# EQUIPMENT TEST LIST—DESCRIPTION AND LIST OF ISSUED ETLS ADMINISTRATIVE MAINTENANCE METHODS GENERAL METHODS

CONTENTS PA	AGE	1. GENERAL
	1	1.01 This section describes ETLs and their intended use. In addition, a list of issued ETLs is furnished.
TEST CLASSIFICATIONS AND DEFINITIONS     FREQUENCY SYMBOLS	2	1.02 This section is reissued to update Tables A and B and to provide additional information on the new format ETL.
4. UPDATING EQUIPMENT TEST LISTS (ETLs) 5. ETL SECTION ARRANGEMENT	4	1.03 The title for each figure includes a number(s) in parentheses which identifies the paragraph(s) in which the figure is referenced.
6. DESCRIPTION AND USE	5	<ul> <li>1.04 Recommendations for changes, additions, and/or deletions to this section or to any</li> <li>ETL should be submitted as specified in Section 000-010-015, How to Comment on Bell System Practices.</li> </ul>
Figures		1.05 ETLs are written and issued to support Controlled Maintenance Plans (CMPs).
Illustration of Old Format ETL     Illustration of Old Format ETL	6 7	1.06 The following CMP sections are currently (or will be shortly) in effect.
3. Illustration of Old Format ETL	8	SECTION SYSTEM
4. Illustration of New Format ETL (5 Sheets)	9	010-300-010 Transmission and Signaling Equipment
5. ETL Form E-5450	14	190-130-010 Stored Program Control System/ Switching Control Center
A. ETLs that have been Issued (9 Sheets)		201-020-510 Switching Systems—General
	15	212-020-510 No. 4 Crossbar
B. Bell System Practices Applying to Systems with CMPs but not Included		215-001-010 Panel
in Any ETL (5 Sheets)	24	216-020-510 No. 1 Crossbar

## **NOTICE**

Not for use or disclosure outside the Bell System except under written agreement

#### SECTION 010-300-011

218-020-510	No. 5 Crossbar			
220-020-510	Crossbar Tandem			
225-001-010	Community Dial Offices— Step-by-Step (SXS)			
226-020-510	No. 1 SXS			
234-020-510	No. 4 Electronic Switching System (ESS)			
240-020-510	No. 101 ESS			
365-010-007	Digital Transmission Systems			
534-001-010	Private Branch Exchange (PBX) Systems			

- ETLs provide an index and information access system for CMPs listed in this section. These ETLs enable the user to locate equipment tests, inspections, and other requirements found in Bell System Practices which are necessary for corrective and preventive maintenance. The number of ETLs issued for each Bell System Practice division depends upon the structure and content Figures 1, 2, and 3 provide of that division. illustrations of ETLs in the old format; Fig. 4 illustrates an ETL in the new format. New format ETLs, replacing the old format for some systems, were first available for distribution during the first quarter of 1978. Effort is continuing concerning the issue and reissue of ETLs in the new format.
- 1.08 American Telephone and Telegraph Company standard ETLs have *not* been prepared for the following equipment and/or systems:
  - (a) Equipment or systems for which maintenance tests have not been defined by Bell System Practices.
  - (b) Power equipment where performance is covered by application requirements or which is obsolete and little, if any, is in existence.
- 1.09 Table A provides a list of issued ETLs.

  The dagger symbol (†), following the ETL numeric in Table A, denotes that the ETL has been issued in the new format. Table B contains a list of Bell System Practices which apply to systems with standard CMPs and which have not been included in ETL sections.

1.10 When an ETL is required and a standard one has not been prepared, the ETL should be prepared locally, using a blank Form E-5450 (see Fig. 5).

## 2. TEST CLASSIFICATIONS AND DEFINITIONS

- 2.01 All tests, inspections, or other requirements in an ETL are given one of the four classifications described in paragraphs 2.02 through 2.05 of this section. For simplification, the word "test" is used to mean a test, inspection, or other work requirement.
- 2.02 Mandatory Work (MW): MW tests are used to detect actual or potential failures which could result in a severe service penalty or for which indications of failure are missing or obscure.
  - (a) MW tests **must** be **performed** at a frequency equal to or more frequent than that specified in the ETL.
  - (b) Some equipment is shown as MW because of its importance to the efficient operation of an office (eg, test equipment, ladders, inspection of rubber gloves, etc).
- 2.03 Mandatory Review (MR): MR tests are tests used to detect actual or potential failures which do not result in a severe service penalty and for which indications of a failure are missing or obscure. This classification is not used in the PBX Controlled Maintenance Plan.
  - (a) MR tests are assigned a frequency, at which time a review must be made to determine if there is a need to perform the test at that time.

34 2 1 2 2 2 W

(b) During this review, the question must be asked: "Was this test (not a sample) applied to each unit at, or since, the time of the previous review?" If the answer is "Yes," no work is required at this time unless review of corrective maintenance data indicates otherwise. If the answer is "No," the test must be applied. The CMP for SXS systems should be reviewed to ascertain sampling definitions and instructions. The required review of MR tests at the ETL frequency is intended to protect customer service and prevent accumulated equipment deterioration.

Test Frame (TF): TF tests make use of automatic or semiautomatic test frames or test sets. Some TF tests require manual operations, depending on the nature of the test and the features of the test frame or test set. For TF tests, an asterisk (\*) in the FREQ. column of the ETL indicates that the test shall be programmed locally for that office. The frequency of a particular test will depend on; (1) the number of circuits to be tested, (2) the amount of trouble found by past tests, and (3) the availability of the test frame for scheduled testing. This frequency must be entered in the FREQ. of the ETL used in this office. Automatic or semiautomatic TF tests may be used in lieu of manual tests when they are exact substitutions. When this is done, the maximum test interval should correspond to the manual test frequency. For transmission measurements made by the Automatic Transmission Measurement System (ATMS). minimum requirements are specified in other sections. The frequency with which these tests are performed must meet these minimum requirements. In order to be compatible with the Central Office Maintenance Management System (COMMS), the new format ETL shows many former TF routines as MW. In these cases, \*\*TF TEST\*\* appears at the beginning of the routine title or description.

2.05 Trouble Tests (TT): These tests are not performed at a specified frequency but should be used, when required, to identify and isolate troubles revealed by other indications or analyses.

2.06 For convenience in scheduling, MW, MR, and TF tests are grouped. The TTs are listed separately at the end of each ETL section or at the end of each specific equipment category or test equipment arrangement of the new format ETL.

2.07 Because of the relatively small number of power circuits or units involved in any one office, all tests in power ETLs are shown as MW. This applies even though there are instances where the only effort needed is to review or check the requirement to determine if there is a need to do work. For example, observation of a sight gauge will determine whether lubricant should be added to a bearing; observation of a voltmeter will indicate any need for readjustment of voltage regulation control.

### 3. FREQUENCY SYMBOLS

3.01 The following frequency symbols indicate when tests are scheduled:

SYMBOL	FREQUENCY
D	Daily
$\mathbf{W} = \mathbf{v}_{i}$	Weekly
M	Monthly

Less frequent intervals are indicated by a number prefix. For example:

SYMBOL	FREQUENCY
2W	Once every 2 weeks
2M	Once every 2 months
3M	Once every 3 months
4M	Once every 4 months
6M	Once every 6 months
9M	Once every 9 months
12 <b>M</b>	Once a year
18M	Once every 18 months
24M	Once every 2 years
30M	Once every 30 months
36M	Once every 3 years
48 <b>M</b>	Once every 4 years

- 3.02 On some tests, an asterisk (\*) or a number symbol (#) is entered in the FREQ. column:
  - (a) The asterisk (\*) indicates that the frequencymust be determined locally and be shown in the FREQ. column of the ETL. For example:
    - (1) An asterisk (\*) may be entered in the FREQ. column when a transmission test is required. The frequency for performing this test depends on the type of facility

involved and can be determined from the appropriate Bell System Practice.

- (2) An asterisk (\*) may be entered in the FREQ. column when the frequency of preventive maintenance depends upon office conditions and equipment usage. In this case, the maintenance Bell System Practice will generally specify a minimum interval and stipulate an increase in the interval, based on experience and application.
- (3) An asterisk (\*) may be entered in the FREQ. column for test equipment to be sent to Western Electric under the "Red Ball" plan (see Section 745-004-000).
- (b) The number symbol (#) used in the FREQ. column indicates that frequency data are entered in the EQUIPMENT AND WORK DESCRIPTION column as a note following the test.

