

COMPLAINT SERVICE OBSERVING  
METHOD OF CONNECTING AND DISCONNECTING CIRCUITS  
IN NO. 1 CROSSBAR OFFICES  
USING THE VITEL\* 2950 SERVICE OBSERVING SYSTEM

1. GENERAL

1.01 This appendix supplements Section 252-200-301.

1.02 It describes the method of connecting and disconnecting subscriber lines assigned for complaint service observation by the VITEL 2950 Service Observing System in No. 1 Crossbar offices.

1.03 The procedures described are for the following tests:

- Test A: Service Observing Initiate — No. 1 Crossbar
- Test B: Service Observing Terminate — No. 1 Crossbar

1.04 These procedures check that the 2950 Service Observing System functions properly.

1.05 Whenever these service observing tests are performed, a record of the charge calls should be taken and entered on the appropriate form to ensure correct customer billing.

1.06 These tests require action at the following locations:

- Output and control unit frame
- Remote output and control unit
- Line link frame
- Service observing jack panel

1.07 The procedures covered in this appendix should be performed at the request of a business office.

1.08 Ensure that the SR15 card is installed when the procedures are to be performed on a *Touch-Tone*® calling equipped subscriber line.

2. APPARATUS

2.01 The following pieces of apparatus are needed for the tests:

- (a) One Porta Systems Corporation card, model 1000, for patching the subscriber's line link appearance (via a 351A plug) to the SO1 or SO2 jack on the miscellaneous circuit for line link frame
- (b) One P4H card, 4 or 6 feet long, equipped with two 327B plugs for patching the subscriber's line column and switch appearance (SO1 or SO2 jack) to a service observing loop jack on the service observing jack panel
- (c) One 3P7E cord, or equivalent, 4 feet long, equipped with two 310 plugs for patching the auxiliary jack on the Porta Systems cord to the T jack on the miscellaneous circuit for line link frame
- (d) One 3P7A cord, or equivalent, 6 feet long, equipped with two 310 plugs for patching the L jack to the TST L jack at the remote output and control unit (O and CU) jack panel
- (e) A 1014A dial hand test set (handset) equipped with a 2W28A cord assembly consisting of a W2CK cord (5 feet long), a 471A jack, and a 310 plug
- (f) One output and control unit key

2.02 Upon completion of the tests, the O and CU key should be returned to the source from which it was obtained.

\*Registered Trademark of the Vidar Corporation

**SECTION 252-200-301PT  
APPENDIX 1**

**3. METHOD**

STEP	ACTION	VERIFICATION
------	--------	--------------

**Test A: Service Observing Initiate — No. 1 Crossbar**

- 1 At the line link frame, using the Porta Systems cord, model 1000, patch the subscriber's line link appearance to the SO1 or SO2 jack on the miscellaneous circuit for line link frame.
- 2 Using the 3P7E cord, or equivalent, patch the auxiliary jack on the Porta Systems cord to the T jack on the miscellaneous circuit for line link frame.
- 3 At the remote O and CU jack panel, connect the 1014A handset, using the 2W38A cord, to the TRK jack, the X-TRK jack, the B-TRK jack or the BX-TRK jack in accordance with Table A. The TRK jack will normally be used for a regular number A office.

*Note:* A lighted BY lamp on the remote O and CU jack panel indicates a busy subscriber line. Delay test until lamp is extinguished.

**TABLE A**

NUMBER TO WHICH CALL IS TO BE MADE	TRUNK JACK TO BE USED
REGULAR NUMBER A OFFICE	TRK
EXTRA NUMBER A OFFICE	X-TRK
REGULAR NUMBER B OFFICE	B-TRK
EXTRA NUMBER B OFFICE	BX-TRK

- 4 Note dial tone on the TRK jack to be used, and dial the thousands, hundreds, tens and units digits of the line identification number assigned to the line to be observed.
- 5 Remove the handset from the TRK jack.
- 6 Using the 3P7A cord, or equivalent, patch the L jack to the TST L jack.

At the remote O and CU jack panel, the BY lamp and the R or H lamp light when call terminates.

*Note:* The R lamp lights on an individual line, or the last line of a terminal hunting group. The H lamp lights for a line of a terminal hunting group, other than the last line.

BY lamp and R or H lamp extinguish.  
TLB lamp lights.

STEP	ACTION	VERIFICATION
7	At the service observing jack panel (W, X, Y or Z), using the P4H cord, patch the SO1 or SO2 line link column jack appearance to the required service observing loop jack.	
8	At the O and CU, set the DIRECTORY NUMBER thumb wheels to the seven-digit line identification number assigned to the line to be observed.	
9	Operate the ROUTINE SYSTEM FUNCTIONS switch to the TEST CALL position.	At O and CU display panel, the OUTPUT AND CONTROL UNIT alarms display, and the COMMON EQUIPMENT and CONTROLS OFF NORMAL LEDs light.
10	Operate the DIRECTORY NUMBER slide switch downward and release it.	ROUTINE SYSTEM FUNCTIONS, INITIATE lamp lights.
11	Depress the ROUTINE SYSTEM FUNCTIONS, INITIATE/BUSY switch.	ROUTINE SYSTEM FUNCTIONS, INITIATE lamp extinguishes, BUSY lamp lights.
12	At the service observing control panel, set BANK thumb wheel to conform with the office that observation is being performed in (W, X, Y or Z) (per service observing jack panel patch — see Step 7).	
13	Set the LOOP NUMBER thumb wheels to conform with the service observing jack panel switch assignment (see Step 7).	
14	Set the DIRECTORY NUMBER thumb wheels to the seven-digit line identification number assigned to the line to be observed.	
15	Operate the MODE SELECT switch to the SO INITIATE position.	
16	Depress the SELECT/ALARM switch.	At the service observing control panel SELECT/ALARM switch, SELECT lamp lights.
17	At the O and CU jack panel, connect the 1014A handset, using the 2W38A cord, to the TST L jack.	
18	Note dial tone on the TST L jack and dial a charge call. Use the time or weather bureau number.	TIP RING TEST LED flashes once per each dialed digit.

