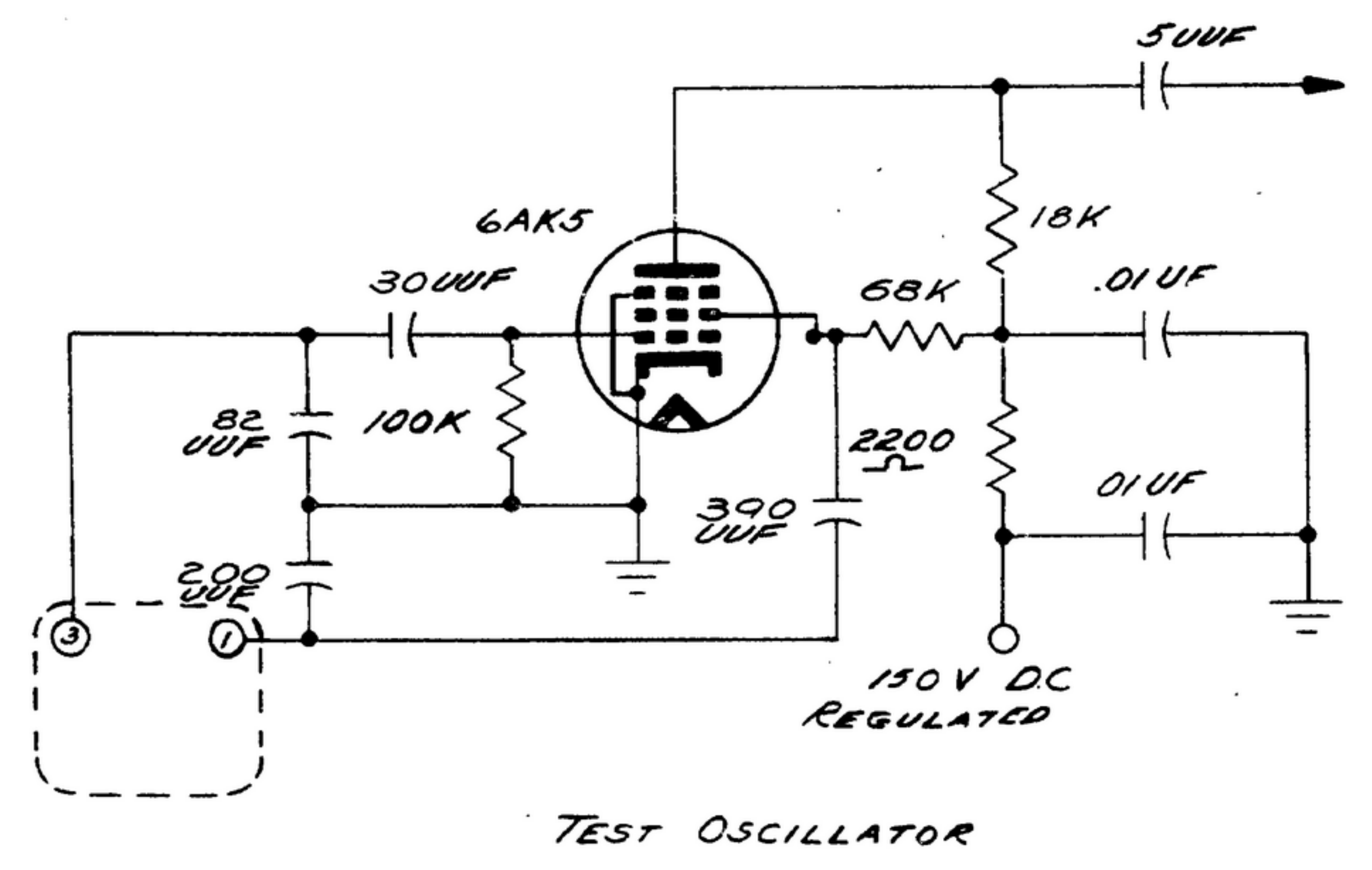


NOTICE: WHEN GOVERNMENT SPECIFICATIONS, OR OTHER DATA ARE USED FOR ANY PORTION OF THIS DRAWING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INTERPRETATION AND THE FACT THAT THE GOVERNMENT HAS APPROVED THIS DRAWING DOES NOT CONSTITUTE AN ENDORSEMENT OR A GUARANTEE OF THE ACCURACY OF THE DATA OR THE PROPER INTERPRETATION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INTERPRETATION