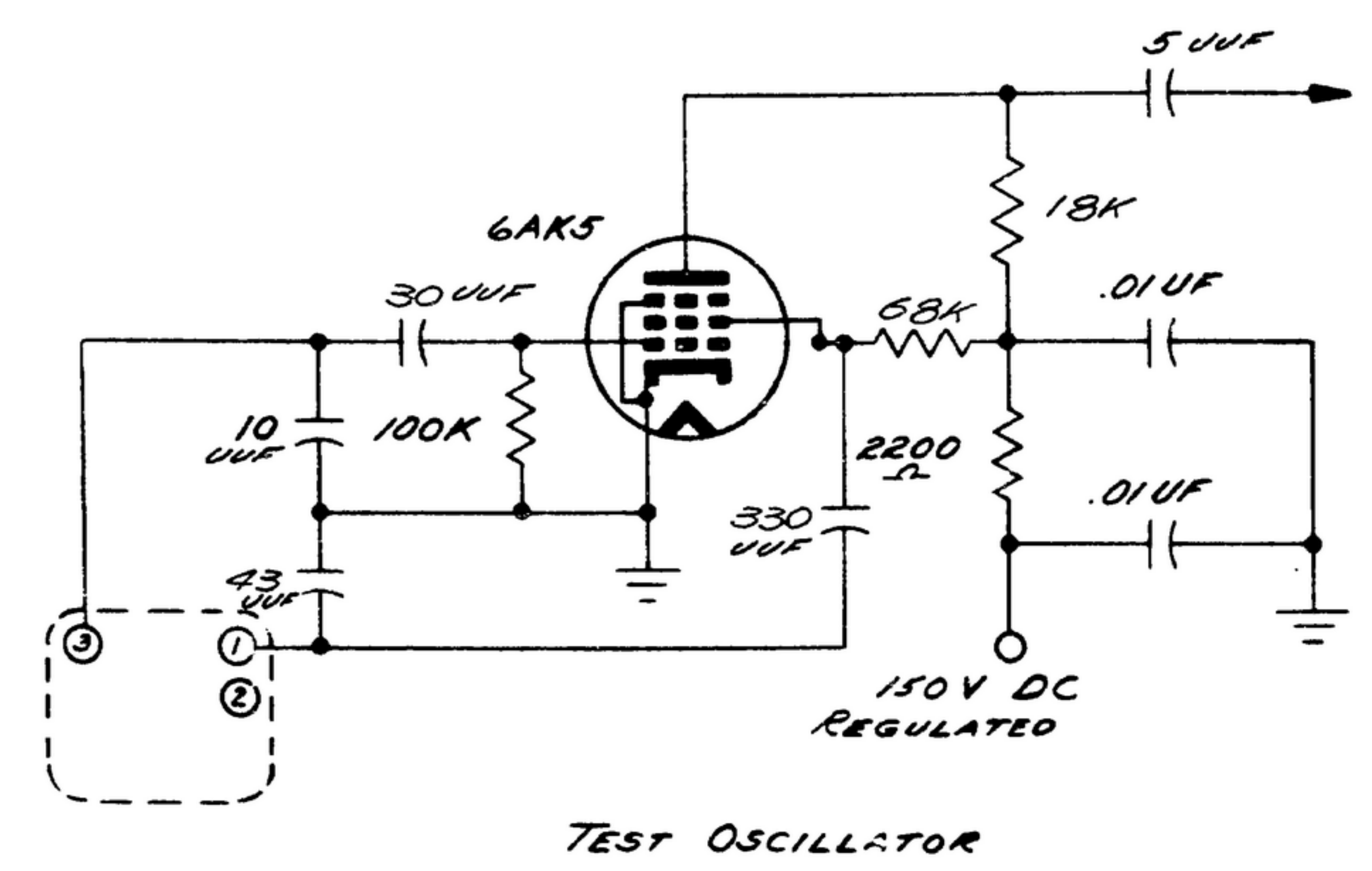


NOTE: WHEN GOVERNMENT SPECIFICATIONS, OPERATIONAL, OR OTHER DATA ARE USED AND ANY PORTION THEREOF IS IN CONFLICT WITH A PREVIOUSLY ISSUED SPECIFICATION, THE LATEST GOVERNMENT SPECIFICATION SHALL BE APPLIED. THE USER SHALL BE RESPONSIBLE FOR THE CORRECT INTERPRETATION OF THE DATA AND FOR THE CORRECT APPLICATION OF THE DATA TO THE DESIGN AND CONSTRUCTION