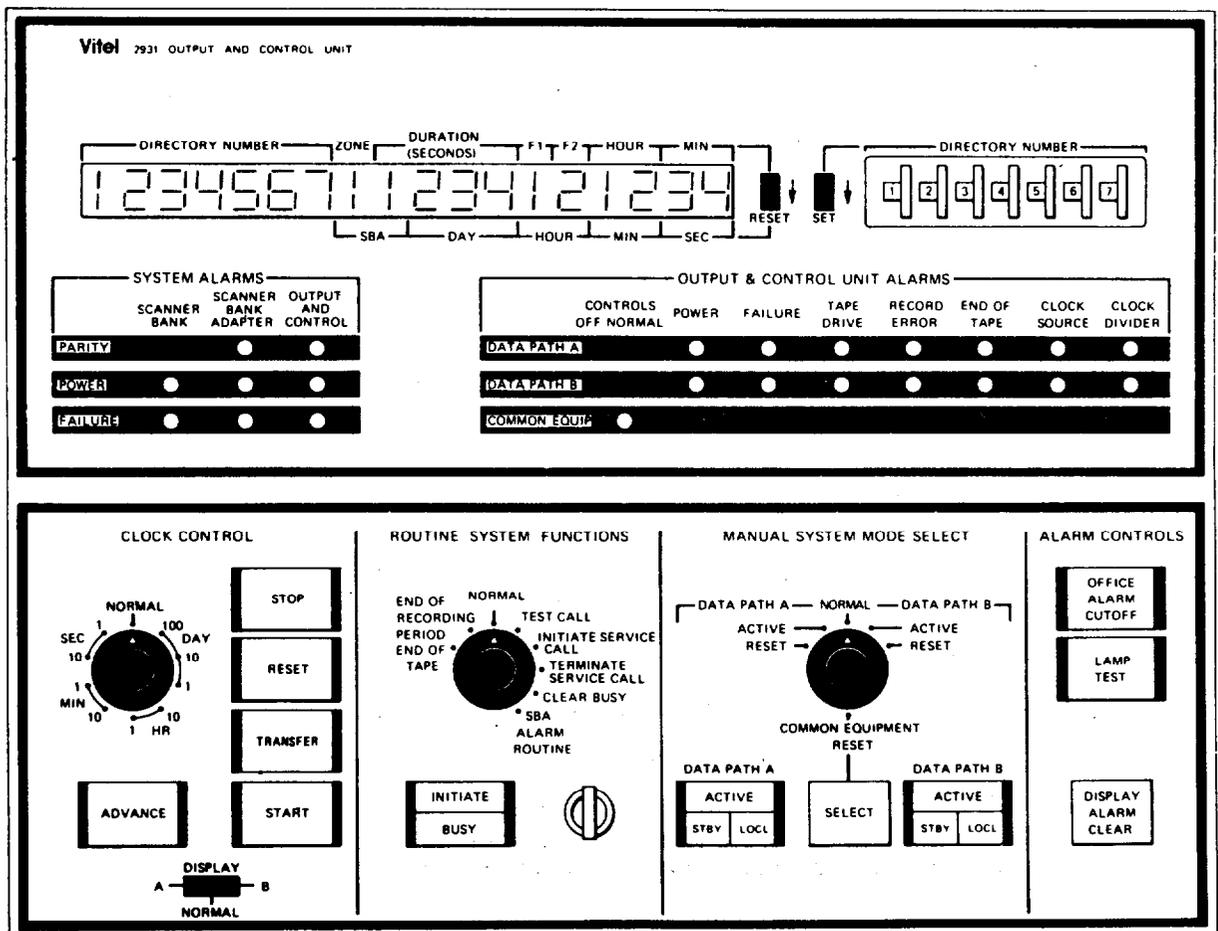
**SECTION 252-200-301PT**  
**APPENDIX 1**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
19	After approximately one minute following call termination, disconnect and remove the handset from the TST L jack.	At the service observing control SELECT/ALARM switch, the SELECT lamp extinguishes.  At the O and CU, the ROUTINE SYSTEM FUNCTIONS BUSY lamp extinguishes.
20	Check the O and CU display for correct information.	Line identification number of calling line displays, along with digit "1" in zone, date, time and other necessary numerical data, as labeled on the panel of the O and CU.
21	Operate the O and CU RESET slide switch downward and release it.	Directory number and other digital displays clear, except date and time.
22	Operate the ROUTINE SYSTEM FUNCTIONS switch to the NORMAL position.	
23	At the service observing control panel, operate the MODE SELECT switch to the RESET position.	
24	Depress the SELECT/ALARM switch.	
25	At the O and CU, insert the key into the panel and turn to the right (clockwise) position.	
26	Depress the DISPLAY ALARM CLEAR switch.	At O and CU display panel, OUTPUT AND CONTROL UNIT alarms display, and COMMON EQUIPMENT and CONTROLS OFF NORMAL LEDs extinguish.
27	Turn the key to the left (counterclockwise) position and remove it.	
28	At the remote O and CU jack panel, remove the 3P7A cord installed in Step 6.	At the remote O and CU jack panel, the TLB lamp extinguishes.
29	At the line link frame, remove the 3P7E cord installed in Step 2.	

STEP ACTION VERIFICATION

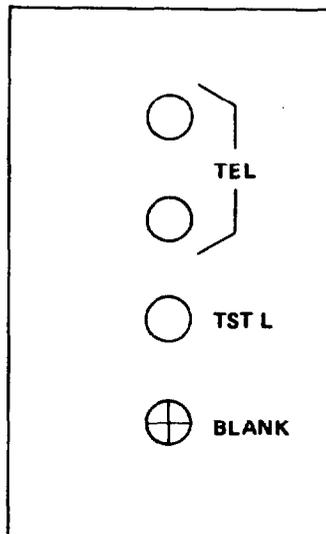
Test B: Service Observing Terminate — No. 1 Crossbar

- 1 Repeat Steps 2, 6 and 8 through 14 in Test A.
- 2 At the service observing control panel, operate the MODE SELECT switch to the SO TERMINATE position.
- 3 Repeat Steps 16 through 29 in Test A.
- 4 At the line link frame, remove the Porta Systems cord, model 1000, installed in Step 1 of Test A.
- 5 At the service observing jack panel (W, X, Y or Z), remove the P4H cord installed in Step 7 of Test A.