AND THE FACT THAT THE GOVERNMENT HAS APPROVED THIS DRAWING DOES NOT CONSTITUTE AN ENDORSEMENT OR A GUARANTEE OF THE ACCURACY OF THE DATA OR THE PROPER INTERPRETATION THEREOF.

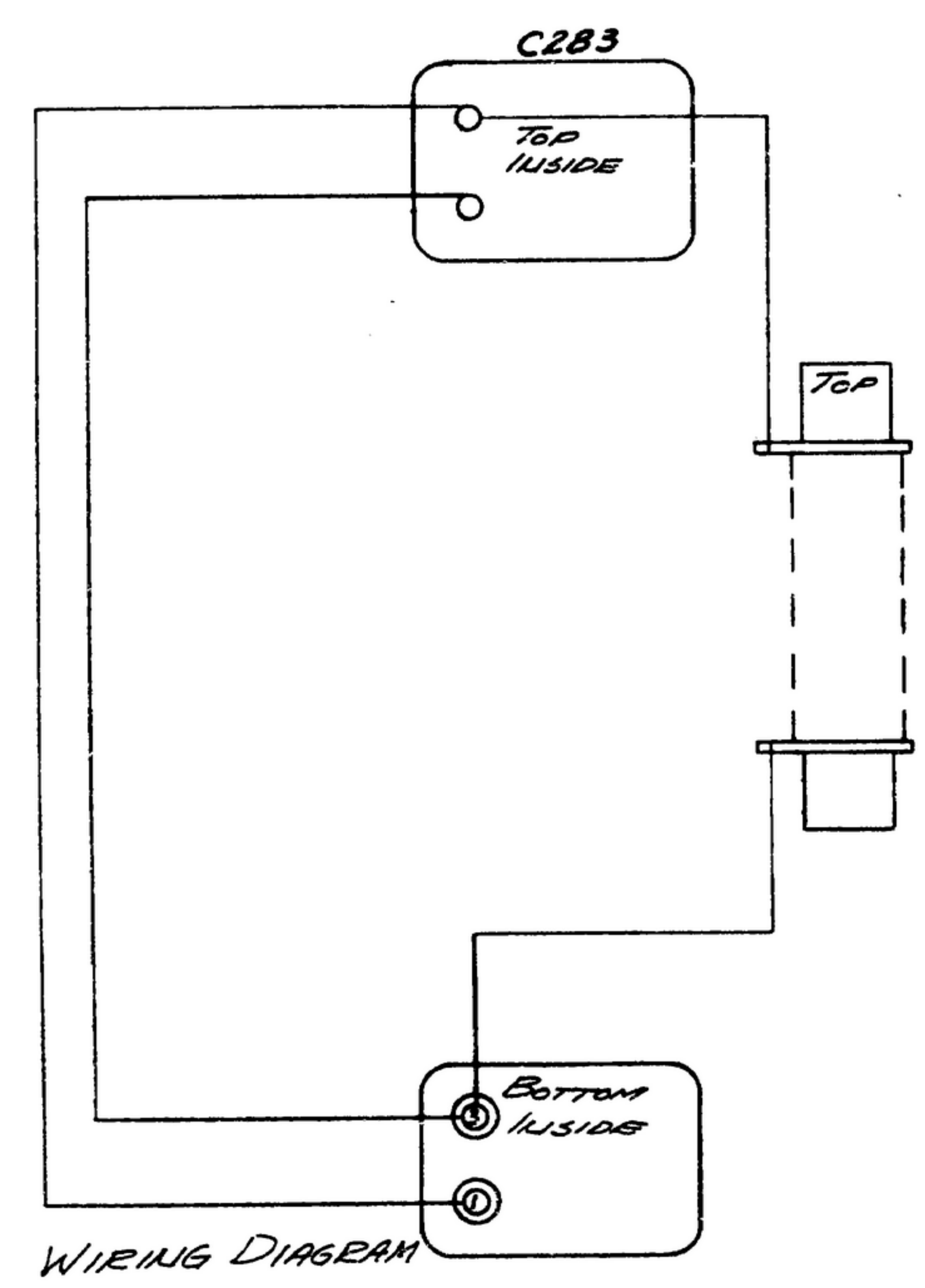
THIS DRAWING WAS PREPARED BY THE CONTRACTOR AND MAY BE REPRODUCED AND USED IN CONNECTION WITH ANY GOVERNMENT CONTRACT OR OTHER CONTRACT WITHOUT THE NECESSITY OF OBTAINING PERMISSION FROM THE CONTRACTOR.

