

**DATA SET 602C-TYPE**  
**TRANSMITTER-RECEIVER**  
**TEST PROCEDURES**

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**1. GENERAL**

**1.01** This section covers the test procedures which may be used at the time of installation and on repair visits.

**1.02** This section is reissued to include new test procedures utilizing the 914B Data Test Set (DTS) and information on Data Sets 602C5, 602C6, 602C7, and 602C8. Due to extensive revision, arrows ordinarily used to indicate changes have been omitted.

**1.03** The following tests are described in this section:

- (a) Power ground noise test
- (b) Remote test

- (c) Automatic answer test
- (d) Interface test
- (e) Reverse channel receive test
- (f) End-to-data test center test
- (g) End-to-end test

**1.04** When more than one method of performing a test procedure is given, the method selected should depend upon the type of test equipment available.

**2. INSTALLATION TEST PROCEDURES**

**2.01** The following tests should be made to ensure proper operation of Data Set 602C-type immediately after installation and during a maintenance visit.

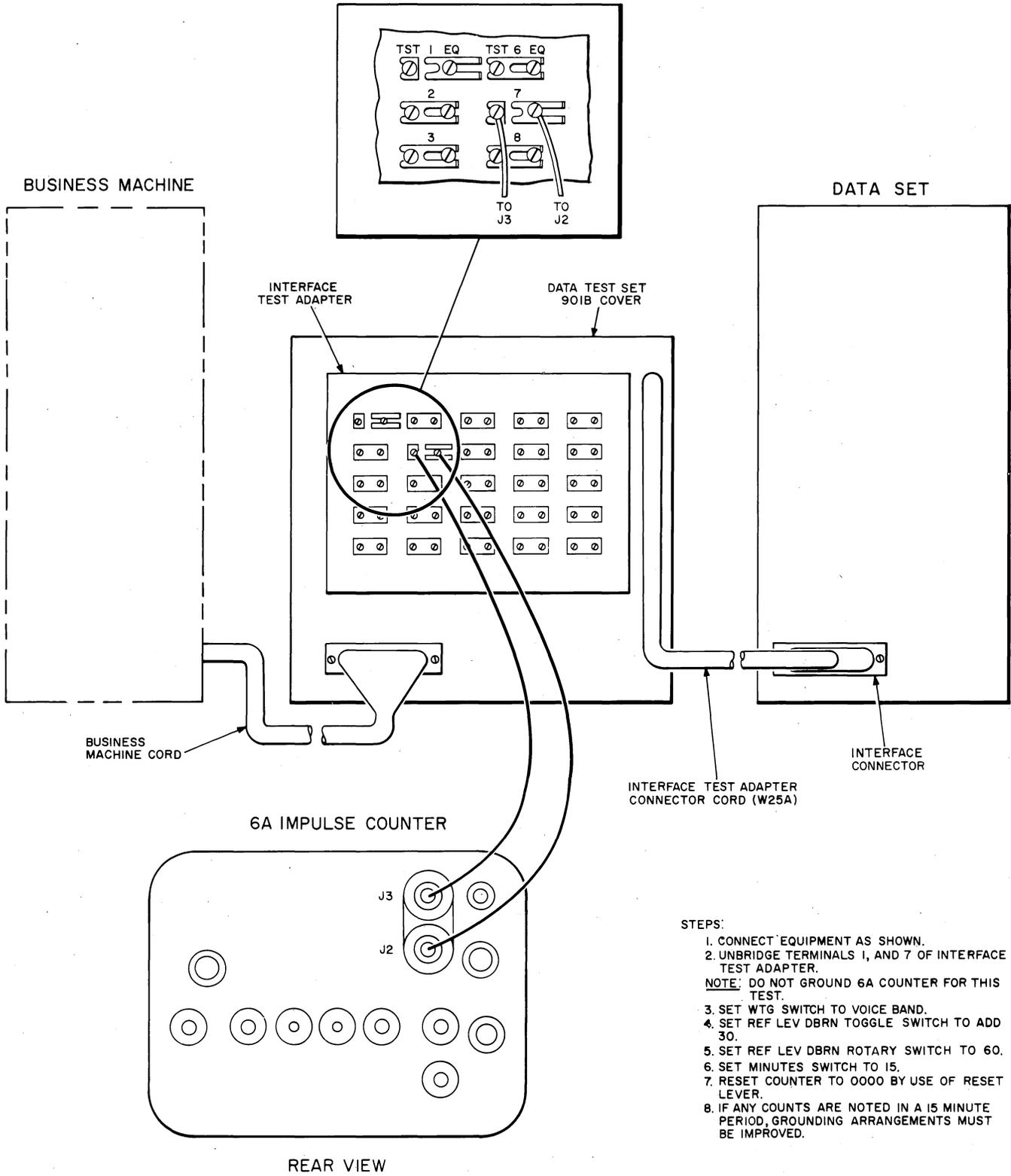
**A. Power Ground Noise Test**

**2.02** The power ground noise test should be performed when the data set and business machine are not served from the same ac distribution panel. Data errors may result from an improper grounding arrangement.