OF THE UNIT. THE USER SHALL BE RESPONSIBLE FOR THE CORRECT INTERPRETATION OF THE DATA AND FOR THE CORRECT APPLICATION OF THE DATA TO THE DESIGN AND CONSTRUCTION OF THE UNIT.

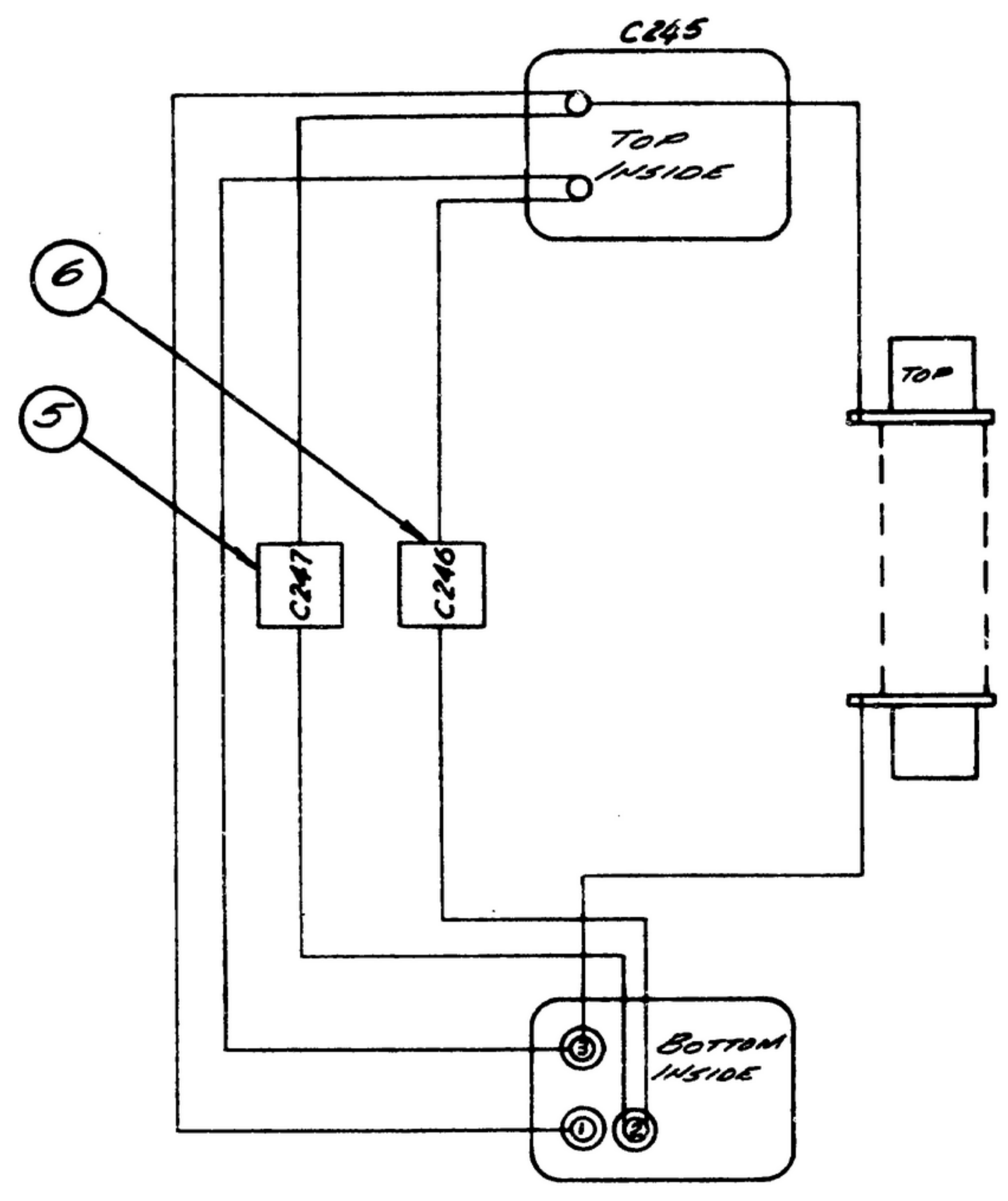
THIS DOCUMENT HAS BEEN PREPARED BY THE CONTRACTOR AND MAY BE REPRODUCED AND USED IN CONNECTION WITH ANY GOVERNMENT CONTRACT OR AGREEMENT ONLY AS AUTHORIZED BY THE CONTRACTING OFFICER.

