

**SERVICING CENTER TESTS USING 5U (J98705U) TEST SET  
 J98703AM AND J98705AP SPECIAL SERVICES CHANNEL UNITS  
 N, O AND ON CARRIER SYSTEMS  
 VOICE-FREQUENCY SUBASSEMBLY TESTS**

The special services VF subassembly consists of a transmitting and a receiving circuit. The receiving circuit adjusts the level of the message signal. The transmitting circuit matches the office cabling impedance to the impedance of the carrier frequency subassembly which is used with this unit, amplifies the VF signals, and provides a means of adjusting the level to the modulator in the CF subassembly. The tests outlined herein are designed to check the characteristics of the VF subassembly and make adjustments in the unit for test purposes. Equalization is provided for the filter characteristics of the N, O and ON carrier systems.

**APPARATUS:**

- 1—Vacuum Tube Voltmeter
- 1—Oscillator
- 1—P20D Cord
- 2—P2BP Cords
- 1—123A Adapter

STEP	PROCEDURE
1	Switches C and D on 5U test set on OFF position.
2	Connect VF subassembly, oscillator, and vacuum tube voltmeter to 5U test set as shown on associated sketch.
3	Adjust filament and check plate voltages on 5U test set.  <i>Requirement:</i> Filament 38.5 volts Plate 128-130 volts
4	Make tests as outlined in chart.

PURPOSE OF TEST	SWITCH POS.		ATT db	CAL volts	OSC FREQ. cps	CHAN UNIT SETTINGS			TEST LIMITS db		TS TEST IF REQ.	TEST CONDITIONS AND REMARKS	
	A	B				SI	REC	TRSG	MIN	MAX			
1. O REC GAIN TEST	6	3	10	0.81	1000	O	CCW		-12.0				
							CW	+ 7.0					
2. REC POT ADJ	6	3	10	0.81	1000	O			+5.0			Adj REC pot. for this value, leave there for Tests 3 and 4.	
3. REC FREQ RESPONSE	6	3	10	0.81	250	O		+ 4.5	+ 6.0				
					3500	O		+ 2.2	+ 4.2				
4. N REC GAIN TEST	6	3	10	0.81	1000	N		+ 2.5	+ 4.7				
5. REC POT ADJ	6	3	10	0.81	1000	N			+5.0			Readj. REC pot. for this value. Leave there for Test 6.	
6. REC FREQ RESPONSE	6	3	10	0.81	200	N		+ 4.8	+ 6.4				
					2500	N		+ 4.4	+ 5.6				
					3500	N		+ 3.0	+ 5.0				
7. N TRANS GAIN TEST	3	3	0	0.123	1000	N	CCW		-27.0				
							CW	- 9.0					
8. TRSG POT ADJ	3	3	0	0.123	1000	N			-16.0			Adj. TRSG pot. for this value. Leave there for Test 9.	
9. N TRANS FREQ RESPONSE	3	3	0	0.123	250	N		-18.0	-16.4				
					2500	N		-15.5	-14.5				
					3500	N		-13.6	-12.2				
10. TRSG POT ADJ	3	3	0	0.123	1000	O			-10.0			Readj. TRSG pot. for this value. Leave there for Test 11.	
11. O TRANS FREQ RESPONSE	3	3	0	0.123	250	O		-12.0	-10.0				
					3500	O		-10.7	- 8.7				

\* Recheck Filament Voltage — See Step #3, Page 1.

