

## DATA SET 604B-TYPE RECEIVER TEST PROCEDURES

### 1. GENERAL

**1.01** This section covers the procedures to be used for testing Data Set 604B-type. It does not cover the testing of the associated business machine, but some information is provided about the test relationship of the associated transmitter, Data Set 604A-type, to the receiver of the system, Data Set 604B-type (Fig. 1).

**1.02** This section is reissued to add tests using the 914B Data Test Set (DTS). The rating of this section has been changed from AT&TCo Special to AT&TCo Standard. Due to extensive revision, arrows ordinarily used to indicate changes have been omitted.

**1.03** The tests covered in this section are to be used for the following purposes:

- (a) To determine if a receiver is defective
- (b) To locate the defective component of the receiver
- (c) To check the operation of the receiver following its installation as outlined in the section entitled Data Set 604B-Type, Installation and Connections (596-018-200), or the maintenance of the receiver as outlined in the section entitled Data Set 604B-Type, Maintenance (596-018-300).

**1.04** Refer to the trouble location procedure outlined in the Data Set 604B-type maintenance

section for instructions on when the tests outlined in this section are to be performed.

**1.05** Before starting a test of the receiver, verify the following.

- (a) The receiver options are strapped as outlined in the Data Set 604B-type installation and connections section and agree with the service order for the initial installation of this receiver.
- (b) The data loop that the receiver is on has been tested and meets the requirements as specified in the section entitled Data Systems—DATA-PHONE® Service Direct Distance Dialing Network—Test Requirements for Subscriber, Foreign Exchange, and Remote Lines (314-205-501). (Check with the local repair service to verify that the loop has been tested and meets the specified requirements.)
- (c) The ac power connection cord and the business machine interface connection cord of the receiver and their respective connectors have been checked for defects.

**1.06** The operation of the receiver is outlined in the section entitled Data Set 604B-Type—Description (596-018-100). The operation of the receiver is controlled by six pushbuttons (Fig. 2) which are located on the front of the receiver.

**1.07** The pushbuttons TEST 1, TEST 2, and TEST 3 are used to check the operation of

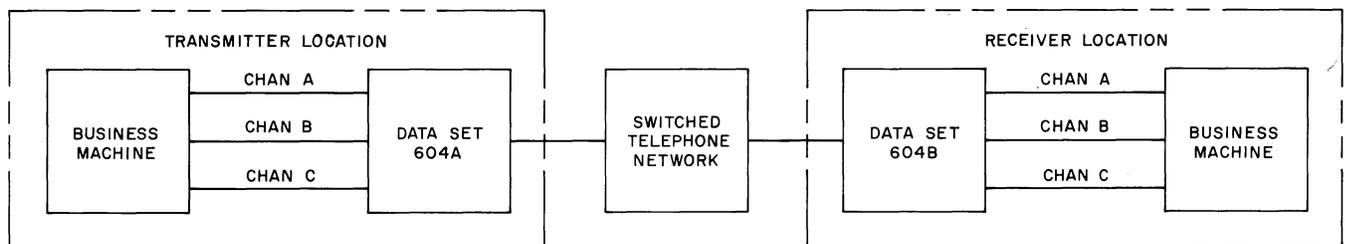


Fig. 1—System Block Diagram



REV CHAN	TEST 1	TEST 2	TEST 3	TALK	DATA
PRESSING WILL INITIATE 387 HZ REVERSE CHANNEL SIGNAL. SIGNAL IS STOPPED WHEN BUTTON IS RELEASED. USED TO SIGNAL DISTANT END EQUIPMENT.	REVERSES OUTPUT SIGNALS OF CHANNEL A WITH CHANNEL B. USED FOR OPERATIONAL TESTING.	REVERSES OUTPUT SIGNALS OF CHANNEL B WITH CHANNEL C. USED FOR OPERATIONAL TESTING.	REVERSES OUTPUT SIGNALS OF CHANNEL A WITH CHANNEL C. USED FOR OPERATIONAL TESTING.	PLACES THE DATA SET IN THE TALK MODE THEREBY PROVIDING FOR NORMAL VOICE COMMUNICATIONS	CLOSES THE REQUIRED CONTACTS TO PLACE THE DATA SET IN THE DATA MODE

**Fig. 2—Data Set 604B-Type Control Buttons, Designations and Functions**

the data output channels (channel A, channel B, and channel C) to the associated business machine. This is done by depressing the pushbuttons one at a time. After the test pushbuttons have been depressed, the DATA pushbutton must be depressed to return the receiver to the normal mode. When test pushbuttons are depressed, the receiver will function as follows.

- (a) Depressing TEST 1 will transpose the channel outputs of channel A and channel B. This will cause the data information of channel A to be passed over the channel B output leads to the associated business machine as shown in Fig. 3. The data of channel B will now be passed over the channel A output leads to the associated business machine.
- (b) Depressing TEST 2 will transpose the channel outputs of channel B and channel C in the same manner as (a).
- (c) Depressing TEST 3 will transpose the channel outputs of channel A and channel C in the same manner as (a).

**1.08** When test or demonstration calls are made, refer to the section entitled *Crediting Charges on Test Calls (010-250-001)* for proper procedures for crediting charges.

**1.09** 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 604B-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. In this case, data errors may result from an improper grounding arrangement.

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

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

- 6A impulse counter and 914B DTS method.

**2.04** The 6A impulse counter is connected and the test is performed as shown in either Fig. 4 if the interface test adapter is used, or Fig. 5 if the 914B DTS is used.

