

**SCOPE AND ARRANGEMENT**

**1.00 INTRODUCTION**

**1.01** This section gives a broad view of the scope, arrangements, indexing methods, and issuing procedures for the Station Operations Manual. It is being reissued to describe an improved single alphabetical index which covers the complete Station Operations Manual, and to bring the contents up to date.

**1.02** Due to extensive changes, marginal arrows have been omitted.

**2.00 GENERAL**

The Station Operations Manual:

- Utilizes a new format and arrangement of material.
- Replaces Bell System Practices, Station Installation and Maintenance Series.
- Provides a standard for the most effective methods and procedures for station installation and maintenance work.
- Is intended to be used primarily as a work manual for experienced employees.

- May be used as a training manual in plant schools and as a reference text for new or less experienced employees.

**3.00 SCOPE**

The Station Operations Manual:

- **COVERS** all phases of the station installation and maintenance job inward from the first drop or block wire attachment on the building or the building terminal.
- **DOES NOT COVER** drop or block wire work outward from the first attachment. This information will continue to be covered in the G series Bell System Practices.

**4.00 ARRANGEMENT**

**4.01** The information is divided into eleven groups, as shown in Table A. The specific sections for each group are listed in the Checking List for each group.

**4.02** Detailed information concerning a specific subject is placed in a particular group. This includes identification, installation, mainte-

**TABLE A**

<b>C16.</b> <b>General</b>	<b>C17.</b> <b>Tools and Materials</b>	<b>C18.</b> <b>Components</b>	<b>C23.</b> <b>Wiring</b>	<b>C38.</b> <b>Station Sets</b>	<b>C39.</b> <b>Coin Stations</b>	<b>C43.</b> <b>Associated Station Apparatus</b>
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<b>C70.</b> <b>Minor Station Systems</b>	<b>C71.</b> <b>Major Station Systems</b>	<b>C80.</b> <b>Government Systems</b>	<b>C85.</b> <b>Common Systems</b>
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## SECTION C16.000

nance, and connections. Some subjects may require additional information which will be covered in separate sections with titles such as selection, operation, and adjustments.

**4.03** To permit a suitable selection of specific sections for various types of work and to reduce the quantity of practice material which an experienced man has to carry, the information has been divided, where practical, into separate sections covering identification, installation, maintenance, and connections. For example, in the case of 500-type telephone sets, and where local conditions permit, the experienced man would only need to carry the connection sections. The other sections would be reference material.

**4.04** The group number, title, and the material covered is outlined below.

### C16. General

Material of a general nature applicable to the over-all station installation and maintenance job, such as:

- Scope and arrangement of the Station Operations Manual.
- Checking list.
- Alphabetical index.
- Numerical code index for all coded items, drawing numbers, form numbers, and specification numbers referred to in the Station Operations Manual.
- Standard colors for telephone apparatus.
- Procedures to be followed when working on circuits containing diodes, varistors, or transistors.
- Equalization of program circuits.
- Measurements on 2-point private line telephone circuits.

### C17. Tools and Materials

- Checking list.
- Description and use of tools and test equipment.
- Packaging and handling of disconnected apparatus.

- Safety precautions to be observed in the use of power tools.
- Corrosion and moisture inhibitors.

### C18. Components

- Checking list.  
Component parts of station apparatus, such as:
  - Dials.
  - Handsets.
  - Ringers.
  - Cords.
  - Apparatus blanks.
  - Number cards.
  - Transmitters.
  - Receivers.
  - Induction coils.
  - Networks.
  - Equalizers.
  - Transformers.
  - Capacitors.
  - Electron tubes.
  - Filters.
  - Varistors.
  - Amplifiers.

### C23. Wiring

- Checking list.
- Station wire.
- Cable.
- Fasteners.
- Conduits.
- Raceways.
- Station protection.
- Connecting blocks.
- Jacks.
- Plugs.

- Cable terminal boxes.
- Special service lines.
- Special safeguarding measures.

### C38. Station Sets

- Checking list.
- Apparatus for use in special cases.
- Hand telephone sets.
- Inductive noise.
- Ringing bridge limitations.
- Station sets—combined, including key-in-base, and 2-piece telephone sets.
- Subscriber sets.
- Suppression of radio interference, etc, in telephone sets.
- Telephone sets.
- Transmission zoning.

### C39. Coin Stations

- Checking list.
- All material of a specific nature applying to coin stations.
- Coin collectors.
- Directory alcoves.
- Directory installations.
- Public telephone signs.
- Shelves—booth and directory.
- Booths and mountings.

### C43. Associated Station Apparatus

- Checking list.
- 700-type modular station apparatus.
- Automatic dialers.
- Auxiliary signals.
- Backboards.
- Battery supply filters.
- Bells.

- Bone conduction receivers.
- Buzzers.
- Dry cell batteries.
- Head telephone sets.
- Heater base—telephone answering sets.
- Inverters—dc-ac.
- Lamp signals.
- Loudspeaker sets.
- Recorder connector.
- Station control keys.
- Teletrainer sets.
- Telephone answering sets and announcement sets.
- Voice-operated switch.
- Volume limiter.

### C70. Minor Station Systems

- Checking list.
- Key equipments—1A, 2A, 2B, 4A, 5A, 5B, and 103A.
- Key telephone systems—2A and 2B.
- Announcement systems—8A and 9A.
- Answering system 100A.
- CADW systems.
- Equipment cabinets and apparatus mountings.
- Farm interphone systems.
- Group alerting systems.
- Home interphone systems.
- Intercommunicating systems—school-to-home.
- Order turrets—1, 2, 2A, and 4.
- P1 carrier telephone systems.
- Power supplies.
- Speakerphone systems—1A, 1A1, and 3A.
- Telephotograph apparatus.