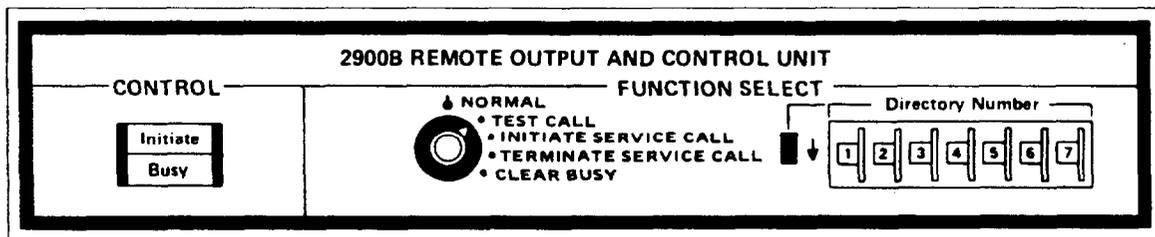


Note: In some locations, a decal labelled "Line ID Number" will cover the designation Directory Number above the thumb wheels and display lamps.

Output and Control Unit Display and Control Panel  
Exhibit 1



Jack Panel for Output and Control Unit (Not to Scale)  
Exhibit 2



**General Description:**

Remote Output and Control Unit: The remote output and control unit allows test calls to be properly flagged for accounting purposes from distances up to 5000 feet from the output and control unit. Provision is made to flag the following test calls from the remote output and control unit:

1. Maintenance test call
2. Initiate service call
3. Terminate service call

In a given VIDAR 2900B installation, the output and control unit may be located many floors removed from the switching entity feeding the 2900B. When the calls mentioned above are required, the remote output and control unit allows for proper call flagging on magnetic tape out the necessity of setting up the call at the output and control unit. These flags are necessary to allow accounting to properly interpret the call type.

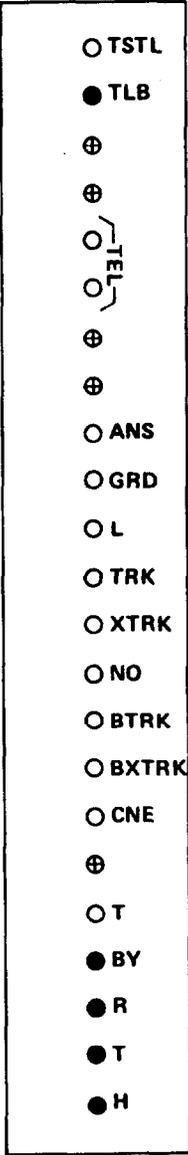
Up to five remote output and control units can be used with one output and control unit.

*Note:* In some locations, a decal labelled "Line ID number" will cover the designation Directory Number above the thumb wheels.