**2.03** There are two methods of performing the power ground noise test, as follows:

- (a) 6A impulse counter and 901B DTS cover (interface test adapter) method
- (b) 6A impulse counter and 914B DTS method.

**2.04** The 6A impulse counter is connected and the test is performed as shown in Fig. 1 if the 901B DTS is used or Fig. 2 if the 914B DTS is used.



- STEPS:
1. CONNECT EQUIPMENT AS SHOWN.
  2. UNBRIDGE TERMINALS 1, AND 7 OF INTERFACE TEST ADAPTER.
- NOTE: DO NOT GROUND 6A COUNTER FOR THIS TEST.
3. SET WTG SWITCH TO VOICE BAND.
  4. SET REF LEV DBRN TOGGLE SWITCH TO ADD 30.
  5. SET REF LEV DBRN ROTARY SWITCH TO 60.
  6. SET MINUTES SWITCH TO 15.
  7. RESET COUNTER TO 0000 BY USE OF RESET LEVER.
  8. IF ANY COUNTS ARE NOTED IN A 15 MINUTE PERIOD, GROUNDING ARRANGEMENTS MUST BE IMPROVED.

Fig. 1—Power Ground Noise Test Using 6A Impulse Counter and 901B Data Test Set

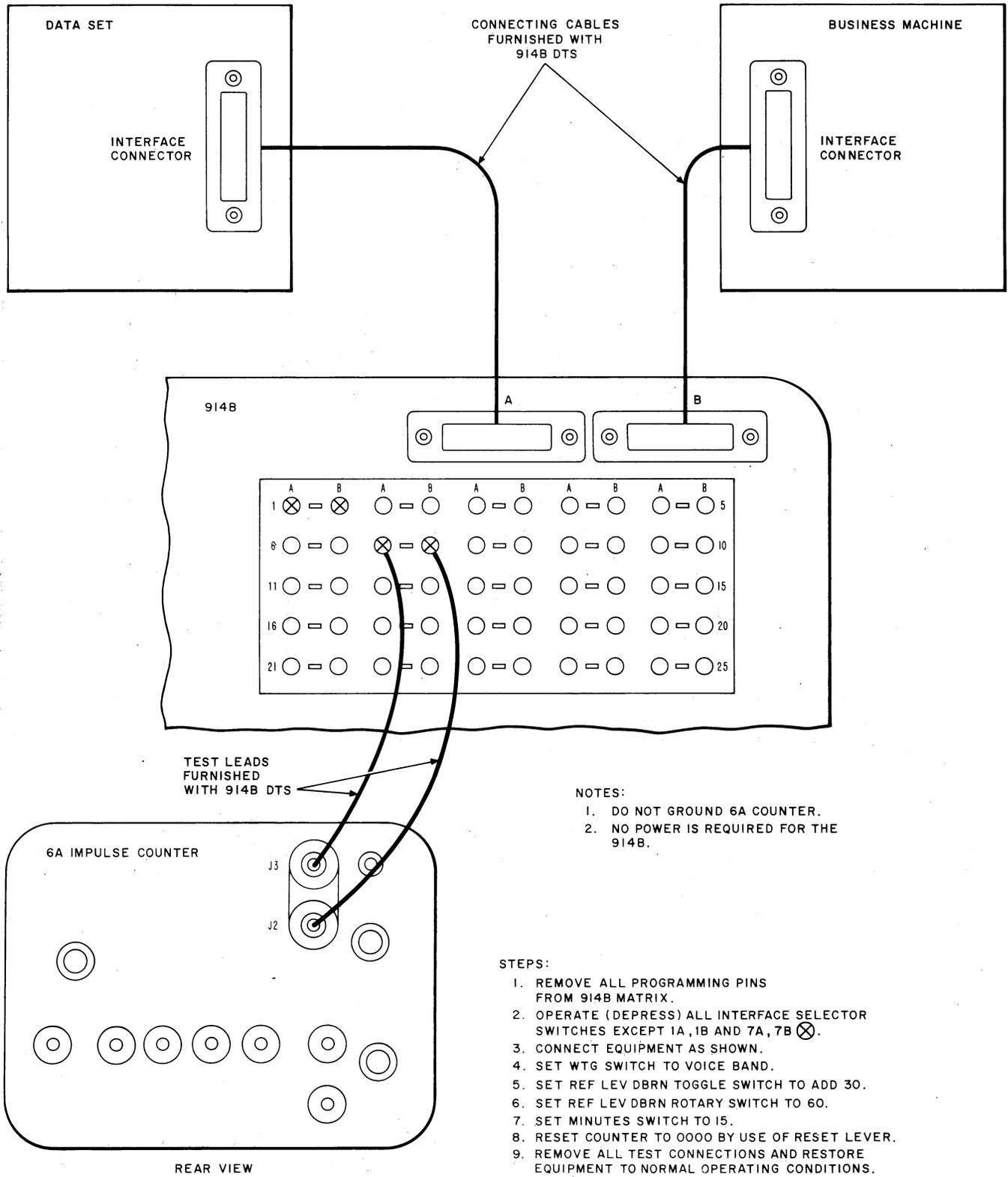


Fig. 2—Power Ground Noise Test Using 6A Impulse Counter and 914B Data Test Set

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**Note:** General description, calibration, and operating procedures for the 6A impulse counter are contained in the section entitled 6A Impulse Counter, Description, Operation and Maintenance (103-620-100).