FOR INFORMATION ONLY. CONTRACTOR MAY AT HIS OPTION DEVIATE FROM THESE PROCESS DETAILS.

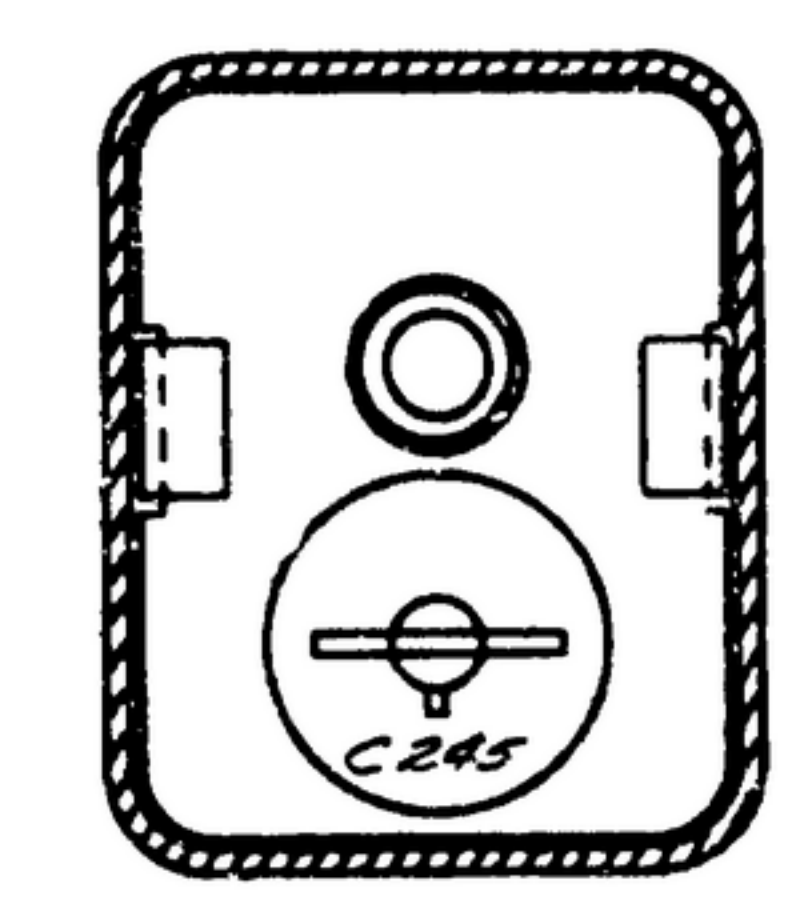
SWE APPROVAL		REVISIONS			
SYN	PR10042-13	SYN	DESCRIPTION	DATE	APPROVAL
		A <sub>1</sub>	A <sub>1</sub> ADDED ITEM B A <sub>2</sub> ITEM 3 DESCRIPTION WAS "CAN-RF" A <sub>3</sub> ADDED APPL SM-D-343619	20 NOV 59	41418-PC 59-A1-E1 PME
		B <sub>1</sub>	B <sub>1</sub> ADDED NOTE II	16 NOV. 60	41418-PC 59 PME
		C <sub>3</sub>	(1) FREQ TOL 142 WAS 95; 130 WAS 63; (2) NOTE 4 2000 CPS WAS 1000 CPS; (3) ± 1% WAS ± 1.7%	26 MAR 1965	21582-01 PME