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

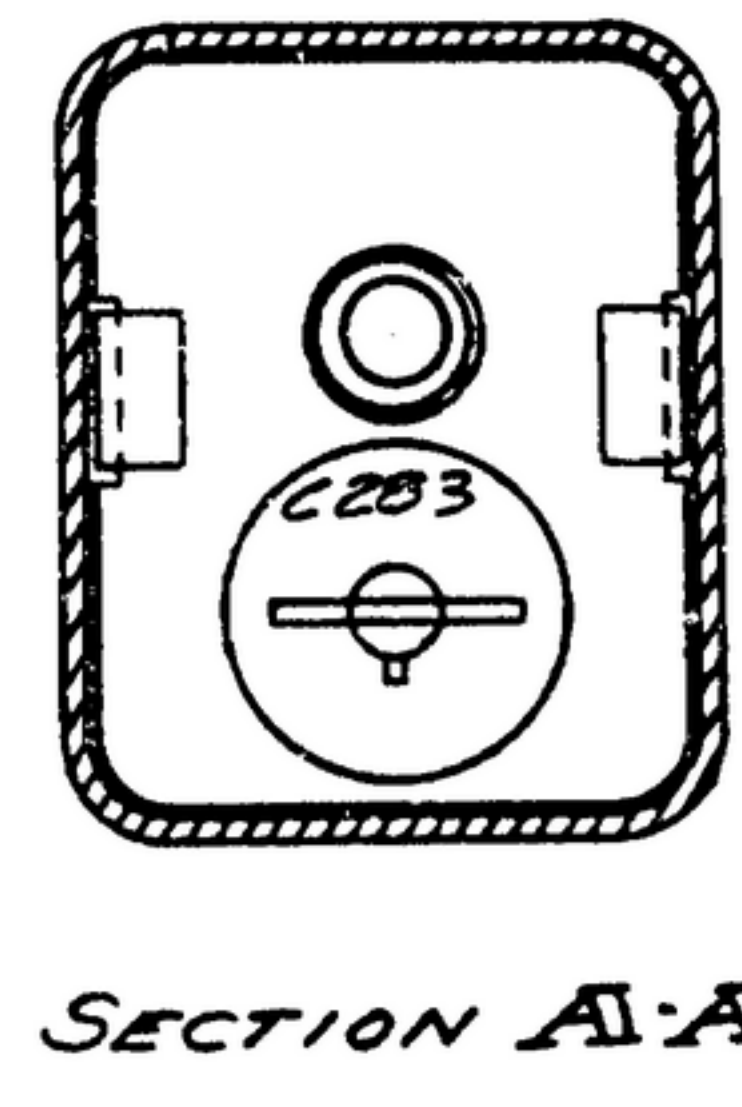
S.W.E. APPROVAL		REVISIONS		
SYM	PR	DATE	DESCRIPTION	APPROVAL
	10042/13			
A <sub>1</sub>		20 NOV 59	ADDED ITEM # 6	42824-PC-53 A1-51
A <sub>2</sub>			ADDED NEW APPL.	REV'D PME
A <sub>3</sub>			ITEM #3 DISCRPTION WAS "CAN"	REV'D PME
B <sub>1</sub>	CA#84960	16 NOV 60	(1) ADDED NOTE # 11	42426-PC-53 REV'D PME
C <sub>3</sub>		24 MAR 1965	(1) FREQ TOL 180 WAS 90; 120 WAS 60; (2) NOTE 4 2000 CPS WAS 1000 CPS; (3) 1% WAS ±.1%	21582-PC-51 REV'D PME



