# REMOTE OFFICE TEST LINE FEATURE
# NEAR-END AND FAR-END APPLICATIONS
# NO. 2 ELECTRONIC SWITCHING SYSTEM

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FIGURES PAGE

## *FEATURE DEFINITION AND DESCRIPTION*

### 1. DEFINITION

**1.01** The remote office test line (ROTL) frame is a facility that allows interoffice trunk testing automatically from a Centralized Automatic Reporting on Trunks (CAROT) system or manually from a central office with optional ROTL equipment.

**1.02** The No. 2 Electronic Switching System (ESS) can serve as a "near-end" office, a "far-end" office, or both near and far. A near-end office contains equipment necessary to select and set up testing of trunks terminating in a distant office. A far-end office contains equipment necessary to permit access to its trunks and test lines by a near-end office or CAROT test center for testing purposes. Figure 1 shows the relationship between the CAROT system and the near-end and far-end ROTL applications.

**1.03** The near-end application requires the installation of a ROTL frame containing a ROTL applique circuit, a 105-test line, a 52A responder, a tone detector circuit, a test progress tone circuit, a test panel, and optionally a manually controlled interrogator/ROTL control unit. The near-end application is usually referred to as the ROTL office or ROTL hardware.

**1.04** A No. 2 ESS serving as a far-end office employs a ROTL frame equipped with two 105-test lines, a test line applique circuit, a responder, a test panel, and a test progress tone circuit. The far-end is usually referred to as the 105-test line office.

**1.05** A near-end application requires an office data administration (ODA) run to incorporate the necessary translation changes. A far-end may or may not require an ODA run depending on whether or not group 39 was reserved as a dummy service circuit group in an earlier ODA run.

**1.06** The near-end application is available only with the EF-1 generic program. The far-end feature may be applied to any No. 2 ESS.

### 2. DESCRIPTION

#### A. Customer (User) Perspective

**2.01** The primary user of the No. 2 ESS ROTL is the CAROT system. The CAROT system automatically accesses and tests trunks without the aid of a craftsperson. Testing can be done from the ROTL office using a manually controlled interrogator/ROTL control unit or a ROTL system test set (H-310-150).

**2.02** The user dials the directory number assigned to the ROTL frame. When the ROTL has been seized, a burst of test progress tone (2225 Hz) is returned to the testing location. The user then sends test priming information to the ROTL office. This information is a test request code that typically includes the type of test to be run, the identity of the trunk to be tested, and the directory number of the far-end test line. The information included in the test priming codes varies slightly from code to code. The format of the priming information is shown in Figure 2. After the desired trunk is seized, the ROTL office outpulses the far-end test line number over the trunk under test. When the far-end test line is connected, the user receives a burst of test progress tone (2225 Hz) followed by a 500-ms quiet interval. Test progress tone is then returned to indicate the ROTL program is making a bid for the near-end 52A responder. When the responder becomes available, test progress tone is removed and control is given to the user to perform the desired tests.

#### *Security Callback and Remote Make Busy*

**2.03** If the user wishes to make busy or restore a trunk via a remote make busy or restore request, a security callback is required to insure the user is authorized to perform this function. The ROTL office can authorize up to eight remote locations to make busy or restore its trunks. The request is initiated by a test request code followed by a single digit identification (ID) code (0-7). This digit identifies the test center that is requesting to make busy or restore trunks in the ROTL office. The ROTL office uses the test center ID code to obtain the callback number assigned to that test center and initiates a call to the test center. Upon receipt of callback from the ROTL office, the user sends a 1000-Hz signal to the ROTL office. When this signal is received, the ROTL returns a single burst of test progress tone to indicate the user is

