

"THE CONTRACT HAS BEEN REPRODUCED BY THE GOVERNMENT AND WILL BE REPRODUCED AND USED IN CONNECTION WITH THE 'DEFENSE OPERATION'."

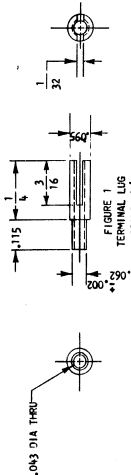


FIGURE 3
TEST CIRCUIT

ALL RESISTORS IN OHMS, ALL CAPACITORS IN UF,
UNLESS OTHERWISE SPECIFIED

DATE	DESCRIPTION	DATE	APPROVAL
A ₁	A: - REVISED AND REDRAWN	16 DEC 59	62128-PC-59A-151
—	RETRACTED, NO CHANGE	17 AUG 62	21582PCC
B ₂	(1) ADDED 470K RESISTOR (2) REMOVED CAPACITOR	5 MAY 63	21582-PCC-63A-151
			REVISED PAGE

1. PART MAY BE NO. 24202050 AS SUPPLIED BY STEWART WARNER ELECTRONICS, CHICAGO, ILL. OR EQUAL PROVIDING IT MEETS THE FOLLOWING REQUIREMENTS AND DIMENSIONS SHOWN.

REQUISITES: 455 KC TUNED CIRCUIT, AGC AMPLIFIER.

ELECTRICAL CHARACTERISTICS:

Q: THE COIL Q SHALL BE EQUAL TO 60 MIN. WHEN MEASURED ON BOWTOWN Q-METER TYPE 16A4 AS SUPPLIED BY BOWTOWN RADIO CORP., BOWTOWN, N.J. OR EQUAL WITH TERMINAL 1 AND SHIELD CAN GROUND.

INDUCTIVE REACTANCE: THE INDUCTIVE REACTANCE OF THE COIL SHALL BE TESTED IN THE CIRCUIT OF FIG. 3 AND COMPARED TO THE INDUCTIVE REACTANCE OF THE COIL OF FIG. 2. THE DIFFERENCE BETWEEN THE REACTANCES OF THE TWO COILS SHALL BE 5% OR LESS.

OUTPUT: THE OUTPUT OF THE JIG WILL BE MEASURED BY THE CONTRACTOR BY THE OUTPUT OF THE JIG WITH, COIL UNDER TEST. THE OUTPUT SHALL BE 50% MINIMUM OF THE OUTPUT OF THE JIG WITH STANDARD COIL UNDER TEST WITH INPUT LEFT CONSTANT.

MATERIALS AND COMPONENTS:
SHIELD CAN: 29/32" X 29/32" OUTSIDE .018" THICK, 2.044 ± .015 INSIDE DEPTH. ALUMINUM FINISH E513 PER SPEC MIL-F-14072.

RENOLOG:
TUBING: TORRITRAC SUPPLIED BY CLEVELAND CONTAINER CO., CLEVELAND, OHIO OR EQUAL; 2.04 IN. $\pm$.003 IN. O.D., TAPPED
END 1 / 4 IN. 28 SHAWLOW THREAD IN ACCORDANCE WITH MSA-11-5ET

FOR 1/4" X 20 SHALLOW THREAD IN ACCORDANCE WITH ASTM A331.
SHEET STOCK: PLASTIC TYPE PBE-P PER SPEC MIL-P-3115.
CORE: THREADED CORE PER MPA-11-55T, 1/4" X 28 SHALLOW THREAD X 3/8" LONG.

UPS: NO. P-3009 AS SUPPLIED BY PYROFERRIC CO., N.Y., OR EQUAL, 23/32" OD. X 27/64" INSIDE DEPTH.
ALL POWDERED IRON PARTS SHALL BE IMPREGATED TO WITHSTAND THE SERVICE CONDITIONS TEST LISTED BELOW.

TERMINALS—DETAILED BRASS. FINISH M351 PER SPEC MIL-F-14072 AS SUPPLIED BY LERCO ELECTRONICS INC., BURBANK, CALIF.
NOTE: E.V. 44 SUBJ. LT7 WIRE AS FURNISHED BY CHICAGO WIRE MANUFACTURING CO., CHICAGO, ILL.

CERAMIC CAPACITORS: COIL TUNING CAPACITANCE 62 MFC ± 2%, TEMPERATURE COEFFICIENT -330 PPM/°C, STYLE CQ31, AMENED AS FOLLOWS: TOTAL CAPACITANCE

COILS SHALL BE IMPREGNATED WITH POLYSTYRENE LACQUER TYPE POLYMELD NO.912 AS SUPPLIED BY AMPHENOL ELECTRONICS CORP., CHICAGO, ILL., OR CONTRACTORS APPROVED EQUIVALENT.

RECOMMENDED INSTRUCTIONS FOR IMPREGNATING COIL:

1. DRY OUT COIL AT 100 °C FOR MINIMUM OF 2 HOURS.
2. THIN POLYMER TO BRUSHING CONSISTENCY AND APPLY ONTO COIL THOROUGHLY.