**2.05** If any counts are noted in a 15-minute period, grounding arrangements must be improved as covered in the section entitled Data Set 602C-Type, Transmitter-Receiver, Installation and Connections (596-016-200).

**B. Remote Test**

**2.06** When Data Set 602C-type is to be remotely tested, call the nearest test center and request the test. When instructed to do so, listen for two test tones, depress the appropriate test button in accordance with Table A, and replace handset on the cradle.



**Take the proper steps to ensure that the customer is not billed for test calls. Refer to the section entitled Crediting Charges on Test Calls (010-250-001).**

**TABLE A**

DEPRESS "TEST" BUTTON	DEPRESS "TEST 2" BUTTON
Data Set 602C1 and C2 series 1,2,or 3	Data Set 602C1 and C2 series 4 and above
	Data Set 602C3 and C4 all series
	Data Set 602C5 through C8 all series

**2.07** The test center now has complete control of the data set and will check operation of the following:

- (a) Carrier detector
- (b) Request-to-send circuit

- (c) Receive data circuit
- (d) Sync circuit
- (e) Reverse-channel circuit (Data Sets 602C2 series 4 and above, 602C4 series 1 and above, and 602C6 and 602C8 all series).
- (f) Modulator-demodulator circuits and linearity.



**A special test must be performed by the data test center on Data Sets 602C-type having reverse channel but not sync channel capabilities. Inform the data test center when one of these sets must be tested.**

**2.08** In Data Sets 602C-type having reverse channel, a third tone (387 Hz) is used to test the reverse-channel circuitry.

**C. Automatic Answer Test**

**2.09** This test procedure verifies the operation of the automatic answer circuitry for Data Set 602C-type.

**Data Set 602C1 or C2 Series 1, 2, or 3**

**Note:** Check that the connecting cord between the data set and business machine is connected properly, and that the business machine and data set are conditioned for automatic answer. If a business machine is not available for this operation, a 901B DTS (interface test adapter) or a 914B DTS may be used. If the interface test adapter is used, strap captive shorting clips 19, 20, and 21 together. If a 914B DTS is used, interconnect the data set and test set A connector using the cord supplied with the test set, depress all A interface switches, and place programming pins in 19, 20, 21, and TP1 crosspoints on the 914B DTS matrix.

**2.10 Test Procedure:**

STEP	PROCEDURE
1	Call the test center on the data line. Request a ringback to test the automatic answer feature.
2	Hang up the handset.
3	When the test center calls, the data set bell will ring and the DATA lamp will light after approximately 5 seconds.
4	Wait 30 seconds, pick up the handset, and depress the TALK button. Verify that the test center received the answer-back tone for 5 seconds.

**Data Set 602C1 or C2 Series 4 or Data Set 602C3 or C4 Series 1**

**Note:** Check that the connecting cord between the data set and business machine is connected properly and that the business machine and data set are conditioned for automatic answer. If a business machine is not available for this operation, a 901B DTS (interface test adapter)

or a 914B DTS may be used. If the interface test adapter is used, strap the captive shorting clips 19 and 20 together. If a 914B DTS is used, interconnect the data set and test set A connector using the cord supplied with the test set, depress all A interface switches, and place programming pins in 19, 20, 21, and TP1 crosspoints on the 914B DTS matrix.

**2.11 Test Procedure:**

STEP	PROCEDURE
1	Call the test center on the data line. Request a ringback to test the automatic answer feature.
2	Place handset on-hook.
3	Depress TEST 1 button.
4	When the test center calls, the data set bell will ring and the DATA lamp will light after approximately 5 seconds.
5	Wait 30 seconds, pick up the handset, depress the TALK button, and verify that the test center received an answer-back tone for 5 seconds (Data Sets 602C1 and 602C3) and a 387-Hz tone (Data Sets 602C2, 602C4, 602C6, and 602C8).  <b>Note:</b> To transfer from the automatic answer circuitry test to the data set test, pick up the handset, depress TALK button, and when two tones are audible, depress TEST 2 button.