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### C71. Major Station Systems

- Checking list.
- Key telephone systems—1A, 1A1, and 6A.
- Key equipments—100, 101, 102, 110, 111, and 112A.
- 600/1500-cycle selective signaling equipment.
- Associated apparatus, such as power supply and equipment cabinets not covered elsewhere.
- Private line telephone systems.
- Code calling systems.
- Key telephone units.
- Supervisory control system SC-2.
- Selective signaling systems SS-1.
- Switching system No. 300.

### C80. Government Systems

- Checking list.
- SAC Primary alerting system.
- SAC Recorder-reproducer KS-16687.
- SAC Recorder-reproducer KS-16746.
- SAC Demagnetizer KS-16747.
- Sections relating to RAPCON, SAGE, and MISSILE MASTER now in C71. group will be placed in C80. group when they are re-issued.

### C85. Common Systems

- Checking list.
- Gfeller subscriber line concentrator.
- Line concentrator No. 1A.

## 5.00 INDEXING METHODS

The following three types of indexes are provided:

- **Checking List Index.**  
A separate checking list for each group which lists each current section by number, issue, and title.

- **Numerical Code Index, C16.002.**  
A single numerical code index which covers all numerically coded items, SD and ED drawings, D, J, and KS specifications, and E forms which are referred to in the Station Operations Manual.
- **Alphabetical Index, C16.003.**  
A single alphabetical index which covers all subjects in the Station Operations Manual. This replaces the alphabetical indexes formerly provided for each group.

## 6.00 FIELD COMMENTS ON BELL SYSTEM PRACTICES

Form E-3973 is available from WECO stock and should be used to transmit comments on Bell System Practices to the AT&TCo. These comments should be forwarded through lines of organization within the Operating Company. Two copies of the form should be sent to the Bell System Practice Coordinator, AT&TCo, 195 Broadway, New York 7, N. Y.

## 7.00 ADMINISTRATIVE DATA

- 7.01** Bell System Practices are both System and Bell Operating Company issued.
- 7.02** System practices are presented initially as issue 1 of the section and include the latest available technical material and information relating to the subject matter. Subsequent changes in technical material or other information are included in later issues of the section.
- 7.03** For new and modified apparatus and equipment, it is intended to have the basic information available, in practice form, before the apparatus and equipment reach the field. In view of the numerous changes which are usually made as a result of manufacturing and operating experience, these sections probably will be reissued frequently.
- 7.04** Bell Operating Company Practices are issued either as sections or addenda. Material is originally presented in sections. Addenda make changes in or supplement the material in the similarly numbered sections until it is deemed advisable to reissue the section.
- 7.05** Tables B and C cover ratings, numbering, and other features of System and Bell Operating Company issued practices.

TABLE B

Rating	System Issued	Bell Operating Company Issued	
	Section		Addendum
	HEADING		
Standard	Section C16.499 Issue 1, September, 1960 AT&TCo Standard		
Permanent		Section C16.999 Issue A, September, 1960 ( ) Telephone Co	Addendum C16.999 Issue A, October, 1960 ( ) Telephone Co
Temporary		Section C16.499 Issue A, September, 1960 ( ) Telephone Co	Addendum C16.499 Issue A, October, 1960 ( ) Telephone Co
	RATING INCLUDES		
Standard	Standard and fully approved methods and procedures.		
Permanent		Data on nonstandard apparatus and procedures, local administrative practices.	
Temporary		Interim practice on standard apparatus pending receipt of System issued BSP.	
	NUMBERING		
Standard	5-digit scheme using the first 900 of a 1000 number group. Example: C16.000 to C16.899.		
Permanent		5-digit scheme using the last 100 of the appro- priate 1000 number group. Example: C16.900 to C16.999	Same number as the corresponding section.
Temporary		5-digit scheme using a number from the Sys- tem block to be as- signed by AT&TCo. Example: C16.000 to C16.899	

TABLE B (Cont)

Rating	System Issued	Bell Operating Company Issued		
	Section	Addendum		
	ISSUE DESIGNATION			
Standard	Issues are numbered progressively starting with 1; each subsequent issue supersedes and replaces previous section issues.			
Permanent		Same as System issued section except that it is lettered starting with A.	Issues are lettered starting with A, are canceled with the subsequent reissuance of corresponding sections, are limited to one current issue per section, and are to carry reference to previous addendum issue, if any, relating to current section.	
Temporary		Same as System issued section except that it is lettered starting with A.		
Standard	COLOR			
	White			
	Standard*	Green (magneto connection sections)		
	Standard*	Yellow (local battery connection sections)		
	Permanent*		White	Pink
Temporary*		Yellow	Pink	

\* Fold-out pages: Color will vary in certain connection charts and other sections to achieve the most effective presentation.

TABLE C

Other Features	System Issued	Bell Operating Company Issued
	Section	Section and Addendum
	DESCRIPTION	
Arrows	Unless otherwise noted, marginal arrows are used for noting line changes; bracketed marginal arrows are used for more extensive changes.	
Size	8-3/8 by 10-7/8 inches.	
Punching	7-ring page-size binder.	
Distribution	Sections are ordered from the Western Electric Company.	
	Optional	