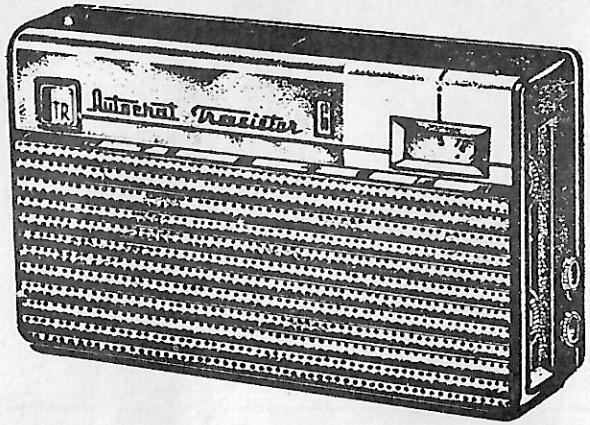
Autocrat MODEL 6C-15

• ALL TRANSISTOR PORTABLE



MODEL 6C-15
TRANSISTOR PORTABLE

SPECIFICATION.

TYPE:

6 transistor, 1 diode

FREQUENCY COVERAGE.

540-1600 Kc/s

INTERMEDIATE FREQUENCY.

455 Kc/s

OUTPUT.

90 MW

SPEAKER.

2½" P.M. 7 ohm

TRANSISTORS.

2SA180	Mixer
2SA181	1st I.F. AMP
2SA184	2nd I.F. AMP
2SA185	1st A.F. AMP
2SA187	P.P. Output.

DIODE.

1N60 Detector

VARISTOR.

SV-20 Thermal compensator

BATTERIES.

1 - 9 volt No. 216

ALIGNMENT PROCEDURE.

GENERAL. Allow the test equipment to warm up for fifteen minutes before starting the alignment procedure.

OUTPUT METER. Connect the output meter (a 1000-ohm-per-volt, a-c volt meter or an oscilloscope) across the voice coil terminals.

SIGNAL GENERATOR. Use an AM r-f signal generator, Connect the ground lead to gang GND point, and connect the output as indicated in the alignment chart.

OUTPUT LEVEL. Attenuate the signal-generator output throughout the alignment so as to maintain the output level below 0.5 volt.

CONTROLS. Set the volume control to maximum. Set the tuning control as indicated in the alignment chart. During alignment of the radio, the battery should be in the same position with respect to the chassis and the loop antenna as they normally are in the cabinet.

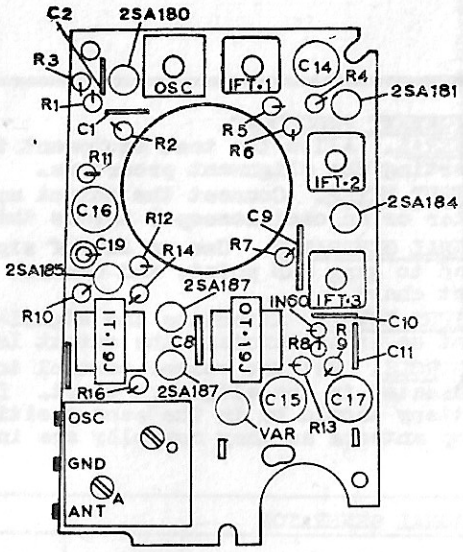
STEP	SIGNAL GENERATOR		RADIO		
	CONNECTION TO RADIO	FREQ.	SETTING	SPECIAL INSTRUCTIONS	ADJ.
1.	Connect signal generator through a .1 ufd condenser to ant. section of gang	455 Kc.	Tuning gang fully open	Adjust for maximum output in order given	IFT2 IFT1 IFT3
2.	Use radiating loop	600 Kc.	600 Kc.	Adjust for maximum output Rock tuning gang while making this adjustment, and slide aerial coil on rod	L 4 - osc. core
3.	Same as step 2	1400 Kc.	1400 Kc.	Adjust for maximum output	Osc. Trimmer
4.	Same as step 2	1400 Kc.	1400 Kc.	Adjust for maximum output	Ant. Trimmer
5.	Repeat steps 2, 3 and 4 until no further improvement is obtained. Always stop on step 5.				
NOTE 1.	Use a 6- to 8 turn, 6 inch - diameter loop made up of insulated wire. Connect to generator terminals, and place about one foot from radio loop.				

SERVICE GUIDE - BRIEF FAULT CHECKING PROCEDURE. (ADDITIONS TO SERVICE MANUAL 6C-11 ISSUE 1)

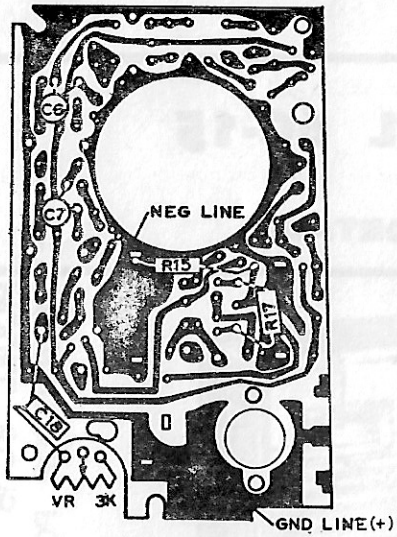
1. 4.b. Due to trapped or pinched lead after replacing set in cabinet during servicing - causes short circuit.
2. 1.f. Short circuit between I.F. winding and case.