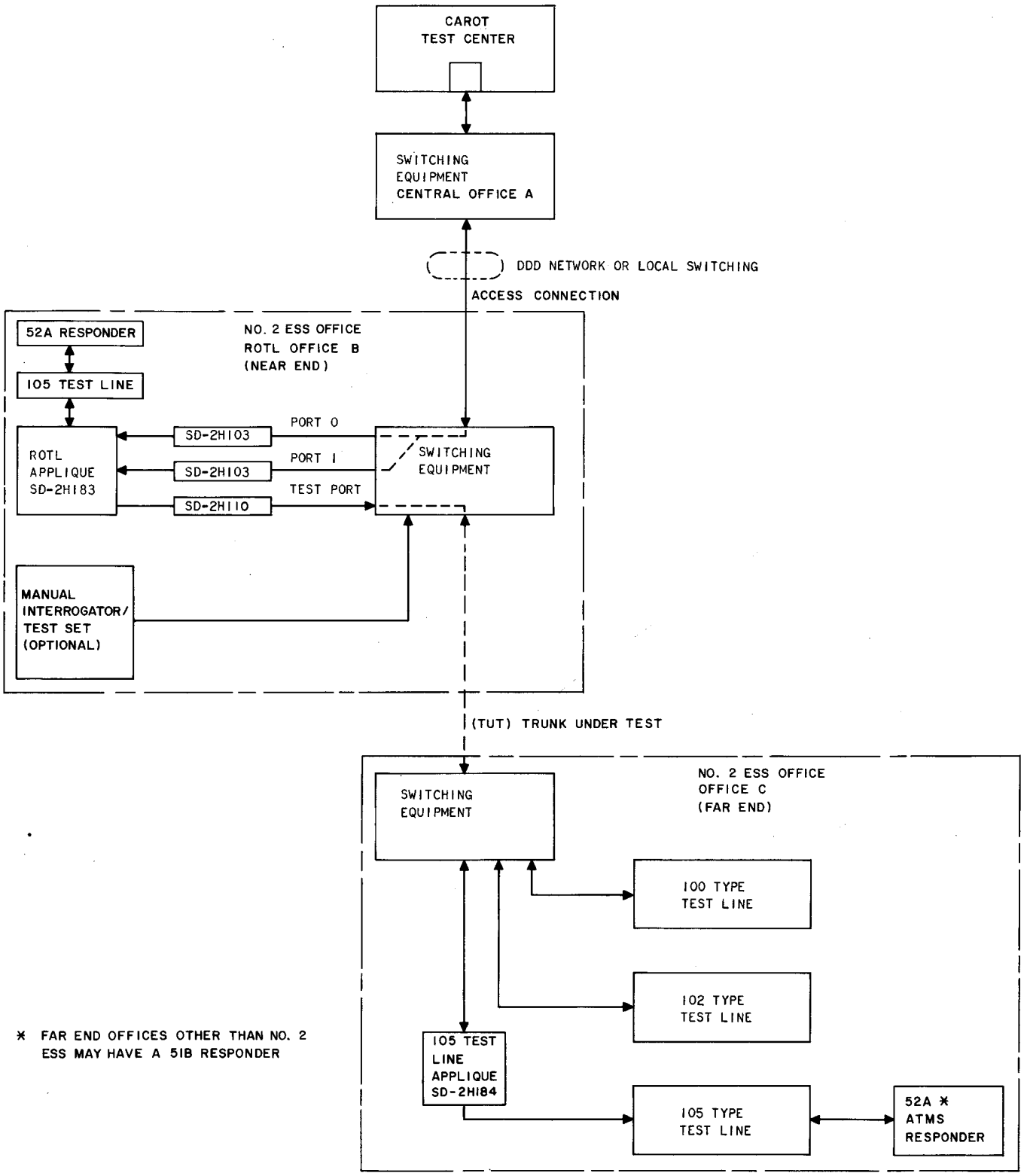


**Fig. 1—No. 2 ESS ROTL Application**

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| | TEST TYPE | | TEST LINE TYPE | DIGITS TRANSMITTED TO ROTL OFFICE | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 1 | TRANSMISSION TEST | | 100 TYPE | KP | 0 | 0 | MOD | TRUNK GROUP NO. | | | TRUNK MEM NO. | | | FETL (≤ 11) | | | | | | | | | | | ST |
| 2 | | | 102 TYPE | KP | 0 | 2 | MOD | | | | | | | | | | | | | | | | | | ST |
| 3 | | | 105 TYPE | KP | 0 | 5 | MOD | | | | | | | | | | | | | | | | | | ST |
| 4 | | OVERRIDE MADE BUSY | 100 TYPE | KP | 1 | 0 | MOD | | | | | | | | | | | | | | | | | | ST |
| 5 | | | 102 TYPE | KP | 1 | 2 | MOD | | | | | | | | | | | | | | | | | | ST |
| 6 | | | 105 TYPE | KP | 1 | 5 | MOD | | | | | | | | | | | | | | | | | | ST |
| 7 | TERMINAL BALANCE TEST | | | KP | 4 | 0 | MOD | | | | | | | | | | | | | | | | | | ST |
| 8 | | OVERRIDE MADE BUSY | | KP | 4 | 1 | MOD | | | | | | | | | | | | | | | | | | ST |
| 9 | REMOTE MAKE BUSY | | | KP | 5 | 0 | MOD | TRUNK GROUP NO. | | | TRUNK MEM NO. | | | ST | | | | | | | | | | | |
| 10 | RESTORE TRUNK | | | KP | 5 | 1 | MOD | | | | | | | ST | | | | | | | | | | | |
| 11 | TRUNK STATUS INTERROGATION | INDIVIDUAL TRUNK | | KP | 5 | 2 | MOD | | | | | | | ST | | | | | | | | | | | |
| 12 | | GROUP BY TRUNK | | KP | 5 | 3 | MOD | | | | | | | ST | | | | | | | | | | | |
| 13 | | GROUP BY GROUP | | KP | 5 | 4 | MOD | | | | | | | ST | | | | | | | | | | | |
| 14 | CALL BACK UNLOCK REQUEST | | | KP | 5 | 5 | ID | ST | | | | | | | | | | | | | | | | | |
| 15 | CONNECTION | | 100 TYPE | KP | 6 | 0 | | FETL (≤ 12 DIGITS) | | | | | | | | | | | | | | | | | ST |
| 16 | APPRAISAL | | 102 TYPE | KP | 6 | 2 | | | | | | | | | | | | | | | | | | | ST |
| 17 | TEST | | 105 TYPE | KP | 6 | 5 | | | | | | | | | | | | | | | | | | | ST |
| 18 | HOME OFFICE TEST LINES | | 100 TYPE | KP | 7 | 0 | | TEST LINE DIRECTORY NUMBER | | | | | | | | | | | | | | | | | ST |
| 19 | | | 102 TYPE | KP | 7 | 2 | | | | | | | | | | | | | | | | | | | ST |
| 20 | | | 105 TYPE | KP | 7 | 5 | | | | | | | | | | | | | | | | | | | ST |
| 21 | MOD = TRUNK MODIFIER | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | CODE (1010, 0001, 0010) | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | ID = TEST CENTER | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | IDENTIFIER (0-7) | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | FOR CALL BACK | | | | | | | | | | | | | | | | | | | | | | | | |

**Fig. 2—Format for ROTL Test Priming Information**

allowed to make busy or restore trunks in the ROTL office. The ROTL responds to a make busy or restore request as follows:

- 2225-Hz test progress tone (TPT)—trunk made busy or restored
- Two bursts of TPT—trunk made busy and automatic maintenance limit (AML) reached or exceeded
- 60-IPM low tone—request refused because the remote make busy limit was previously reached or exceeded (only manual test centers can exceed the AML)
- 120-IPM low tone—priming information (test request code) error or security callback for ROTL unlock not completed.

