

**MULTIFREQUENCY CURRENT SUPPLY
AND DISTRIBUTION CIRCUIT SD-95391-01
WITHOUT TRANSFER AND ALARM CIRCUITS
TESTS**

1. GENERAL

1.01 This section describes a method of testing the output frequency and output level of the multifrequency current supply and distribution circuit SD-95391-01.

1.02 Whenever this section is reissued, the reason for reissue will be stated in this paragraph.

1.03 The tests covered are:

A. Oscillator Output Power: This test checks the output power of each oscillator.

B. Frequency Test: This test checks the output frequency of each oscillator.

1.03 The tests in this section should be made during periods of light loads and, preferably, when the test circuits using multifrequency pulsing are not being used.

1.04 In this section, (—~) is used to indicate the oscillator output jack designated 700, 900, 1100, 1300, 1500, or 1700.

1.05 The transmission measuring set is referred to as TMS in this section.

1.06 The multifrequency current supply will be referred to as MFCS SD-95391-01 in this section.

1.07 The cathode ray tube in the 72A frequency meter will be referred to as CRT in this section.

1.08 The required record of these tests should be entered on the proper form.

1.09 Lettered Steps: A letter (a, b, c, etc) added to a step number in Parts 3 and 4 indicates an action which may or may not be required, depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

2. APPARATUS

2.01 One 2P13B patching cord assembly (P2AA cord, 6 feet long, equipped with 241A plugs on each end).

2.02 One 3P17B testing cord assembly (P3N cord, 6 feet long, equipped with a 310 plug on one end and a 241A plug on the other end).

2.03 23A transmission measuring set, J94023A (Section 103-223-100), or equivalent.

2.04 72A frequency meter, J64072A (Section 103-425-100), or equivalent.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

3. PREPARATION

STEP	ACTION	VERIFICATION
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Test A

- | | | |
|---|--|--|
| 1 | At TMS—
Operate DIAL, MEAS, SLV switch to MEAS. | |
| 2 | Operate ADD DBM switch to -5. | |
| 3 | Operate INPUT switch to 600. | |
| 4 | Insert 310 plug of 3P17B cord into 310 MEAS jack. | |

Test B

- | | | |
|----|---|--|
| 5 | At 72A frequency meter—
Connect 115-volt power cord to 115-volt power source. | |
| 6 | Operate 115-volt 60 power switch to ON position. | |
| | <i>Note:</i> Allow approximately 10 minutes for 72A frequency meter to warm up. | |
| 7 | Operate CAL, MEAS, SEARCH switch to MEAS position. | |
| 8 | Rotate INTENSITY control clockwise until trace appears on CRT. | |
| 9 | Adjust FOCUS control until trace is sharp. | |
| 10 | Adjust HORIZ GAIN AND OSC OUT control until trace is approximately 1 1/2 inches long. | |
| 11 | Insert one end of 3P17B cord into BRDG IN jack. | |

4. METHOD

A. Oscillator Output Power

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|----|---|--|
| 5 | At MFCS SD-95391-01—
Insert one end of 2P13B cord into OSC jack. | |
| 6 | Insert other end of 2P13B cord into (-~) jack of oscillator being tested. | |
| 7a | If MFCS SD-95391-01 is wired per Fig. 10—
At MFCS SD-95391-01— | |

At TMS—
If J and K resistors are 2060 ohms (option)

STEP	ACTION	VERIFICATION
	Insert the 241A plug of the 3P17B cord into the 600 jack.	P)— Meter should indicate 0 dBm \pm 0.4 dB. If J and K resistors are 2320 ohms (option N)— Meter should indicate -1 dBm \pm 0.4 dB.
8b	If MFCS SD-95391-01 is wired per Fig. 18— At MFCS SD-95391-01— Insert 241A plug of the 3P17B cord into the MEAS jack.	At TMS— If J and K resistors are 2060 ohms (option P)— Meter should indicate 0 dBm \pm 0.4 dB. If J and K resistors are 2320 ohms (option N)— Meter should indicate -1 dBm \pm 0.4 dB.
9c	If TMS indications in Step 7a or 8b are not within limits— At MFCS SD-95391-01— Change oscillator X lead connections until TMS indications are within 0.35 dB of 0 or -1 dBm.	
	Note: If the requirements can no longer be met with the X lead on tap 1 or if it is necessary to change the X lead of tap 1 and there have been other tap changes within the past two years, the 310D varistor should be replaced with a 319A varistor.	
10	At MFCS SD-95391-01— Disconnect plug of 2P13B cord from (-~) jack.	
11	Repeat Steps 6 through 10 for each oscillator.	
B. Frequency Test		
12	At MFCS SD-95391-01— Connect other end of 3P17B cord to (-~) jack of oscillator being tested.	
13	At 72A frequency meter— Operate FREQUENCY CPS knobs to frequency of oscillator being tested.	
14	Adjust VERTICAL GAIN control for approximately 1 1/2 inch vertical deflection on CRT.	
15	Adjust the FREQUENCY CPS knobs until pattern on CRT is a stationary circle.	Frequency should be within limits specified in Table A.
16	At MFCS SD-95391-01— Disconnect plug of 3P17B cord from (-~) jack.	

STEP	ACTION	VERIFICATION
17	Repeat Steps 12 through 16 for each oscillator.	
18	Remove all test cords.	

TABLE A

OSCILLATOR OUTPUT FREQUENCY IN HZ	UPPER AND LOWER FREQUENCY LIMITS
700	693 to 707
900	891 to 909
1100	1089 to 1111
1300	1287 to 1313
1500	1485 to 1515
1700	1683 to 1717