

EQUIP. TYPE ES-301A EXP. NO.

COL 240049-00

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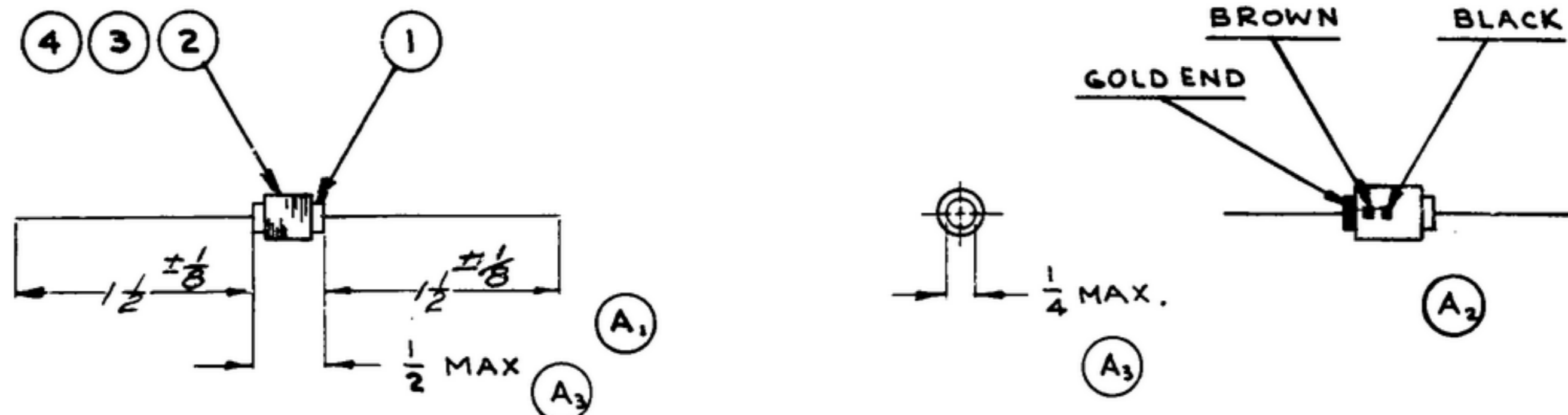
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\*SWE APPROVAL  
SYM PR 10042-17

REVISIONS

SYM	DESCRIPTION	DATE	APPROVAL
A <sub>9</sub>	A <sub>1</sub> CORRECTED VIEW A <sub>2</sub> ADDED LIST OF MAT'L & COLOR CODE VIEW A <sub>3</sub> 1/2 MAX WAS 1/16 ± 1/16 & 1/4 MAX WAS 1/16 ± 1/16 A <sub>4</sub> NUMBERED ALL NOTES & REMOVED NAME & PART NO. OF COMMERCIAL SUPPLIER A <sub>5</sub> REMOVED DISTRIBUTED CAPACITY & COIL FORM NOTE A <sub>6</sub> NOTE 6 WAS "ENAMEL OR FORMVAR INSULATED COPPER MAGNET WIRE" A <sub>7</sub> "42 TURNS, ETC." TO NOTE 7 A <sub>8</sub> CHANGED NAME OF SUPPLIER AND ADDED SPEC MIL-V-173 CALL-OUT TO NOTES A <sub>9</sub> DOTS WERE BANDS & ADDED "AS MODIFIED"	16 DEC 59	42428-PC 59-AI-51  REV'D PME



INDUCTANCE MICROHENRIES	MINIMUM Q AT FREQUENCY	APPROX RESONANT FREQ	MAX DC RES. OHMS	MAX DC CURRENT MA
10.0 ± 10%	30 @ 5.0 MC	45 MC	0.60	740

NOTES:

- DESCRIPTION: RADIO FREQUENCY CHOKE IN ACCORDANCE WITH SPEC MIL-C-15305, GRADE I, CLASS O, WITH EXCEPTION AS NOTED.
- APPARENT INDUCTANCE: SHALL BE AS SHOWN IN THE TABLE WHEN MEASURED AT THE DIRECT READING FREQUENCY OF A BOONTON MODEL 160A Q-METER, AS SUPPLIED BY BOONTON RADIO CORP., BOONTON, N.J., OR EQUAL. A SUITABLE TEST JIG MAY BE USED IN PRODUCTION TESTING PROVIDING A CORRECTION FACTOR IS USED BASED UPON THE SPECIFIC METHOD EMPLOYED.

INDUCTANCE RANGE	DIRECT READING FREQUENCY
0.1 TO 1.0 MICROHENRY	25.0 MC
1.0 TO 10 MICROHENRY	7.9 MC
10 TO 100 MICROHENRY	2.5 MC
100 TO 1000 MICROHENRY	790 KC

Q: MINIMUM VALUE GIVEN IN TABLE; SHALL BE MEASURED ON A BOONTON MODEL 160A Q-METER, AS SUPPLIED BY BOONTON RADIO CORP., BOONTON, N.J., OR EQUAL.