## 4. UPDATING EQUIPMENT TEST LISTS (ETLs)

- 4.01 ETLs are reissued annually, on or about September 1, and will include all information covered previously, along with additions, deletions, and/or changes authorized since the last issue of the ETL. If no changes were authorized in the past year, the ETL will not be reissued.
- **4.02** When a new format ETL is reissued, an arrow will be placed in the margin to identify specific tests that have been added, changed, or deleted.

## 5. ETL SECTION ARRANGEMENT

- 5.01 ETL sections are provided for most Bell System Practice divisions which contain maintenance tests required by systems covered by CMPs. Depending on the structure of the Bell System Practice division, there may be only one ETL for the entire division or there may be several ETLs for one division.
- 5.02 When only one ETL is provided, it will generally be numbered XXX-001-011. In this case, the ETL is arranged in the same manner as the division numerical index, including layer and sublayer headings. This ETL arrangement will usually apply to divisions which are common to several types of offices or PBX types and to

divisions which are not structured for meaningful subject matter divisions.

- 5.03 When several ETLs are provided for one division, they will generally be numbered XXX-001-011, -012, -013, etc. Each ETL, in this case, will provide tests for a category of equipment, such as AMA, senders, markers, specific PBX type, etc. Tests listed in old format ETLs are arranged in numerical order but index headings are not used.
- 5.04 New format ETLs will list tests grouped under headings and subheadings that identify the equipment by generic and specific equipment category and by pertinent features and/or options. These headings are consistent with the COMMS program. COMMS is a support system for assisting in the administration of maintenance tasks (see Section 190-305-101).
- 5.05 COMMS has a separate data base for each system or major group of equipment, such as power systems or 4A and 4M toll switching. These major groups are shown in Table A. Each major group is divided into generic categories. Each generic category becomes a separate section in the new ETLs. Thus, the generic category number establishes the paragraph numbers in new format ETLs. Generic category numbers are also shown in Table A.
- The individual paragraphs (8.1, 8.2, etc. reference A, Fig. 4) identify the specific equipment category within the new format ETL. Within a paragraph or specific category, headings may appear at three indention levels to identify features and options. The first level (reference B, Fig. 4), when used, identifies a test equipment arrangement. Only one of the arrangements listed would apply to a given unit of equipment to be The second level (reference C, Fig. 4) is used to provide instructions for applying the options or features listed in the third level, to indicate that the routines which follow apply to all units, or that they are to be used as trouble tests only. The five specific statements to be used in the second level are as follows:
  - (a) OPTIONAL FEATURES
  - (b) OPTIONAL FEATURES, SELECT NO MORE THAN ONE CATEGORY
  - (c) SELECT ONLY ONE CATEGORY

- (d) FOR ALL UNITS
- (e) TROUBLE TESTS.

The third level of indention (reference D, Fig. 4) is used to specify the option or feature.

- 5.07 New format ETLs will be issued initially for the following systems:
  - 1. T-Carrier
  - 2. O-ON and N-Carrier
  - 3. No. 1 ESS 2-Wire
  - 4. No. 4 Crossbar
  - 5. No. 5 Crossbar (MTF- OTF- ACD and 5A)
  - 6. Step-by-Step (SXS- No. 1 and CDO)
  - 7. No. 1 Crossbar
  - 8. Crossbar Tandem
  - 9. Power
  - 10. Miscellaneous Equipment and Apparatus.
- 5.08 When ETLs for newly-developed systems are issued, they will be provided in the new format. Remaining ETLs will be converted, as required, to the new format.

## 6. DESCRIPTION AND USE

6.01 The ETL contains a listing of the tests, inspections, and other requirements for the

proper maintenance of equipment and systems. It also provides the recommended intervals for scheduling.

- 6.02 In new format ETLs, tests for corrective and preventive maintenance that apply to a given piece of equipment can be determined directly from the list by locating the routines listed under the features and options which apply to the particular unit of equipment to be tested. This ETL arrangement is described in paragraphs 5.04 through 5.06.
- 6.03 For each test, the listing shows the Bell System Practices reference, test title, test classification, and maximum interval allowed between scheduled assignments.
- 6.04 No further identification or distinction will be made between old format and/or new format ETLs. Reference to an ETL is a reference to an Equipment Test List, whatever the format.
- 6.05 The intervals shown in the ETLs supersede all other maintenance intervals in Bell System Practices. The tests must be performed at a frequency equal to, or more frequent than, that specified in the ETL. The purpose of doing recurring work at the ETL frequency is to prevent accumulated equipment deterioration which leads to customer service interruptions or to expensive repairs.
- 6.06 The test intervals listed in the ETL are specified to meet the needs of most offices and PBXs, consistent with reasonable cost. They are intended to establish an effective preventive maintenance program as outlined in the particular CMP.

BELL SYSTEM PRACTICES
AT & TCo Standard

SECTION 167-001-013 Issue 8, September 1976

**POWER SYSTEMS** 

**EQUIPMENT TEST LIST** 

**FOR** 

**POWER PLANTS** 

LOCATED ON CUSTOMER OR TELEPHONE CO PREMISES

SEE SECTION 010-300-011 FOR EQUIPMENT TEST LIST INSTRUCTION.

Printed in U.S.A.

Page 1

Fig. 1—Illustration of Old Format ETL (1.07)

SECTION 167-001-013, ISS 8

	<del></del>		EQUIPMENT TEST LIST			
B.S.P.		OR REQT.	EQUIPMENT AND WORK DESCRIPTION	CLASS	FREQ.	JOE
167-208-301	1	T	102G J86802 POWER PLANT			
		3.09	Boost Charge	MW	12M	
		4.01	Float Voltage	MW	M	
		4.02	Check Fuse Alarm	MW	12M	
		4.03	Check HLV Alarm	MW	12M	
167-210-301	5		105D J86446			
& ADDENDUM	3		POWER PLANT			
		3.13	Calibrate Voltmeter Relay	MW	12M	
		4.04	Check Float Voltage	MW	M	
·		4.05	Check CEMF Operation Where Used	MW	3M	
		4.06	Check Low-Voltage Alarm	MW	12M	
		4.07-	Check TD Relay Operation	MW	12M	
		4.09	Where Used	İ		,
		4.10	Check High-Voltage Alarm	MW	12M	
		4.11	Check Discharge Fuse Alarm	MW	12M	
167-210-302	4		5E J86814			
& ADDENDUM	1		POWER PLANT			
		4.02	Check Fuse Alarm	MW	12 <b>M</b>	
		4.03	Check Float Voltage Alarm		12M	
		4.04	Check Float Voltage	MW	М	
167-215-301	9		110A AND 110B PLANTS J86572 AND J86455	1		
		4.02	Check Condition of KS-7105 Grid Battery	MW	6M	
		4.03	Check Panel Voltmeter	MW	12M	
		4.04	Check Regulator Float Voltage Adjustment	. MW	M	
		4.05	Check Regulator Charge Voltage Adjustment	MW	М	
		4.06	Check Transfer of Load	MW	3M	
		4.07	Check for Regulation Tube Failure	MW	6M	
		4.08	Check for Power Failure Operation	MW	6M	
		4.09	Check for Rectifier Electron Tube Failure	MW	6M	
		4.10-	Check Discharge	MW	3M	
		4.12	Circuit Operation			
		4.13	Check Rectifier Fuse Alarm Operation	MW	12M	
	1	4.14	Check Discharge Fuse Alarm Operation	MW	12M	
·	<u> </u>	4.15	Check High-Low Voltage Alarm Operation	MW	12M	
		4.16	Check Regulation Alarm Operation	MW	12M	
	1		(110A 24-Volt Plant)		<del>-</del>	·

Page 2

Fig. 2—Illustration of Old Format ETL (1.07)