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**Data Sets 602C1 and 602C2 Series 5 and Above,  
Data Sets 602C3 and 602C4 Series 2 and Above,  
and Data Sets 602C5, 602C6, 602C7, and 602C8  
All Series**

**2.12 Test Procedure:**

STEP	PROCEDURE
1	Call the test center on the data line. Request a ringback to test the automatic answer feature.
2	Place handset on-hook.
3	Depress TEST 1 button.
4	When the test center calls, the data set bell will ring and the DATA lamp will light after approximately 5 seconds.
5	Wait 30 seconds, pick up handset, depress the TALK button, and verify that the test center has received an answer-back tone for 5 seconds (Data Sets 602C1, 602C3, 602C5, and 602C7) and a 387-Hz tone (Data Sets 602C2, 602C4, 602C6, and 602C8).
<p><b>Note:</b> To transfer from the automatic answer circuitry to the data set test, pick up the handset, depress TALK button, and when two tones are audible, depress TEST 2 button.</p>	

**3. MAINTENANCE TEST PROCEDURE**

**3.01** The following tests should be performed after Data Set 602C-type has not met the requirements of the remote test and a telephone company employee has been dispatched to the station.

**A. Interface Test**

**3.02** This test may be used to localize trouble within the data set. It will help to identify a particular defective board or line control unit.

**3.03** Perform these tests as outlined either in Table B for the 901B DTS or in Table C for the 914B DTS. If any of the steps fail, refer to the printed board (far right column) corresponding to the step failure. If more than one board is shown, either may be at fault. Replace in the

sequence indicated and retest after each replacement. Replacement of units, such as the 3A-type data unit, should not be done on the customer premises.

**B. Reverse-Channel Receive Test**

**Note:** The reverse-channel receive test applies only to Data Sets 602C2, 602C4, 602C6 and 602C8.

**3.04** This test will require placing a call to either a nearby telephone or to the data test center in order to bring up the line status relay in the 3A-type data unit. The purpose of the test is to verify the operation of the reverse-channel receiver of Data Set 602C-type using a 901B DTS, the procedures for testing the reverse-channel receiver with the 914B DTS are included in the End-to-Data Test Center and End-to-End Tests.

**3.05** Perform the following procedure:

STEP	PROCEDURE
1	On 901B DTS (interface test adapter), unbridge terminals 4 and 10.
2	Place a strap between 4EQ and 10EQ to make pin 4 (request to send) negative (-).
3	Set A TEST and B TEST switches to OFF and SELECTOR switch to position 3 on the 901B DTS.
4	Place the meter between terminals C and D. Terminal D should be negative (-). The meter should read $8 \pm 1$ volts dc.
5	Dial a nearby telephone or data test center. When the connection is established, press the DATA button.
6	Connect the meter between terminals C and D. The D terminal should be positive (+). The meter should read $12 \pm 1$ volts dc.

**C. End-To-Data Test Center Test**

**3.06** The purpose of this test is to test the linearity of the data system by transmitting and receiving test voltages to the DTC over the line facilities.

**3.07** The only test equipment required for this test is a 914B DTS.

**3.08** Before making test connections, ensure that all programming pins are removed from the 914B DTS matrix.

**3.09** For further information on the 914B DTS, refer to the section entitled 914B Data Test Set—Description and Operation (107-101-100).

**3.10** Perform the following procedure:

STEP	PROCEDURE
1	Disconnect customer interface cord from Data Set 602C-type.
2	Using the cord furnished with the 914B DTS, connect between the interface connector of Data Set 602C-type and the A connector of the 914B DTS. Depress all A interface switches on the 914B DTS.
3	Set the following switches on the 914B DTS.  INTERFACE MODE—VOLTAGE  TEST SET MODE—TRMT SER  COUNTER—INTERVAL X100  FUNCTION—OFF

STEP	PROCEDURE
	<p>S1 through S8—OFF</p> <p>REFERENCE VOLTAGE—0</p> <p>OUTPUT—TP3</p> <p>WORD LENGTH—DOT</p> <p>SIGNAL LEVEL—<math>\pm 4</math>V</p> <p>BIT RATE—150</p>
4	<p>Place a red programming pin into the following crosspoints on the 914B DTS matrix.</p> <p>GRD AND 1, 7, 19, 20, 21</p> <p>SD AND 17</p> <p>S1 AND 4</p> <p>DS1 AND 6</p> <p>DS2 AND 12</p> <p>TP3 AND 2</p>
5	<p>Plug Data Set 602C-type and 914B DTS into a customer-supplied source of 115 volt 60 Hz power and depress POWER switch on the 914B DTS.</p>
6	<p>Depress TALK button and lift handset of Data Set 602C-type. TALK lamp should light. Call the nearest DTC and request an End-to-DTC test of Data Set 602C-type. Arrange to perform the test. If the Data Set is equipped with a reverse channel, the DTC will be able to signal by transmitting 387 Hz, which will light DS2 on the 914B DTS when it is ready to measure the next frequency. If the data set is not equipped with a reverse channel, a time interval should be agreed upon. Request that the DTC return on line after the four test frequencies have been transmitted.</p>
7	<p>Depress DATA button and replace handset. DATA and DS1 lamps should light.</p>
8	<p>Place S1 to ON. DTC should receive and measure <math>1500 \pm 50</math> Hz. If sync channel option is installed, switch between 150 and EXT— positions of the BIT RATE switch. DTC should monitor the sync tone.</p>
9	<p>After receiving a reverse channel indication (DS2 lights) or the prearranged time interval, place SELECT switch to +1.0 position. DTC should receive and measure <math>1636 \pm 50</math> Hz.</p>
10	<p>After DS2 lights or prearranged time interval, place SELECT switch to +2.0 position. DTC should receive and measure <math>1771 \pm 50</math> Hz.</p>