**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)*.

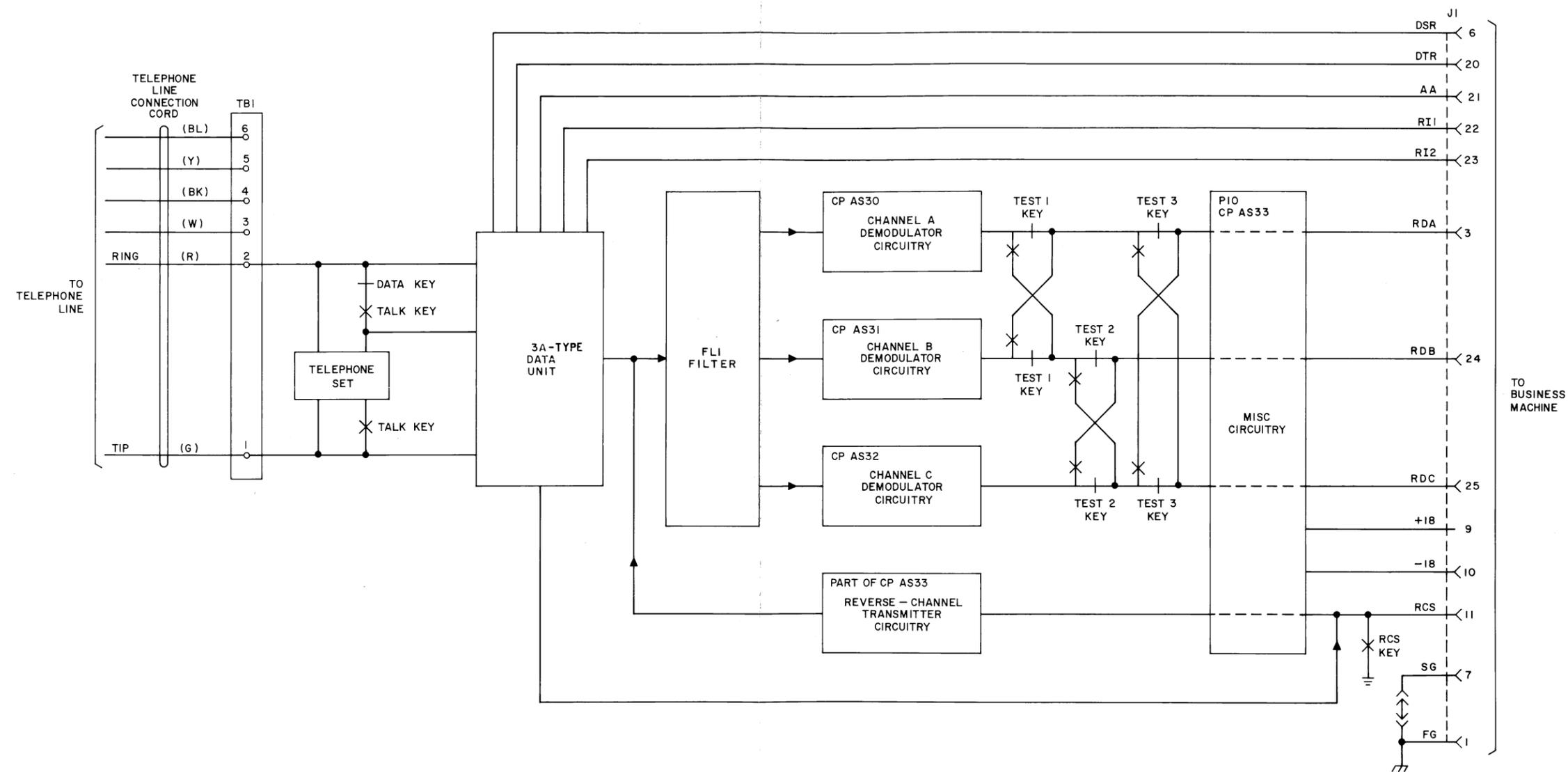


Fig. 3—Data Set 604B-Type Block Diagram

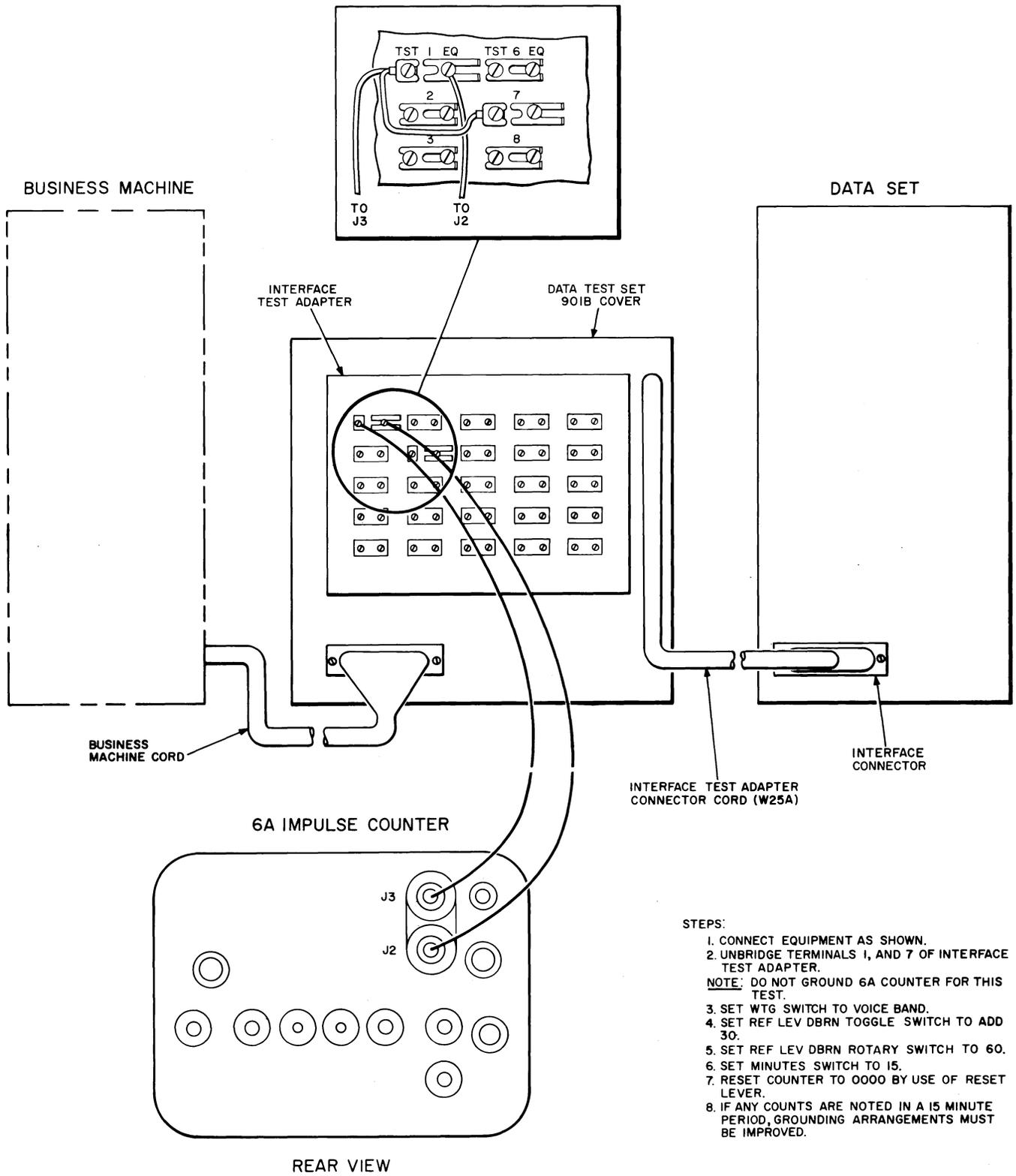


Fig. 4—6A Impulse Counter Test

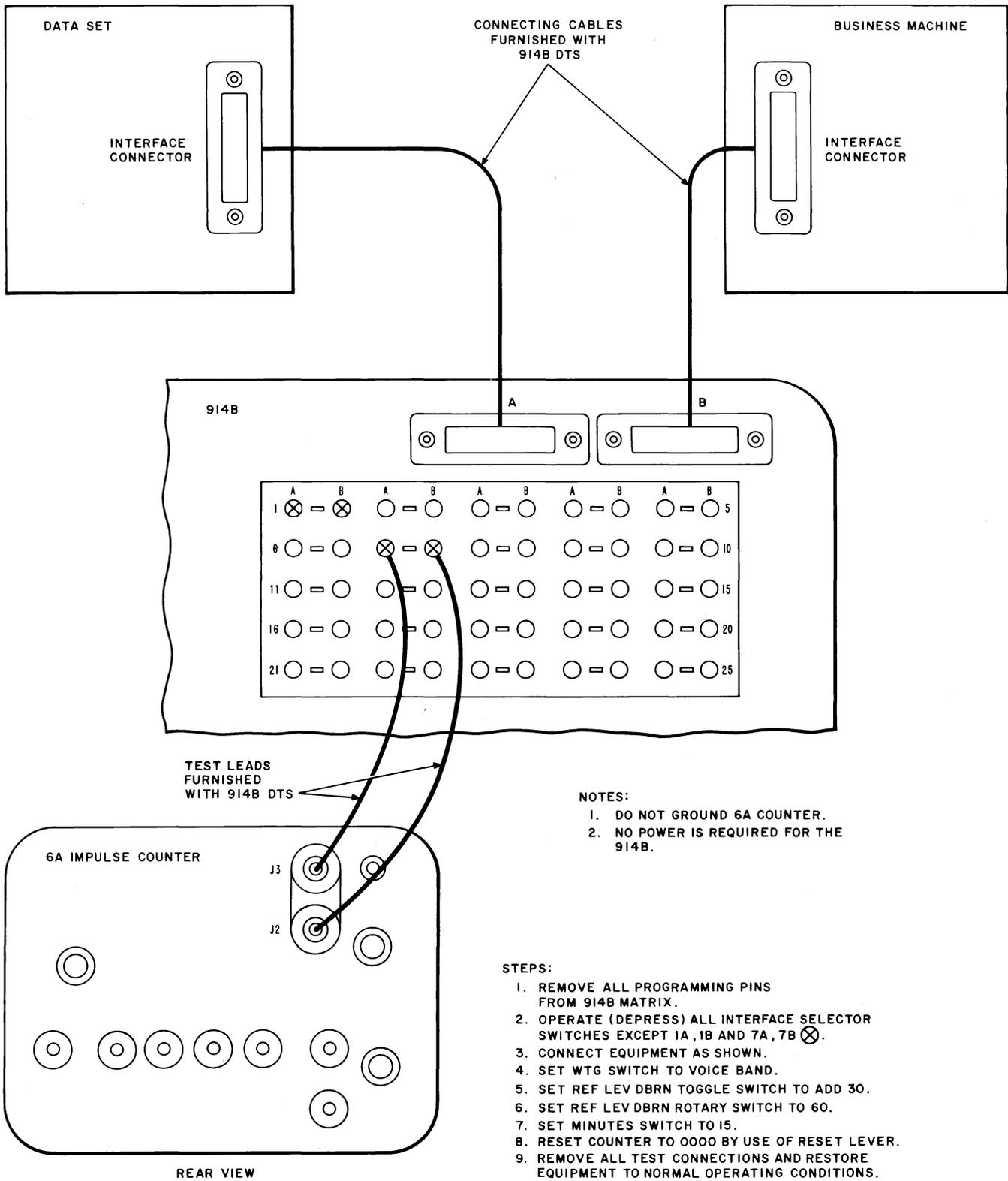


Fig. 5—Power Ground Noise Test Using 6A Impulse Counter and 914B Data Test Set

**2.05** If any counts are noted in a 15-minute period, grounding arrangements must be improved as covered in the Data Set 604B-type installation and connections section.

**2.07** To verify the operation of the data information channels at the associated business machine, the receiver operator must use the following procedure.

**B. Operator Test**

**2.06** The purpose of this test is to verify operation of the data output channels (channel A, channel B, and channel C) of Data Set 604B-type.