### *Trunk State Interrogation*

**2.04** The user can request the status of either a single trunk or a trunk group in the ROTL office. A single trunk request asks if the specified trunk is currently available to customer traffic. A group request asks if any trunk in the group is out of service and if more trunks are out of service than permitted by the AML. The ROTL office responds to a trunk interrogation request as follows:

- TPT (2225 Hz)—An individual trunk not made busy or no trunks in this group are made busy
- Two bursts of TPT—some trunks are made busy in the trunk group, but fewer than the AML
- 60-IPM low tone—individual trunk is made busy or the number of made busy trunks in the group has reached or exceeded the AML
- 120-IPM low tone—Priming information (test request code) error.

## Test Types

**2.05** The following paragraphs describe the tests that can be performed by the user.

### *100-Type Test—Remote Office Responder Testing*

**2.06** This test is a one-way (far-to-near) loss or noise transmission test to a 100-type test line in the far-end office. To initiate this test, the test center calls the ROTL office and sets the test up as described in 2.02. When the far-end 100-type test line is connected to the trunk under test, the far-end transmits a 1000-Hz tone at 0 dbm for five seconds to the ROTL office followed by a quiet termination. The 52A responder at the ROTL office measures the signal received and forwards the results to the test center. After the results are forwarded, 1000 Hz is sent to the test center as long as the 1000-Hz signal is present from the far-end office.

### *102-Type Test—Remote Office Responder Testing*

**2.07** This test is a one-way loss test (far-to-near) from a 102-type test line in the far-end office. The test is initiated when the test center calls the ROTL office and sets up the test as described in 2.02. When the 102-type test line is connected to the trunk under test, the test line transmits 1000 Hz ±10 Hz at 0 dbm to the ROTL office at preset intervals (nine seconds on, one second off). The 52A responder in the ROTL office makes loss measurements on the transmitted tone and relays the results to the test center.

### *105-Type Test—Responder to Responder Testing*

**2.08** This test is a 2-way transmission test for loss and noise measurements and a variety of other measurements on the trunk under test. The test is initiated when the test center calls the ROTL office and sets the test up as described in 2.02. When the far-end 105-type test line is connected to the trunk under test, the test center is given control over the responders. The test center controls the far-end and near-end responders via 2 out of 6 (2/6) multifrequency (MF) command signals. This test configuration allows both loss and noise measurements and a variety of other tests to be done on a near-to-far and far-to-near basis. Refer to the 103 division Bell System Practices for details on operation of the 105-test line and 52A responder.

### *Terminal Balance*

**2.09** This arrangement allows a manual tester in a remote office to test incoming trunks that originate in the ROTL office for loss or noise characteristics (far-to-near). It also allows balance measurement to be performed. This test is set up in the same manner as a transmission test.

**2.10** After outpulsing the far-end test line number, the ROTL program expects to receive a 1000-Hz tone over the test trunk which indicates that the far-end has been seized. When this tone is detected, the ROTL program initializes a 60-second timer. The ROTL access trunk connection is maintained during this 60-second interval and any recycle indication sent from the test center can be detected. A recycle indication that occurs during this 60-second interval will result in the trunk under test being disconnected from the balanced termination circuit and the idling of both circuits. During this 60-second interval, access to the other ROTL port is not possible. If a second request for ROTL occurs during this 60-second period, continuous test progress tone is returned.

After the 1000-Hz tone from the far-end has been detected, the ROTL test port incoming trunk is disconnected from the outgoing trunk under test. The trunk under test is then connected to 1000-Hz tone at the ROTL office for 10 seconds. At the end of 10 seconds, the 1000-Hz tone is removed from the trunk under test and replaced with a balanced termination. A 30-minute timer is also initialized at this time. This connection remains until a disconnect signal is received from the far-end or until the 30-minute timer times out. The number of balance termination circuits equipped in the ROTL near-end office determines the number of balance termination tests that can be performed at any one time.

## B. System Implementation

**2.11** When the test center dials the directory number of a ROTL access port in the ROTL office, the No. 2 ESS translation program translates the dialed digits into trunk information which produces a ROTL number. The ROTL number is used to access the ROTL 8-word expansion table which provides terminating information. The program searches for an idle ROTL access port. If none are available, busy tone (60 IPM) is returned to the user. If an idle access port is found, the network connections are established and the ROTL equipment sends test progress tone to the test center to acknowledge the connection is made. The 8A-tone detector is enabled to detect recycle tone. The incoming trunk associated with the ROTL test ports is then connected to an MF receiver to receive priming information. If no digits are received within three minutes, all connections are released.

**2.12** After all of the priming digits have been received, the ROTL program checks the validity of the request. If the request is invalid, 120-IPM low tone is returned to the test center for three seconds (priming error indication). If the request is valid, the No. 2 ESS trunk group translation provides the busy/idle status of the requested trunk. If the trunk is busy, 60-IPM tone is returned to the user. If the trunk is idle, the 8A-tone detector is enabled to detect call disposition tones that may be returned from the far-end, and a transmitter and a path between the transmitter and the trunk under test are selected. If no transmitter is available, the ROTL remains silent and awaits a recycle command from the test center. If one is available, the ROTL sends test progress tone to the test center for 500 ms and the trunk under test is seized.

**2.13** The far-end test line number specified in the priming information is then outpulsed to the far-end office. The transmitter is released and the trunk under test is connected to the ROTL test port. The ROTL program awaits indication of seizure from the far-end. When the far-end test line is seized, test progress tone is returned to the test center followed by a 500-MS quiet interval. The ROTL program then makes a bid for the near-end 52A responder and returns test progress tone to the test center. For 100-type tests, the bid for the responder is made before the outgoing trunk is seized. When the responder is connected, test progress tone is removed to indicate testing can begin. During testing the 8A-tone detector monitors the access port connection to detect recycle tone when testing is completed.

### *Security Callback Request*

**2.14** When the ROTL office receives a security callback unlock request, the test center ID number is translated to determine if the user is authorized to condition trunks. If the user is authorized, a security callback number is found in

the translation. If no security callback number is found, 120-IPM low tone is returned to the test center for three seconds. If a security callback number is found, the ROTL program initiates a call to the callback number and expects 1000-Hz tone to be returned from the test center. If this tone is not received within three minutes, time-out will occur and the connection to ROTL will be torn down. If the tone is received before the time-out, a single burst of test progress tone is returned to the test center to confirm authorization to condition trunks.

### *Trunk Status Interrogation*

**2.15** When the system receives a trunk status request, the ROTL program determines whether the request is an individual trunk or a trunk group request. For an individual request, if the trunk is maintenance busy, 60-IPM low tone is returned to the test center for three seconds. If the trunk is idle or traffic busy, a 500-ms burst of test progress tone is returned to the test center. For a group request, if no trunks in the group are out of service, 500 ms of test progress tone is returned to the test center. If trunks are out of service, the ROTL office checks to see if the automatic maintenance limit for the trunk group has been reached or exceeded. If it has, 60-IPM low tone is returned to the test center. If the limit has not been reached, two 500-ms burst of test progress tone with a 500-ms quiet interval between them is returned to the test center.

## 3. FEATURE FLOW DIAGRAM

**3.01** Figure 3 is a functional flow diagram showing the ROTL testing configuration setup for a No. 2 ESS serving as a ROTL office. Figure 4 illustrates the steps taken in a security callback unlock request, and Figure 5 illustrates a trunk status request.

## 4. INTERACTIONS

**4.01** This feature does not interact with other features.

## *ATTRIBUTES*

## 5. STATION/SYSTEM

**5.01** ROTL is a system feature. To apply this feature to a No. 2 ESS, the equipment specified in HARDWARE ENGINEERING must be installed.

## 6. LIMITATIONS

**6.01** The ROTL office trunks that can be tested are limited to outgoing and 2-way trunks. A far-end application tests only its incoming trunks. Also, ROTL will not test operator trunks or trunks that require operator number identification.

## 7. RESTRICTION CAPABILITY

**7.01** Make busy and restore requests on ROTL office trunks are restricted via the security callback mechanism. Only the test centers authorized (maximum of eight) will be allowed to affect the condition of trunks. Also, only manual test centers are allowed to exceed the AML.

## 8. COST DATA

### Hardware

**8.01** The hardware specified in HARDWARE ENGINEERING must be installed to implement the ROTL feature in No. 2 ESS.

### Software

### *ROTL Office*

**8.02** ***Generic Program:*** The ROTL feature requires approximately 1400 words of generic program to accommodate the ROTL program plus some additional words in the call processing programs.

**8.03** ***Translations:*** A No. 2 ESS ROTL office requires the following words of translation data:

- One word in the hundreds group table in the 4-digit translator to translate the directory number assigned to ROTL.
- Eight words in the trunk and service circuit group data to define a trunk group for the two SD-2H103 outgoing trunks associated with ROTL. The associated trunk circuit list requires one word each for the two trunks.
- Eight words in the trunk and service circuit group data to define the trunk group for

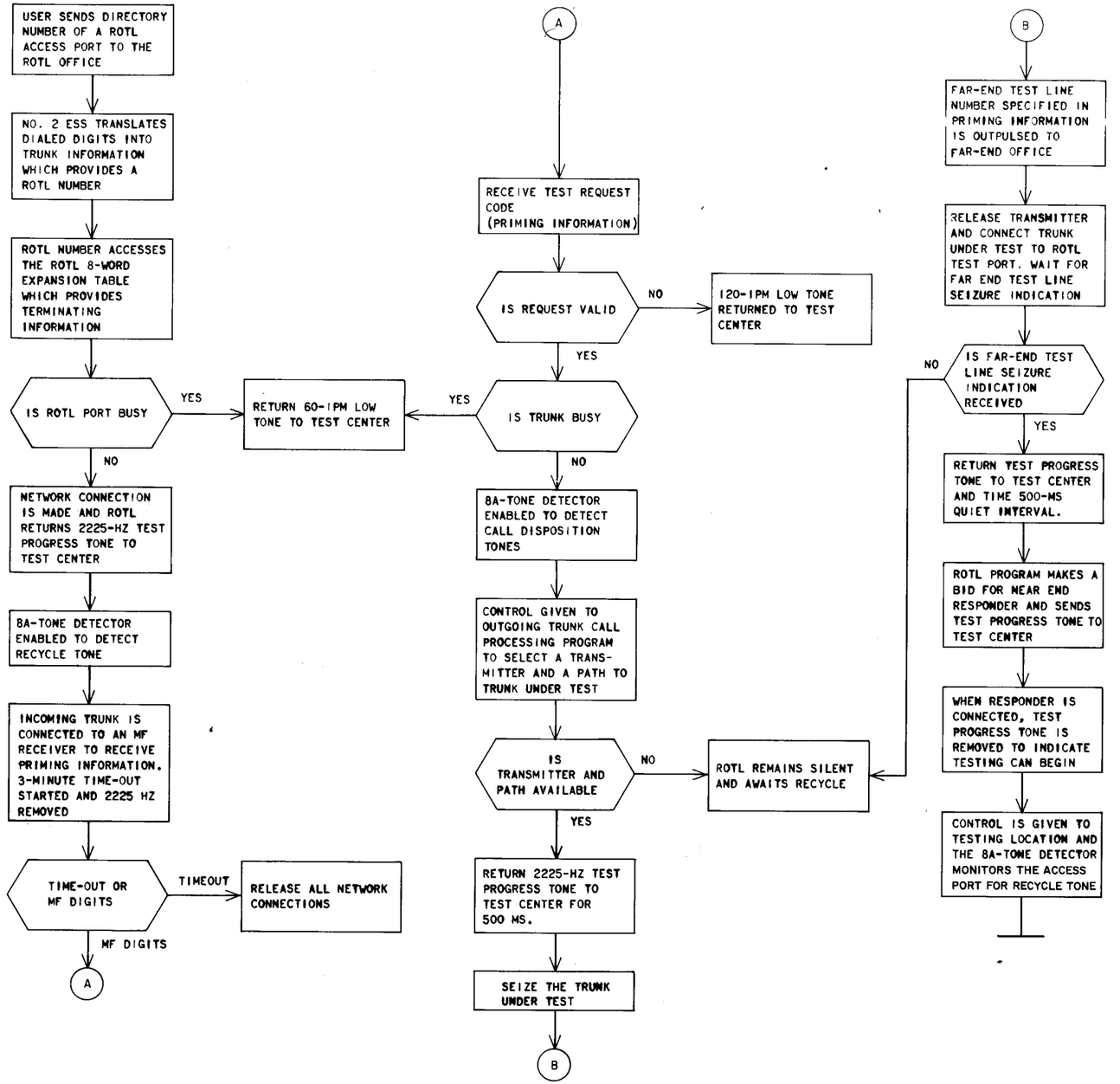


**Fig. 3—No. 2 ESS ROTL Test Setup**

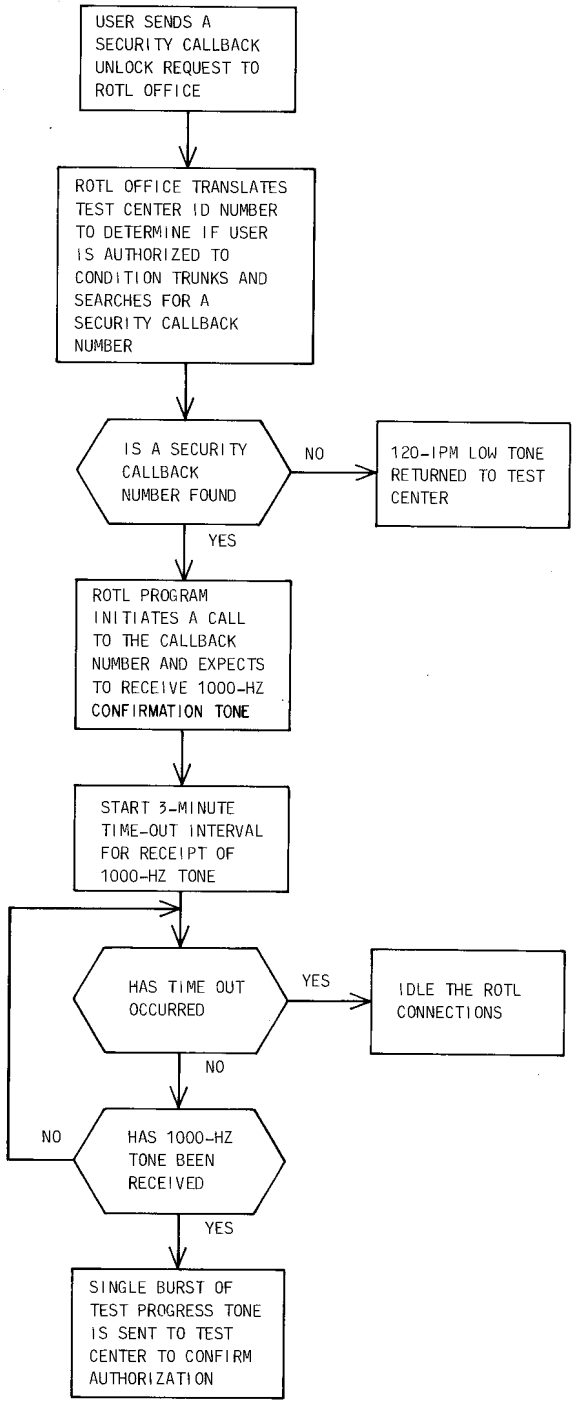


**Fig. 4—Security Callback Unlock Request**

the SD-2H110 trunk associated with ROTL. The associated trunk circuit list requires one word for the trunk.

- One circuit state table for the SD-2H103 trunk group and one circuit state table for the SD-2H110 trunk group.
- Two words per trunk in the universal subtranslator in the scan point translator for the SD-2H110 and SD-2H103 trunks.
- Four words per security callback number in the callback number expansion table. One master table index (MTI) word is required to locate the callback expansion.
- Eight words per assigned ROTL frame in the ROTL expansion table. One word is required in the MTI to locate the ROTL expansion.
- Two words in the route index expansion table to provide a route translation for ROTL calls.

**8.04** ***Call Store:*** Each trunk group assigned to ROTL requires a group status block in call store. The ROTL expansion requires a 4-word ROTL status block in call store.

### *Far-End Application*

**8.05** No additional generic program is required for the far-end. The translations are for the 105-test line applique circuit which is translated as a service circuit. The following translation words are required:

- Four words in the trunk and service circuit group data for the service circuit group assigned to the 105-test line applique circuit
- Ten bits for each test line applique circuit in the service circuit list
- Four words are required in the service circuit subtranslator and one word in the auxiliary subtranslator of the scan point translation for the test line applique circuit
- One word in the hundreds group table in the 4-digit translator to translate the directory number assigned to the 105-test line