STEP	PROCEDURE
11	After DS2 lights or prearranged time interval, place SELECT switch to +7.0 position. DTC should receive and measure $2450 \pm 50$ Hz.
12	After DS2 lights or prearranged time interval, depress TALK button and lift handset. TALK lamp should light, DATA and DS1 lamps should extinguish.
13	<p>Discuss results of the test with the DTC. Request the DTC transmit the following frequencies one at a time:</p> <p style="padding-left: 40px;">1550 Hz</p> <p style="padding-left: 40px;">1636 Hz</p> <p style="padding-left: 40px;">1771 Hz</p> <p style="padding-left: 40px;">2450 Hz</p> <p>Duration of the tones and interval between tones should be prearranged. Request DTC return on line after transmitting the tones.</p>
14	<p>Set the following switches on the 914B DTS:</p> <p style="padding-left: 40px;">VERTICAL MONITOR—POSITION 3</p> <p style="padding-left: 40px;">FUNCTION—VOLT INT</p> <p style="padding-left: 40px;">RANGE—DCV 3</p> <p style="padding-left: 40px;">OUTPUT—OFF</p> <p style="padding-left: 40px;">S1—OFF</p> <p style="padding-left: 40px;">POLARITY—NOR</p>
15	Depress DATA button and replace handset. DATA and DS1 lamps should light; TALK lamp should extinguish.
16	When 1500 Hz is received, meter on 914B DTS should indicate $0 \pm 0.5$ .
17	When 1636 Hz is received, meter should indicate $1.0 \pm 0.5$ .
18	When 1771 Hz is received, meter should indicate $2.0 \pm 0.5$ .
19	Place RANGE switch to DCV10 position.
20	When 2450 Hz is received, meter should indicate $6.5 \pm 0.5$ .
21	Depress TALK button and lift handset. TALK lamp should light, DATA and DS1 lamps should extinguish.

STEP	PROCEDURE
22	Discuss results with DTC.
23	End of test, return to pretest conditions.

**D. End-To-End Test**

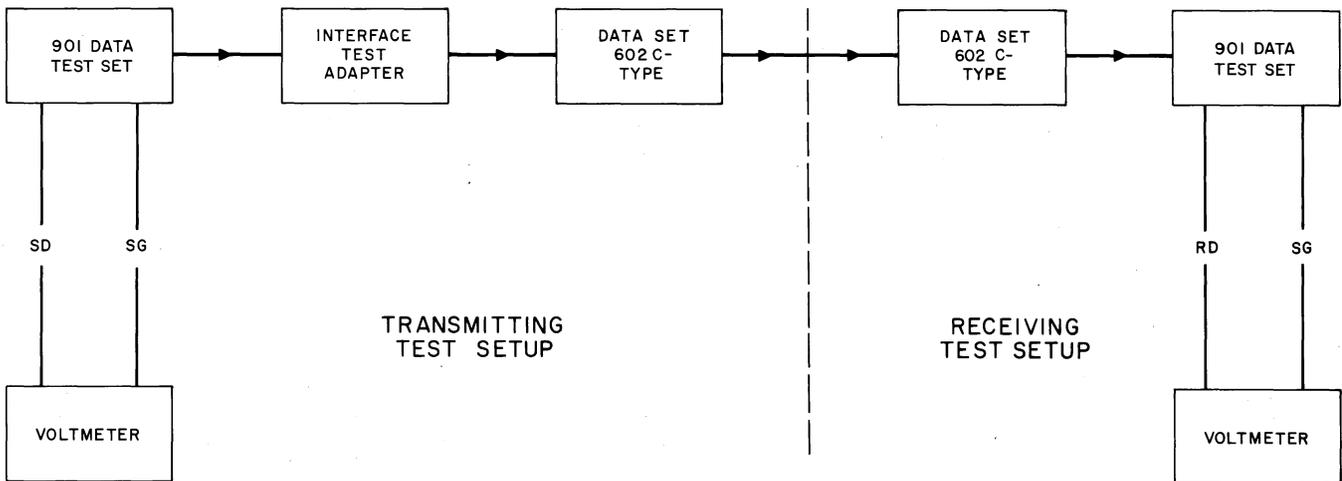
**3.11** The purpose of this test is to check the linearity of the data system by transmitting and receiving test voltages over the line facilities.

**3.12** Figure 3 is a block diagram of an end-to-end test using the 901B DTS.

**3.13** This test should not be performed unless all other tests have been performed and the trouble has not been located.

- (a) 901-type DTS
- (b) KS-14510-L1 volt-ohm-milliammeter, or equivalent 20,000 ohms-per-volt meter
- (c) 901B DTS (interface test adapter)
- (d) Three resistors, Western Electric type 145A:
  - (1) 2160 ohms
  - (2) 7500 ohms
  - (3) 8250 ohms
- (e) 3 General Radio banana plugs, type 274-MB, or equivalent

The following test equipment is required to perform the test.



