixed with one injected at the radio socket.

- Mains.** 200-240V AC 50c/s only.
- Consumption.** 40W.
- Tape speed.** 3 $\frac{3}{4}$ ips.
- Frequency response.** 60-10,000c/s.
- Output.** 3W.
- Spool capacity.** 5 $\frac{1}{2}$ ins.
- Inputs.** Low-level high-impedance microphone input. High-level input from radio or crystal pickup.
- Outlets.** Jack socket for low impedance speaker. Jack plug automatically cuts out internal speaker.
- Valves.** ECC83, ECL86, DM70, EZ80.
- Semi-conductors.** OA81.

Playing time. LP tape one hour each track.
Tape deck. BSR twin- or four-track.
Microphone. Hand or desk crystal (supplied).
Manufacturer. Alba (Radio and Television).
Service department. 52/58, Tabernacle Street, London, EC2. Tel.: Clerkenwell 1322.

DISMANTLING

Removing deck. Open lid and unscrew two cross-point PK screws securing the deck and two 6BA cross-point screws holding the escutcheon to the cabinet. Remove escutcheon and gently raise the deck on its rear edge. Withdraw the record/playback and erase head connecting sockets from their respective plugs on the printed board. Withdraw plug PL6 from socket SK6 on power unit and lift deck out.

Removing amplifier. Unscrew and remove cross-point screw securing cable cleat to cabinet. Withdraw plug PK1 from socket SK1 on the power unit. Unsolder and disconnect

the mains lead from the on/off switch. Unscrew and remove the 4BA nut and cross-point screw securing either end of the printed board to the cabinet. Move the printed board backwards and upwards to clear the loudspeaker and lift clear of the cabinet.

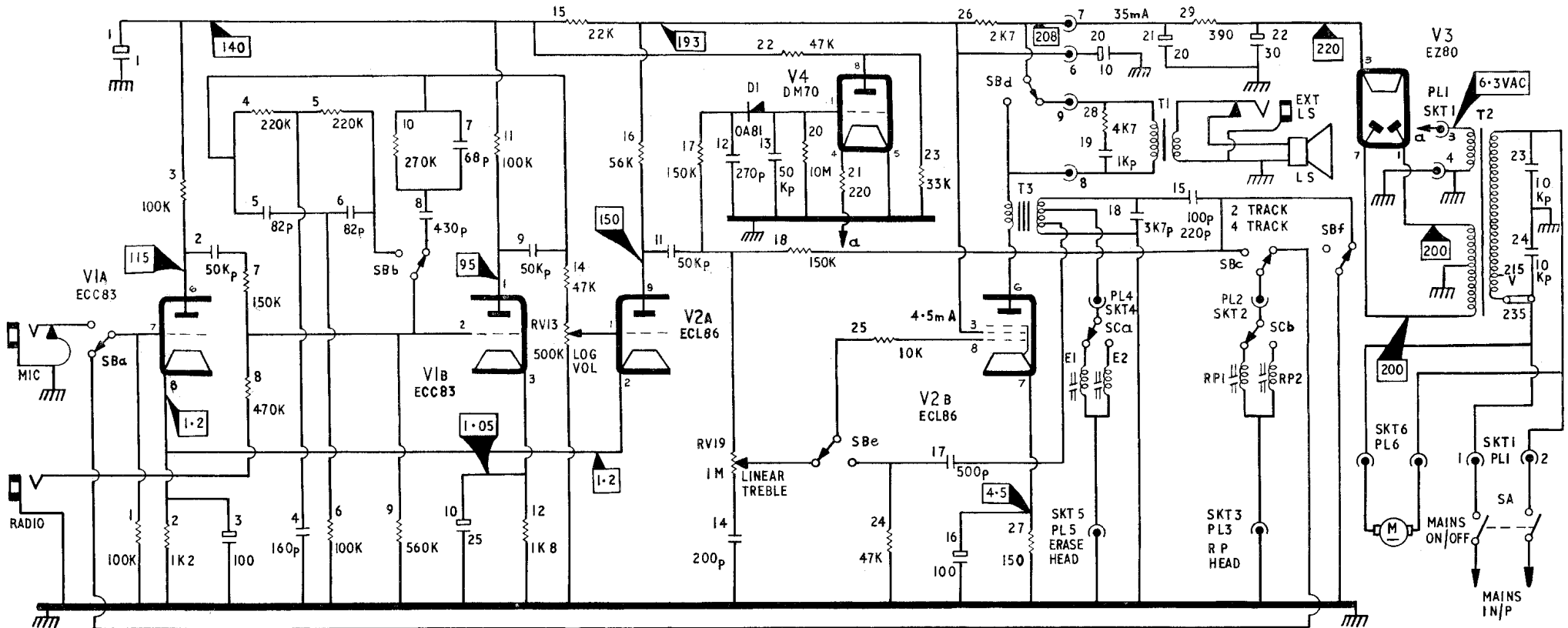
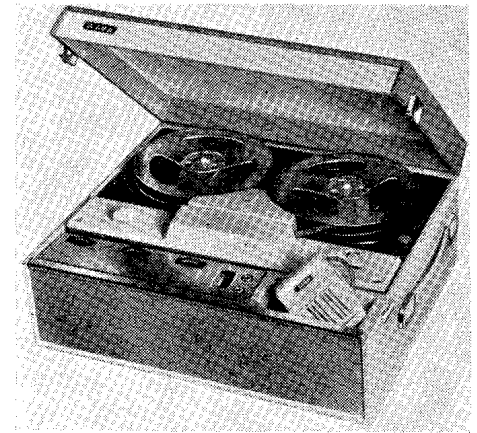
Removing power unit. Unsolder connections to speaker. Unscrew and remove the four nuts securing power unit to cabinet and lift out.