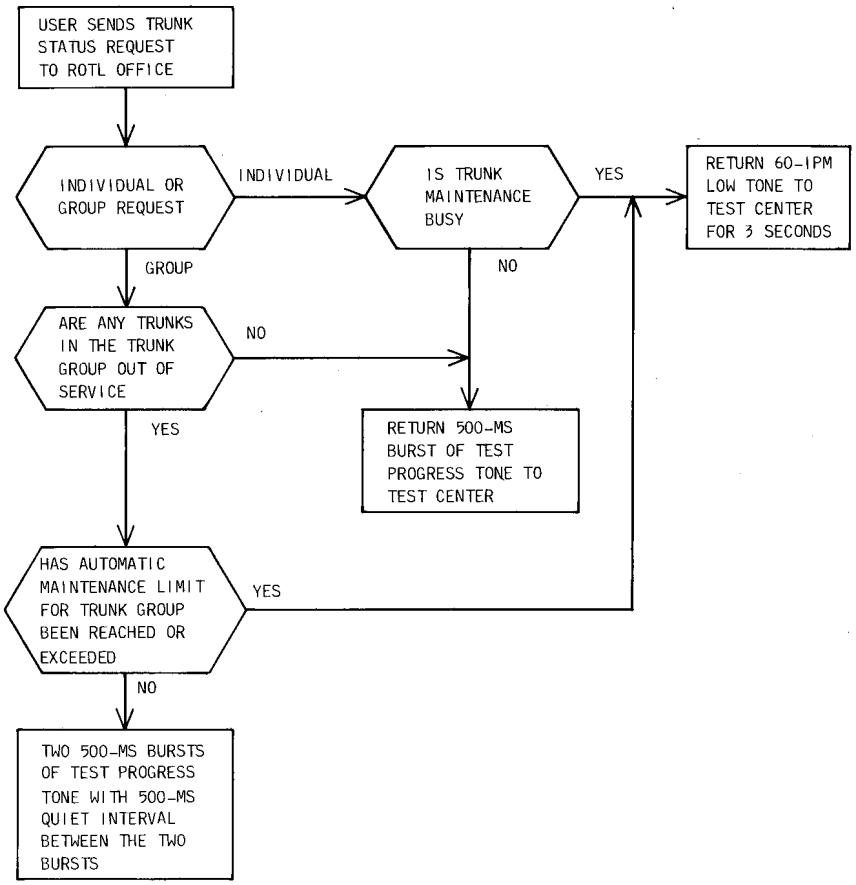


**Fig. 5—Trunk Status Request**

- Two words in the route index expansion table to provide routing for calls to the 105-test line.

**8.06** ***Call Store:*** The service circuit group assigned to the test line applique requires four words in the associated group status block of call store to indicate the status of circuits in the group.

## *INCORPORATION INTO SYSTEM*

### 9. PLANNING

**9.01** All planning and service dates should be coordinated with the CAROT system to be associated with this office.

### 10. HARDWARE ENGINEERING

**10.01** The following equipment must be installed to implement ROTL in No. 2 ESS. The equipment listed below is common to both the near-end and far-end applications and is always provided with the ROTL frame. This equipment is shared if a No. 2 ESS is serving as both a near-end and a far-end office.

- 1 J2H039A-1 Remote Office Test Line Frame
- 1 J2H039AA-1 Control Panel & Peripheral Decoder Unit
- 1 J2H039AB-1 Fuse Panel
- 1 J93020BE-1 Test Panel Unit
- 1 J93020AK-1 Test Progress Tone Supply

- 1 J94052A-1 ATMS Responder Unit

**10.02** When the frame is equipped for near-end application, the basic equipment listed in 10.01 is required plus the following equipment which is also located on the ROTL frame.

- 1 J2H039AC-1 ROTL Applique Circuit
- 1 J93020BP-1 105-Type Trunk Transmission Test Line
- 1 J94008A-1 8A Tone Detector

**10.03** For far-end applications, the following equipment is required in addition to the basic equipment listed in 10.01.

- 1 J2H039AD-1 105-Test Line Applique Circuit
- 2 J93020BP-1 105-Type Trunk Transmission Test Line

**10.04** The following is an optional manual control of the ROTL frame. This unit may be used with the near-end application only and is mounted on the ROTL frame.

- 1 J94054C-1 Manually Controlled Interrogator (MCI)
- 1 J94054D-1 ROTL Control Unit

Another unit, in addition to the items shown in 10.04, is required to provide the manual capability. This unit is designated J94054B-1, Interrogator Test Control. It is not mounted on the ROTL frame, but is mounted on any miscellaneous equipment frame. The interconnecting cable between the J94054B-1 unit and the MCI must not exceed 1000 feet in length. The J94054B-1 unit may be shared with up to three other MCI units.

**10.05** An alternative to the manually controlled interrogator is the H-310-150 ROTL System Test Set. Refer to TOP 232-132-301 for details concerning the ROTL system test set.

## 11. SOFTWARE ENGINEERING

**11.01** No real time or CCS calculations are required for ROTL since this feature is intended to be used only during light traffic hours.

## 12. COMPATIBILITY

**12.01** A ROTL office may be used to test trunks to any office having a 100-, 102-, or 105-type test line.

## 13. OFFICE DATA

**13.01** To incorporate ROTL into a No. 2 ESS office, the following ESS input forms must be completed and submitted to the WECo Regional Data Center:

### *ROTL Office*

- 2100 ***Directory Number Table:*** The directory number(s) to be assigned to the ROTL frame(s) must be specified on this form.
- 2202 ***Trunk Group Table:*** Specify a trunk group for the two SD-2H103 outgoing trunks. The order code for the SD-2H103 is 00100. Another trunk group must be specified for the SD-2H110 incoming trunk (order code 40768). For each trunk, the columns pertaining to the 4-digit translator must be completed to determine any prefixing needed and the number of digits expected must be specified. A "2" must be specified in the ROTL column for each of the trunks assigned to ROTL.
- 2201 ***Trunk Assignment Table:*** Specify a terminal equipment number (TEN) for all trunks associated with ROTL. In the ROTL number column, specify a ROTL number for each of the ROTL trunks (two SD-2H103 outgoing trunks and one SD-2H110 trunk must be assigned to each ROTL number).
- 2204 ***Trunk Feature Table:*** Specify the SD-2H110 as an incoming trunk and complete the columns applicable to incoming trunks. For the SD-2H103 trunks, specify as outgoing trunks and complete the columns required for outgoing trunk features.
- 2303 ***Route Index Expansion Table:*** Assign a route index for calls to the SD-2H103 trunks assigned to ROTL. Specify call type 35 and the trunk group number assigned to the ROTL SD-2H103 trunk group.

- 2500-3 Form Code 5L ***CAROT Identification No.:*** Specify for each authorized test center if the location is a manual test center and assign a callback identification number for each.

- 2500-3 Form Code 5M ***Remote Office Test Line:*** A scanner enable and a CPD enable must be specified for each equipped ROTL frame.

### *No. 2 ESS Serving as a Far-End Office*

- 2100 ***Directory Number Table:*** Specify a directory number to be assigned to the far-end 105-test line.

- 2202 ***Trunk Group Table:*** Specify two member numbers for trunk group 39.

- 2201 ***Trunk Assignment Table:*** Specify two TENs for the 105-test line applique circuit.

- 2303 ***Route Index Expansion:*** Assign a route index for calls to the 105-test line. Specify call type 27 and trunk group 39.

### *Translation Layout*

**13.02** Figure 6 shows the translation sequence for access to the ROTL office by a test center. Figure 7 illustrates a call to the 105-test line in a No. 2 ESS serving as a far-end.

## 14. GROWTH/RETROFIT PROCEDURES

**14.01** The ROTL equipment should be installed by Western Electric Company installers in accordance with the appropriate Installation Handbook Section. An ODA run may be necessary to incorporate the trunk groups and test line applique circuits into the No. 2 ESS if dummy trunk groups are not already set aside via a previous ODA run. If an ODA run is necessary, the new information should be inserted in accordance with Section 232-124-301 ***Office Update Procedures Using Regional ODA Program.*** If the administrative data link is to be used for the update, refer to Section 232-008-301 ***Administrative Data Link Procedures.***

## 15. TESTING

**15.01** Both the ROTL office application and the far-end application should be tested in accordance with TOP 232-132-301. This TOP contains acceptance, routine, and trouble tests for ROTL equipment.

# *ADMINISTRATION*

## 16. MEASUREMENTS

**16.01** Peg, usage, and overflow counts are kept on each trunk group associated with ROTL. For more detail concerning these counts refer to Section 232-120-301 ***Traffic and Plant Measurements.***

## 17. RECORD KEEPING

**17.01** All ESS output records resulting from the ODA run must be retained as the office records.

## 18. CHARGING

**18.01** No charging is done on this feature.

# *AVAILABILITY*

## 19. NEW INSTALLATIONS

**19.01** The ROTL office (near-end) capability was first introduced with the EF-1, Issue 3 generic program and is available in all EF-1 issues. The far-end capability was first introduced with LO-1, Issue 4 and is available with any No. 2 ESS.