**Fig. 3—Block Diagram, End-To-End Test, Interface Test Adapter Method**

**3.14 Transmitting End Preparation:**

STEP	PROCEDURE
1	Set the controls of the 901-type DTS as follows: SELECTOR switch to position 4 (901A DTS to position 202A) A TEST switch to position 8 B TEST switch to OFF UNATT-ATT switch to UNATT
2	Connect the 7500-ohm resistor across one banana plug, and the 2610-ohm resistor across another banana plug. Connect a shorting strap across the third banana plug.
3	Connect the 8250-ohm resistor between terminals 2 and 9 of the interface test adapter.  <i>Note:</i> Do not open any of the interface test adapter captive shorting clips.
4	Plug the shorting banana plug into the TRANSMIT DATA terminals on the 901B DTS.
5	Connect the KS-14510 meter between the TRANSMIT DATA terminals on the 901-type DTS. Connect + to the red terminal, and - to the black terminal. Set meter selector to the 12 VDC scale.
6	Connect the 901-type DTS cord into the interface test adapter connector.
7	Connect the interface test adapter cord into the Data Set 602C-type interface connector (in place of the business machine).

**3.15 Receiving End Preparation:**

STEP	PROCEDURE
1	Set the controls of the 901-type DTS as follows: SELECTOR switch to position 4 (901A DTS to position 202A) A TEST switch to OFF B TEST switch to OFF UNATT-ATT switch to UNATT
2	Connect the KS-14510 meter between the RECEIVE DATA terminals of the 901-type DTS. Connect + to the red terminal, and - to the black terminal. Set meter selector to the 12 VDC scale.
3	Connect 901-type DTS to Data Set 602C-type (in place of the business machine cord).

## 3.16 Test Procedure:

STEP	PROCEDURE
1	Establish a call on the data line over the switched network or line facilities that the customer will normally use.
2	Inform the receiving station that the transmitting station is ready to proceed with testing.
3	Request the receiving station to depress the DATA button.
4	Depress the DATA button at the transmitting station. Observe that the DATA lamp lights after about 5 seconds.
5	The meter should read $0 \pm 0.5$ volt at the transmitting station. Record the voltage obtained at the receiving station.
6	<p>At the transmitting end—</p> <p>(a) Disconnect the meter.</p> <p>(b) Disconnect the shorting banana plug and replace it with the banana plug equipped with the 2610-ohm resistor.</p> <p>(c) Reconnect the meter.</p>
7	The meter should read $3.5 \pm 0.5$ volts at the transmitting station. Record the voltage obtained at the receiving station.
8	<p>At the transmitting end—</p> <p>(a) Disconnect the meter.</p> <p>(b) Disconnect the banana plug connected to the 2610-ohm resistor and replace it with the banana plug equipped with the 7500-ohm resistor.</p> <p>(c) Reconnect the meter.</p>
9	The meter should read $7.0 \pm 0.5$ volts at the transmitting station. Record the voltage obtained at the receiving station.
10	<p>A 3.5-volt change at the transmitting station should result in a change of <math>3.5 \pm 0.5</math> volts at the receiving station. The 7-volt change should result in a change of <math>7 \pm 1.0</math> volts at the receiving station.</p> <p><b>Note:</b> Voltage differences between the readings should be calculated from readings taken on the same meter scale.</p>
11	If calls and data transmission will be made in both directions, change the setup so that the former transmit station becomes the receive station, and the former receive station becomes the transmit station. Repeat Steps 1 through 10.

**914B Data Test Set Method**

**3.17** Figure 4 is a test connection diagram showing the equipment required to perform an end-to-end test of Data Set 602C-type.

**3.18** Test set switches not shown on the test connection diagram or not mentioned in text are not required for the test.

**3.19** Before making test connections, ensure that all programming pins are removed from the 914B DTS matrix. Insert only those pins shown in the test connection diagram.

**3.20 Test Procedure:**

STEP	PROCEDURE
1	Connect equipment as shown in the test connection diagram.
2	Plug the two 914B DTSs into a customer-supplied source of 115-volt 60 Hz power and depress POWER switches.
3	Transmitting station should establish a call to the receiving station on the data line over the switched network or line facilities customer will normally use.
4	At the receiving station lamp DS4 should flash indicating ringing is being received.
5	Inform receiving station that transmitting station is ready to proceed with testing. If the sets are equipped with a reverse channel, the receiving station should signal the transmitting station by placing S2 OFF when it is ready to receive the next test voltage.
6	Request receiving station to depress DATA button; lamp DS1 on receiving 914B DTS should light.
7	When transmitting station receives tone, depress DATA button. The DATA lamp and lamps DS1 and DS2 should light.
8	Place S1 to ON at transmitting station. DS2 should go off momentarily. If sync channel option is installed in both data sets, switch between the 150 and EXT— positions of the BIT RATE switch. At receiving station DS2 should light and the meter on the 914B DTS should indicate voltage or no voltage as the BIT RATE switch is switched. Place METER RANGE switch to DCV 10 position and METER FUNCTION switch to VOLT INT. Meter should indicate $0 \pm 0.5$ .
9	Receiving station should place S2 OFF and then ON.
10	DS2 at transmitting station should go off then on. Place SELECT switch in +1.0 position.
11	Meter on receiving 914B DTS should indicate $1.0 \pm 0.5$ . Place S2 OFF, then ON.
12	Lamp DS2 at transmitting station should go off and then on. Place SELECT switch in +2.0 position.
13	Meter on receiving 914B DTS should indicate $2.0 \pm 0.5$ . Place S2 OFF, then ON.