REASSEMBLING

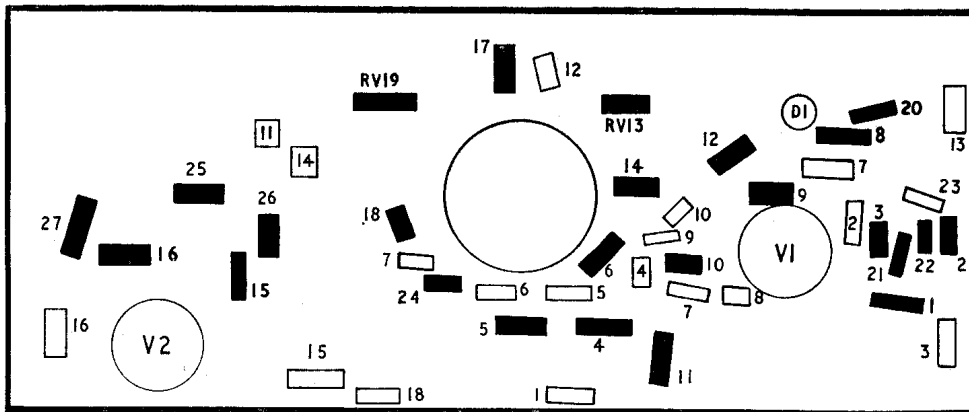
Reassemble by reversing the above procedure. When refitting the deck care must be taken to locate the spring clip on the deck record/playback switch over the extension arm of the slider switch on the amplifier. To keep hum pickup to a minimum the leads from the record and erase heads should be dressed as far as possible away from the motor.

SERVICE NOTES

Azimuth adjustment. This adjustment of the record/playback head must only be carried out



A Variety of Variables



using a high frequency note pre-recorded on a machine having the head in perfect alignment. Use of a commercial test-tape is recommended.

Slacken the screw with the spring washer under the head but still retain some tension. Adjust other screw to a position giving maximum output. Lock the head in this position by tightening the first screw.

Deck maintenance. Heads and tape guides should be periodically cleaned using a soft cloth. Do not allow a screwdriver or other metallic object to come into contact with the heads or they may be damaged. Do not use petrol for cleaning heads or rubber rollers. Do not use carbon tetrachloride or trichlorethylene for cleaning any of the plastic parts.

Faces of the heads may be cleaned with a soft cloth slightly moistened with methylated spirit to remove oxide film.