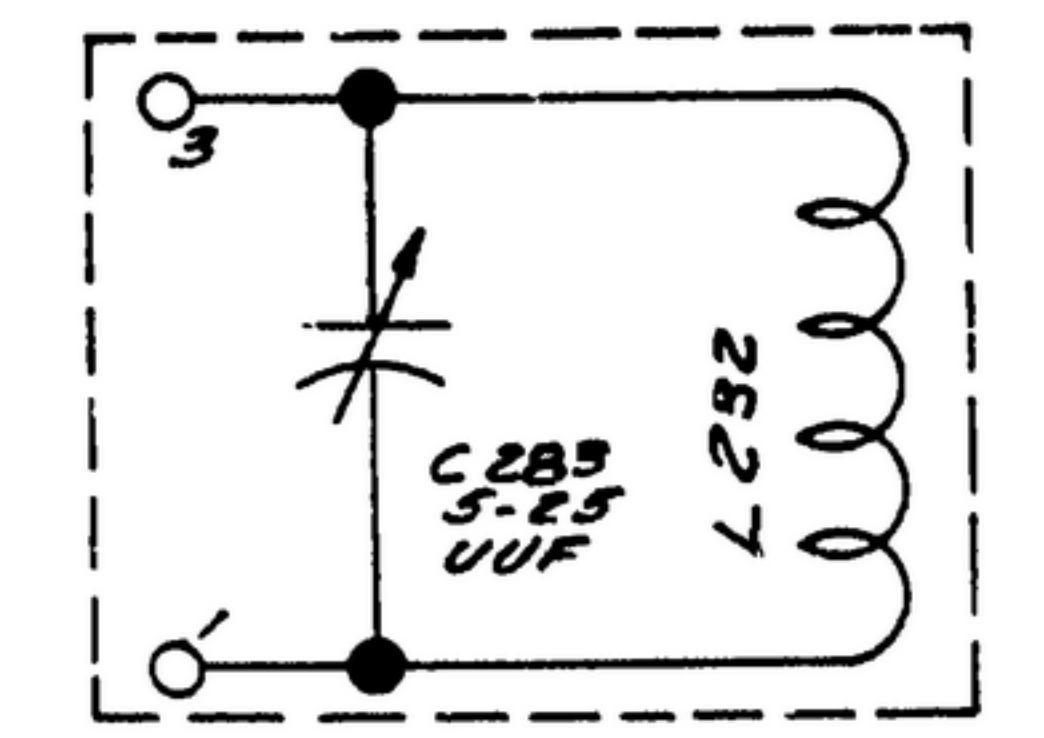
TEST OSCILLATOR



WIRING DIAGRAM



SECTION A-A

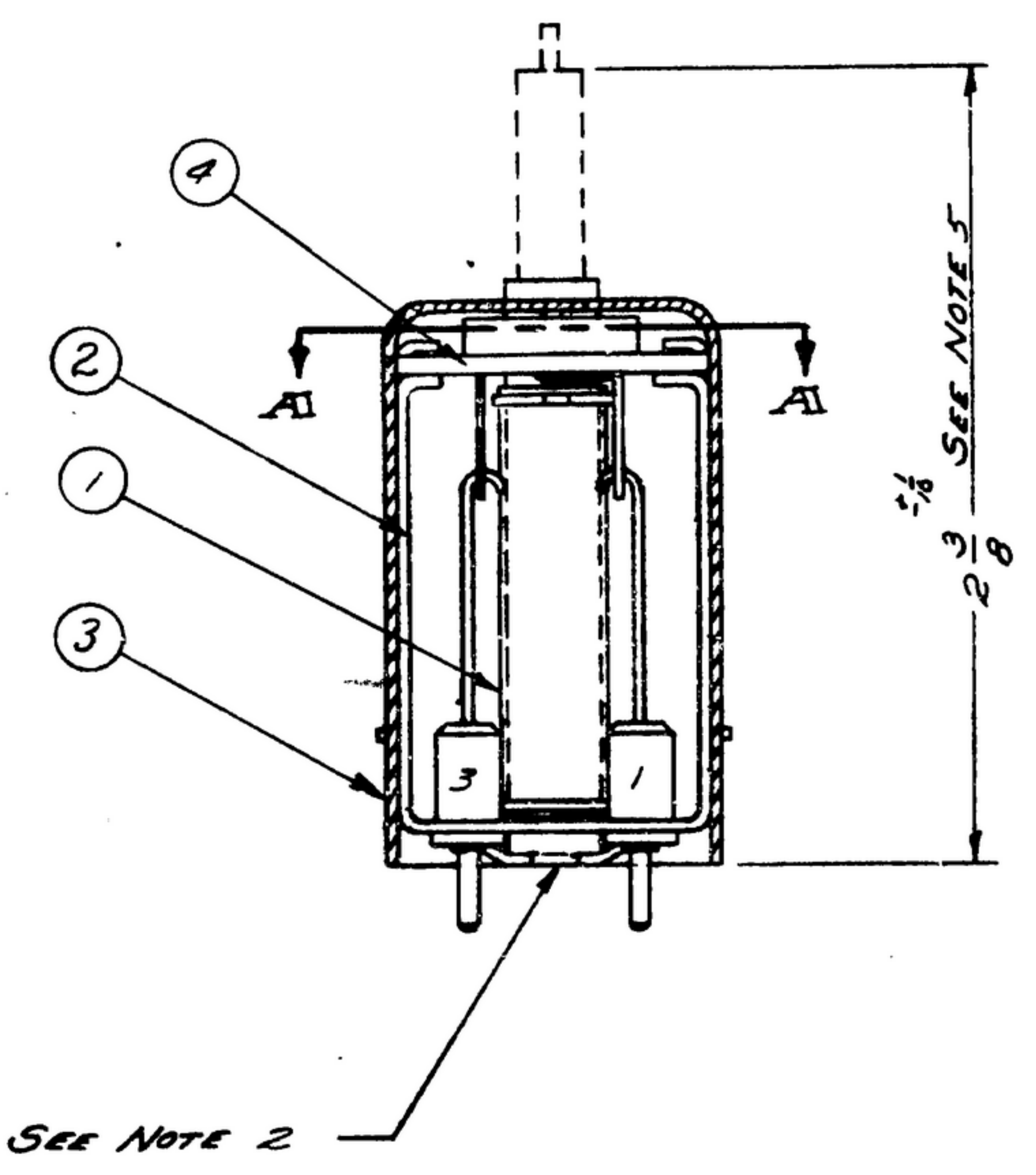


SCHEMATIC DIAGRAM FOR COIL ASSY

(C1)

CORE POSITION INCHES ±.0002	TEST OSC FREQ MC	FREQ TOL KC	EFFECTIVE PARALLEL RESISTANCE (OHMS) ±25%
- 0.0300	25.3	180	
0.0000	25.0	120	12000
≠ 0.0500	24.5	≠	
0.1000	24.0	120	
0.1500	23.5	120	
0.2000	23.0	120	
0.2500	22.5	120	
0.3000	22.0	120	
0.3500	21.5	120	
0.4000	21.0	120	13000
0.4500	20.5	120	
0.5000	20.0	120	
0.5500	19.5	120	
0.6000	19.0	120	
0.6500	18.5	120	
≠ 0.7000	18.0	≠	
0.7500	17.5	120	16000
0.7800	17.2	180	

