

DATA SET 112A-TYPE TEST PROCEDURES

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set receive circuits and the data set ready (CC) lead.

1. GENERAL

1.01 This section describes the test procedures to be performed when investigating trouble conditions associated with Data Sets 112A L1 and 112A L1/2.

1.02 The tests covered are:

A. Data Set Test Mode Test: This test checks the operation of the data set while in the test mode.

B. Loop-Back Test From Data Test Center (DTC): This test checks the transmit frequencies, levels, and spacing sensitivity of the data set. A check is also made of the data

1.03 Tests should be performed in an environment that is quiet enough to prevent external noise from interfering with the test results. This is necessary because Data Set 112A-type is an acoustically-coupled type data set.

1.04 Prior to performing these tests, all test equipment having individual test specifications shall have met its own test requirements.

1.05 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 3 or 4 of this section, indicates an action which may or may not be required. The condition under which a lettered step or 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 The apparatus for each test is shown in Table A.

3. PREPARATION

STEP	ACTION	VERIFICATION
All Tests		
1	Remove bottom cover of data set as described in the section entitled Data Set 112A-Type—Maintenance (591-032-300).	
2	Verify the LA2 transducers are positioned as shown in Fig. 1.	
3	Replace bottom cover of data set as described in the section referred to in Step 1.	

SECTION 591-032-500

STEP	ACTION	VERIFICATION
4	Insert plug of power cord equipped with 2012B transformer into power cord receptacle in data set handset compartment.	
5	Plug 2012B transformer into a 117-volt, 60-Hz outlet.	

4. METHOD

STEP	ACTION	VERIFICATION
A. Data Set Test Mode Test		
6	Operate DATA/TEST key to TEST and close data set handset compartment cover.	DATA lamp lighted. Tone (f_2) can be heard alternating between mark and space at a rate of 3 bits per second.
7	Count the number of times the tone switches.	After 11 ± 3 switches— DATA lamp flashes in accordance with switching of the tone.
8a	If no further tests are to be made— Disconnect the data set and return it to service.	

B. Loop-Back Test From Data Test Center (DTC)

6	Operate DATA/TEST key to DATA and HDX/FDX key to HDX.	
7	Using VTVM— Measure voltage between pin 6 (CC lead) and pin 7 (ground lead) of the data set interface connector.	VTVM indicates -5.5 ± 0.5 volts.
8	Operate the HDX/FDX key to FDX.	
9	At the 901B DTS cover— Connect a strap, supplied with 901B DTS cover, between terminals EQ2 and EQ3.	
10	Connect 901B DTS interface cable plug to data set interface connector.	
11	Place a call to the DTC and request a test be made.	
12	When tone is heard in the telephone handset— Place the handset into the data set handset compartment and close the cover.	

- | STEP | ACTION | VERIFICATION |
|------|---|--------------|
| 13 | After a prearranged time has elapsed—
Remove the handset from the data set compartment and contact the DTC for the test results. | |
| 14a | If no further tests are to be made—
Disconnect the data set, place telephone handset on hook, and return data set to service. | |

TABLE A
APPARATUS

TEST EQUIPMENT	TEST	
	A	B
901B Data Test Set (DTS)		X
VTVM, Hewlett Packard Model 412A or equivalent		X
2102B Transformer with power cord assembly	X	X

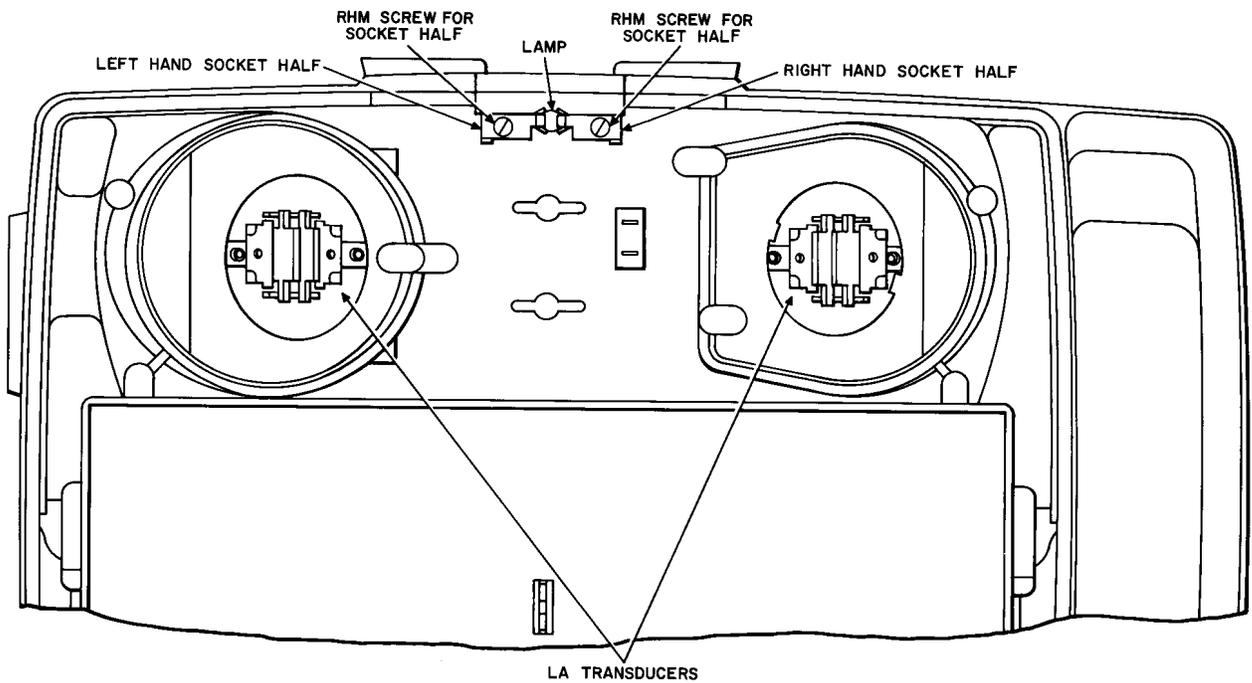


Fig. 1—LA Transducers Positioning