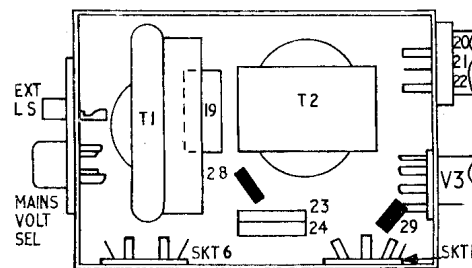
After prolonged use the following parts may need lubricating with a light oil. Apply oil sparingly to top bearing of the capstan, afterwards cleaning spindle against which pressure roller runs. Oil jockey-pulley bearing and pressure-roller bearing ensuring that oil does not get onto the rubber rims. Apply oil to motor bearings, in particular the top bearing must be adequately lubricated. Keep oil off drive pulleys.

Erase and bias voltages. On twin-track machine erase head voltage is 30V and record head bias 70V. Four-track erase head voltage is 17V and record head bias 36V.

Pause control. Tape deck switches are interlocked to prevent accidental erasure. It is possible to make a pause while recording by pulling motor button slightly backwards in the gate to release pressure between capstan and the rubber roller.

FAULT-FINDING GUIDE

Take-up spool not rotating. Check that driving belt from capstan to friction spool assembly is not broken or out of its groove.

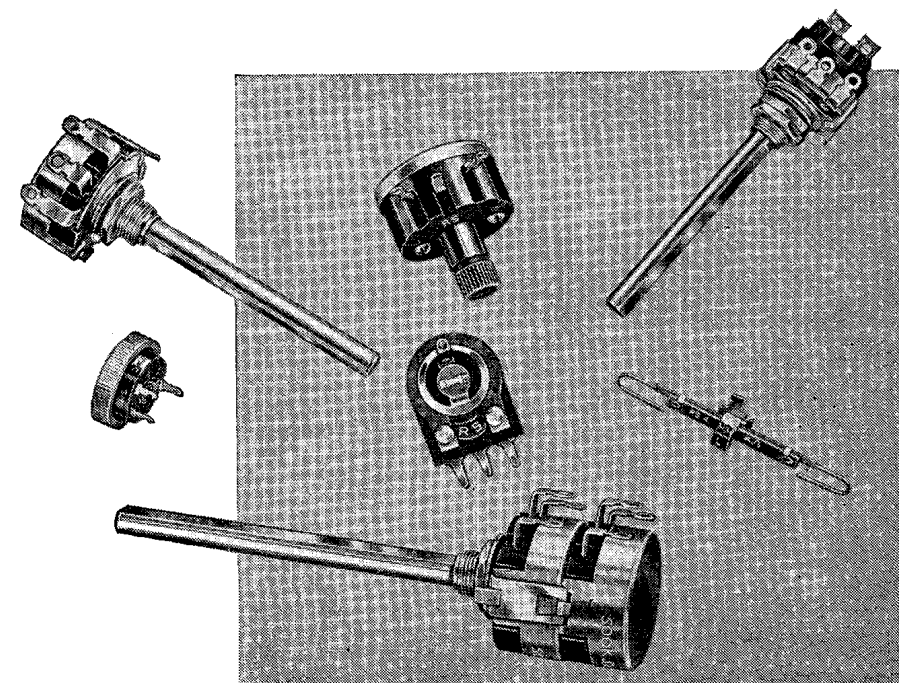


No fast forward or rewind. If tape does not move, or is very slow, check condition of support arm spring. If strained or detached fit new spring. Examine spool support casting to ensure it is free-running on spindle. If tight, remove, clean and assemble with light grease. Check for slip between motor pulley and spool carrier. If necessary clean motor pulley, jockey pulley and rim of spool carrier.

Tape spilling. Examine operation of the brakes. Check that brake arm spring is not detached or strained. Examine arms to ensure they move freely under action of the spring and that they are not bent or distorted. Clean brake pad and rim of spool carrier and ensure they are free from oil or grease.

Tape not moving on record. See that pressure roller is free to move in its slot and that the springs are pushing it forward to engage tape firmly against capstan. Check that tape is free to run in guides, accumulation of dust or faulty splicing may cause jamming. Ensure that capstan and pressure roller are clean and free from oil or grease.

Variation of volume. Examine face of playback head and if necessary clean off accumulation of dust with soft cloth moistened with methylated spirit. Check that pressure pad is holding tape firmly against face of head, pressure should be 15-20gms.



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