- CURRENT CAPACITY: SEE TABLE. BASED ON 1/3 WATT DISSIPATION AT 25°C. CURRENT CAPACITY SHALL BE DERATED TO 80% OF THE 25°C VALUE AT 85°C AND TO 70% AT 105°C.
- AMBIENT TEMPERATURE RANGE: -55°C TO +105°C, STORAGE TO -62°C. SEE CURRENT CAPACITY FOR DERATING.

- RESONANT FREQUENCY: RESONANT FREQUENCY SHALL BE AS INDICATED WHEN MEASURED ON A MEGACYCLE METER TYPE 59 AS SUPPLIED BY MEASUREMENTS CORP., BOONTON, N.J., OR EQUAL. LEADS SHALL BE EXTENDED AXIALLY FOR THEIR FULL LENGTH.

- WIRE: INSULATED COOPER MAGNET WIRE #33 GA PER MIL-W-583 TYPE T2
- WINDING DATA, RECOMMENDED: SINGLE LAYER SOLENOID, 42 TURNS CENTERED ON COIL FORM
- COATING: 1 COAT OF POLYWELD 912 AS SUPPLIED BY AMPHENOL CO. CHICAGO, ILL  
2 COAT OF VARNISH PER SPEC. MIL-V-173 TYPE I OR APPROVED EQUIVALENT COATINGS

- MARKINGS: INDUCTANCE VALUE IN MICROHENRIES SHALL BE INDICATED BY COLOR DOTS IN ACCORDANCE WITH MIL-C-15305, AS MODIFIED

- DIELECTRIC STRENGTH TEST VOLTAGE: 500 V RMS.
- INSULATION RESISTANCE MEASUREMENT: APPLICABLE INITIALLY AND AFTER ENVIRONMENTAL TESTS. TEMPERATURE RISE TEST: NOT APPLICABLE.
- TERMINAL PULL MAGNITUDE: 5 POUNDS
- TERMINAL TWIST: SHALL CONFORM TO REQUIREMENTS OF PARAGRAPH 4.7.7.2 OF SPEC MIL-C-15305.
- MECHANICAL SHOCK TEST: NOT APPLICABLE.
- FINAL ELECTRICAL MEASUREMENTS: APPLICABLE FOLLOWING 4 TO 24 HOUR CONDITIONING PERIOD.

S.W.E. PART NO.	ITEM	REQD	PART NO.	DESCRIPTION	MATL	MATL SPEC	NOTES
<del>05130317-7</del>	8	AS REQ'D		SOLDER SOFT SN60		QQ-S-571	
<del>205111266-7</del>	7	AS REQ'D		BLACK LACQUER		TT-L-31	
<del>205111266-2</del>	6	AS REQ'D		BROWN LACQUER		TT-L-31	
<del>20511266-12</del>	5	AS REQ'D		GOLD LACQUER		TT-L-31	
<del>205110664-1</del>	4	AS REQ'D		VARNISH		MIL-V-173	8
<del>20510664-3</del>	3	AS REQ'D		POLYSTYRENE LACQUER			8
305130131-33	2	1	SM-C-249217-1	WIRE (20 IN APPROX)		MIL-W-583	6
	1	1	SM-B-343642	FORM COIL			

LIST OF MATERIAL - COLLINS PART NO. 5590154003

DRAWN JENNETT			CHECKED [Signature]	APPROVED	COLLINS-RADIO-CO. 5590154003-001 1421A-DH-51-93		DEPARTMENT OF THE ARMY SIGNAL CORPS ENGINEERING LABORATORIES FORT MONMOUTH NEW JERSEY  SM-C-249217
UNLESS OTHERWISE SPECIFIED: DECIMAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±.008 FRACTIONAL DIMENSIONS INCLUDING HOLE SIZES MAY VARY ±1/64 MACHINED ANGLES MAY VARY ±.1° SHEARED ANGLES MAY VARY ±.88° BROKEN ANGLES MAY VARY ±.1° ECCENTRICITY BETWEEN ANY DIAMETERS ON THE SAME CENTERLINE SHALL NOT EXCEED .010 TOTAL INDICATOR READING. ALL DIMENSIONS ARE FINISH DIMENSIONS INCLUDING APPLIED FINISH AND ARE GIVEN IN INCHES.			REVIEWED PME		SIGNAL CORPS		
558-0373002 ✓ SM-B-249217 SC-DL-248775			APPROVED HLY		CHOKE-R.F.		
558-0452002 ✓ SM-E-249101 SC-DL-248775			APPROVED PME		SCALE 1/1		
COLLINS NO.	QTY	NEXT ASSY	USED ON	APPLICATION			