*Note:* This test should be made only at the request of the local telephone company to determine if the reported trouble is in the telephone company equipment or in the associated business machine.

STEP	PROCEDURE
1	<p>Contact the operator of the transmitter and ask him to switch to the talk mode of operation.</p> <p><i>Note:</i> The operator of the transmitter can be contacted either by calling the transmitter location over a separate telephone or by signaling the transmitter with the reverse-channel transmitter of the receiver. To contact the transmitter using the receiver reverse-channel transmitter, the operator must depress the REV CHAN pushbutton (Fig. 2) if an agreement to this effect has been reached between the operators and the transmitter and receiver prior to this time.</p>
2	<p>After contacting the transmitter operator, request that the following steps be performed.</p> <ul style="list-style-type: none"> <li>(a) Switch the transmitter to the data mode at the same time that the receiver switches to the data mode.</li> <li>(b) After receiving a reverse-channel signal indication from the receiver, transmit specific data to the receiver.</li> </ul> <p><i>Note:</i> Specific data should be transmitted over each data channel of the transmitter so that the receiver operator can easily recognize the output of each channel of the receiver. The specific data to be sent must be determined on a local basis by an agreement between the transmitter operator and the receiver operator.</p> <ul style="list-style-type: none"> <li>(c) After receiving a reverse-channel signal indication from the receiver, return the transmitter to the talk mode.</li> </ul>
3	<p>Switch the receiver to the data mode.</p>
4	<p>After the receiver has completed the switch from the talk mode to the data mode, depress the REV CHAN pushbutton.</p>
5	<p>Check the output channels (channel A, channel B, and channel C) of the receiver by using the test pushbuttons of the receiver as outlined in 1.07.</p>
6	<p>If the output of channel A is not correct at the associated business machine, perform the following steps to determine which unit is defective.</p> <ul style="list-style-type: none"> <li>(a) Depress TEST 1.</li> </ul>

STEP	PROCEDURE
	<ul style="list-style-type: none"> <li>● Channel A is defective if the output of channel B at the business machine is not correct and the output of channel A at the business machine is correct.</li> <li>● If the output of channel A at the business machine is not correct and the output of channel B at the business machine is correct, the business machine should be checked by the proper personnel.</li> </ul> <p>(b) Depress TEST 2.</p> <ul style="list-style-type: none"> <li>● The output of channel C will appear as the output of channel B at the business machine.</li> <li>● The output of channel B will appear as the output of channel C at the business machine.</li> <li>● Both outputs should appear good at the business machine to verify that both receiver output channels are good.</li> </ul> <p>(c) Depress TEST 3.</p> <ul style="list-style-type: none"> <li>● If the output of channel C at the business machine is not correct and the output of channel A is correct, it is confirmed that channel A is defective.</li> <li>● If the output of channel A at the business machine is still not correct and the output of channel C is correct, it is confirmed that channel A is defective.</li> <li>● If the output of channel A at the business machine is still not correct and the output of channel C is correct, the business machine should be checked.</li> </ul> <p>This procedure can apply to any of the receiver output channels, with the only difference being the results when each test pushbutton is used as outlined in 1.07.</p>
7	Depress the REV CHAN pushbutton.
8	Switch the receiver to the talk mode and discuss the results of the test with the transmitter operator.
9	If the receiver is found to be defective, refer this trouble to the proper personnel of the local telephone company for further action. If the business machine is found to be defective, report this to the proper personnel.

**C. Reverse-Channel Transmitter Test**

Set 604B-type. There is no test equipment required for this test.

**2.08** The purpose of this is to check the operation of the reverse-channel transmitter of Data

**2.09** Perform the following procedure.

STEP	PROCEDURE
1	Call the local serving test center (STC) or an adjacent telephone and request the person answering the call to assist in making this test.
2	<p>Request that the person assisting in making the test listen for the following by using the telephone handset:</p> <p>(a) A period of silence, followed by approximately 3.5 seconds of a high frequency (2025-Hz) tone after the receiver has been switched to the data mode.</p> <p>(b) A low frequency (387-Hz) tone that starts when the receiver operator depresses the REV CHAN pushbutton and disappears when the receiver operator releases the REV CHAN pushbutton. This should be done several times and should be easily recognized.</p>
3	Switch the receiver to the data mode by depressing the DATA pushbutton.
4	Depress the REV CHAN pushbutton for about 5 to 10 seconds and then release it. Repeat this step several times to test this function of the receiver thoroughly.
5	Switch the receiver back to the talk mode and discuss the results of the test with the person assisting with the test.
6	<p>Terminate the test call by replacing the receiver handset in its cradle.</p> <p><b>Note:</b> If the person assisting in the test did not hear the tones as described in Step 2, report this condition to the local telephone company for further action.</p>

**3. MAINTENANCE TEST PROCEDURES**

**3.01** The following tests should be performed if Data Set 604B-type does not meet the requirements of the operator test and a telephone company employee is dispatched to the station.

**A. Interface Test Using the 914B DTS**

**3.02** The purpose of this test procedure is to check the automatic answer feature, reverse-channel transmitter, and power supply voltage of Data Set 604B-type.

**3.03** The only equipment required for this test, in addition to the receiver, is a 914B DTS.

The 914B DTS should be connected as shown in Fig. 6.