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<b>STEP</b>	<b>PROCEDURE</b>
14	Lamp DS2 at transmitting station should go off then on. Place SELECT switch in +7.0 position.
15	Meter on receiving 914B DTS should indicate $6.5 \pm 0.5$ .
16	Both stations should return to talk mode and discuss test results. If calls and data transmission will be made in both directions, change setup so that the former transmit station becomes the receive station, and the former receive station becomes the transmit station and repeat the test.

**TABLE B**  
**INTERFACE OUTPUT TESTS**

STEP	PREPARATION	901-TYPE DATA TEST SET				VOLT-OHMMETER			LEAD TESTED AND CONDITION	UPON FAILURE REPLACE
		A TEST	B TEST	TOGGLE SWITCH	SCALE	CONNECT PROBE		REQUIREMENT		
						+	-			
1	Plug 901-type DTS into Data Set 602C-type. Set SELECTOR switch to 4.	OFF	OFF	ATT	60VDC	C	A	0 V		Data Set
2	Call local test center, go to data mode.	OFF	1	UNATT	60VDC	C	A	$18 \pm 2.0$ V	- Power	Data Set
3	Stay in data mode. Disconnect test probes before moving TEST switch B to 2.	OFF	2	UNATT	60VDC	A	C	$18 \pm 2.0$ V	+ Power	Data Set
4	1. Disconnect test probes before moving test switches. 2. Pick up handset. 3. Depress TALK button on Data Set 602C-type.	1	OFF	UNATT	12VDC	C	A	$18 \pm 2$ V	Interlock (off)	1st choice — AS7 Board or AS85 2nd choice — 3A-type Data Unit
5	Disconnect test probes before moving toggle switch.	OFF	OFF	ATT	X10,000	B	C	Approximately 300,000 ohms	Ring indicator (off)	3A-type Data Unit
6	1. If data set is not wired for Y option, strap terminal 50 to 51 on TB2 for remainder of steps. 2. Request ringback from test center and hang up.	OFF	OFF	ATT	X10,000	B	C	Approximately 100,000 ohms during ring cycle	Ring indicator (on)	3A-type Data Unit
7	Move toggle switch during silent interval of ringing cycle.	OFF	OFF	UNATT	X10,000	B	C	Approximately 300,000 ohms during silent interval*	Ring indicator (on)	3A-type Data Unit
8	Disconnect test probe B before setting meter.	1	OFF	UNATT	12VDC	A	C	$9 \pm 2$ V	Interlock (on)	1st choice — AS7 Board or AS85 2nd choice — 3A-type Data Unit
9		2	OFF	UNATT	12VDC	A	C	$0 \pm 1$ V†	Receive data (off)	1st choice — AS4 Board or AS82 2nd choice — AS6 Board or AS83
10	Disconnect test probes.	5	OFF	UNATT	12VDC	C	A	$6 \pm 2$ V	Carrier on (off)	1st choice — AS4 Board or AS82 2nd choice — AS6 Board or AS83
11	Disconnect test probes.	7	OFF	UNATT	12VDC	A	C	$7 \pm 2$ V	Receive data (on)	1st choice — AS4 Board or AS82 2nd choice — AS6 Board or AS83
12	Connect ground to TRANSMIT DATA red terminal of 901-type DTS.	8	OFF	UNATT	3VDC	A	C	$0 \pm 1$ V†	Receive data (off)	1st choice — AS4 Board or AS82 2nd choice — AS6 Board or AS83
13	Disconnect test probes.	11	OFF	UNATT	12VDC	A	C	$7 \pm 2$ V	Carrier on (on)	1st choice — AS4 Board or AS82 2nd choice — AS6 Board or AS83
14	1. Disconnect test probes. 2. Remove ground from TRANSMIT DATA red terminal on 901-type DTS. 3. Depress TALK button and have test center release line. 4. If Y option is not specified, remove strap from terminal 50 to 51 on TB2.									

\* Meter should dip during next ringing cycle, then return to 300,000 ohms. Test center hears 2025-Hz tone, DATA lamp lights.

† If reversed reading is indicated, reverse test probes.