SHALL BE POTTED WITHIN THE CUP CORE USING AN EPOXY RESIN TYPE RESINLED NO. 2 AS SUPPLIED BY H.B. FULLER CO., ST. PAUL, MINN.

ACTUATORS RECOMMENDED INSTRUCTIONS FOR POTTING COIL:
 CEMENT TYPE A.M.S. NO. 881 AS SUPPLIED BY MASS & WALLSTEIN CO., FALLOWHILL, MASS. OR CONTRACTORS APPROVED EQUIVALENT.
 ASSURING SEAL BETWEEN THE COIL FORM AND THE CLEARANCE HOLE OF CUP
 CORE AS SHOWN.

B. CURE: POTTING COMPOUND TO POURING CONSISTENCY AND MIX (EQUAL MEASURES OF HARDENER & ADHESIVE) THOROUGHLY, THEN POUR MIXTURE INTO CUP CAREFULLY FILLING THE CUP FULLY.

6. DRINK ASSEMBLY AT 10:30 A.M. FOR MINIMUM OF ONE HOUR.

RIALS: ALL ORGANIC MATERIALS SHALL BE FUNGUS RESISTANT WITH VARNISH, TYPE 1 PER SPEC MIL-V-173.

CONTRACTORS PART NUMBER SHALL BE AFFIXED ON THE CASE IN A THOROUGHLY
LEGIBLE MANNER, ALL CHARACTERS & MARKINGS IN VERTICAL GOTHIC 3/32 INCHES HIGH IN ACCORDANCE WITH AND TO MEET THE TEST REQUIREMENTS
THE SYMBOL 7503 SHALL APPEAR ON THE TOP OF THE SHIELD CAN
SEC 911-12221

ON: TEMPERATURE RANGE: -40°C TO $+95^{\circ}\text{C}$, STORAGE TO -62°C .

HUMIDITY: UP TO 95% R.H.
 STABILITY: THE RESONANT FREQUENCY OF THE TUNED CIRCUIT SHALL NOT VARY MORE THAN 8 KC OVER THE TEMPERATURE RANGE -40°C TO +50°C

UNITS SHALL OPERATE WITHIN REQUIRED SPECIFICATION OVER ANY NORMAL COMBINATION OF SPECIFIED SERVICE CONDITIONS. UNITS SHALL SHOW NO EVIDENCE OF CORROSION OR MALFUNCTIONING AFTER SUBJECTED TO FIVE CYCLES NON-OPERATING OR HUMIDITY

CYCLING SPECIFIED ON DWG. SC-D-1626 PLUS A 4 HOUR DRYING PERIOD.
UNIT SHALL BE SUBJECTED TO A VIBRATION TEST IN ACCORDANCE WITH MIL-STD-202, METHOD 201, 30 MINUTES IN EACH PLANE, AT THE

CESSION OF THE TEST UNIT SHALL SHOW NO EVIDENCE OF BREAKAGE, PERMANENT DEFORMATION OR LOOSENING OF PARTS. THE SAMPLE SHALL BE TESTED USING A TUNING TOOL NO. 8606 AS SUPPLIED BY GENERAL CEMENT CO., ROCKFORD, ILL. OR EQUAL. RUNNING TORQUE SHALL BE 3/4 TO 1 LBS INCHES FOR 15 MINUTES. POST TUNING COMPLETION OF TUNING SHALL BE 3/4 TO 1 LBS INCHES FOR 15 MINUTES. POST TUNING COMPLETION OF TUNING SHALL BE 3/4 TO 1 LBS INCHES FOR 15 MINUTES. POST TUNING COMPLETION OF TUNING SHALL BE 3/4 TO 1 LBS INCHES FOR 15 MINUTES.

WILL BE 3/4 TO 8 HIGH GAMES FOLLOWING PRELIMINARY CONDITIONING AS FOLLOWS: ROTATE CORE 1/2 REVOLUTION IN EACH DIRECTION FROM CENTER FREQUENCY POSITION, RETURN TO CENTER FREQUENCY AND A REPEAT FOR A TOTAL OF 5 CYCLES.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

AC-70		PART NO.	DESCRIPTION	QTY	UNIT PRICE	TOTAL PRICE
LIST OF MATERIAL						
UNIFORM OTHERWISE SPECIFIED		DEPARTMENT OF THE ARMY				

[illegible]

SM-D-14-3620	SCOL 28/875			±1/64 ±.005 ±.0	
DRAWN BY <i>[Signature]</i>			REVIEWED <i>[Signature]</i>	DATE	REMARKS
			APPROVED		

SMO-248818	860728	75	DATE	CHECKED BY	APPROVED	FILE NO.	SM-D-249237
NEXT USE	USED ON	ADDITIONAL	ADDITIONAL	ADDITIONAL	ADDITIONAL	ADDITIONAL	ADDITIONAL

APPROVAL	REVISED BY	24 MAR 58	1 / 1	SEE 000000
WHEN REFERRING TO THIS DRAWING STATE DRAWING NO., APPLICABLE ISSUE SYMBOL, IF ANY, AND DATE				