**3.04** The 914B DTS switches not shown in Fig. 6 or not mentioned in text are not required for the test.



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

**3.05** Perform the following procedure.

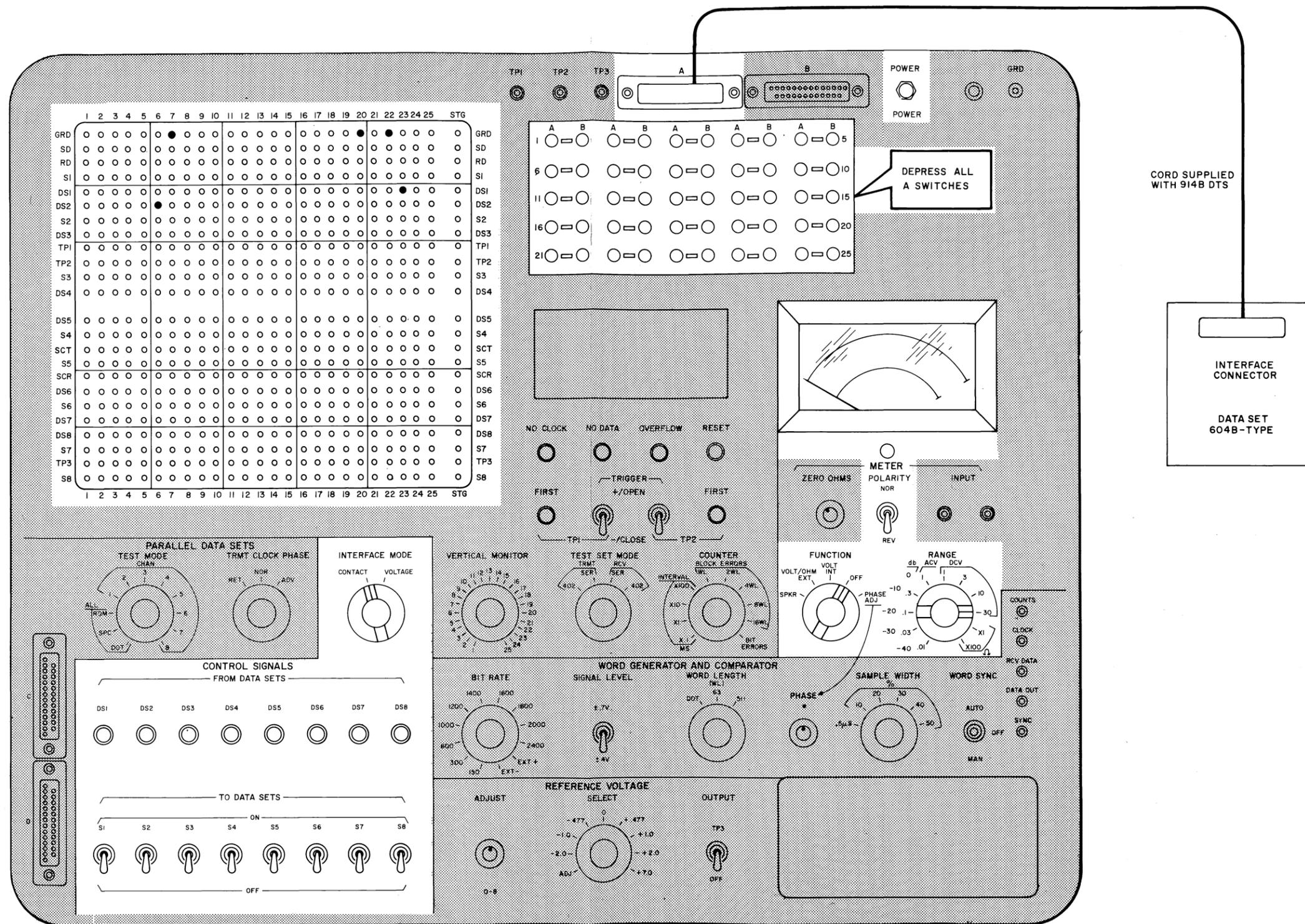


Fig. 6—Test Connection Diagram

STEP	PROCEDURE
1	Connect the equipment as shown in the test connection diagram (Fig. 6).
2	Plug the 914B DTS into a customer-supplied source of 115-volt 60-Hz power, and depress POWER switch.
3	Request that a call be placed to Data Set 604B-type from a nearby telephone or DTC. Lamp DS1 should light when ringing is received.
4	Insert a programming pin in the 914B DTS matrix at the GRD and 21 crosspoint. Ringing should stop, DATA lamp should light, a 2025-Hz tone should be audible in calling telephone receiver, and lamp DS2 should light.
5	Depress and release REV CHAN pushbutton several times. A 387-Hz tone should be audible in calling telephone receiver each time the REV CHAN pushbutton is depressed.
6	Insert a programming pin into the 914B DTS matrix at the GRD and 11 crosspoint. A 387-Hz tone should be audible in the calling telephone receiver.
7	Remove programming pin placed in Step 6. The 387-Hz tone should cease.
8	Set VERTICAL MONITOR switch on 914B DTS to position 9.
9	Set METER POLARITY switch on the 914B DTS to the NOR position.
10	Set METER FUNCTION switch on the 914B DTS to VOLT INT position. Meter should indicate $18 \pm 1$ volts.
11	Set METER FUNCTION switch to OFF position.
12	Rotate VERTICAL MONITOR switch to position 10.
13	Set METER POLARITY switch to REV position.
14	Set METER FUNCTION switch to VOLT INT position. Meter should indicate $18 \pm 1$ volts.
15	Set METER FUNCTION switch to OFF position.
16	Remove programming pin from the GRD and 20 crosspoint. Data set should drop out of data mode.

### B. End-to-Data Test Center Test

**3.06** The purpose of this test is to verify the operation of the receiver by measuring the output of the individual data channels. This test must be made at the receiver location with the assistance of the local data test center (DTC).

**3.07** It is suggested that the local telephone company representative who will perform the test have a log sheet similar to the log sheet shown in Fig. 7. Each reading of the tests should be noted on the log sheet for future reference.