SECTION 167-001-013, ISS 8

			EQUIPMENT TEST LIST			
B.S.P.		TEST OR REQT.	EQUIPMENT AND WORK DESCRIPTION	CLASS	FREQ.	JOE NO
167-215-301	9		(Cont)			
		4.17	Check Indicating Alarm Operation	MW	12M	
· · · · · · · · · · · · · · · · · · ·		<u> </u>	(110B 24-Volt Plant)			
167-217-301	10	<del>                                     </del>	111A POWER			
	<del>-  </del>		PLANT J86470			-
		1.01	Check Battery Voltage	MW	M	
		5.03	Operation of Contactor	MW	3M	
	<u> </u>	5.04	Check Fuse Alarms	MW	12M	
		5.05	Check Rectifier Failure Alarm	MW	12M	
	1.	5.06	Check High- and Low-Voltage Alarms	MW	12M	
		5.07	Check Countercell Failure Alarm	MW	12M	
		5.08	Operation of Countercell Control Circuit	MW	12M	
	1	5.09	Check Rectifier Current Limiting	MW	12M	
<del></del> -	<u> </u>	5.10	Panel Voltmeter Accuracy Check	MW	12M	
167-255-301	7		806D (J86596) POWER PLANT			
		4.01	Transfer Load	MW	W	
		4.02	Check Plant Alarms and Transfer Circuits	MW	6M	
,		4.03	Chook and Switch Bateries	MW	3M	
<u> </u>		4.04	Check Ringing Machines	MW	вм	
		4.05	Check Low and High Tones	MW	W	
167-276-301	2		671A POWER PLANT (J86880) OPERATING METHODS			
		4.03	Output, Voltage Check	MW	6M	
		4.04	Meter Accuracy Check	MW	12M	
		4.05	Load Distribution Fuse Alarm Check	MW	6M	
	1	4.06	Plant Capacitor Fuse Alarm Check	MW	6M	
		4.07	Converter Failure Alarm Checks	MW	6M	
		4.08	±48 Volt Bus Low-Voltage Alarm Check	MW	6M	
167-277-301	1		680A POWER PLANT			
& ADDENDUM	1		J86891A AND J86891B		-	
		4.01	Clean Ventilating Passages	MW	12M	
		4.02	Line Feed Converter Output Check	MW	М	
		4.03	Line Feed Bay Ground Voltage Check	MW	М	
			(Equipped With Floating Ground Panel)			
		4.04	Converter OUTPUT CURRENT (M1)	MW	6M	
			Ammeter Calibration Check			
-		4.05	Converter OUTPUT VOLTAGE (M2)	MW	6M	
			Voltmeter Calibration Check			

Fig. 3—Illustration of Old Format ETL (1.07)

## BELL SYSTEM PRACTICES AT&TCo Standard

SECTION 218-001-018 Issue 10, December 1977

## **EQUIPMENT TEST LIST**

## 1-WAY TOLL TRUNKS

## OFFICES WITH MASTER TEST FRAME

## NO. 5 CROSSBAR SYSTEMS

	CONTENTS	PAGE	applicable to equipment listed in the preceding table
8.	GENERAL	1	of contents. Test classification and frequency of periodic routine are also provided.
	8.0 1-WAY TOLL TRNKS	2	
	8.1 INC INTERTOLL	2	8.02 This is the first issuance of the "reformatted ETL" which provides better organization of the various tests. The "reformatted ETLs" replace
	8.2 INC INTERTOLL	2	the ETLs previously provided for this equipment.
	8.3 OG INTERTOLL	2	
	8.4 ONA OG INTERTOLL	3	8.03 Comments on this section should be made by following the instructions in Bell System
	8.5 OG INTERTOLL	4	Practices (BSP), Section 000-010-015.
	8.6 AUX OUTGOING	4	8.04 Routine test information is arranged in the following order from left to right: Section
	8.7 TOLL SWITCHING	5	number, issue/addendum, test letter or paragraph number, test title, test class, frequency, and the
	8.8 INTERTOLL COMPLN	5	last space is for a locally assigned job number.
	GENERAL	~	8.05 Section 010-300-011 provides Equipment Test List instructions.
8.01	This section provides an index and info access system to locate the standa		

## NOTICE

Not for use or disclosure outside the Bell System except under written agreement

Printed in U.S.A.

SECTION 218-001-018

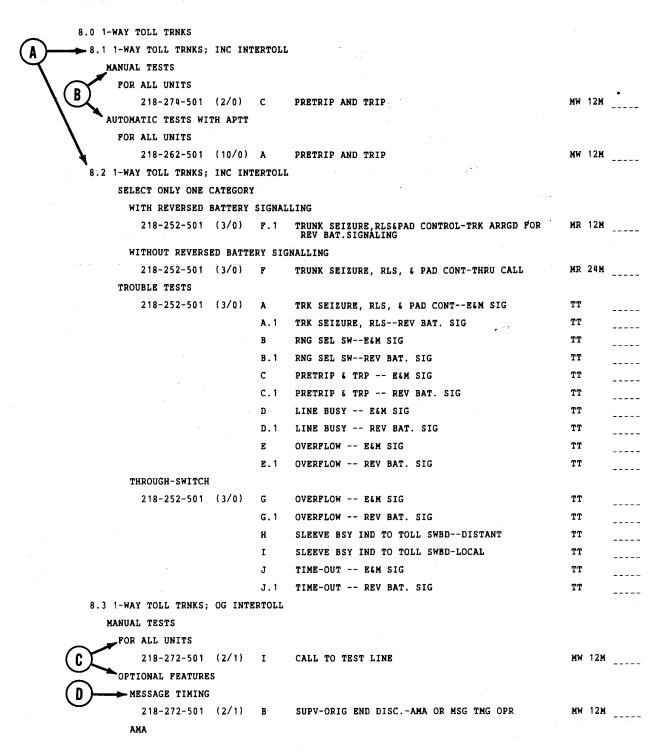


Fig. 4—Illustration of New Format ETL (Sheet 2 of 5) (1.07, 5.06)

ISS 10, SECTION 218-001-018

218-272	-501	(2/1)	В	SUPV-ORIG END DISCAMA OR MSG TMG OPR	wa	124	
2.0 2.1		(2, 1,	ם	CANCEL DISCONNECT ENTRY-AMA		12M 24M	
AUTOMATIC TES	rs wi	ТН АРТТ	_	CARCLE DISCORRECT BUIRT-MAN	MK	24M	
FOR ALL UNI							
218-262-	-501	(10/0)	A	CALL TO TEST LINE	MW	12M	
OPTIONAL FEA					2211	1211	
AMA							
218-262-	-501	(10/0)	В	SUPERVISION-ORIG END DISC.	MW	12M	
			H	CANCEL DISC. ENTRY	MR	24M	
MESSAGE T	IMING						
218-262-	-501	(10/0)	В	SUPERVISIONORIG END DISC.	MW	12M	
8.4 1-WAY TOLL TE	RNKS;	ONA OG	INTERT	OLL			
MANUAL TESTS							
FOR ALL UNIT	rs						
218-277-	-506	(2/0)	A	TRUNK SEIZURE AND DISCONNECT	MW	12M	
			В	AMA FEATURES (ETS OR LAMA-C NOT PROVIDED)	MR	24M	
			E	CALL TO DISTANT OFFICE	MR	12M	
			G	AMA FEATURES (ETS OR LAMA-C NOT PROVIDED)	MR	24M	
			J	CALL TO DISTANT OFFICE	MW	12M	
OPTIONAL FEA	ATURE	S					
MESSAGE TI	MING						
218-277-	-506	(2/0)	С	TRUNK MESSAGE TIMING (ETS OR LAMA-C NOT PROVIDED)	MR	24M	
			H	TRUNK MESSAGE TIMING (ETS OR LAMA-C NOT PROVIDED)	MR	24M	
TROUBLE TEST	S						
218-277-	506	(1/1)	י מ	TRUNK REORDER	TT		
THROUGH-SW	ITCH	ED TESTS	(TOG)				
218-277-	506	(1/1)	F	TRUNK SEIZURE AND DISCONNECT	тт		
			I	TRUNK REORDER	TT.		
MISCELLANE	ous :	rests					
218-277-	506	(1/1)	K	TRUNK-BUSY	TT		
			L	TONE AND TRANSMISSION SUPPRESSION	TT		
			M	PAD CONTROL	TT		
			N	CROSS-OFFICE LOCKOUT	тт		
			0	OUT OF SERVICE	ТT		
			<b>P</b>	FALSE-IDLE & FALSE BUSY CONDITIONS (ETS NOT PROVIDED)	TT		
AUTOMATIC TEST	S WIT	TH APTT					
FOR ALL UNIT	'S						
218-262-	501	(10/0)	A	CALL TO DISTANT OFFICE	MR	12M	
			всн	AMA FEATURES			

Fig. 4—Illustration of New Format ETL (Sheet 3 of 5) (1.07, 5.06)

## SECTION 010-300-011

SECTION 218-001-018

					)
218-262-501 (10/0)	C,F	TRUNK SEIZURE AND DISC.	MW 12M		
8.5 1-WAY TOLL TRNKS; OG INTE	RTOLL				
MANUAL TESTS				*	
FOR ALL UNITS				•	)
218-268-501 (6/0)	D	CALL TO DISTANT OFFICE	MW 12M		
OPTIONAL FEATURES					
ARRANGED FOR AMA					
218-268-501 (6/0)	J	CANCEL DISC. ENTRY-AUX TRK ARR FOR AMA (ETS OR LAMA-C NOT PROVIDED)	MR 24M		. ,
ARRANGED FOR SUBSCRIBE	R ACC	BSS			.,
218-268-501 (6/0)	I	CHG & NONCHG SUPV-AUX TRK CKT-CUST ACC	MR 24M		
TROUBLE TESTS					)
216-268-501 (6/0)	A	TRUNK SEIZURE AND RELEASE	TT		
	В	TRUNK OVERFLOW	TT		
	С	TRUNK BUSY	TT		
	E	PAD CONTROL	TT		
	F	TIMED RELEASE	TŤ		
	G	BUSY IND TO TOLL SWDBTESTING AT RR FR	TT		
	H	BUSY IND TO TOLL SWDBTESTING AT TOLL SWDB	TT		
	K	TRK MB & SPLTREMOTE TEST FROM TLG TST BD	TT		
AUTOMATIC TESTS WITH APTT					
FOR ALL UNITS					
218-262-501 (10/0)	A	CALL TO DISTANT OFFICE	MW 12M		``
OPTIONAL FEATURES					
ARRANGED FOR AMA					
218-262-501 (10/0)	н	CANCEL DISC. ENTRY	MR 24M		
ARRANGED FOR SUBSCRIBE	ER ACC	ESS			
218-262-501 (10/0)	B,C	CHARGE AND NONCHARGE SUPV	MR 24M		
8.6 1-WAY TOLL TRNKS; AUX OUT					
MANUAL TESTS					
OPTIONAL FEATURES, SELEC	T NO	MORE THAN ONE CATEGORY			
SWITCHED ACCESS					
218-267-501 (6/0)	В	CALL TO TEST LINE IN DISTANT OFFICE	MW 12M		
WITH RINGDOWN INTERTO					
218-266-501 (3/0)	В	CALL TO OPERATOR IN DISTANT OFFICE	MR 12M		)
TROUBLE TESTS					
218-266-501 (2/0)	A	TRUNK SEIZURE AND RELEASE	TT	•	
	c	TRUNK BUSY	TT		1
	D	BUSY INDICATION FROM TOLL SWITCHBOARD	TT		
	E	BUSY INDICATION TO TOLL SWITCHBOARD	TT		
	F	PAD ARRANGEMENT	TT		-
	•	THE PROPERTY OF THE PROPERTY O	**		
					)

Fig. 4—Illustration of New Format ETL (Sheet 4 of 5) (1.07, 5.06)

ISS 10, SECTION 218-001-018

218-266-501 (	2/0) G	FALSE-BUSY AND FALSE-IDLE CONDITIONS	TT
218-267-501	6/0) A	TRUNK SEIZURE AND RELEASE	TT
	С	CALL TO OPERATOR IN DISTANT OFFICE	TT
•	D	OVERFLOW	TT
• •	E	TRUNK BUSY	TT
	G	FALSE-BUSY AND FALSE-IDLE CONDITIONS	TT
	Н	TIMED RELEASE FEATUREAUX OGT	TT
*	I	BUSY INDICATION FROM TOLL SWITCHBOARD	TT
	J	BUSY INDICATION TO TOLL SWITCHBOARD	TT
AUTOMATIC TESTS WITH			
SELECT ONLY ONE CA	TEGORY		
SWITCHED ACCESS			
218-262-501 (			MW 12M
8,7 1-WAY TOLL TRNKS; 1	OLL SWITCH	HING	
MANUAL TESTS			
SELECT ONLY ONE CA	TEGORY	· · ·	
SWITCHED ACCESS	- (-) -		
218-267-501 (	6/0) B	CALL TO TEST LINE IN DISTANT OFFICE	MW 12M
OPERATOR ACCESS	T (0)	·	
218-254-501 (		CALL TO INCOMING TRUNK TEST LINE	MW 12M
MDOUDIE MECMC	В	RINGING	MW 12M
TROUBLE TESTS 218-254-501 (	6/0) C	DEDING MANAGE AND TOD COME CHARM OF DIVIS	
210-234-301 (	6/0) C	RERINGTRUNKS ARR FOR CONT START OF RING	TT
	E	COIN CONTROL CALL TO BUSY LINE	TT
OPP COMP TOKS AT	_	AL & TANDEM COMP OR TANDEM COMP & OPERATOR	TT
JUNCTORS	K FOR BOCK	TANDER CONF OR TANDER COMP & UPERATOR	
218-254-501 (	6/0) G	OVERFLOW	TT
	Н	TRUNK IDLE OR TRUNK BUSY LAMP INDICATIONS	TT
	I	TRUNK GROUP BUSY	TT
	J	SLEEVE BUSY INDICATION AT SWITCHBOARD	TT
!	K	TRUNK BUSY INDICATION DURING TRUNK RELEASE	TT
	L	REORDER	TT
· · · · · · · · · · · · · · · · · · ·	M	RERING	TT
AUTOMATIC TESTS WITH	APTT		
SELECT ONLY ONE CA	TEGORY		
SWITCHED ACCESS			
		CALL TO TEST LINE IN DISTANT OFFICE	MW 12M
8.8 1-WAY TOLL TRNKS; I	NTERTOLL (	COMPLN	
TROUBLE TESTS			
218-269-501 (	4/0) A	CALL TO TOLL TB OR TOLL SWBD	TT

Fig. 4—Illustration of New Format ETL (Sheet 5 of 5) (1.07, 5.06)

SECTION, ISS AT & TCo Standard  EQUIPMENT TEST LIST						
	7	l saas l			r	
B.S.P.	S S	TEST OR REQT.	EQUIPMENT AND WORK DESCRIPTION	CLASS	FREQ.	JOE
		ļ	·			
To a recognition of the second	<del></del>					
						<del>~~~</del>
			The state of the s	<u></u>		
						***************************************
		ļ				,
**************************************						
						-
					//o	
		ļ				
			I			
	•	<b> </b>				·····
and the second of the second o		ļ				
the state of the s	<u> </u>					
			war spanish shows the state of			<b>,</b>
**** ***************************						<del>,</del>
			The state of the s			
		] ]			I	

Fig. 5—ETL Form E-5450 (1.10)

## **TABLE A**

## **ETLs THAT HAVE BEEN ISSUED**

## **MISCELLANEOUS APPARATUS**

GENERIC	SECTION	ISSUE	TITLE SUPPLY SUP
1	024-001-011+	7	Amplifiers
2	024-001-012+	1	Controllers and Control Units
3	024-001-013+	2	Regulators
4	024-001-014+	1	Electron Tubes
5	026-001-011†	10	Rotary Selectors
6	026-001-012†	1	Miscellaneous Selectors
7	026-001-013+	1	Filens
8	026-001-014+	2	Starters and Compensators
9	026-001-015+	2	Circuit Breakers and Contactors
10	028-001-011+	7	Autotransformers
11	028-001-012+	2	Rheostats
12	030-001-011†	9	Selector Switches
13	030-001-012†	3	Calculagraphs, Clocks, Timers
14	030-001-013+	1	Cameras, Photo Processing
15	030-001-014+	2	Counters, Registers, Ticketers
16	030-001-015+	3	Switches
17	032-001-011+	8	Electrolytic Capacitors
18	034-001-011+	11	Recording Equipment
19	034-001-012+	1	Distributors for Teletypewriters
20	040-001-011+	10	Relays
21	$065\text{-}001\text{-}011\dagger$	11	Furniture Fixture Appliance
22	069-001-011+	11	Cleaning, Reconditioning Apparatus
23	075-001-011+	8	Tools and Material
		•	
	e, e	POWER SY	STEMS EQUIPMENT
1	155-001-011+	3	Alternators, AC or DC Motor Driven
$\overset{1}{2}$	155-001-012+	12	
3	155-001-013+	12	Alternators, Gasoline Engine Driven
$\frac{3}{4}$	155-001-014+	3	Alternators, Diesel Engine Driven Manual
5	155-001-015+	9	Alternators, Diesel Engine Driven Automatic Alternators, Gas Turbine Engine Driven
6	155-001-016+	6	Main Control Cabinet
7	155-001-017+	2	
21	155-001-018+	$\frac{2}{2}$	Charging Generators  Ringing and Coin Control Generators
8	157-001-011+	4	Ringing and Coin Control Generators C.O. Batteries PB
9	157-001-011+	3	General Batteries
10	159-001-011+	2	
11	159-001-012+	5	Gasoline Engines Motors
12	159-001-013+	$\frac{3}{2}$	Drives
13	161-001-011+	3	
13 14	161-001-012+	5	Air Dryers and Compressors
1 <del>4</del> 15	161-001-012+	10	Dehydrators and Waveguide Pressure Systems  Exauster Sets and Fans
16	161-001-014+	10	
10	101-001-014	10	Air Blowers, Tube Cooling Systems and Ventilation
17	161-001-015+	9	Equipment
18	161-001-016+	3	Converters Inverters
10	101-001-010	o	Inverters

<sup>†</sup> Denotes the ETL has been issued in the new ETL format.

GENERIC	SECTION	ISSUE	TITLE	( )
19	163-001-011†	3	Interrupters	
20	163-001-012†	2	Ringing Sets	-
22	163-001-013†	11	Ringing and Tone Machine	
23	167-001-011†	3	Ringing and Tone Power Plants	
24	167-001-012†	3	Power Plants	1
25	167-001-013†	11	Power Supplies	
26	169-001-011†	3	Rectifiers, J-Code	1
27	171-001-011†	3	Miscellaneous Equipment	
28	169-001-012†	2	Rectifiers, KS-Type	
29	169-001-013†	10	Rectifiers, Miscellaneous	
		TE	ST EQUIPMENT	
	104-001-011	6	Radio Test Equipment	
	106-001-011	5	Electrical Test Equipment — Outside Plant	
	107-001-011	1	Data and Teletypewriter Equipment	
		MISCELL	ANEOUS EQUIPMENT	
1	100-001-011+	10	Test Equipment	ĭ
$ar{f 2}$	103-001-011+	10	Transmission Test Equipment	,
3	179-001-011+	11	Signaling Circuits	
4	201-001-011+	11	Distributing Frames	
5	201-001-012+	1	Sequence Signal Circuit	
6	252-001-011+	11	Traffic Data Recording Equipment	
7	201-001-013	2	Alarms	
8	201-001-014+	3	Recorded Announcement System	
9	332-001-012+	1	Echo Suppressor — Compandor	
10	201-001-015+	1	Dial Long Lines Circuit	
11	201-001-016+	2	Coin Station Test Line	
12	201-001-017†	1	Video Supervisor Signal Supply	
13	201-001-018+	.2	PBX Automatic Identifier	
14	201-001-020†	<b>.3</b>	Billing Systems	)
15	250-001-011†	9	Traffic Service Position System No. 1	
16	250-001-012+	8	Alarms — TSPS No. 1	
17	250-001-013+	6	Stored Program Control—TSPS No. 1	
18	250-001-014†	2	Position, Console, Desk — Misc Equipment	
19	250-001-015†	3	Automatic Intercept System	
20	201-001-026+	3	Tone Supply Circuits	•
21	201-001-021+	<b>2</b> .	Order Wire Circuits	
22	201-001-022†	1	Group Alerting System	)
ts - 23	201-001-023†	1	Emergency Line Circuit	
24	201-001-024+	1	Operator Training Equipment	
25	201-001-025†	3	Miscellaneous Communication System Circuits	
26	190-001-011†	2	Operational Support Systems	1
27	201-001-027†	1	No. 1 Trunk Concentrator	<u>-</u> ノ
28	201-001-028†	1	No. 14 and No. 17 Local Test Desks	

<sup>†</sup> Denotes the ETL has been issued in the new ETL format.

## **ETLs THAT HAVE BEEN ISSUED**

GENERIC	SECTION	ISSUE	TITLE
	NO	. 4A AND 4M	TOLL SWITCHING SYSTEMS
1	212-001-011†	2	Decoders and Card Translators
2	212-001-012+	9	Links and Connectors
3	212-001-013+	13	Link Controllers and Markers
4	212-001-014+	12	Senders and Registers — 4A
5	212-001-015†	11	Senders and Registers — 4M
6	212-001-016+	13	Traffic Administration Circuits
7	212-001-017+	13	Intertoll Trunks
8	212-001-018†	13	Toll Connecting Trunks
9	212-001-019+	11	Transmission Trunks
10	212-001-020+	7	Operator Trunks
11	212-001-021	3	Other Miscellaneous Trunks
12	212-001-022†	2	Announcement Trunks
13	$212 \text{-} 001 \text{-} 023 \dagger$	3	CAMA Equipment
14	212-001-024†	3	ETS and SPC
15	212-001-025+	3	Test and Miscellaneous Frames
16	212-001-026+	1	Miscellaneous Fuse Alarms
		SWIT	CHING SYSTEMS
	205-001-011	1	Automatic Data Test Circuits
	210-001-011	3	Service Observing Desks — No. 12 and Modified No. 7
	210-001-013	2	Information and Toll Directory Desks
	211-001-012	1	Common to More Than One Toll Office or Toll
			Switchboard
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	211-001-013	2	No. 1 Toll Office and Toll Switchboard
	211-001-014	3	No. 3 Toll Office and Toll Switchboard
	211-001-015	2	No. 5 Toll Switchboard
	211-001-016	1	No. 6 Toll Switchboard
	211-001-017	1	No. 6A Teletypewriter Switchboard
		PA	NEL OFFICES
	215-001-012	3	Alarms
	215-001-013	3	ANI
	215-001-014	3	Code Compressors — 3-Digit Translators
	215-001-015	3	Districts
	215-001-016	3	Finals
	215-001-017	3	Incomings
	215-001-018	4	Line Finders, Trunk Finders
	215-001-019	3	Links
	215-001-020	3	Miscellaneous
	215-001-021	3	Office Selectors
	215-001-022	3	Senders, Sender Links, Decoders, Decoder Connectors
	215-001-023	. 3	Switchboard Circuits

 $\ensuremath{\dagger}$  Denotes the ETL has been issued in the new ETL format.

GENERIC	SECTION	ISSUE	TITLE
	215-001-024	3	Traffic Registers
	215-001-025	3	Transmission
	215-001-026	3	Trunks
		NO. 1 CR	OSSBAR EQUIPMENT
1	216-001-011†	- 3	Alarms
2	216-001-012†	7	Fuse Alarms
3	216-001-013+	12	AMA
4	216-001-014+	5	ANI .
5	216-001-015+	4	Code Compressor
6	216-001-016+	4	District Junctor
7	216-001-017†	7	Links and Connectors
8	216-001-018†	7	Line Controls and Connectors
9	216-001-019+	6	Markers and Connectors
10	216-001-020+	8	Miscellaneous Markers and Connectors
11	216-001-021+	5	Senders Terminating
12	216-001-022+	6	Senders Originating
13	216-001-023+	8	Sender Links
14	216-001-024+	4	Switchboard Circuits
15	216-001-025+	9	Test Frames
16	216-001-026+	, 3	Trunks
	NO. 5 CROSS	BAR OFFICE	S – AUTOMATIC CALL DISTRIBUTION
1	218-005-011+	3	Connectors and Links
2	218-005-012+	5	Markers and Registers
3	218-005-013+	5	Miscellaneous Features and Common Equipment
4	218-005-014+	5	Trunks
		NO. 5A CI	ROSSBAR EQUIPMENT
1	218-003-011+	3	Connectors and Links
2	218-003-012+	2	Markers
3	218-003-013+	3	Registers and Senders
4	218-003-014+	4	Trunks
5	218-003-015+	4	Trunk Transmission Tests
6	218-003-016+	6	Miscellaneous Circuits
7	218-003-017+	3	ANI Equipment
		CDOSCDAD	TANDEM FOLLOMENT
		UNUSSBAR	TANDEM EQUIPMENT
1	220-001-011+	2	Common Equipment
2	220-001-012+	7	Senders
3	220-001-013+	8	Incoming Trunks
4	220-001-014†	6	Test Frames
5	220-001-015+	6	Test Frames and Miscellaneous

<sup>†</sup> Denotes the ETL has been issued in the new ETL format.

GENERIC	SECTION	ISSUE	TITLE
6	220-001-016+	10	Fuse Alarms
7	220-001-017+	10	CAMA Equipment
8	220-001-018+	8	No. 100A Traffic Service Position
9	220-001-019+	2	Outgoing Trunks
	;		
		NO. 1	ESS EQUIPMENT
1	231-001-011+	3	2-Wire System
2	231-001-012+	9	4-Wire System
3	231-001-013+	. 9	2-Wire Alarms
4	231-001-014†	7	4-Wire Alarms
	NO. 5 CROSSBA	R OFFICES -	- OFFICES WITH MASTER TEST FRAME
1	218-001-011+	2	Connectors and Links
2	218-001-012+	12	Markers
<b>3</b> .	218-001-013+	13	Registers
4	218-001-014+	. 12	Senders
5	218-001-015+	12	AMA-ANI
6	218-001-016+	11	Intraoffice Trunks
7	218-001-017+	13	Interoffice Trunks
8	218-001-018+	12	1-Way Toll Trunks
9	218-001-019+	13	2-Way Toll Trunks
10	218-001-020+	13	Miscellaneous Trunks
11	218-001-021+	11	Junctors
12	218-001-022+	8	Miscellaneous Equipment — Feature Circuits
13	218-001-023+	3	Miscellaneous Equipment — Common Items
14	218-001-024+	3	Miscellaneous — TRF REG and ALM
15	218-001-025+	3	Miscellaneous Maintenance and Emergency
16	218-001-026+	<b>2</b>	Miscellaneous Equipment — Supply
17	218-001-027+	3	Centrex
18	218-001-028+	3	Centrex Trunks
19	218-001-029+	1	Wideband Circuits
20	281-001-030+	1	Wideband Trunks
	NO. 5 CROSSBA	AR OFFICES -	OFFICES WITH OFFICE TEST FRAME
1	218-002-011+	3	Connectors, Links and Marker — Connectors
<b>2</b>	218-002-012+	12	Markers
3	281-002-013+	9	Registers
4	218-002-014+	12	Senders
5	218-002-015†	11	AMA-ANI
6	218-002-016†	10	Intraoffice Trunks
7	218-002-017+	13	Interoffice Trunks
8	218-002-018+	2	1-Way Toll Trunks
9	218-002-019+	1	2-Way Toll Trunks
10	218-002-020+	3	Miscellaneous Trunks
11	218-002-021†	1	Junctors
† Denot	es the ETL has been issu	ed in the new	ETL format.

GENERIC	SECTION	ISSUE	TITLE
12	218-002-022+	2	Miscellaneous Equipment Feature
13	218-002-023 †	2	Miscellaneous — TRF REG and ALM
14	218-002-024 †	1	Miscellaneous Equipment Common Items
15	218-002-025 †	<b>2</b>	Miscellaneous and Emergency Action Items
16	218-002-026 †	2	Miscellaneous Equipment Supply
		NO. 3	CROSSBAR OFFICES
	218-004-012	1 .	Connectors and Links
	218-004-013	1	Markers
	218-004-014	1	Registers and Senders
	218-004-015	1	Trunks
	218-004-016	1	Miscellaneous
	c	OMMUNITY	DIAL OFFICES – NO. 1 SXS
1	225-001-011†	1	Line Switch, Plunger Type
2	225-001-012 †	2	Master Switches, Plunger Type
3	225-001-013†	2	Out Trunk Switches
4	$225\text{-}001\text{-}014^{\dagger}$	2	Equipment Unique to 350A Office
5	225-001-015†	2	Equipment Unique to 355A Office
6	$225\text{-}001\text{-}016^{\dagger}$	2	Equipment Unique to 356A Office
7	$225\text{-}001\text{-}017^{\dagger}$	<b>2</b>	Equipment Unique to 360A Office
8	225-001-018 †	<b>2</b>	Equipment Unique to 35-E-97 Office
9	$225\text{-}001\text{-}019^{\dagger}$	2	Equipment Unique to 375A/B Office
10	225-001-020†	1	Equipment Unique to North Electric Co. Office
		NO. 1 ST	FEP-BY-STEP OFFICES
11	226-001-011	1	Line and Trunk Finders
12	226-001-012+	5	Local Selectors
13	226-001-013 †	5	Toll Selectors
14	226-001-014†	7	Toll Transmission Loop Dial Selectors
15	226-001-015†	5	Toll Transmission Repeated Dial Selectors
16	226-001-016†	8	Miscellaneous Selectors
17	226-001-017†	7	Connectors
18	,226-001-018†	4	Pulse Repeaters and Out Trunk Switches
19	<b>`226</b> -001-019†	9	Trunks and Trunk Circuits
20	226-001-020†	2	Alarms
21	226-001-021†	1	Miscellaneous Equipment
			H-TONE® CALLING AND COMMON CONTROL — SXS OFFICES
22	227-001-011†	1	Intertoll Dial Circuits
23	227-001-012†	6	SAMA Equipment
24	227-001-013†	10	CAMA Equipment
25	227-001-014†	10	ANI Equipment
26	227-001-015†	10	TOUCH-TONE Non-Common Control
	227-001-016	6	TOUCH-TONE Calling Equipment — Not Adaptable for Common Control
27	227-001-017†	7	Common Control for TOUCH-TONE and Controlled Outplusing

<sup>†</sup> Denotes the ETL has been issued in the new ETL format.

GENERIC	SECTION	ISSUE	TITLE
			NO. 2 ESS
1	232-001-011†	8	No. 2 and 2B ESS ETL
2	232-001-012†	2	No. 2 ESS ETL
3	232-001-013†	2	No. 2B ESS ETL
4	232-001-014†	1	No. 2 and 2B ESS ETL
			NO. 3 ESS
1	233-001-011†	1	No. 3 ESS ETL
			NO. 4 ESS
1	234-001-011+	1	No. 4 ESS ETL
			NO. 101 ESS
	040 001 011		
	240-001-011	1	Control Unit
4	240-001-012	1	No. 1A Switch Unit
	240-001-013	1	No. 2A Switch Unit
	240-001-014	1	No. 3A and 4A Switch Units
	т	RANSMISSI	ON SYSTEMS AND TESTING
	309-001-011	4	Switched Services Networks
	310-001-011	2	Nonswitched Special Services System
	311-001-011	1	Switched Special Services Systems
	312-001-011	4	Private Line Data Systems and Services
	314-001-011	2	Digital and Analogue Data Transmission Systems
	318-001-011	5	Television Systems
	320-001-011	3	Program Transmission Systems and Services
	332-001-011	3	Voice Frequency Telephone Repeaters Pilot Wire
			Regulators, Echo Suppressors, Composite Sets and Associated Equipment
	333-001-011	1	
	340-001-011	2	Interoffice Signaling Systems PICTUREPHONE <sup>®</sup> Services Baseband Video Transmission
	354-001-011	8	Frequency Generating Systems
	355-001-011	4	K-Carrier Telephone Systems and Associated Equipment Components
	356-001-011	9	Analog Multiplex Terminal Equipment
	357-001-011	7	Wire Line Entrance Links and Broadband Entrance
		•	Links and Interconnection
	358-001-011	5	Type L1 Carrier Telephone System and Associated
		Ü	Equipment Components
	359-001-011	8	L3, L4, L4S, L5, and L5E Carrier System
	360-001-011	1	Maintenance Center Test — Equipment Components
	. – - <b>–</b>		Type L1 and L3 Carrier Telephone Systems
	361-001-011	3	Service Center Tests — Type N, O, and ON Carrier Systems
# D 41	Por 1		Oy socials .

<sup>†</sup> Denotes the ETL has been issued in the new ETL format.

GENERIC	SECTION	ISSUE	TITLE	-
	371-001-011	2	Broadband Restoration	
		N. O. ON	CARRIER EQUIPMENT	
1	362-001-011†	12	N1 Carrier	
2	362-001-012†	3	N2 Carrier	
3	362-001-013†	3	N3 Carrier	
4	362-001-014†	3	O, ON, O-H, ON-H Carrier System	
		DIGITAL T	RANSMISSION SYSTEMS	
1	365-001-011†	12	D Channel Banks By Frame	
2	365-001-012†	3	D Channel Banks By End Office	
3	365-001-013†	3	T1 Lines	
4	365-001-014†	3	T1C Lines	
5	365-001-015†	3	T1 Outstate	
6	365-001-016†	3	Digital Multiplex	
7	365-001-017†	3	Wideband Data	
8	365-001-018†	2	T2 Lines	
			RADIO	
	402-001-011	5	Antennas, Transmission Lines, and Waveguide	
	404-001-011	1	Manual Mobile Radio	
	405-001-011	5	MJ, MK, and ML Mobile Radio-Telephone	
	406-001-011	1	Air-Ground Radio	
	407-001-011	2	Personal Radio Services	
	408-001-011	. <b>1</b>	Motorola, RCA, Federal, REL, Narrowband Auxiliary Channel and Other Non-Western Electric Microwave Radio and TV Off-the-Air Pick-up Services	
	409-001-011	. 8	TE, TJ, TL, TM, and Microwave Radio	
	410-001-011	10	TD-2 Microwave Radio	
	411-001-011	9	TD-3 Microwave Radio	
	412-001-011	10	TH-1 Microwave Radio	
	413-001-011	6	TH-3 Microwave Radio	
	415-001-011	4	TD-3D Microwave Radio	
	416-001-011	2	TN-1 Microwave	
	420-001-011	8	Microwave Radio — Common Equipment	

<sup>†</sup> Denotes the ETL has been issued in the new ETL format.

