

**SERVICING CENTER TESTS USING 5U (J98705U) TEST SET**  
**J94002M REPEATER SWITCHING SET**  
**N CARRIER SYSTEM**  
**OVER-ALL TESTS**

The 2 M repeater switch set facilitates the maintenance of type N1 carrier telephone systems by permitting the substitution of an alternate repeater for an active repeater of a working system without interruption of services handled by the system. The set employs as an alternate repeater a standard repeater arranged for fixed gain transmission.

The tests outlined herein are designed to check the characteristics of repeater switching set only. The alternate repeater may be tested in accordance with Section E34.035.10.

**APPARATUS:**

- 1—Vacuum Tube Voltmeter
- 1—Oscillator
- 1—126A Adapter
- 2—P2BP Cords
- 1—P20D Cord
- 1—W2EB Cord
- 1—P4AF Cord
- 2—135-Ohm  $\pm$  5% Resistors

STEP	PROCEDURE
1	Switches A and B on 5U test set on OFF position.
2	Remove the chassis of the repeater switching set from the case, and remove the ALT repeater.
3	Connect repeater switching set, oscillator and vacuum tube voltmeter to 5U test set as shown on associated sketch.
4	Place W-E and E-W switches on repeater switching set on ALT position for all tests.
5	Connect a 135-ohm resistor between terminals 0 and 1 and another between terminals 18 and 19 of ALT REP JACK for all tests.
6	Make tests as outlined on chart.

PURPOSE OF TEST	SWITCH POS.		ATT (DB)	CAL (DB)	OSC FREQ (KC)	W2EB CORD IN REC JK	TEST LIMITS (db)		TS TST	TEST CONDITIONS AND REMARKS						
	C	D					MIN	MAX								
1. W-E CAL RANGE	17	10								Place W-E GAIN control in extreme counterclockwise pos.						
			2	-10.0	160		-10.0			Place W-E CAL control in extreme clockwise pos.						
			0	-10.0	160			-12.0			Place W-E CAL control in extreme counterclockwise pos.					
2. W-E CAL ADJ	17	10	0	-10.0	160		-10.0			Adjust W-E CAL controls so that this value is obtained with controls locked.						
3. E-W CAL RANGE	18	10								Place E-W GAIN control in extreme counterclockwise pos.						
			2	-10.0	160		-10.0			Place E-W CAL control in extreme clockwise pos.						
			0	-10.0	160			-12.0			Place E-W CAL control in extreme counterclockwise pos.					
4. E-W CAL ADJ	18	10	0	-10.0	160		-10.0			Adjust E-W CAL control so that this value is obtained with control locked.						
5. FREQ RESP	W-E 17	10	0	-10.0	50		-10.6	- 8.6								
					100		-10.4	- 9.0								
	E-W 18	10	0	-10.0	200		-10.9	- 9.5								
					250		-11.2	- 9.4								
6. W-E GAIN RANGE	17	10	0	0.0	160	X					With power on 5U OFF meas. across 135-ohm res. term. 0 and 1 of ALT REP jack.					
															W-E GAIN control extreme counterclockwise pos.	
													- 1.0			W-E GAIN control extreme clockwise pos.
7. E-W GAIN RANGE	18	10	0	0.0	160	X					With power OFF across 135-ohm res. term. 18 and 19 of ALT REP jack.					
																E-W GAIN control in extreme counterclockwise pos.
													- 1.0			E-W GAIN control in extreme clockwise pos.