DATA SET 604B-TYPE

LOG SHEET

ITEM	TEST	REQUIREMENT	MEASURED	OK	NOT OK
1	1	(a) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(b) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(c) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
2	2	(a) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(b) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(c) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
3*	3*	(a) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(b) 0.0 ( $\pm 0.5$ ) Vdc	_____	_____	_____
		(c) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(d) 0.0 ( $\pm 0.5$ ) Vdc	_____	_____	_____
		(e) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(f) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(g) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(h) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(i) 0.0 ( $\pm 0.5$ ) Vdc	_____	_____	_____
		(j) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		(k) 0.0 ( $\pm 0.5$ ) Vdc	_____	_____	_____
4*	4*	(l) 2.5 ( $\pm 0.7$ ) Vdc	_____	_____	_____
		* 387 ( $\pm 1$ ) Hz	_____	_____	_____

\* Measurement only made when testing with Data Test Center

Fig. 7 — Log Sheet — Data Set 604B-Type

S A M P L E

**901B DTS Method**

**3.08** The following equipment is required for this test in addition to the receiver, and must be arranged as shown in Fig. 8.

1—KS-14510-L1 volt-ohm-milliammeter (VOM), or equivalent.

1—901B DTS cover

**3.09** Perform the following procedure:

STEP	PROCEDURE
1	Initiate a call to the local DTC and request a test of the receiver as outlined in the section entitled Data Test Center—904A- and 904C-Types—Test Procedure—Data Set 604B-Type (668-106-516).
2	Switch the receiver to the data mode.
3	Use the KS-14510 VOM and measure at the interface test adapter for the requirements listed for Test 1 on Table A.
<p><b>Note:</b> To ensure that the proper readings can be obtained from the KS-14510 VOM, be sure that shorting clips 1 and 7 of the interface test adapter are closed and that the meter function switch is set to the 3 DC VOLTS position.</p>	

**TABLE A**

TEST	ITEM	901B DTS COVER		914B DTS		REQUIREMENTS
		NEGATIVE PROBE TO TERMINAL	POSITIVE PROBE TO TERMINAL	VERTICAL MONITOR	POLARITY	
1	a	7	3	3	NOR	2.5 (±0.7)
	b	7	24	24	NOR	2.5 (±0.7)
	c	7	25	25	NOR	2.5 (±0.7)
2	a	3	7	3	REV	2.5 (±0.7)
	b	24	7	24	REV	2.5 (±0.7)
	c	25	7	25	REV	2.5 (±0.7)
3	a	7	3	3	NOR	2.5 (±0.7)
	b	7*	24	24	†	0 (±0.5)
	c	25	7	25	REV	2.5 (±0.7)
	d	7*	3	3	†	0 (±0.5)
	e	7	24	24	NOR	2.5 (±0.7)
	f	25	7	25	REV	2.5 (±0.7)
	g	7	3	3	NOR	2.5 (±0.7)
	h	24	7	24	REV	2.5 (±0.7)
	i	25*	7	25	†	0 (±0.5)
	j	3	7	3	REV	2.5 (±0.7)
	k	24*	7	24	†	0 (±0.5)
l	7	25	25	NOR	2.5 (±0.7)	

\* It may be necessary to reverse leads to obtain required reading.

† Either NOR or REV polarity.