GENERIC	SECTION	ISSUE	TITLE
	SPECIAL SERV	ICES FORCE AD	DMINISTRATION DATA SYSTEM (FADS)
	476-001-011 476-001-013	5 5	No. 2A ACD No. 3A ACD
		PRIVATE BRA	NCH EXCHANGES (PBX)
	534-001-011	2	Sections Applying to More Than One PBX Series — 500, 600, 700, and 800 Series — Manual and Dial PBX
	536-001-011	2	500 Series PBX
	538-001-011	2	600 Series PBX
	540-001-011	3	700 Series Step-By-Step and Crossbar Type PBX
	540-001-013	4	Step-By-Step Centrex CU and Step-By-Step PBX TOUCH-TONE Equipment and Circuits
	541-001-011	1	700C and 710C PBX
	542-001-011	1	701 and 711-Type PBX
	543-001-011	1	702A PBX
	546-001-011	1	740-Type PBX
	548-001-011	1	750A PBX
	550-001-011	1	755 A PBX
	551-001-011	3	756A PBX
	551-001-012	3	757A PBX
	551-001-014	2	758A and 758B PBX
	551-001-015	2	758C PBX
	551-001-017	4	761 and 770 PBX
		TEST CE	NTER OPERATION
	660-001-011	3	Test Center Operation
	662-001-011	2	Cable and Local Test Desks and Local Test Cabinets
	664-001-011	3	Test Boards for Other than Special Services
	666-001-011	2	Test Boards for Test Positions for Special Services
	668-001-011	· 1	Data Test Center
	770-001-011	3	Toll Type Equipment — Building Operation

## **TABLE B**

# BELL SYSTEM PRACTICES APPLYING TO SYSTEMS WITH CMPs BUT NOT INCLUDED IN ANY ETLS

SECTION NO.	SUBJECT	)
	LINE CONCENTRATORS	,
067-105-501	No. 1A Concentrator — Preinstallation Tests	
067-105-502	No. 1A — System Tests	
067-106-502	No. 1A — With MF Signaling — System Tests	
067-109-502	No. 2A — System Tests	
067-110-502	No. 2B — System Tests	
067-201-501	Gfeller Line Concentrator — Tests	)
067-201-502	Gfeller Line Concentrator — Tests	•
067-201-701	Gfeller LC-49-9-2, 49-11+1-2, 49-12-2 — Apparatus Requirements and Adjusting	
	Procedures	
067-201-801	Gfeller LC — Maintenance Tests	
067-301-501 067-302-501	No. 520A Type PBX — Emergency Reporting System — Operating Tests LC Assoc/w No. 520-Type PBX — Tests Using Test Ckt SD-98067-1	
067-302-502	LC Assoc/w Controller Ckt Tests Using Test Ckt SD-98067-01	
067-302-503	LC Assoc/w No. 520-Type PBX — OGT Ckts — Operation Tests	
067-303-501	Long Lines Ckts Assoc/w No. 520-Type PBX — Tests	
067-304-501	Selective Routing Ckts. Used w/Direct Lines Assoc/w No. 520-Type PBX — Tests	
	PBX AND STATION TEST EQUIPMENT	<i>`</i>
	Stations	1
105-240-100	No. 81A Test Set — Operation Tests	
	PBX Test Equipment	
105-601-501	Solid State Converter and Receiver Test Set SD-66890-01 — Operation Tests	
	CUSTOMER EQUIPMENT	
	MISCELLANEOUS	
463-110-200	Auxiliary Signals — Installation and Maintenance	
463-120-100	Power Relay Sets — Maintenance	)
463-220-100	Loudspeaker Sets — 106 Type — Maintenance	
463-230-300	Recorder Connectors — 50 Type & Assoc. KS-16730, L-1 — Maintenance	
463-230-400	Recorder — Connectors — KS-19645, L-1, L-2 — Maintenance	•
463-233-300	KS-19522, L-1, and L-2 Recorder Couplers, KS-19522, L-11 Voice Control Unit, and KS-19522, L-12 Test Set — Maintenance	
463-234-100	KS-19522, L-1 and L-2, Recorder Couplers Used With KS-16765, L-1 Announcement Set — Maintenance	,
463-236-100	KS-20445 Control Unit — Operating Tests and Maintenance	\
463-300-101	Interconnecting Unit F-58003 and Assoc. F-58004 KTU and F-58015 Console —	
	Maintenance	
463-300-110	I Control Unit F-58010 — Maintenance	
463-300-120	I Control Unit F-58005 — Maintenance Voice Coupler F-58008 — Maintenance	1
463-300-130	Voice Couplet 1-00000 Mainvenance	1

# BELL SYSTEM PRACTICES APPLYING TO SYSTEMS WITH CMPs BUT NOT INCLUDED IN ANY ETLS

SECTION NO.	SUBJECT
463-300-140	Interconnecting Key Telephone Unit F-58006 — Maintenance
463-300-150	Interconnecting Key Telephone Unit F-58007 — Maintenance
463-311-100	Voice Connecting Arrangements QKT and QKTBT — 30-Type Voice Coupler
463-331-100	Voice Connecting Arrangement CDB — F-58005
463-340-100	Voice Connecting Arrangements CAU, SU3, SU4, SU6, and SU7
463-340-110	Voice Connecting Arrangements RDL and RDM
463-340-111	Voice Connecting Arrangements RDL and RDM — KS-19552, L-1 & L-2 Recorder Coupler Used With KS-16765, L-1 Announcement Set
463-350-104	Protective Connecting Arrangements CDH and CBF
463-360-100	Protective Connecting Arrangements CDQ4W and CDQ4X

## SPECIAL SERVICES

## Protection of Service, Code Calling, Recorded Telephone Dictation, Answering Systems, and Transmitter Transfer

473-105-501	SD-1E031-01 — Circuits Tests and Adjustments
473-115-300	1A and 1B Code Calling Systems — Maintenance
473-120-520	2A Code Calling System — Circuit Tests
473-121-520	3A Code Calling System — Operation Tests
473-130-501	Recorded Telephone Dictation Trunks SD-65728-01 and SD-65788-01 $-$
	Operation Tests
473-169-511	Dispatching Service — 508A PBX — Circuit Tests
473-180-520	Message Waiting Service — Circuit Tests
473-185-210	Transmitter Transfer Unit — Maintenance
473-218-210	520-Type PBX — Direct Line and Concentrator Systems — Tests and Inspection
	at Time of Installation
473-218-500	Alarm Circuit SD-98053-01 — Operation Tests
473-218-520	Call Recording Circuits — Operation Tests
473-218-525	Cord and Position Circuits — Tests and Inspections
473-218-610	Display Control Circuit SD-98060-01 and Number Display Control Circuit
	SD-98128-01 — Operation Tests — Concentrator System
473-218-630	Paging Line and Status and Annunciator Circuits — Operation Tests
473-218-655	Selective Routing Circuits Used With Direct Lines — Operation Tests
473-218-660	Station Line Circuits and Flash and Wink Circuits — Operation Tests
473-218-661	Long Line Circuit SD-99545-01 — Operation Tests
473-218-665	Central Office Trunk Circuits — SD-99362-01 and SD-98051-01 — Operation Tests
473-219-300	Industrial Reporting System — Method of Operation
473-219-500	Industrial Reporting System — Circuit Tests
	Manual PBX (Other Than 520-Type)
473-228-540	Key Ended Lines — (Terminated in Turret) — Operation Tests
473-228-541	Jack Ended Lines — (Separate from PBX) — Operation Tests
473-228-543	Jack Ended Lines - Operation Tests - 551A, 551B, 551D, 552A, 552B, 552D,
	552E, 555, 604C, and 605A PBX
	Station Equipment Arrangements

