OSC LOCATED IN UNIT #1 BAY

AUTOMATIC NUMBER IDENTIFICATION OSCILLATOR CIRCUITS
FUNCTIONAL TESTS
NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes a method of testing the oscillator circuits that supply the automatic number identification signal for No. 1 crossbar offices.

1.02 This section is reissued to bring it in conformity with other material in the Plant Series. In this process marginal arrows have been omitted.

1.03 The tests covered are:

A. ***Transfer of Control Feature:*** This test checks that the work load of an oscillator when plugged busy is transferred to the associated oscillator where oscillators are supplied in pairs.

B. ***Oscillator Frequency:*** This test checks that the oscillator frequency is within the prescribed limits.

C. ***Oscillator Output Voltage:*** This test checks that the oscillator has an output voltage at the prescribed level.

1.04 Test A applies only where the oscillators are supplied in pairs.

1.05 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Part 4 of this section, 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

All Tests

2.01 One No. 258C (make busy) plug.

Test A

2.02 Test receiver, No. 716C or equivalent receiver, attached to a W2AB cord equipped with two No. 360A tools (No. 2W21A cord), one No. 365 tool, and one No. 624B tool (to check operation of the OSC relay).

Test B

2.03 No. 72A frequency meter (to check oscillator frequency).

2.04 Testing cord, No. 3P17B modified by removing sleeve connection to No. 310 plug (to connect oscillator frequency to meter).

2.05 No. 712A tool, or equivalent (to adjust oscillator frequency).

Test C

2.06 KS-14510 volt-ohm-milliammeter or equivalent (to check for the presence and correct value of 100-ohm test load resistor).

2.07 Hewlett-Packard vacuum tube voltmeter, model 400D, or equivalent (to check oscillator output voltage).

2.08 Testing cord, No. 2W42A cord.

3. PREPARATION

STEP	ACTION	VERIFICATION
All Tests		
1	Make busy oscillator under test.	

4. METHOD

STEP	ACTION	VERIFICATION
	A. Transfer of Control Feature	
2	Connect test receiver to ground with No. 365 tool.	
3	Connect No. 624B tool of test receiver to punching 5 of terminal strip.	OSC relay of paired oscillator operates.
4	Remove test receiver connections.	OSC relay releases.
5a	If no other tests are to be made — Remove make-busy plug.	
	B. Oscillator Frequency	
2	Connect BRDG IN jacks of No. 72A frequency meter to TST jack of oscillator with testing cord. (Modified No. 3P17B cord.)	One stationary double loop (figure eight pattern) on screen of meter, checking between 2897.5 and 2902.5 cps meter settings. (5795 - 5805)
3a	If this pattern cannot be found within specified limits — Use No. 712A tool, or equivalent, to adjust N1 network until stationary double loop (figure eight pattern) occurs at setting of 2900 cps on frequency meter. (5800 CPS WITH 521A)	ADR key - Operated. MB plug in MB using 3551 meter. plug in TST jack should read 5800 ~ adj. N1 if necessary.
4	Remove testing cord connections.	
5b	If no other tests are to be made — Remove make-busy plug.	
	C. Oscillator Output Voltage	
2	Connect volt-ohm-milliammeter (meter switches set for ohmmeter function) to terminals 4, 5 of TST jack, make certain TST jack is not plugged.	Meter reads 95 to 105 ohms.
3	Remove volt-ohm-milliammeter connections.	
4	Connect electron tube voltmeter to TST jack with testing cord. ***Caution:** When connecting the No. 2W42A cord to the voltmeter, the black lead and associated spade lug must be connected to the ground terminal of the meter to avoid short circuiting the oscillator output.*	Output voltage measures ~~2.2~~ 2.25 v. volts. AMPHENOL meter Set to ACV 3V scale ground to frame BLK + WHITE cord (use white only) BLACK ON GRD. test pick touch white cord, read 2.2 - 2.25V
5a	If voltage does not measure 2.2 volts — Adjust V potentiometer until output voltage reading is 2.2 volts on voltmeter.	
6	Remove testing cord connections.	
7b	If no further tests are to be made — Remove make-busy plug.	