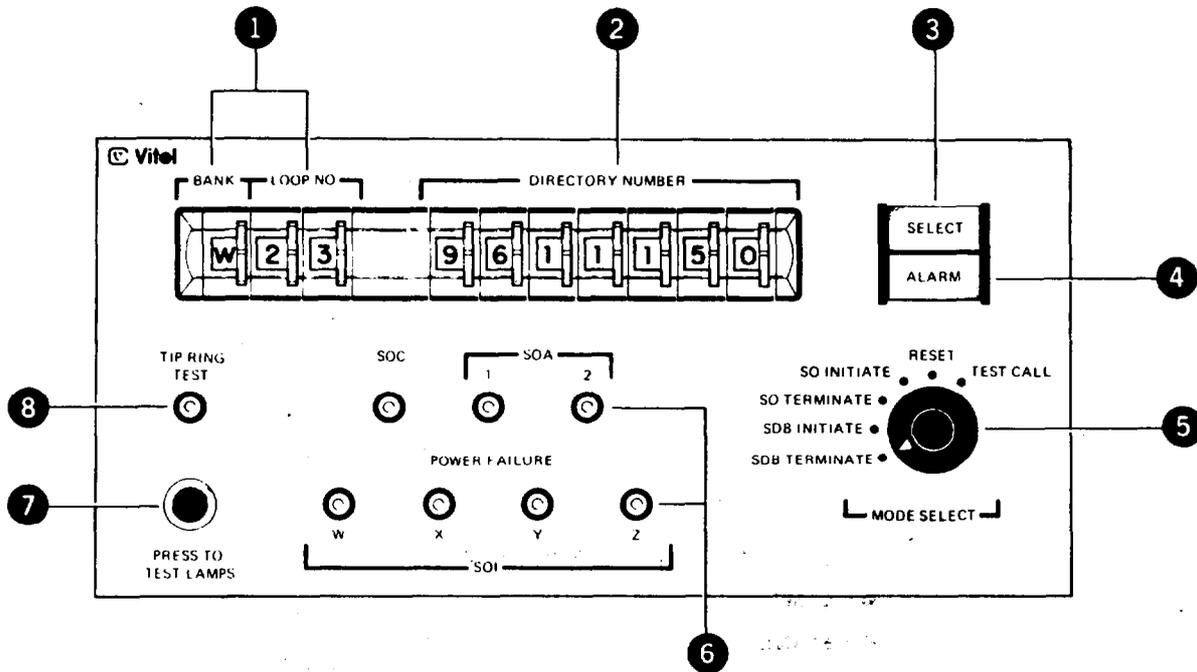
Remote Output and Control Unit  
Exhibit 3

**SYMBOLS:**

- = JACK (310 PLUG OR EQUIVALENT)
- = LAMP
- ⊕ = BLANK



**Jack Panel – Remote Output and Control Unit  
Exhibit 4**



**1 BANK-LOOP NO:** The BANK thumbwheel designates the SOI bank (W,X,Y or Z). The loop No. designates the SO loop, with the SOI, connected to a subscribers line.

**2 DIRECTORY NUMBER:** These thumbwheels select the Line Identity number. The 2900B O&CU DIRECTORY NUMBER thumbwheels must be set to the same number.

**3 SELECT:** This pushbutton indicator activates the function selected at the MODE SELECT switch. When the function is activated, the SELECT light comes on.  
The SELECT lamp goes off after completion of the test call, indicating generation of the call record to be loaded on magnetic tape.

**4 ALARM:** The ALARM lamp indicates an SOC self-check failure or an SOC/SOA data line failure. Such an alarm is cleared by setting the mode select switch to RESET and depressing the SELECT pushbutton. If the alarm appears when the test call is again attempted, refer to Section 6, Troubleshooting.

**5 MODE SELECT:** A rotary switch that selects the following functions when the SELECT pushbutton is pressed.

**TEST CALL:** Flags a test call to inform accounting that there will be no charges to the subscriber for that call.

**RESET:** Resets SOC to normal; the SELECT lamp goes off.

**SO INITIATE:** Used to initiate a service observing period.

**SDB INITIATE:** Used to initiate a special detail billing period.

**SO TERMINATE:** Used to terminate a service observing period.

**SDB TERMINATE:** Used to terminate a special detail billing period.

**6 POWER FAILURE:** These indicators display power failure conditions for SOI banks W through Z, the SOC, and SOA power supplies 1 and 2.

**7 PRESS TO TEST LAMPS:** A pushbutton that illuminates all SOC panel lamps when depressed.

**8 TIP-RING TEST:** This indicator flashes once for each dialed digit received during test, initiate, or terminate calls.

*Note:* In some locations a decal labelled "Line ID Number" will cover the designation Directory number above the thumbwheels.

Service Observing Control Panel  
Exhibit 5