Public Emergency Reporting Systems — Identification, Installation, Connections,

473-310-100

and Maintenance

## BELL SYSTEM PRACTICES APPLYING TO SYSTEMS WITH CMPs BUT NOT INCLUDED IN ANY ETLS

SECTION NO.	SUBJECT					
	Customer Training Equipment					
473-401-100	KS-21102 Business Phone Trainer — Description and Maintenance					
473-401-101	KS-21564 Business Phone Trainer — Description and Maintenance					
473-411-100	KS-16605 Teletrainer — Description and Maintenance					
Telep	phone Answering Systems — Sections Common to Customer and Central Office Equipment					
473-500-101	KS-21056 Test Set (SD-99608-01) — Used With Line Concentrator-Identifier					
472 500 501	Systems — Description, Calibration, and Operation  Town Simplify Circuit SD 00755 01 (150909) Head With Line Concentrator					
473-500-501	Tone Signaling Circuit SD-99556-01 (J59202) — Used With Line Concentrator- Identifier Systems — Tests and Adjustments					
473-501-201	Line Concentrator-Identifier System — Applied to Telephone Secretarial Service — Tests and Inspections at Time of Installation					
473-501-202	Line Concentrator-Identifier (J93021) — Used With Electromechanical Central Offices — Tests and Inspections at Time of Installation Using Test Set KS-21056					
473-501-501	Line Concentrator-Identifier System — Applied to Telephone Secretarial Answering Service — Circuit Tests and Trouble Analysis					
473-501-502	Line Concentrator-Identifier (J93021) — Used With Electromechanical Central Offices — Circuit Tests and Trouble Analysis Using Test Set KS-21056					
473-503-100	Occasional Service System (J99317) for Use With Telephone Answering Systems — Description and Operation Information					
473-505-201	Line Concentrator (J93022) — Identifier (J93021) — For Use With No. 1 Electronic Switching System (No. 1 ESS) — Tests and Inspections at Time of Installation					
473-505-202	Line Concentrator (J93022) — Identifier (J93021) — Used With No. 1 and No. 2 Electronic Switching Systems — Tests and Inspections at Time of Installation Using Test Set KS-21056					
473-505-501	Line Concentrator (J93022) — Identifier (J93021) — For Use With No. 1 Electronic Switching System (No. 1 ESS) — Circuit Tests and Trouble Analysis					
473-505-502	Line Concentrator (J93022) — Identifier (J93021) — Used With No. 1 and No. 2 Electronic Switching Systems — Circuit Tests and Trouble Analysis Using Test Set KS-21056					
	Telephone Answering Systems — Sections Covering Customer Equipment					
473-601-210	Tests and Inspections at Time of Installation — 557A PBX					
473-601-210	Circuit Tests for Secretarial Answering Service — 557A PBX					
473-602-210	Tests and Inspections at Time of Installation for Secretarial Answering Service — 557B PBX					
473-602-501	Circuit Tests for Secretarial Answering Service — 557B PBX					
473-607-501	Occasional Service Circuit — SD-96605-01 and SD-96606-01 — For Telephone					
473-675-201	Answering Systems — Operation Tests (Performed at Telephone Answering Bureau) 100A Telephone Answering System — Identification, Installation, Operation, Connections and Maintenance					

# BELL SYSTEM PRACTICES APPLYING TO SYSTEMS WITH CMPs BUT NOT INCLUDED IN ANY ETLs

	·	
SI	ECTION NO.	SUBJECT
		Telephone Answering Systems — Sections Covering Central Office Equipment
4	73-703-501	Occasional Service Circuit — SD-96605-01 and SD-96606-01 — For Telephone Answering Systems — Operation Tests (Performed at Central Office)
		CALL DISTRIBUTING SYSTEM NO. 18, INFORMATION DESKS, AND ORDER TURRETS — CUSTOMER EQUIPMENT
		No. 1S Automatic Call Distributing System
4	75-100-520	Circuit Tests
		No. 1, 2, 2A and 4 Order Turrets
4	75-200-300	Order Turret $-$ No. 1 $-$ Tests and Adjustments
No. 3 Order Turret		
4' 4' 4' 4'	75-300-310 75-300-320 75-300-505 75-300-507 75-300-655 75-300-665	Alarms — Method of Tracing Method of Taking Equipment Out of Service Allotter Circuit and Associated Alarm and Registers — Tests and Inspections Attendant Telephone and Trunk Circuits — Operation Tests Calls Waiting Signal and Register Circuit — Tests and Inspections Start Circuit and Associated Alarm Circuit — Tests and Inspections Incoming Trunks — Incoming Trunk Selector Control Circuit — Operation Sets
		No. 6A Order Turret
4' 4' 4' 4' 4'	75-600-310 75-600-500 75-600-507 75-600-664 75-600-665 75-600-667 75-600-669	Alarms — Method of Tracing Alarm and Common Group Circuits — Tests and Inspections Attendant Trunk and Position Circuits — Operation Tests — PBX Information Desk Night Service Trunk Circuit SD-5E036-01 — Operation Test Trunk Finders — Operation Tests Incoming Trunks — Operation Tests — PBX Information Desk Overflow Trunk Circuit SD-5E033-01 — Operation Tests Overflow Control Circuit SD-5E026-01 — Operation Test
		PRIVATE SERVICE SYSTEMS – CUSTOMER EQUIPMENT
48	80-010-100	4-Wire Private Line Circuit — Powered From Central Office SD-69902-01 — Identification, Connections, and Tests
		Crash Alarm and Command Conference Systems
48	80-139-500	Crash Alarm Circuits — Operation Tests — $551A$ , $551B$ , $551D$ , $604C$ , $605A$ , $701A$ and $711A$ PBX
48	80-139-501	Crash Alarm Circuits — Arranged for Continuous Test of Station Lines — Operation
48	80-139-520	Tests — 701A or 711A PBX Command Conference Circuits — Operation Tests — 605A, 701A, and 711A PBX

# BELL SYSTEM PRACTICES APPLYING TO SYSTEMS WITH CMPs BUT NOT INCLUDED IN ANY ETLS

SECTION NO.	SUBJECT	
Civil Defense Warning (CDW) System — Station Equipment		
480-210-200	Bell and Lights — Installation and Maintenance	
Group Alerting System — Station Apparatus		
480-310-200	Installation and Maintenance	
Sage Systems — 112A Key Equipment and SAC Main Operating Base Turret		
480-510-106	Addressable Data Station Switching — Circuit SD-1G244-01, and Site Control	
480-520-501	Circuit SD-1G246-01 — Maintenance SAC Main Operating Base Turret — Lineup and Overall Tests	
	Preemption Tone Detector (AUTOVON) — Customer-Provided PBX or Station	
480-611-100	Identification, Connections, Maintenance	
Switching Systems — Customer Equipment		
480-707-501	No. 302 — Tests, Inspections, and Lineup	
480-708-501	No. 301A — Lineup and Overall Tests	
480-710-501	No. 300 — Overall Tests Using J53026BN Portable Test Box or J53026EW	
	Portable Test Set Equipped With Dial Pulse Counter	
480-711-500	No. 304 — Overall Tests	
480-713-500	No. 306 — Lineup and Overall Tests	
480-714-501	No. 307 — 4-Wire CO Line Circuit Unit — Maintenance Tests	
480-714-302	No. 307 — Line Transfer Circuit Unit — Maintenance Tests	
480-714-303	No. 307 — Sequence Circuit Unit — Maintenance Tests	
480-714-304	No. 307 — Dual Access Switch — Maintenance Tests	
480-714-305	No. $307-2626$ A1 Key Telephone Set — Maintenance Tests	
480-714-306	No. 307 — Alarm Circuit — Maintenance Tests	
480-714-500	No. 307 — Station Test Procedures	
480-714-501	No. 307 — Out-of-Service Test — Procedures for High-Speed Send/Receive	
	(HS S/R) Station	
480-716-200	No. 309 – Identification, Installation, Connections, and Tests and Inspections	
400 710 501	During Installation	
480-716-501 480-717-300	No. 309 In-Service Operational Tests	
480-717-500	No. 310 Console — Method of Operation	
400-111-000	No. 310 — Lineup and Overall Tests	
PBX Access Lines — AUTOVON		
480-801-500	812A — Initial Lineup and Maintenance Tests	
	4	