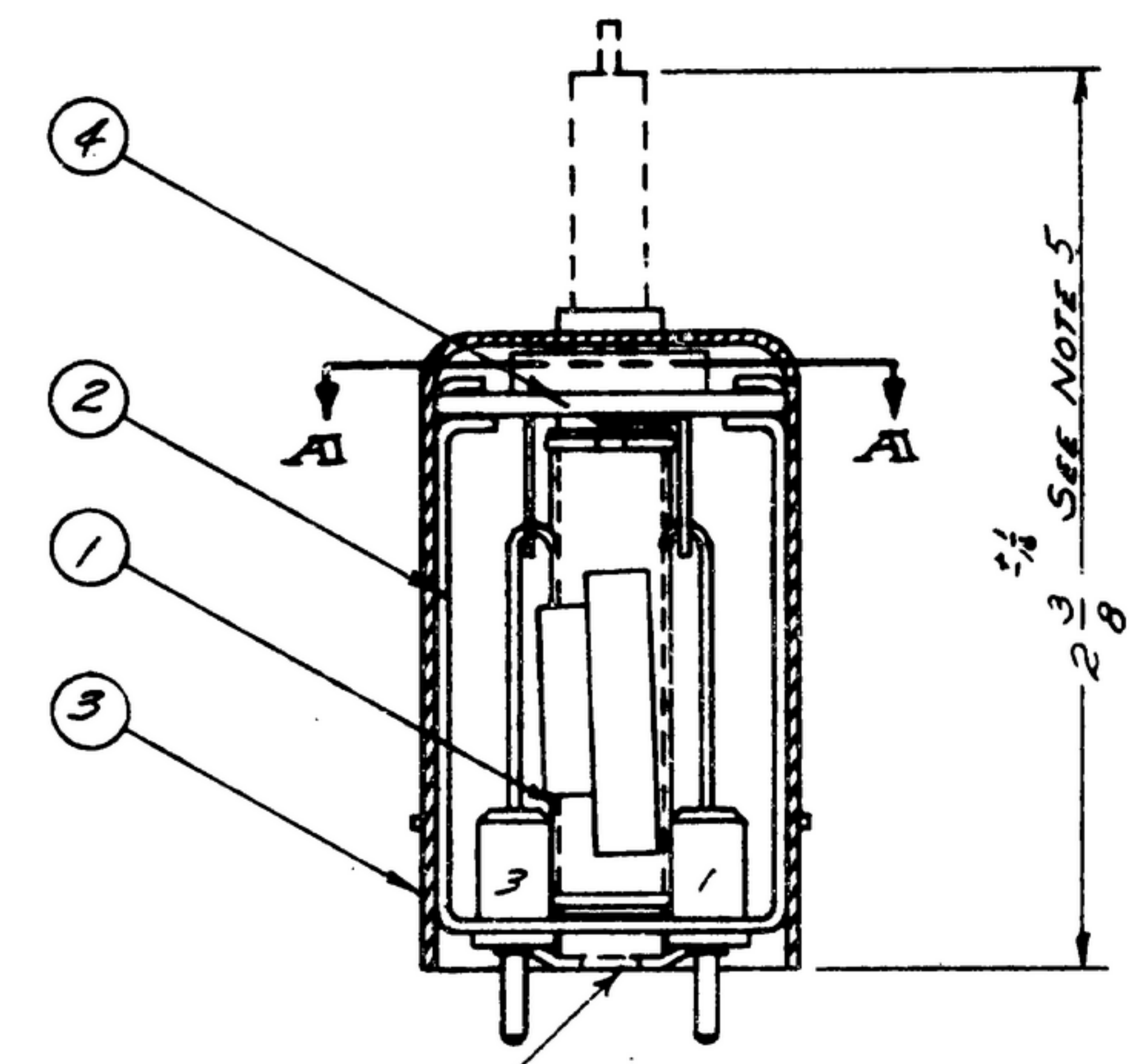
TEST OSCILLATOR



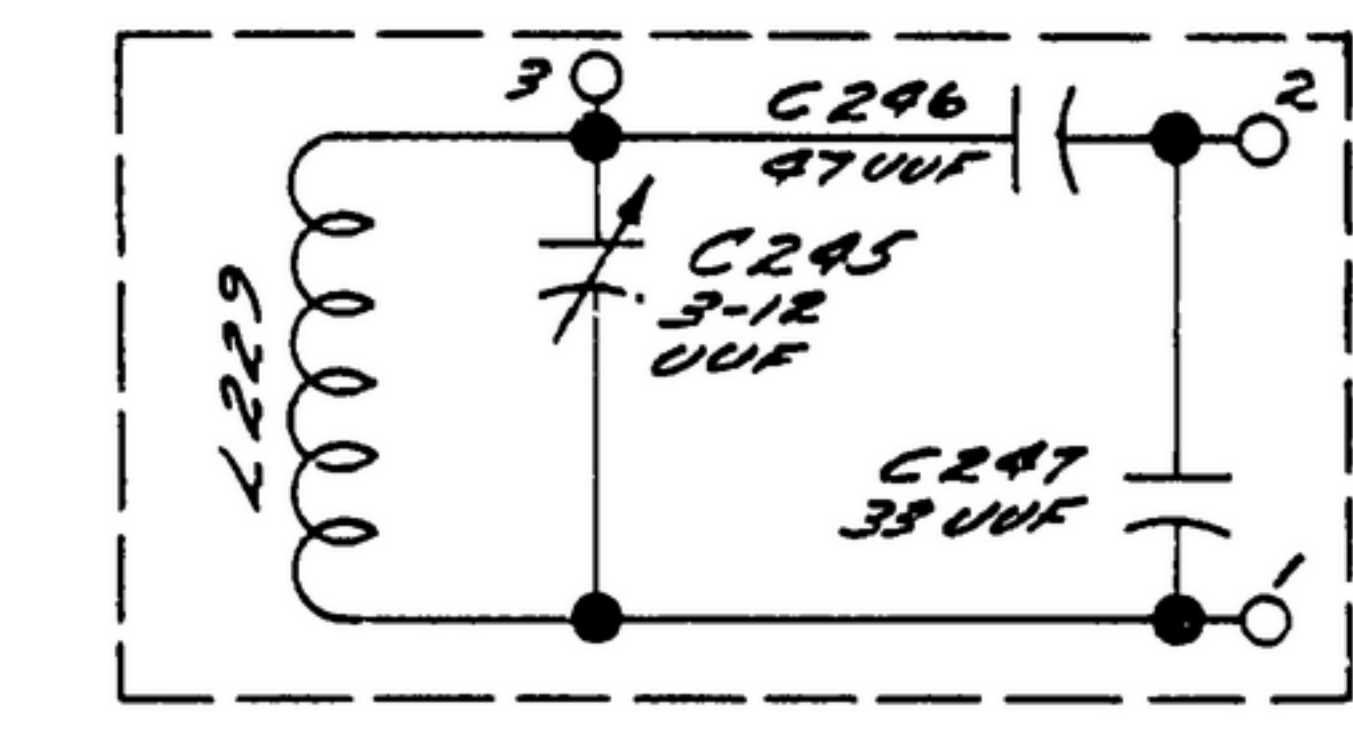
WIRING DIAGRAM



SECTION A-A



SEE NOTE 2



SCHEMATIC DIAGRAM FOR COIL ASSY

(C<sub>1</sub>)

CORE POSITION INCHES ±.0002	TEST OSC FREQ MC	FREQ TOL KC	EFFECTIVE PARALLEL RESISTANCE (OHMS) ±25%
-0.0300	32.6	142	
0.0000	32.0	130	15000
± 0.0200	30.4	130 ±	
0.1600	28.8	130	
0.2900	27.2	130	
0.3200	25.6	130	
0.4000	24.0	130	12500
0.4800	22.4	130	
0.5600	20.8	130	
0.6400	19.2	130	
± 0.7200	17.6	±	
0.8000	16.0	130	20000
0.8300	15.4	142	

