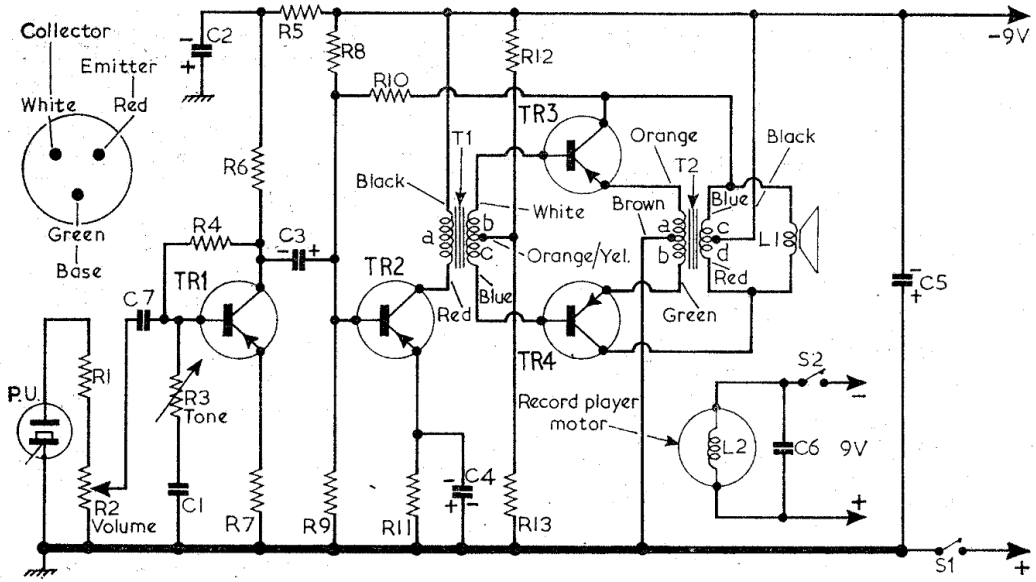
K.-B. Models TRP11, TRP21 and TRP31

"Playtime," "Gaytime" and "Dancetime" Respectively



Circuit diagram for all three models, TRP11, TRP21 and TRP31. All resistors with the exception of **R5** *and* **R6** *have* ±10 *per cent tolerance, and replacements should be of the same type.* **R5** *and* **R6** *are rated at* ±20 *per cent.* **TR3** *and* **TR4** *are a matched pair. In our sample TRP21 receiver* **R1** *was shunted by a* 2·2MΩ *resistor.*

TRP11, TRP21, TRP31

All models employ identical chassis and similar player units. TRP11 is designed to play 7, 10 and 12in records with the lid completely removed from its hinges. TRP21 is designed to play 7 and 10in records with the lid closed and will play 12in records with lid open. TRP31 will play 7, 10 and 12in records with the lid closed. The loudspeaker is upward facing in the TRP11 and forward facing in the TRP21 and TRP31.

BATTERIES

Two 9V batteries are required, one each for the record player motor and amplifier. Alternative types are Ever-Ready PP9, Drydex DT9 and Vidor T6009. The nominal life of the motor battery is given as 35 hours at 45 r.p.m. and that of the amplifier as 250 hours.

CIRCUIT NOTES

The amplifier comprises a pre-amplifier, driver and push-pull output stage. Pick-up signals are applied via **R1** and the volume control **R2** to the base of **TR1.** The tone control **R3** in conjunction with **C1** is connected across **TR1** input.

Output from **TR1** is developed across its collector resistor **R6** and coupled via **C3** to the base of driver transistor **TR2.** Transformer **T1** in **TR2** collector circuit has a centre tapped secondary winding which applies the signal to the output transistors **TR3** and **TR4** in anti-phase. **T2** couples the output to the high impedance speech coil **L1.** **S1** and **S2,** which switch separate 9V battery supplies to the amplifier and record player motor respectively, are operated simultaneously and form a two-pole on/off switch unit.

The "Gaytime" model TRP21 with its lid raised in the playing position.

Resistors		Capacitors	
R1	1·8MΩ	C1	0·005μF
R2	500kΩ	C2	160μF
R3	250kΩ	C3	10μF
R4	820kΩ	C4	100μF
R5	220Ω	C5	160μF
R6	2·2kΩ	C6	0·01μF
R7	330Ω	C7	0·01μF
R8	47kΩ		
R9	4·7kΩ		
R10	150kΩ		
R11	330Ω		
R12	5·6kΩ		
R13	120Ω		

Transistor Analysis

Voltages given in the transistor table below are those quoted in the manufacturers' service manual. They are all negative readings, and they should be measured with a high resistance voltmeter whose positive lead is connected to the positive battery line, using the lowest range consistent with the anticipated reading.

Transistor	Emitter (V)	Base (V)	Collector (V)
TR1 GET 113	—	—	8·8
TR2 GET 113	1·0	1·0	8·5
TR3* GET 113	0·01	0·17	9·0
TR4* GET 113	0·01	0·17	9·0

**Matched pair.*
All voltages are negative with respect to chassis.