

PERIODIC TESTS AND TROUBLE INVESTIGATION
VOLCAS FOR 22-TYPE REPEATERS USED WITH
TOLL CONFERENCE GROUPING CIRCUITS

1. GENERAL

1.01 This section contains a summary of the local tests required on the volcas and suggests a testing schedule. The intervals specified should be followed in the absence of other intervals authorized by company practices.

1.02 This information is contained in Part 2, in table form. The tests required initially, for periodic maintenance purposes, and when a tube is replaced or a relay adjusted, are indicated. Suggested maintenance testing intervals are given. The test requirements of

Section 332-432-500 are summarized and a reference is made to the paragraphs in that section where the testing method is described.

1.03 This section has been revised to cover changes in the requirements and additional tests to take care of changes in the equipment and also, modifications which experience indicates desirable.

2. SUMMARY OF TESTS AND TESTING SCHEDULE

Table I contains the summary of these tests and the schedule.

TABLE I

	Initial	Maintenance Test Interval			Required when Tubes are Replaced or Relays are Adjusted				Requirements	332-432-500 Par. where Test is Described
		Two Mos.	Four Mos.	One Year	Amp. Tube	Det. Tube	Master Relay	HO Relay		
Heater Current	X								.580 to .700 amp.	5.01 to 5.05
Cathode Activity	X	X			X	X			15% on 1R Test Set 25% on Hickok Set	6.01 to 6.04
Det. Plate Current - Idle Condition	X	X				X			Less than 0.1 mil	6.05 to 6.10
Max. Det. Plate Current	X	X				X			9.0 mils or more Less than 2.0 mils unbal.	6.11 to 6.16
Max. Sensitivity	X								59.0 to 66.5 db	7.05 to 7.07 7.11 to 7.13 7.16 to 7.19
Opr. Sen. - 1200 Cycles Pad Control Office										
EW (Drop)	X	X			X	X	X		41 + 2 db	7.08, 7.09, 7.14, 7.15,
WE (Line)	X	X			X	X	X		46 ± 2 db	7.20, 7.21
Cord Cct. Reptr. Office										
EW (Drop)	X	X			X	X	X		44 + 2 db	
WE (Line)	X	X			X	X	X		46 ± 2 db	
Sensitivity-Freq. Characteristic	X								Relative to 1200 cycles: 500 cycles -15.0 ± 4.5 db 2000 cycles -9.5 ± 2.0 db	8.01 & 8.02
Freq. of Max. Sensitivity	X								Higher than 1000 cycles, Lower than 1400 cycles	9.01 to 9.06
Operate and Release Currents	X						X		Operate: 1.2 to 1.8 mils Release: more than 0.6 mil	10.01 to 10.07
Operate and Release Times (1)	X			X			X	X	Operate: Less than 11 ms Release: 150 ± 30	11.03 to 11.07
Bridging Loss	X								0.3 to 1.1 db from 250 to 2750 cycles	12.01 to 12.09
Transmitting Switched Loss	X							X	40-ohm S Resist: 2.1 to 3.9 db	12.01 to 12.09
Receiving Switched Loss	X							X	62.5 ohms A+B resist: 10.1 to 12.1 db	12.01 to 12.09

(1) Required only at stations where the standard echo suppressor testing set is available.