± ALIGNMENT POINTS SEE NOTE 4

- NOTES:
1. SOLDER PER SPEC MIL-S-6872 USING ROSIN CORE SOLDER (B) SN 60
  2. COIL FORM OF COIL ASSY (1) TO BE CONCENTRIC WITH 140 DIA HOLE IN FRAME (2) WITHIN .020 T.I.R.
  3. MOUNTING POSITION OF CAPACITORS OPTIONAL, PROVIDING NO CAPACITOR COMES WITHIN 1/16 OF COIL WINDING.
  4. ALIGNMENT: WITH COIL ASSY IN TEST JIG, AND STANDARD POWDERED IRON TUNING CORE POSITIONED IN THE COIL, ADJUST VARIABLE CAPACITOR (A), UNTIL TEST OSCILLATOR FREQUENCY IS WITHIN 2000 CPS OF THE VALUE SHOWN IN TABLE AT THE TWO ALIGNMENT POINTS. THE FINAL SETTING OF THE VARIABLE CAPACITOR (A), SHALL LEAVE A RESERVE ADJUSTMENT OF 5 MM.
  5. BROKEN LINES INDICATE OUTLINE OF STANDARD POWDERED IRON TUNING CORE OF TEST JIG. DIMENSION APPLIES TO THE CORE IN 0.0800 ALIGNMENT POSITION AFTER ELECTRICAL ALIGNMENT PER NOTE A.
  6. TRACKING: TEST OSCILLATOR FREQUENCY SHALL BE WITHIN THE TOLERANCE OF TABLE AT SPECIFIED CORE INSERTIONS AT 25°C.
  7. STABILITY: THE RESONANT FREQUENCY OF THE TUNING COIL SHALL VARY NOT MORE THAN 90 PPM/°C. FROM THE 25°C VALUE OVER THE SPECIFIED TEMPERATURE RANGE.
  8. TEMPERATURE RANGE - 40°C TO +85°C OPERATING, -62°C TO +185°C STORAGE.
  9. THE COIL ASSY SHALL BE BONDED TO THE BASE PLATE AND TO THE VARIABLE CAPACITOR BOARD (A) TOP WITH BONDING AGENT (?) #R-313 AS SUPPLIED BY CARL H. BIGGS CO, LOS ANGELES, CALIF, OR EQUAL.
  10. HUMIDITY: UNIT SHALL BE CAPABLE OF OPERATION AFTER EXPOSURE TO 5 HUMIDITY CYCLES CONDUCTED IN ACCORDANCE WITH THE LATEST VERSION OF SIGNAL CORPS DRAWING SC-D-16286. UPON COMPLETION OF THE HUMIDITY CYCLES THE UNIT SHALL BE ALLOWED TO DRY AT 25°C AMBIENT FOR A PERIOD OF 1 HOUR.
  11. TUNING CORE REFERRED TO IN NOTE 5 SHOULD BE SM-249245 AND MUST BE ±1% OF NOMINAL PERMEABILITY

Q/SWE PART NO.	ITEM	QTY	PART NO.	DESCRIPTION	MATL	MATL SPEC	NOTES
A <sub>1</sub>	8	AS REQD		SOLDER SOFT		QQ-S-571	1
	7	AS REQD		BONDING AGENT			9
	6	1	SM-C-283226-10	CAPACITOR - FIXED			
	5	1	SM-C-283226-7	CAPACITOR - FIXED			
	4	1	SM-C-283226-4	CAPACITOR - VARIABLE			9
	3	1	SM-B-249168	CAN-MARKED			
	2	1	SM-B-249062	FRAME ASSY			9
	1	1	SM-B-283288	COIL ASSY			9

DRAWN JENNETT CHECKED APPROVED SIGNAL CORPS 1421A-PH 51-93 REVIEWED APPROVED DATE 27 FEB 55 SCALE 2/1	DEPARTMENT OF THE ARMY SIGNAL CORPS ENGINEERING LABORATORIES PORT MONMOUTH NEW JERSEY SM-D-249097
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