NOTE: Use voltage tabulation overleaf for initial checking during servicing.

ITEM	VALUE	ITEM	VALUE	ITEM	P.No.
R1	40K-20%	C1	·002uF	TR1	2SA180
R2	5·6K-10%	C2	·005uF	TR2	2SA181
R3	2·2K-10%	C3	180pF	TR3	2SA184
R4	90K-10%	C4	180pF	TR4	2SB185
R5	22K-10%	C5	180pF	TR5-6	2SB187
R6	2·2K-10%	C6	10pF	Varistor	SV-20
R7	1K-10%	C7	5pF	Diode	IN-60
R8	200-20%	C8	·02uF	IFT-1	6038F
R9	5·6K-20%	C9	·04uF	IFT-2	6029R
R10	22K-20%	C10	·01uF	IFT-3	6022R
R11	4K-20%	C11	·01uF		
R12	1K-20%	C12	·002uF		
R13	200-20%	C14	30uF6v		
R14	7K-10%	C15	30uF6v		
R15	200-20%	C16	30uF6v		
R16	10-10%	C17	20uF9v		
R17	470-10%	C18	5uF 3v		
VR	3K	C19	5uF 6v		



VIEW FROM TOP

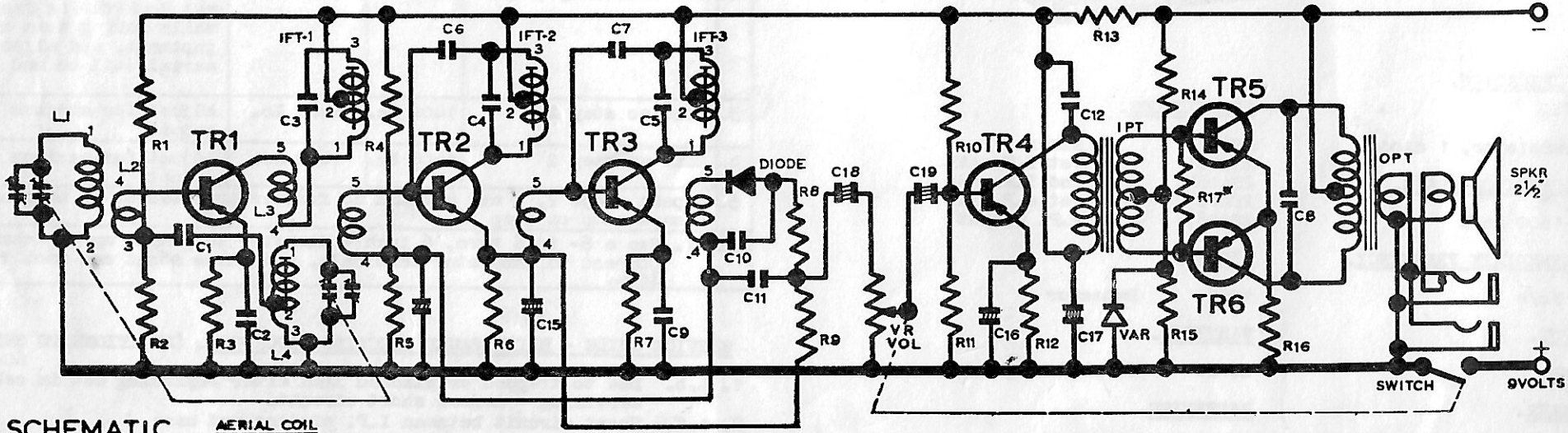


VIEW FROM UNDER

TYPICAL CIRCUIT MEASUREMENTS (Batt 8·5-9·0v)			
Voltage From Batt NEG To ANT GND OSC(on gang) 8·5 90v			
" Across C6 Without Sig. 6·0v, With Sig. 7·0v			
" " C14,C15 " " 0·75-0·85v" " 0·35-0·25v			
" " C18 " " 0·75v " " 0·50v			
" " C19 Is 1·25v			
" " C7 " 7·0v			
" " C16 " 1·0v			
" " C17 " 7·5 – 8·0v			
" " R2 " 0·8v			
" " R14 " 8·0v			
" " R16 " 0·2 v			
" " Without Sig. 0·6v, With Sig. 0·5v			

ABOVE MEASUREMENTS TAKEN WITH 20,000 Ω/V METER

CIRC. BOARD DIAG.



SCHEMATIC DIAG.

AERIAL COIL

2-3 OHMS [ANT-1 GND-2] TUNED WINDING

0-2 OHMS [JUCT. R1 R2 ·3 BASE 2SA180-4] FEED BACK WINDING

I F TRANSFORMERS

WITH NEG PROD TO CASE OF IFT

IN CIRCUIT RES OF PRI 1·5K Ω

" " " " SEC 1K Ω

*RUNS 1 & 2 ONLY

CIRCUIT DATA MODEL 6C15		
Drg: K	Dte: 14·7·60	Ch: