

MINI-ROTL
SYSTEM TESTS

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1. GENERAL

1.1 Description: This section provides system tests to be applied to the Mini-ROTL equipped in a No. 3 ESS office. The test operations in this section require the installer to generate outgoing calls from the ROTL System Test Set to test lines located in other offices connected to the No. 3 ESS.

1.2 Sequence of Operation

1.21 The tests in Sections 613.01 through 613.03 must have been completed before these tests start.

1.22 The operating company must supply the installer with telephone numbers of test line in other offices connected to the No. 3 ESS. The operating company may use Table 1 in this section in order to fill out Table 2 in this section so that the installer may efficiently complete these tests.

2. RECORDS AND REQUIREMENTS

2.1 Records - Results of tests covered in this section shall be recorded on Form SD-97-1313 and summarized on Form SD-97-1315.

2.2 Requirements - Tests in this section meet the requirements of SD and CD information.

3. TEST EQUIPMENT

3.1 Test Sets

<u>Amt</u>	<u>ITE</u>	<u>Description</u>
1	5462 or	ROTL System Test Set
T1	(H310-150)	ROTL System Test Set
T - Use Telephone Company Equipment when available.		

4. TEST SETUP INFORMATION

4.1 ROTL System Test Set - Set the switches as follows:

<u>SWITCH</u>	<u>POSITION</u>
Test Preparation	100-0-900
Test Request	MEAS-ALL
Select	EXPANDED
DB Pads	NORMAL
INT START	OFF
MFO	AUTO
ROS	HOLD
TST	ON HOOK
MF Digits	(as specified per each test)

NOTE: Any ROTL system test set MF digit thumbwheel switches not used must be set to OFF.

4.2 Using an ITE-9601 cord, connect the ITE-5462 -48V INPUT jack to the -48V jack on a near-by frame.

NOTICE - NOT FOR USE OR DISCLOSURE OUTSIDE THE
BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT

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- 4.3 Using an ITE-9601 cord, connect the T & R jack on the ITE-5462 to a subscriber line appearance.
- 4.4 RSTS lamps MEAS, NEW, N-E/F-N, CHK-2 are lit.
- 4.5 Operate the TST key to the OFF HOOK position, operate the ROS key to the DIAL position. Dial tone is heard from the speaker.
- 4.6 Dial the ROTL directory number.
- 4.7 If 15 seconds of TPT is heard, means a successful connection. Operate the ROS key to HOLD position.
- 4.8 If 60 or 120 IPM low tone is heard means an unsuccessful connection. Try again.

5. ERROR RESPONSES

5.1 Invalid Test Priming

NOTE; Under "Results", "1s 1300 Hz, 1/2s TPT" means that a one second 1300 Hz tone is followed by 1/2 second of Test Progress Tone.

STEP	OPERATION	RESULTS
1	Set the MF digits (RSTS thumbwheel switches) as follows: KP 00 ST	
2	Momentarily operate the RECYCLE key.	1s 1300 Hz, 1/2s TPT.
3	Momentarily operate the START MF key.	The MF digits, 4s of 120 IPM low tone.

5.2 Time-Out (2 1/2 Minute)

STEP	OPERATION	RESULTS
1	Set the MF digits as follows: KP 00 ST	
2	Momentarily operate the RECYCLE key.	1s 1300 Hz, 1/2s TPT.
3	Momentarily operate the START MF key.	The MF digits are heard, 4s of 120 IPM
4	Wait at least 3 minutes.	ROTL should disconnect. (Reorder is returned)

6. MF RECEIVER

6.1 Establish a ROTL connection see Paragraph 4.5).

STEP	OPERATION	RESULTS
1	Set the MF digits as follows: KP 76 1234 5 67890 ST	
2	Set the DB Pads for -16 (Both digit 8 showing). All other switches Normal (no digits showing).	
3	Momentarily operate RECYCLE key (RSTS).	1s 1300 Hz, 1/2s TPT.
4	Momentarily operate START MF key.	MF digits, 1/2s TPT.
5	Set the MF digits as follows: KP 76 1234 5 67891 ST	
6	Momentarily operate the RECYCLE key.	1s 1300 HZ, 1/2s TPT.
7	Momentarily operate the START MF key.	MF digits, 4s 120 IPM Low Tone.
8	Momentarily operate the RECYCLE key.	1s 1300 Hz, 1/2 s TPT.
9	Restore the DB Pads (no digits showing.)	

7. TRUNK STATE TESTS
- 7.1 The object of these tests is to verify that the ROTL responds properly to the KP50 through KP55 type of priming. Refer to Tables 1 and 2 for priming information for the RSTS digital thumb-wheel switch settings.
- 7.2 Call Back Unlock Request
- 7.21 This KP55 type priming signal must be sent before KP50 and KP51 priming signals are used.
- 7.22 Set up the RSTS with the KP,5,5,5,ST priming information per Table 2.
- 7.22A NOTE: The directory number of the trunk and line test panel should be assigned to the user ID 5 with "automatic" class of authorization.
- 7.23 Momentarily operate RECYCLE.
- 7.24 Momentarily operate START MF.
- 7.25 Verify that the ROTL responds with
- a) 1/2s TPT, indicating that the ROTL accepted the request.
 - or
 - b) 4s 60 IPM LT, indicating that the ID number is not currently valid.
 - or
 - c) 4s 120 IPM LT, indicating a priming information error.
- 7.26 Assuming that 1/2s TPT was returned. Listen for low tone corresponding to ringing cycle at the TLTP.
- 7.26A Answer the call at the TLTP and return at least one second of 1000 Hz tone.
- 7.26B Verify that the ROTL returns 1/2 s TPT indicating successful unlock.
- 7.26C Momentarily operate RECYCLE.
- 7.27 The ROTL should again respond with TPT.
- 7.3 Trunk Status Requests
- 7.31 Individual Trunk
- 7.311 Set up the RSTS with the KP520 xxx xxx ST priming information per Table 2.
- 7.312 Momentarily operate RECYCLE.
- 7.313 Momentarily operate START MF.
- 7.314 Verify that one of the following responses is received:
- a) 1/2s TPT, trunk is idle. (Not locked out)
 - b) 4s 60 IPM LT, trunk is maintenance busy
 - c) 4s 120 IPM LT, input information faulty, investigate the problem, a or b are the only acceptable results.
- 7.315 Momentarily operate RECYCLE.
- 7.32 Trunk Group by Trunk
- 7.321 Set up the RSTS with the KP 530 xxx xxx ST priming information per Table 2.
- 7.322 Momentarily operate RECYCLE.
- 7.323 Momentarily operate START MF.
- 7.324 Verify that one of the following responses is received:
- a) 1/2s TPT, all trunks in group are idle.
 - b) 2 bursts 1/2s TPT, 1 thru 1 short of the AML (Automatic Maintenance Limit) are busy.
 - c) 4s 60 IPM LT, AML or more than the AML are busy.
 - d) 4s 120 IPM, priming information faulty.
- 7.325 Momentarily operate RECYCLE.
- 7.33 Trunk Group by Group
- 7.331 Perform the same test as described in Paragraph 7.32 except use the KP 540 xxx ST priming information on Table 2. This is merely a shorter way of defining the trunk group to be investigated.
- 7.4 Make Busy and Restore
- 7.401 Set up the RSTS with the KP 500 xxx xxx ST priming information per Table 2. Use the same trunk that was status checked per the test in Paragraph 7.31.
- 7.401A NOTE: Successful call back unlock must be performed during the time ROTL is accessed for make busy and restore requests.
- 7.402 Momentarily operate RECYCLE.
- 7.403 Momentarily operate START MF.

7.404 Verify that response a) or b) is received:

- a) 1/2s TPT, the trunk is now maintenance busy.
- b) 2 bursts 1/2s TPT, the trunk is now maintenance busy and the AML was exceeded.
- c) 4s 60 IPM LT, equipment problems encountered, AML already reached or exceeded, pro-
cluding trunk condition.
- d) 4s 120 IPM LI, input information faulty or call back unlock request not made.

7.405 Momentarily operate RECYCLE.

7.406 Repeat Paragraph 7.31 and verify that the trunk status is busy.

7.407 Setup the RSTS with the KP510 xxx xxx ST priming code.

7.408 Momentarily operate RECYCLE.

7.409 Momentarily operate START MF.

7.410 Verify that a 1/2s TPT is received.

7.411 Momentarily operate RECYCLE.

7.412 Repeat Paragraph 7.31 and verify that the trunk status is idle.

8. TRANSMISSION TESTS

8.1 100 Type Test Line

NOTE: The far-end test line accessed for this test must be a new 100 type test line, i.e. the test line must initially return 1000 Hz for five seconds.

8.11 From Table 2 information set the RSTS TEST PREPARATION switch and the MF DIGIT thumb-wheel switches as specified.

8.12 Perform tests as specified per the following Table:

TEST SET OPERATIONS - 100 TYPE TEST LINE

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
		MEAS, NEW N-E/F-N, CHK-2		000	
1	Momentarily operate the RECYCLE key				1s 1300 Hz 1/2s TPT See Note 1
2	Momentarily operate the START MF key. (Note 2)				MF digits three 1/2s TPT. See Para. 8.13.
3	Within three seconds of the third burst of TPT, Operate the INT START switch to the ON position.	INT START, ON, ODBM DATA RDY	CKH-2	-04.0 (Typical)	2/6 MF Commands F-N Loss Data Tone (See Note 4)
4	Momentarily operate the DATA RCV key.	F-E/N-F	DATA RDY N-E/F-N		
5	Within 15 sec. of step 3, momentarily operate the DATA RCV key.	N-E/F-N NOISE DATA RDY	F-E/N-F ODBM	+15.0 to +30.0 (Typical)	2/6 MF Commands Noise Data Tone
6	Momentarily operate the DATA RCV key.	CHK-2	ON NOISE DATA RDY	000	
7	Restore the INT START switch to the OFF position (Note 3) Operate RSP RLS		INT START,		

NOTE 1: 1s 1300 Hz, 1/2s means one second of 1300 Hz tone is heard followed by 1/2 second of 2225 Hz Test Progress Tone.

NOTE 2: The first burst of TPT (Step 2) indicates that the trunk is available. The second burst of TPT indicates that MW has been returned from the far end test line. The third burst of TPT indicates that the near end responder is attached. If the far end is a local office, one or two ringing cycles (low tone) could precede the second burst of TPT.

NOTE 3: The burst of DATA TONE IS 375ms 1200 Hz (Guard Tone), a burst of 2225 Hz (Data Tone), 50 msec. of 1200 Hz (Guard Tone).

NOTE 4: 1000 Hz tone from far end may be heard. Wait for tone to stop. When tone stops, new light extinguishes and old is lighted.

8.13 Numerical Indications: When 120 IPM low tone is returned instead of TPT and the low tone could have more than one meaning the ROTL has been programmed to report that information in the form of a data value. When the low tone is received set, the RSTS for 105 type test line, noise measurement, small ROTL and set INT start switch to ON. the ROTL will respond with a guard-data-guard signal and the RSTS should display a NOISE MEASUREMENT value that can be decoded using the following: (Values = ±1)

- 18, No additional information.
- 22, Priming information error.
- 26, Wrong tone received from far end.
- 30, Trunk Busy or otherwise unseizable.
- 34, TUT port busy.
- 38, No path to TUT port or tone/quiet circuit.
- 42, No transmitter available.
- 46, Not transmitter path available.
- 50, TUT connection failure in ROTL office.
- 54, No tone-and-quiet circuit available.
- 58, No answer supervision received on TUT.
- 62, TUT port not defined.
- 66, Trunk state prevents action.
- 70, Transient call record not available
- 74, Trunk is service busy.
- 78, Security callback unlock not completed.
- 82, AML was previously reached or exceeded.
- 86, Callback setup denied.
- 90, Priming and translation trunk groups differ.

8.2 102 Type Test Line

8.21 From Table 2 set the RSTS TEST PREPARATION switch and the MF DIGIT thumbwheel switches as specified.

8.22 Perform the tests as specified per the following TABLE:

TEST SET OPERATIONS - 102 TYPE TEST LINE

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
		MEAS, NEW N-E/F-N, CHK-2		000	
1.	Momentarily operate the RCY key.				1s 1300 Hz 1/2s TPT
2.	Momentarily operate the MF key.				The MF digits three 1/2s TPT. (See Para.8.13)
3.	Within 17 sec of the third burst of TPT, operate the INT START switch to the ON position.	INT START, ON, ODBM, DATA RDY	CHK-2	-04.0 (typical)	2/6 MF Command F-N Loss Data Tone
4.	Momentarily operate the DATA RCV key.	CHK-2	DATA RDY, ON, ODBM	000	
5.	Restore the INT START switch to the OFF position. Operate RSP RLS.		INT START		

8.3 105 Type Test Line

NOTE: For 105 type test line a Self Check All test is performed followed by a Measure ATT test.

8.31 Set the RSTS Test Request switch to SCK ALL.

8.32 From Table 2 set the RSTS Test Preparation switch and the MF Digit thumbwheel switches as specified.

8.33 Perform the tests as specified per the following Table:

8.33A NOTE: If the far end responder is a 51B type, the test sequence terminates at the conclusion of Step 6.

TEST SET OPERATIONS - 105 TYPE TEST LINE

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
		SCK, NEW N-E/F-N CHK-2		000	
1.	Momentarily operate the RECYCLE key.				1s 1300 Hz 1/2s TPT.
2.	Momentarily operate the START MF key				The MF digits three 1/2s TPT. (See para. 8.13).
3.	Within 17 sec of the third burst of TPT operate the INT START switch to ON.	INT START, ON, ODBM, DATA RDY (Note 1)	CHK-2	+00.0	2/6 MF Commands F-N Loss Self Check Data Tone.
4.	Momentarily operate the DATA REV key.	F-E/N-F	N-E/F-N	+00.0	
5.	Within 15 seconds of Step 3, momentarily operate the DATA RCV key.	N-E/F-N Noise DATA RDY	F-E/N-F, ODBM	+00.0	2/6 MF Commands N-E Noise Self Check Data Tone.
6.	Within 15 seconds Step 5, Momentarily operate the DATA RCV key.	F-E/N-F, DATA RDY	N-E/F-N	+00.0	2/6 MF Commands F-E Noise Self Check Data Tone.
7.	Within 15 seconds of Step 6, momentarily operate the DATA RCV key.	N-E/F-N, 400 Hz, DATA RDY	F-E/N-F Noise	+00.0	2/6 MF Commands N-F Loss Self Check Data Tone F-N Loss Self Check Data Tone.
8.	Momentarily operate the DATA RCV key.	F-E/N-F, DATA RDY	N-E/F-N	+00.0	
9.	Within 15 seconds of Step 7, momentarily operate the Data RCV Key.	N-E/F-N 1K Hz, DATA RDY	F-E/N-F 400 hz	+00.0	2/6 MF Commands N-F Loss Self Check Data Tone F-N Loss Self Check Data Tone.
10.	Momentarily operate the DATA RCV key.	F-E/N-F, DATA RDY	N-E/F-N	+00.0	
11.	Within 15 seconds of Step 9, momentarily operate the DATA RCV key.	N-E/F-N, 2.8K Hz, DATA RDY	F-E/N-F, 1K Hz	+00.0	2/6 MF Commands. N-F Loss Self Check Data Tone F-N Loss Self Check Data Tone.

TEST SET OPERATIONS - 105 TYPE TEST LINE (Cont'd)

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
12.	Momentarily operate the DATA RCV key.	F-E/N-F	N-E/F-N DATA RDY	+00.0	
13.	Within 15 seconds of Step 11, momentarily operate the DATA RCV key.	N-E/F-N, Noise-Tone, DATA RDY	F-E/N-F, 2.8K Hz	+00.0	2/6 MF Commands N-F Noise/w Tone Self Check Data Tone F-N Noise/w Tone Self Check Data Tone
14.	Momentarily operate the DATA RCV key.	F-E/N-F, DATA RDY	N-E/F-N	+00.0	
15.	Momentarily operate the DATA RCV key.	N-E/F-N, CHK-2 NEW	DATA RDY F-E/N-F, ON	000	
16.	Restore the INT START switch to OFF.		INT START	000	

8.34 Set the RSTS Test Request switch to MEAS ALL.

8.35 From Table 2 set the RSTS TEST PREPARATION switch and the MF DIGIT thumbwheel switches as specified.

8.36 Perform test as specified per the following Table: (The following tests must be done rapidly, or the far end will time out.)

TEST SET OPERATIONS - 105 TYPE TEST LINE

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
		MEAS, NEW, N-E/F-N CHK-2			000
1.	Momentarily operate the RECYCLE key				1s 1300 Hz 1/2s TPT
2.	Momentarily operate the START MF key/				The MF digits three 1/2s TPT.
3.	Within 17 sec of the third burst of TPT operate the INT START switch to the ON position.	INT START, ON, ODBM, DATA RDY (Note 1)	CHK-2	-04.0 (Typical)	2/6 MF Commands F-N Loss Data Tone
4.	Momentarily operate the DATA RCV key	F-E/N-F, DATA RDY	N-E/F-N	-04.0 (Typical)	
5.	Within 15 seconds of step 3, momentarily operate the DATA RCV key.	N-E/F-N, Noise DATA RDY	F-E/N-F, ODBM	+15.0 to +30.0	2/6 MF Commands N-E Noise Data Tone
6.	Within 15 seconds of Step 5, momentarily operate the DATA RCV key.	F-E/N-F, DATA RDY	N-E/F-N	+15.0 to +30.0	2/6 MF Commands F-N Noise Data Tone

TEST SET OPERATIONS - 105 TYPE TEST LINE (Cont'd)

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
7.	Within 15 seconds of Step 6, momentarily operate the DATA RCV key	N-E/F-N, 400 Hz DATA RDY	F-E/N-F, Noise	-04.0 (Typical)	2/6 MF Commands N-F Loss Data Tone F-N Loss Data Tone
8.	Momentarily operate the DATA RCV key	F-E/N-F, DATA RDY	N-E/F-N	-04.0 (Typical)	
9.	Within 15 seconds of Step 7, momentarily operate the DATA RCV key.	N-E/F-N, 1K Hz DATA RDY	F-E/N-F, 400 Hz	-04.0 (Typical)	2/6 MF Commands N-F Loss Data Tone F-N Loss Data Tone
10.	Momentarily operate the DATA RCV key	F-E/N-F, DTA RDY	N-E/F-N	-04.0 (Typical)	
11.	Within 15 seconds of Step 9, momentarily operate the DATA RCV key.	N-E/F-N, 2.8K Hz DATA RDY	F-E/N-F 1K Hz	-04.0 (Typical)	2/6 MF Commands N-F Loss Data Tone F-N Loss Data Tone
12.	Momentarily operate the DATA RCV key	F-E/N-F, DATA RDY	N-E/F-N	-04.0 (Typical)	
13.	Within 15 seconds of Step 11, momentarily operate the DATA RCV key.	N-E/F-N, Noise Tone, DATA RDY	F-E/N-F 2.8K Hz	+15.0 to +30.0	2/6 MF Commands N-F Noise/w Tone Data Tone F-N Noise/w Tone Data Tone
14.	Momentarily operate the DATA RCV key	F-E/N-F, DATA RDY	N-E/F-N	+15.0 to +30.0	
15.	Momentarily operate the DATA RCV key	N-E/F-N, CHK-2	DATA RDY F-E/N-F, ON NEW	000	
16.	Restore the INT START switch to the OFF position		INT START	000	

NOTE 1: The DATA RDY LED will extinguish and relight for each operation of the DATA RCV key.

9. CONNECTION APPRAISAL

NOTE: In the following test insert a Telephone Number for a telephone in the office.

9.1 100 Type Test Line

STEP	OPERATION	RESULTS
1	Set MF digits as follows: KP 60 (Tel. No.) ST	
2	Momentarily operate the RECYCLE key.	1s 1300 Hz, 1/2s TPT.
3	Momentarily operate the START MF key.	MF digits 1/2s TPT. The local Telephone Rings.

9.1 (Cont'd)

STEP	OPERATION	RESULTS
4	Lift the receiver and talk into the receiver.	Low Tone is randomly heard.
5	Place the Receiver on-hook.	

10. TROUBLE LOCATING INFORMATION

10.1 Common Tone Sequences

<u>TONE SEQUENCES FROM RSTS</u>	<u>CAUSE OF SEQUENCE</u>
MF digits followed by 3 sec. 120 IPM LT.	Invalid Test Code: a) When testing MF Receiver, digits are incorrect. b) Priming error.
MF digits followed by 2.6 min. of quiet and then disconnect.	Time out: a) No input to MINI-ROTL for 2.6 min.
1 sec. 1300 Hz. tone (RECYCLE) followed by 4 sec. 60 IPM Low Tone	a) Tip and Ring of Trunk open (Supervisory hit detected)

10.2 RSTS Verification

NOTE: The ROTL Systems Test Set is a completely solid state unit. The digital display and all lamps are light emitting diodes (LED's). If the test set is not working properly, the installer can only check the fuse, inspect for broken wires, and verify that all circuit packs are fully plugged in.

10.201 At the ROTL Systems Test Set, set the following switches to the designated positions:

<u>SWITCH</u>	<u>POSITION</u>
INT START	OFF
TEST PREPARATION	INT CHECK
TEST REQUEST	INT CHECK
MFO	MAN
SELECT	EXPANDED
ROS	HOLD
TST	ON HOOK

10.202 Operate each slide switch on the db insertion pads to its normal position (numbers not visible).

10.203 Connect the -48V INPUT jack on the test set to the -48V battery and ground jack on the ROTL frame using an ITE-9598 cord. At this time, tones or a series of MF pulses may be heard at the test set speaker, and numerals will appear at the test set digital readout display window. Clear the display to 000 by momentarily depressing the DATA RCV pushbutton.

10.204 Operate switches INT START to its ON position; then, depress the DATA RCV pushbutton once. Ignore the digital display or any lamp indications, but listen for a responder data tone (1200 Hz - 2200 Hz - 1200 Hz) at the speaker. This tone is used by the ATMS for data transmission.

10.205 Operate switch INT START back to its OFF position; then, depress the DATA RCV pushbutton to clear the digital readout display.

TABLE A

INTERROGATOR SELF-CHECK				
SWITCH OPERATION	LAMP INDICATION		DATA READOUT DISPLAY	AUDIBLE INDICATION
	LIT	EXTINGUISHED		
	SCK NEW N-E/F-N CHK-2		000	
INT START TO ON	INT START ON SCK DATA RDY OLD F-E/N-F CHK-1 TEST FAULT 7	NEW N-E/F-N CHK-2	-7 _ _	
DATA OP. RCV REL.		DATA RDY OLD F-E/N-F NEW	-000	Responder Data Tone
INT START TO OFF	TEST FAULT 1		+001	
DATA OP. RCV REL.	NEW	DATA RDY OLD ON TEST FAULT 1	000	

10.206 Perform the operations of Table A and verify the indicated responses. The table lists the responses in the relative order of occurrence. In many cases, the responses are difficult to verify and will have to be repeated. To repeat any tests, perform Paragraph 10.205 and start thru the table again.

10.207 Rotate switch KP of the test set MF DIGITS thumbwheels to position KP (position 11 on the Prototype test set). Rotate switch 24 to position ST (position 10 on the prototype test set). Rotate switch 23 to position OFF (position 11 on the prototype test set). Rotate the remaining switches to some digit position other than OFF (other than 11 on the prototype test set).

10.208 Momentarily operate pushbutton START MF and note that on 2/6 MF tone is heard. Continue to operate pushbutton START MF and verify that another 2/6 MF tone is heard for each digit and KP except that of digit switch 23 which is in the OFF position.

10.209 After the last digit (ST) is heard, momentarily (full second) operate switch RECYCLE. Note that a 1300 Hz. RECYCLE tone is heard.

10.210 Operate switch MFO to position AUTO.

10.211 Depress pushbutton START MF again and verify that the test set outpulses the complete string of digits selected on the MF DIGITS thumbwheels.

10.212 Momentarily depress pushbutton RSP RLS and verify that the 2/6 MF tone is heard (responder release signal).

10.213 Depress pushbutton DISC and verify that a 1300 Hz. tone is heard as long as DISC is operated.

10.214 Momentarily operate switch RNG-FWD and verify that a short burst of 1300 Hz. tone is heard.

- 11. 105 TEST LINE (FAR END TERMINATING TEST LINE ONLY)
- 11.1 Connect the tip and ring of the RSTS tip and ring jack to a subscriber line circuit.
- 11.2 On the RSTS operate the ROS switch to DIAL, the TEST REQUEST switch to SCK ALL, the TEST PREPARATION switch to 105-0-900, the SELECT switch to SMALL and the TST switch to OFF HOOK.
- 11.3 Using the dial on the RSTS, dial the telephone number assigned to the 105 test line of the ROTL. Operate the ROS switch to the hold position.
- 11.4 Ringing is heard momentarily, then 1 second of TPT.
- 11.5 Perform the tests as specified per the following table:

TEST SET OPERATIONS - 105 TYPE TEST LINE

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
		SCK, NEW, N-E/F-N CHK-2		000	
1.	Within 17 sec of the burst of TPT operate the INT START switch to ON.	INT START, ON, ODBM, DATA RDY (Note 1)	CHK-2	+00.0	2/6 MF Commands DATA TONE FE Loss Self Check.
2.	Momentarily operate the DATA RCV key	F-E/N-F	N-E/F-N DATA RDY	-00.0 (Ignore)	
3.	Within 15 seconds of Step 1, momentarily operate the DATA RCV key.	N-E/F-N Noise	F-E/N-F, ODBM DATA RDY	-00.0 (Ignore)	2/6 MF Commands.
4.	Within 5 seconds of Step 3, momentarily operate the DATA RCV key.	F-E/N-F, DATA RDY	N-E/F-N	+00.0	2/6 MF Commands. FE Noise Self Check DATA TONE
5.	Within 15 seconds of Step 4, momentarily operate the DATA RCV key.	N-E/F-N, 400 Hz DATA RDY	F-E/N-F Noise	+00.0	2/6 MF Commands. FE Gain Slope Self Check (400 Hz) Data Tone
6.	Momentarily operate the DATA RCV key.	F-E/N-F	N-E/F-N DATA RDY	-00.0 (Ignore)	
7.	Within 15 seconds of Step 5, momentarily operate the DATA RCV key.	N-E/F-N 1K Hz, DATA RDY	F-E/N-F 400 Hz	+00.0	2/6 MF Commands. FE Gain Slope Self Check (1000 Hz) Data Tone.
8.	Momentarily operate the DATA RCV key.	F-E/N-F	N-E/F-N DATA RDY	-00.0	
9.	Within 15 seconds of Step 7, momentarily operate the DATA RCV key.	N-E/F-N, 2.8K Hz DATA RDY	F-E/N-F, 1K Hz	+00.0	2/6 MF Commands. FE Gain Slope Self Check (2800 Hz Data Tone).
10.	Momentarily operate the DATA RCV key	F-E/N-F	N-E/F-N DATA RDY	-00.0	

Handwritten signature/initials

TEST SET OPERATIONS - 105 TYPE TEST LINE (Cont'd)

STEP	SWITCH OPERATION	LED INDICATION		DATA READOUT DISPLAY	AUDIBLE RESPONSE
		LIGHTED	EXTINGUISHED		
11.	Within 15 seconds of Step 9, momentarily operate the DATA RCV key.	N-E/F-N, Noise-Tone, DATA RDY	F-E/N-F 2.8K Hz	+00.0	2/6 MF Commands FE Noise with tone Self Check DATA TONE
12.	Momentarily operate the DATA RCV key.	F-E/N-F	N-E/F-N	-00.0	
13.	Momentarily operate the DATA RCV key.	N-E/F-N, CHK-2	DATA RDY F-E/N-F, ON, NEW	000	
14.	Restore the INT START switch to OFF.		INT START	000	
15.	Momentarily depress RLS key.				2/6 MF Commands a click may be heard. (Ignore)
16.	Turn INT START to ON.				2/6 MF Commands. No Data Tone.
17.	Restore INT START switch OFF and TST switch to ON HOOK.				

ATTACHMENTS

Tables 1 & 2 on Pages 14 & 15.

Manager, Product Engineering
Control Center

Reason for Reissue:

To change Paragraphs 5.2 (Steps 1, 3, and 4), 6.1 (Step 7), 7.26, 7.314, 7.324, 7.401, 7.407, 8.12, (Steps 6 and 7), and 8.33 (Steps 6, 12, and 15).

TABLE 1
MINI-ROTL PRIMING DIGITS FORMAT

TEST TO BE PERFORMED		KP	1	2	3	4	5	6	7	8	9	10	12		
Transmission Tests	100 Type	KP	0	0	0*	Trunk Group		Trunk Member No.			Far End Test Line Number 1 to 11 Digits and ST.				
	102 Type	KP	0	2	0	"	"	"	"	"					
	105 Type	KP	0	5	0	"	"	"	"	"					
With Maintenance Busy Override	100 Type	KP	1	0	0	"	"	"	"	"					
	102 Type	KP	1	2	0	"	"	"	"	"					
	105 Type	KP	1	5	0	"	"	"	"	"					
Balance and Long Term Tests		KP	4	0	0	"	"	"	"	"					
	Override Busy	KP	4	1	0	"	"	"	"	"					
Make Busy and Restore	Make Trunk Remote Busy	KP	5	0	0	"	"	"	"	"	ST				
	Restore Trunk	KP	5	1	0	"	"	"	"	"	ST				
Trunk Status Request	Individual Trunk	KP	5	2	0	"	"	"	"	"	ST				
	Trunk Group by Trunk	KP	5	3	0	"	"	"	"	"	ST				
	Trunk Group by Group	KP	5	4	0	"	"	"	"	"	ST				
Call Back Unlock Request	Must be used before 50 or 51	KP	5	5	ID	ST									
Connection Appraisal	100 Type	KP	6	0	Far End Test Line Number (12 digits max) and ST.										
	102 Type	KP	6	2											
	105 Type	KP	6	5											
ROTL MF Receiver Test		KP	7	6	1	2	3	4	5	6	7	8	9	0	ST

* Trunk State, 0 = Local, 1 = Bypass (Reserved by not implemented)

TABLE 2
ROTL SYSTEM TEST PRIMING INFORMATION

TYPE OF TEST	TEST PREPARATION			MF PRIMING INFORMATION																								TEST RESULTS								
	TEST LINE	DB	IMPEDENCE	KP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	LOSS		NOISE		SCK			
																													F-E	N-E	F-E	N-E				
TRK*				KP	5	5	5	ST																												
TRK				KP	5	2	0							ST																						
TRK				KP	5	3	0							ST																						
TRK				KP	5	4	0					ST																								
TRK				KP	5	0	0							ST																						
TRK				KP	5	1	0							ST																						
100				KP	0	0	0																													
102				KP	0	2	0																													
105				KP	0	5	0																													
CA	100			KP	6	0																														
				KP																																
				KP																																
				KP																																
				KP																																

NOTE 1: Under TYPE OF TEST the Type of Far End Test Line is specified.

NOTE 2: Under TEST PREPARATION the type of Test Line to be seized, the transmission level and the impedance of the Trunk are specified for the RSTS Interrogator; e.g. 100-0-600 for 100 Type Test Line, 0db Transmission Level and 600 ohm impedance.

NOTE 3: Under MF Priming Information the setting of the MF Digit Thumbwheel switches is provided.

NOTE 4: Under Test Results, fill in LOSS and NOISE values as received and under SCK for 105 Test Lines enter pass or fail for the Self Check All Test.

* For the KP50 fill in the Trunk Group and Trunk Member numbers of a good trunk that the installer may make busy, restore to service, request status on and test thru.