

Save It

SERVICING CENTER TESTS USING 5U (J98705U) TEST SET
J98703W SCHEDULE A AND B PROGRAM CHANNEL UNITS
N CARRIER SYSTEM
CARRIER FREQUENCY SUBASSEMBLY TEST

The carrier frequency subassembly of the program channel unit is located in both the transmitting and receiving branch of the channel circuit. The unit contains a crystal oscillator and modulator in the transmitting branch and a regulator and demodulator in the receiving branch. The tests outlined herein are designed to check the characteristics of the carrier frequency unit and to make adjustments in the unit for test purposes.

APPARATUS:

- 1—Vacuum Tube Voltmeter
- 1—Oscillator
- 1—123A Adapter
- 1—Volt-Ohm-Milliammeter
- 2—P20D Cords
- 2—P2BP Cords
- 1—W2EB Cord

STEP	PROCEDURE
1	Switches C and D on 5U test set on OFF position.
2	Connect carrier frequency subassembly, oscillator, and vacuum tube voltmeter to the 5U test set as shown on associated sketch.
3	Adjust filaments and check plate voltages on 5U test set. <i>Requirement:</i> Filament 38.5 volts Plate 128-130 volts
4	Place a short between terminals JB12 and JB14 on the carrier frequency subassembly.
5	Make tests as outlined in chart. <i>Note:</i> This unit is tested for FA connection.

PURPOSE OF TEST	SWITCH POS		ATT SET (db)	CAL (db)	OSC FREQ (cps)	TEST LIMITS		W2EB CORD IN REC JK	MEAS TEST PTS	TS TST	TEST CONDITIONS AND REMARKS
	A	B				MIN	MAX				
1. AVC DELAY	12	9			REMOVE OSCILLATOR FOR THESE TESTS	10.5 DCV	12.5 DCV		JB6 to GND		Meas. with volt-ohm-milliammeter. When possible, use 12V scale.
2. CARR OUTPUT RANGE	12	9				-14.0 db		X	M2 to GND		MOD pot. in extreme clockwise pos.
3. CARR OUTPUT ADJ	12	9				-15.0 db		X	M2 to GND		Adjust MOD pot. for this reading. Do not disturb for remaining tests.
4. CARR LEAK	12	9					-40.0 db	X	M2 to GND		Short M1 test jack to ground.
5. SIDEBAND OUTPUT	7	9	25	+0.7	1000	-33.0 db	-27.0 db	X	M2 to GND		Short M1 test jack to ground.
6. LOOPBACK AMP ADJ	11	11			REMOVE OSCILLATOR FOR THESE TESTS	-16.5 db					Remove gnd. from M1. Adjust LOOP AMP ADJ located on 5U test set for this reading.
7. REG ADJ	11	9				3.0 DCV			R2 to PLT		PLT located on 5U test set. Adjust REG pot. for this reading. Meas. with volt-ohm-milliammeter on 12V scale.
8. DEMOD OUTPUT	11	9				14.0 DCV	17.0 DCV		DEMOD OUT		Test jacks located on 5U test set. Meas. made with volt-ohm-milliammeter.
9. REG TEST	11	11				-11.5 db					
	11	9				+1.0 DCV		DEMOD OUT			Test limit is volts departure from reading of Test 8. Wait 1/2 minute before taking reading.
	11	11			-21.5 db						Set LOOP AMP ADJ pot. located on 5U test set for this reading.
	11	9				-2.0 DCV		DEMOD OUT			Test limit is volts departure from reading of Test 8. Wait 1/2 minute before taking reading.