**TABLE C**  
**INTERFACE OUTPUT TESTS**

STEP	PREPARATION	914B DATA TEST SET					RESULT	LEAD TESTED	UPON FAILURE REPLACE
		MATRIX	SWITCHES	REFERENCE VOLTAGE	METER	VERTICAL MONITOR			
1	Plug data set into A connector, apply power and depress all A interface switches on 914B DTS.	19 and GRD, 20 and GRD, 21 and GRD	S1 through S8 to OFF	OUTPUT: OFF  SELECT: 0	POLARITY: NOR RANGE: DCV 30 FUNCTION: VOLT INT	Position 9	—	—	—
2	Go to talk mode and call DTC.	—	—	—	—	—	+18 ±2V	+ voltage	Data set
3		—	—	—	POLARITY: REV	Position 10	-18 ±2V	- voltage	Data Set
4		6 and DS1	INTERFACE MODE: VOLTAGE	—	—	—	DS1 off	INTERLOCK (off)	First choice: AS 7 or 85 Second choice: 3A-type Control Unit
5		8 and DS2	—	—	—	—	DS2 off	CARRIER ON (off)	First choice: AS 4 or 82 Second choice: AS 6 or 83
6		—	—	—	RANGE: DCV 3	Position 3	-0.5 ±0.5V	RECEIVE DATA (off)	First choice: AS 4 or 82 Second choice: AS 6 or 83
7	Depress and release DATA button, DATA lamp lights.	—	—	—	—	—	DS1 lit	INTERLOCK (on)	First choice: AS 7 or 85 Second choice: 3A-type Control Unit
8		4 and S1 2 and TP3	S1 ON	OUTPUT: TP 3	—	—	DS2 lit	CARRIER ON (on)	First choice: AS 4 or 82 Second choice: AS 6 or 83
9		—	—	—	POLARITY NOR	—	+0 ±0.5V	RECEIVE DATA (on)	First choice: AS 4 or 82 Second choice: AS 6 or 83
10		—	—	SELECT +7.0	RANGE: DCV 10	—	+6.5 ±0.5V	RECEIVE DATA (on)	Same as Step 9
11	Depress TALK button, request ring back and go on hook.	Remove pins placed in Step 8. Place pins in 22 and TP3 and 23 and DS3	S1 OFF	—	—	—	DS3 lit during ringing, DATA lamp lights after 5 seconds; DS1 lights	RING INDICATOR	Data set

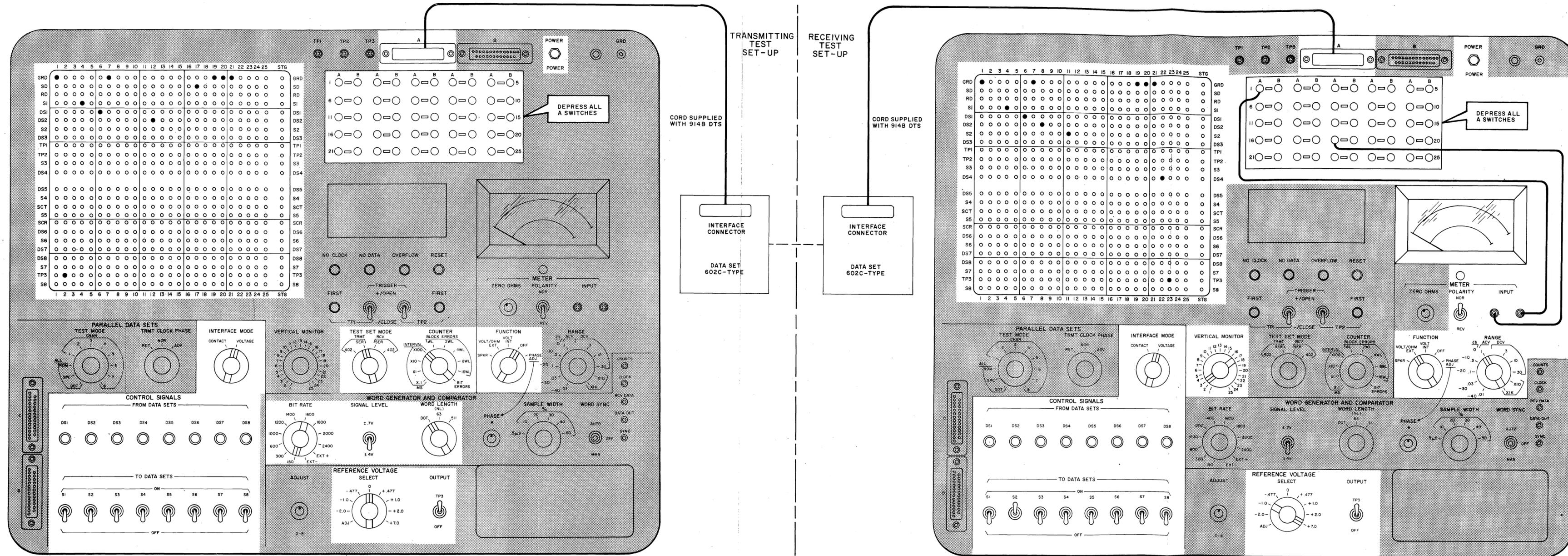


Fig. 4—End-To-End Test, 914B Data Test Set Method