≠ ALIGNMENT POINT SEE NOTE 4



SEE NOTE 2

- NOTES:
- SOFT SOLDER PER MIL-S-6872 USING ROSIN CORE SOLDER (G) COMP SN 60.
  - COIL FORM OF COIL ASSY (C1) TO BE CONCENTRIC WITH .140 DIA. HOLE IN FRAME (C2) WITHIN .020 T.I.E.
  - POSITION OF CAPACITOR OPTIMUM, PROVIDING NO CAPACITOR COMES WITHIN 1/16 OF COIL WINDING.
  - ALIGNMENT: WITH COIL ASSY IN TEST JIG, AND STANDARD POWDERED IRON TUNING CORE POSITIONED IN THE COIL, ADJUST VARIABLE CAPACITOR (C4) UNTIL TEST OSCILLATOR FREQUENCY IS WITHIN 2000 CPS OF THE VALUE SHOWN IN TABLE AT TWO ALIGNMENT POINTS. THE FINAL SETTING OF THE VARIABLE CAPACITOR (C4) SHALL LEAVE A RESERVE ADJUSTMENT OF 4 u.l.f.
  - BROKEN LINES INDICATE OUTLINE OF STANDARD POWDERED IRON TUNING CORE OF TEST JIG. DIMENSION APPLIES TO THE CORE IN 0.080 ALIGNMENT POSITION AFTER ELECTRICAL ALIGNMENT PER NOTE 4.
  - TUNING: TEST OSCILLATOR FREQUENCY SHALL BE WITHIN THE TOLERANCE OF TABLE AT SPECIFIED CORE INSERTIONS AT 25°C.
  - STABILITY: THE RESONANT FREQUENCY OF THE TUNING COIL SHALL VARY NO MORE THAN 40 PPM/°C FROM THE 25°C VALUE OVER THE SPECIFIED TEMPERATURE RANGE.
  - TEMPERATURE RANGE - 40°C TO +85°C OPERATING, - 62°C TO +85°C STORAGE.
  - THE COIL ASSY SHALL BE BOUNDED TO THE BASE PLATE AND TO THE VARIABLE CAPACITOR BOARD (A) TOP WITH BONDING ABUT (C5) #R-313 AS SUPPLIED BY CARL H. BIGGS CO., LOS ANGELES, CAL., OR EQUAL.
  - 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.
- IF TUNING CORE REFERRE TO IN NOTE 5 SHOULD BE SM-C-249244  
 (B) AN MUST BE WITHIN ± 1% OF NOMINAL PERMEABILITY.
- (C3)

REVISE PART NO.	ITEM	QTY	PART NO.	DESCRIPTION	MATL.	MATL. SPEC.	NOTES
A1	6		105130317-7	SOLDER, SOFT		QA-S-571	1
	5		115130318-7	BONDING ABUT			2
	4	1	SM-C-28320-2	CAPACITOR-VARIABLE			9
	3	1	SM-B-249170	CAN-MARKED			9
	2	1	SM-B-249061	FRAME ASSY I.F.			9
	1	1	SM-B-249287	COIL ASSY			9

DRAWN	CHECKED	APPROVED	REVISIONS	DATE	SCALE
NUGEN	RL				
UNLESS OTHERWISE SPECIFIED: DECIMAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±.000 FRACTURAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±1/64 MACHINED ANGLES MAY VARY ±.1° SHEARED ANGLES MAY VARY ±.5° DROSH ANGLES MAY VARY ±1° CONCENTRICITY BETWEEN ANY DIAMETERS ON THE SAME CENTERLINE SHALL NOT EXCEED .004 TOTAL INDICATOR READING. ALL DIMENSIONS ARE FINISH DIMENSIONS INCLUDING APPLIED FINISH AND ARE GIVEN IN INCHES.			14214-PH-51-93 SIGNAL CORPS REVIEWED PME APPROVED HLY PME DATE 17 FEB 56 SCALE 2/1		
LIST OF MATERIAL DEPARTMENT OF THE ARMY SIGNAL CORPS ENGINEERING LABORATORIES FORT MONMOUTH NEW JERSEY SM-D-249099					