DATA SET 604B-TYPE

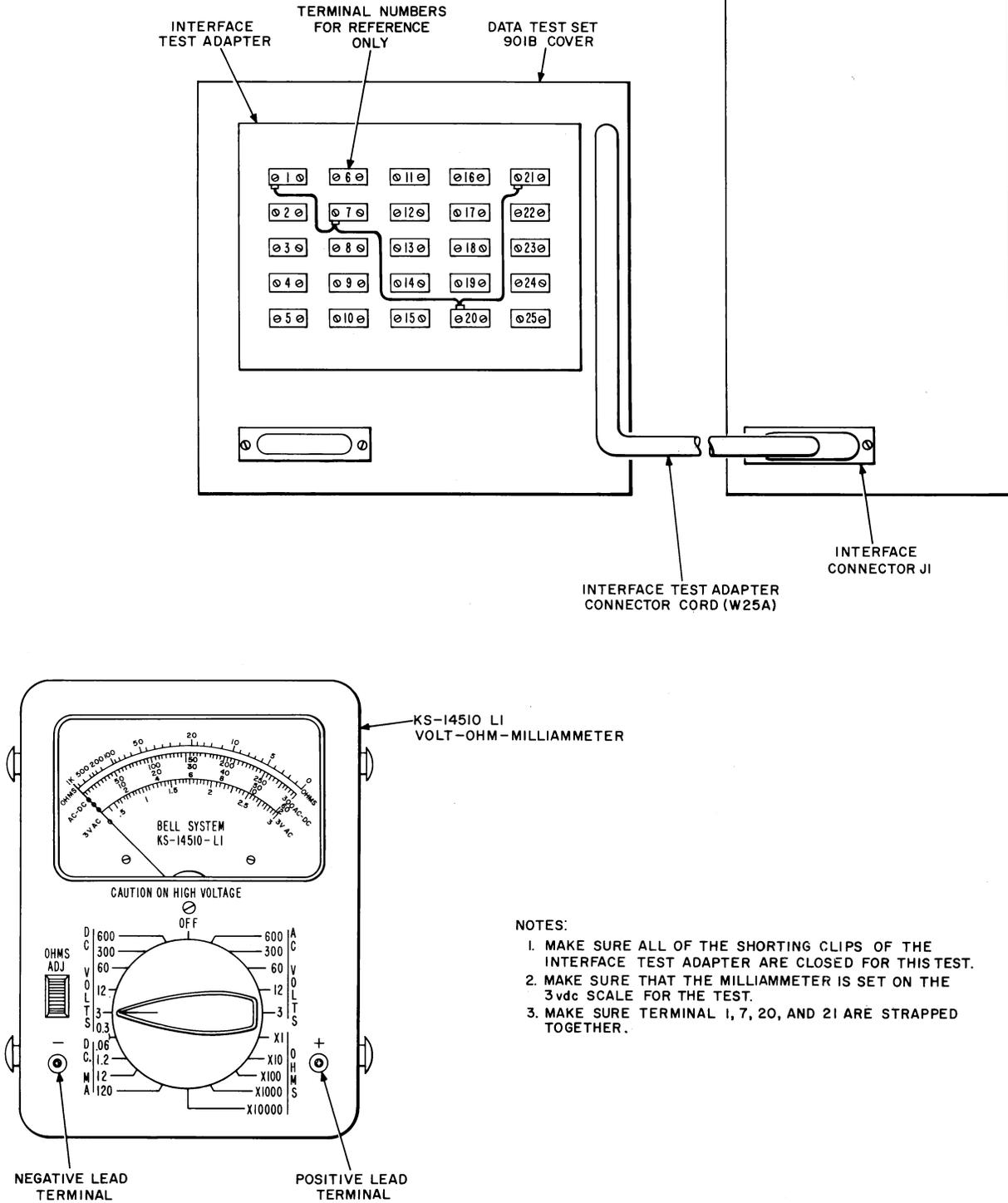


Fig. 8—Data Set 604B-Type Test Arrangement

STEP	PROCEDURE
4	Remove meter leads from interface test adapter and enter results of Test 1 on the log sheet.
5	Lift handset and depress TALK pushbutton. Discuss results of test with DTC.
6	Depress DATA pushbutton.
7	Measure for the requirements listed for Test 2 on Table A. The meter may indicate a small low frequency variation, which is normal.
8	Lift handset and depress TALK pushbutton. Enter results on Test 2 on the log sheet and discuss test results with DTC.
9	Depress DATA pushbutton.
10	Measure for the (a), (b), and (c) requirements listed for Test 3 on Table A. The meter may indicate a small low frequency variation, which is normal.
11	Depress TEST 1 pushbutton on the receiver (Data Set 604B-type).
12	Measure for the (d), (e), and (f) requirements listed for Test 3 on Table A.
13	Depress TEST 2 pushbutton on the receiver.
14	Measure for the (g), (h), and (i) requirements listed for Test 3 on Table A.
15	Depress the TEST 3 pushbutton on the receiver.
16	Measure for the (j), (k), and (l) requirements listed for Test 3 on Table A.
17	Lift handset, depress TALK pushbutton, and discuss results of Test 3 with the DTC.
18	Terminate test call.

### 914B DTS Method

**3.10** The only equipment required for this test, in addition to the receiver is a 914B DTS.

**3.11** Perform the following procedure:

STEP	PROCEDURE
1	Disconnect customer interface cord from interface connector of Data Set 604B-type.
2	Remove all programming pins from the 914B DTS matrix.

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STEP	PROCEDURE
3	Using the cord supplied with the 914B DTS, connect between the 914B DTS A connector and the interface connector of Data Set 604B-type.
4	Depress all INTERFACE SELECTOR A switches on the 914B DTS.
5	Set S1 through S8 switches to OFF position.
6	Set METER FUNCTION switch to OFF position.
7	Set METER RANGE switch to 3 DCV position.
8	Place a programming pin into the following crosspoints on the 914B DTS matrix: <ul style="list-style-type: none"> <li>● GRD and 7</li> <li>● GRD and 20.</li> </ul>
9	Plug the 914B DTS and Data Set 604B-type into a customer-supplied source of 117-volt 60-Hz power.
10	Depress POWER switch on 914B DTS.
11	Initiate a call to the local DTC and request a test of the receiver as outlined in the section entitled Data Test Center—904A- and 904C-Types—Test Procedure—Data Set 604B-Type (668-106-516).
12	Depress DATA button on Data Set 604B-type.
13	Place METER FUNCTION switch on the 914B DTS to VOLT INT position and measure for the requirements listed for Test 1 on Table A. Return METER FUNCTION switch to OFF position before setting VERTICAL MONITOR switch to next position.
14	Return METER FUNCTION switch on 914B DTS to OFF position and enter results of Test 1 on log sheet.
15	Lift handset, depress TALK pushbutton, and discuss results of Test 1 with the DTC.
16	Depress DATA pushbutton.
17	Repeat Step 13 for Test 2.
18	Return METER FUNCTION switch on 914B DTS to OFF position and enter results of Test 2 on log sheet.
19	Lift handset and depress TALK pushbutton. Discuss results of Test 2 with DTC.
20	Depress DATA pushbutton.
21	Repeat Step 13 for (a), (b), and (c) of Test 3 on Table A.

STEP	PROCEDURE
22	Depress TEST 1 pushbutton on the receiver (Data Set 604B-type).
23	Repeat Step 13 for (d), (e), and (f) of Test 3 on Table A.
24	Depress the TEST 2 pushbutton on the receiver.
25	Repeat Step 13 for (g), (h), and (i) of Test 3 on Table A.
26	Depress the TEST 3 pushbutton on the receiver.
27	Repeat Step 13 for (j), (k), and (l) of Test 3 on Table A.
28	Place METER FUNCTION switch to OFF position.
29	Lift handset, depress TALK pushbutton, and discuss results of Test 3 with the DTC.
30	Terminate test call.

**3.12** If the receiver does not meet the requirements of the end-to-DTC test, it can be assumed that the receiver has malfunctioned. To determine what must be done to correct the malfunction, compare the results of the end-to-DTC test with the trouble description of the trouble analysis chart in Table B. Using the chart, determine which component of the receiver should be replaced to

correct the malfunction. If the malfunction of the receiver cannot be corrected by replacing the components listed on the trouble analysis chart, the entire receiver must be replaced. Refer to the Data Set 604B-type maintenance section for the procedures to replace either the components or the entire receiver.

**TABLE B**  
**TROUBLE ANALYSIS CHART**

TROUBLE DESCRIPTION	POSSIBLE CORRECTIVE ACTION
Voltage requirement of one or more following log sheet items not met: 1(a); 2(a); 3(a), (e), (g), (l).	(1) Replace circuit pack CP AS30.
Voltage requirement of one or more following log sheet items not met: 1(b); 2(b); 3(b), (d), (i), (k).	(1) Replace circuit pack CP AS31.
Voltage requirement of one or more following log sheet items not met: 1(c); 2(c); 3(c), (f), (h), (j).	(1) Replace circuit pack CP AS32.
Frequency requirement of log sheet item not met.	(1) Replace circuit pack CP AS33.