## 20. GROWTH/RETROFIT

**20.01** The ROTL feature may be retrofitted into No. 2 ESS on the same basis as described in Part 19.

# *SUPPLEMENTARY INFORMATION*

## 21. GLOSSARY

**21.01** The following list identifies terms used in this section that may be unfamiliar to the reader.

- ***CAROT (Centralized Automatic Reporting On Trunks):*** A centralized

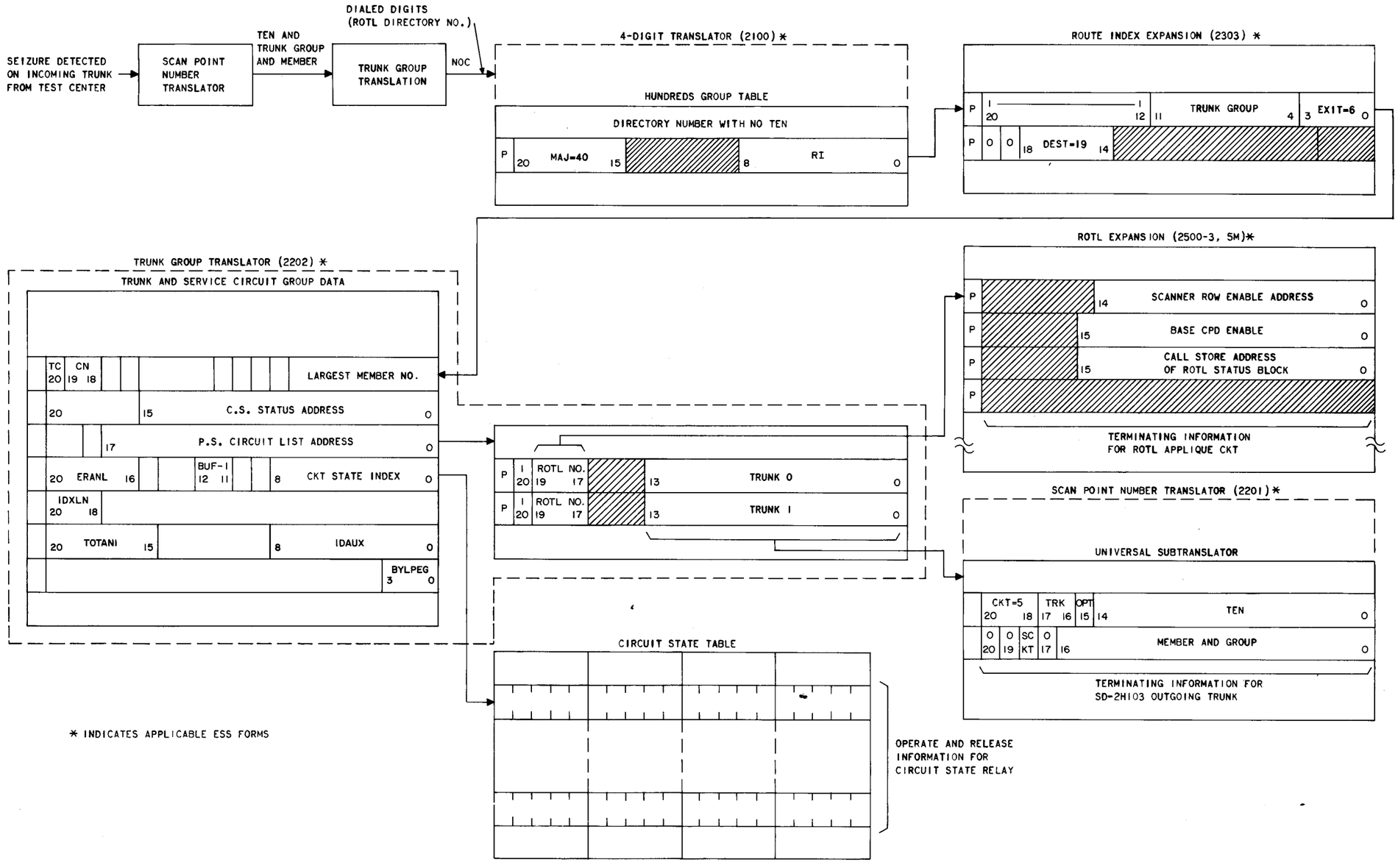


**Fig. 6—Translation of Bid for ROTL Access by Test Center**

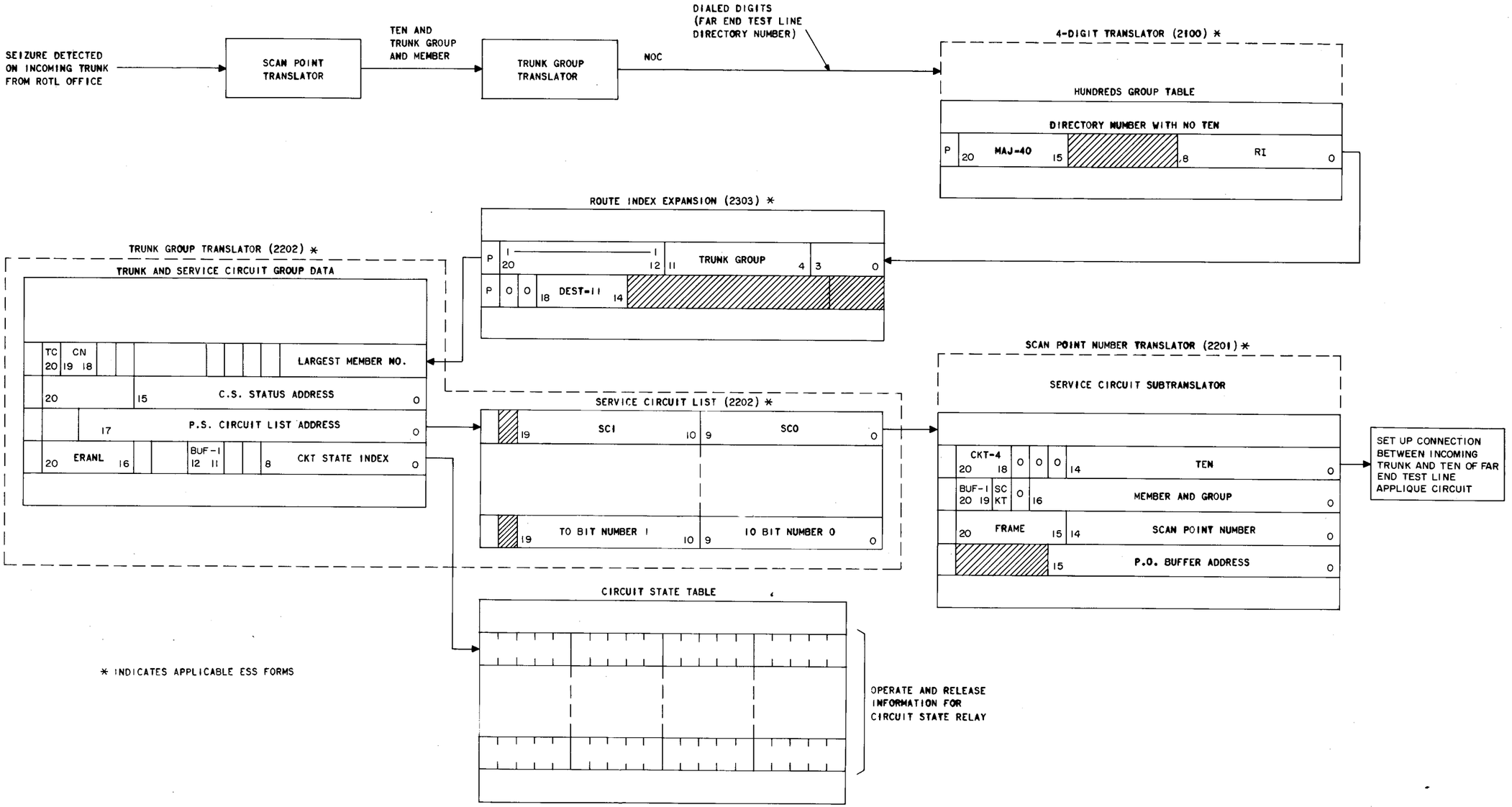


**Fig. 7—Translation of Call to the Far End Test Line in a No. 2 ESS**

test center with a computerized trunk testing system that has the ability to test central office trunks.

- ***Far-End Office:*** A term that applies to the office in which another offices trunks terminate.

- ***Far-End Test Line:*** Terminating test line in the far-end office which allows the remote test center to test trunks to the far-end.

- ***Office Data Administration (ODA) Run:*** Mechanism by which software may be assembled or changed for a No. 2 ESS. Information from the ESS input forms are inputted into the regional ODA computer, assembled, then sent to the No. 2 ESS.

- ***ROTL Office:*** A No. 2 ESS office containing equipment necessary to allow trunk testing to a far-end office via the CAROT system.

## 22. REASONS FOR REISSUE

**22.01** This is the initial issue of this section.

## 23. REFERENCES

**23.01** The following documents may be referred to for more information related to this section.

- CD- and SD-2H183 Remote Office Test Line Applique Circuit
- CD- and SD-2H184 105-Test Line Applique Circuit
- CD- and SD-96601 105-Test Line Circuit
- CD- and SD-1C399 52A-Responder Circuit
- CD- and SD-96603 Test Progress Tone Supply and Distribution Circuit
- Section 232-132-301 Remote Office Test Line—Task Oriented Series
- 103 Division Bell System Practices
- Translation Guide, TG-2H.