

MODEL "GEORGIA"

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TECHNICAL INFORMATION COVERING PACEMAKER "TRANSISTOGRAM" TM

Manufactured by COLLIER & BEALE Ltd. WELLINGTON.

TYPE SET—Portable Battery-Operated Transistor Gramophone.

TRANSISTORS—(four) OC71-Pre amp, OC71 Driver and 2-OC72 Output.

POWER SUPPLY—6 volt Lantern Battery, ER509, or GEC 6120.

BATTERY DRAIN—Amplifier 14mA approx., (no Signal); Turntable Motor 60-70 mA.

CAPACITORS			MISCELLANEOUS				RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res; Pri	Res; Sec	Purpose	Ref. No.	Res.	Watts
C1	50 μ fd.	12.5	TR4056T/	308 ohm	62 ohm	DRIVER	R1	500K ohm	Pot
C2	50 "	"	T1		Total	TRANSFORMER	R2	500F "	$\frac{1}{2}$
C3	32 "	3			(base to		R3	250K "	"
C4	16 "	12.5			base)		R4	100K "	"
C5	0.1 "	100	TR4056T/	14.6 "	0.3 ohm	OUTPUT	R5	50K "	"
C6	0.03 "	150	T2	Collector		TRANSFORMER	R6-7	20K "	"
C7	0.005 "	Mica			to Collector		R8	10K "	"
			TZ1		OC 71 1st A.F. Amplifier		R9	3.1-3.25K "	"
			TZ2		OC 71 2nd A.F. and Driver Amplifier		R10-11	2K ohm	"
			TZ3 A		2-OC 72 Output Transistors		R12	1K "	"
			and B		(Selected Pair)		R13	100-110 "	"
			MO1		Garrard BA-1 45 RPM 5V. Motor		R14	20 "	Pot W.W.
			XTL Pick-		(C & B MO 3132-4)		R15-16	3.3 "	$\frac{1}{2}$
			up SW1		6 x 4" PM Celestion Speaker				
			SP1		K46Q 3 ohm V.C.				
			Battery		6 volt Lantern Battery				
					ER509, GEC 6120				

GENERAL: The "Transistogram" utilises an amplifier comprising four transistors, all of the P-N-P alloy junction type made in Europe. A voltage amplifier (TZ1) is fed from the crystal pickup through the volume control (R1). The series resistor (R2) matches the low impedance base of the OC 71 to the pickup. Bass-boosting is achieved by R5 and C7 in a feedback loop.

The second OC 71 (TZ2) is the driver amplifier, transformer coupled to the pair of OC 72 transistors running in Class B. The speaker is fed with up to 300 milliwatts of audio power. Resistors R15 and R16 regulate the current which could otherwise be excessive at high temperatures.

1000/4/57
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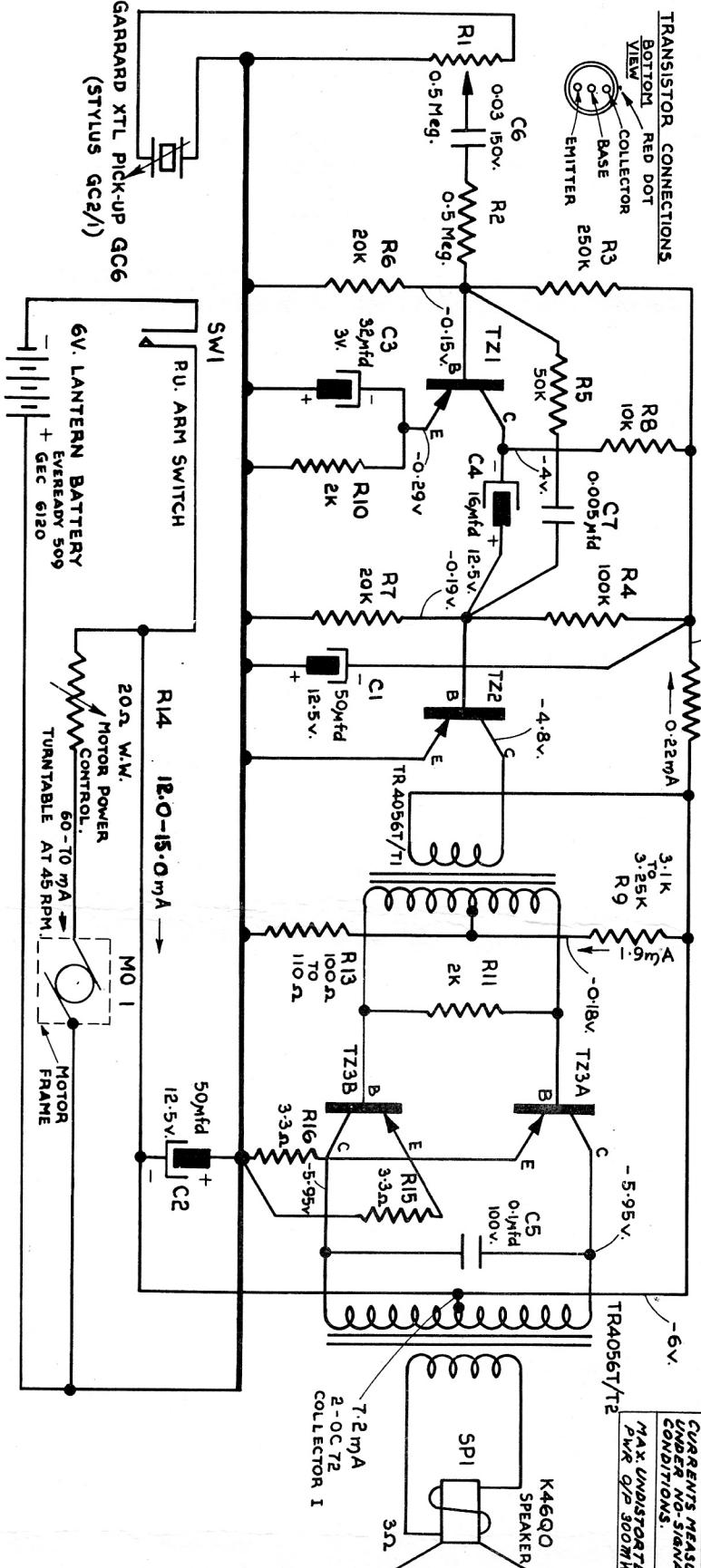
OC71

-5.7V. B12 1K OC71

2-OC72

TRANSISTOR CONNECTIONS

**CURRENTS MEASURED
UNDER NO-SIGNAL
CONDITIONS.**



SCHEMATIC DIAGRAM PACEMAKER MODEL GEORGIA

Readings were taken at a temperature of 78°F, and voltages with a 20000 ohms/volt meter. The motor current given is with a fresh battery and the speed rheostat fully retarded.

Do not disconnect any circuit components while the battery is attached.

MOTOR ADJUSTMENT: With a new battery, and rheostat in circuit, 45RPM should be achieved with the governor pads just touching their

friction plate. Advancing the rheostat should not produce a gross increase in speed. If the speed is over 45RPM, move the governor pads nearer to the friction plate. (Slacken the set-screw in the boss and advance the governor on its thread. Retighten the set-screw.)

Should the speed be below 45RPM with proper conditions, examine the motor for dirt on the commutator or friction in the bearing.