**C. End-to-End Test**

**3.13** The purpose of this test is to verify the operation of the receiver by measuring the output of the individual data channels. This test must be made at the receiver location in conjunction with the associated transmitter. The test should be made, if practical, during busy hours using the same local telephone facilities that the customer must use. Also, it cannot be made without the consent of all parties concerned.

*Note:* The end-to-end test of the receiver with the associated transmitter should be made only to verify the operation of the receiver with the transmitter.

**3.14** This test can be made only by properly trained personnel of the local telephone company at the receiver location. The operator of the transmitter can perform the operations required at the transmitter.

**3.15** It is suggested that the local telephone company representative who will perform the test on the receiver have a log sheet similar to the one shown in Fig. 7. Each reading of the tests should be noted on the log sheet for future reference.

**901B DTS Method**

**3.16** The following equipment is required for this test, in addition to the receiver, and must be arranged as shown in Fig. 8:

1—901B DTS cover

1—KS-14510-L1 volt-ohm-milliammeter (VOM), or equivalent.

**3.17** Perform the following procedure:

STEP	PROCEDURE
1	Initiate a call to the transmitter location requesting that the end-to-end test of the receiver be made.
2	<p>After a agreement has been reached to perform the test, request that the transmitter operator perform the following.</p> <ul style="list-style-type: none"> <li>(a) Switch the transmitter to the data mode of operation after the receiver is switched to the data mode.</li> <li>(b) After receiving a reverse-channel signal indication from the receiver, depress TEST 1 pushbutton on the transmitter.</li> </ul> <p><i>Note:</i> Hold the test pushbutton of the transmitter depressed until a reverse-channel signal indication is received from the receiver. This will indicate that this step of the test is completed. Continue with the next step.</p> <ul style="list-style-type: none"> <li>(c) After receiving a reverse-channel signal indication from the receiver, depress the TEST 2 pushbutton on the transmitter as outlined in the note after (b).</li> <li>(d) After discussing the final results of the test, terminate the test call.</li> </ul>
3	Switch the receiver to the data mode.
4	After the receiver has switched to the data mode, depress the REV CHAN pushbutton on the receiver.

STEP	PROCEDURE
5	<p>Use the KS-14510 VOM and measure at the interface test adapter for the requirements listed for Test 1 in Table A.</p> <p><b>Note:</b> To ensure that the proper readings can be obtained from the KS-14510 VOM, be sure that shorting clips 1 and 7 of the interface test adapter are closed and that the meter function switch is set to the 3 DC VOLTS position.</p>
6	Depress REV CHAN pushbutton.
7	Remove meter leads from interface test adapter and enter results of Test 1 on the log sheet.
8	Repeat Step 5 for the requirements listed for Test 2 in Table A. The meter may indicate a small low frequency variation, which is normal.
9	List handset and depress TALK pushbutton. Enter results of Test 2 on the log sheet and discuss test results with transmitter operator.
10	Terminate test call.

**914B DTS Method**

**3.18** The only equipment required for this test, in addition to the receiver, is a 914B DTS.

**3.19** Perform the following procedure:

STEP	PROCEDURE
1	Disconnect customer interface cord from interface connector of Data Set 604B-type.
2	Remove all programming pins from the 914B DTS matrix.
3	Using the cord supplied with the 914B DTS, connect between 914B DTS A connector and the interface connector of Data Set 604B-type.
4	Depress all INTERFACE SELECTOR A switches on the 914B DTS.
5	Set S1 through S8 switches to OFF position.
6	Set METER FUNCTION switch to OFF position.
7	Set METER RANGE switch to 3 DCV position.
8	Place a programming pin into the following crosspoints on the 914B DTS matrix:

SECTION 596-018-500

STEP	PROCEDURE
	<ul style="list-style-type: none"> <li>● GRD and 7</li> <li>● GRD and 20.</li> </ul>
9	Plug the 914B DTS and Data Set 604B-type into a customer-supplied source of 117-volt 60-Hz power.
10	Depress POWER switch on 914B DTS.
11	Initiate a call to the transmitter location to request that the end-to-end test of the receiver be made.
12	<p>After an agreement has been reached to perform the test, request that the transmitter operator perform the following steps.</p> <ul style="list-style-type: none"> <li>(a) Switch the transmitter to the data mode of operation when the receiver is switched to the data mode.</li> <li>(b) After receiving a reverse-channel signal indication from the receiver, depress TEST 1 pushbutton on the transmitter.</li> </ul> <p><b>Note:</b> Hold the test pushbutton of the transmitter depressed until a reverse-channel signal indication is received from the receiver. This will indicate that this step of the test is completed. Continue with the next step.</p> <ul style="list-style-type: none"> <li>(c) After receiving a reverse-channel signal indication from the receiver, depress the TEST 2 pushbutton on the transmitter as outlined in the note after (b).</li> <li>(d) After discussing the final results of the test, terminate the test call.</li> </ul>
13	Switch the receiver to the data mode.
14	After the receiver has switched to data mode, depress the REV CHAN pushbutton on the receiver.
15	Place METER FUNCTION switch on the 914B DTS to VOLT INT position, and measure for the requirements listed for Test 1 in Table A. Return METER FUNCTION switch to OFF position before setting VERTICAL MONITOR switch to next position.
16	Return METER FUNCTION switch on 914B DTS of OFF position, and enter results of test on log sheet.
17	Depress REV CHAN pushbutton.
18	Repeat Step 15 for the requirements listed for Test 2 in Table A.
19	Return METER FUNCTION switch on 914B DTS of OFF position, and enter results of Test 2 on log sheet.

STEP	PROCEDURE
20	Lift handset and depress TALK pushbutton. Discuss results of Test 2 with transmitter operator.
21	Terminate test call.