

PREPARATORY OPERATIONS  
 REPAIRING, SPLICING, STORING  
 AND DISPOSITION OF CABLE AND WIRE

CONTENTS

|   |  |
|---|--|
| 1. GENERAL  | 4. SPLICING SWITCHBOARD CABLE (INCLUDING TYPE WIRE RUN ON CABLE RACKS) |
| 1.1 Scope of Section  | 4.1 Authorization Required for Splicing                                |
| 1.2 General Information Pertaining to the Arrangement of Tools, Precautions, Verifications, Specifications and Drawings and Figures | 4.2 Method of Splicing   |
| 2. INSTALLING EQUIPMENT   | 5. STORING SWITCHBOARD CABLE AND WIRE                                  |
| 2.1 Tools   | 5.1 Listing and Storing  |
| 2.2 Supplies  | 6. DISPOSITION OF EXCESS CABLE   |
| 3. REPAIR OF DAMAGED CABLE  | 6.1 Disposal   |
| 3.1 Check for Damaged Insulation  | 6.2 Coiling Short Lengths of Cable                                     |
| 3.2 Repair of Damaged Switchboard Cable   | 6.3 Packing Switchboard Cable  |
| 3.3 Repair of Damaged Insulation of Wire Run With Switchboard Cable   | 7. VERIFICATION  |
|   | 7.1 Specific Verifications   |

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| <u>1. GENERAL</u>   | <u>2.1 Tools</u>   |
| 1.1 <u>Scope of Section</u>   | → R-1514 Shears, Cable   |
| 1.1.1 This section covers information, requirements and methods relative to operations which are performed or considered preparatory to repairing, storing, or disposition of cable and wire. | → R-1682 Electrician's Scissors  |
|   | R-4366 Cable Butt and Stripper   |
|   | R-2301 Rack Cable Storing  |
|   | R-3409 Coil Cable Dispenser  |
| 1.2 <u>General Information Pertaining to the Arrangement of Tools, Precautions, Verifications, Specifications and Drawings and Figures</u>  | <u>2.2 Supplies</u>  |
| 1.2.1 Refer to Section 1 of this handbook for information pertaining to these items.  | R-3428 Tape Gray Plastic 3/4"  |
|   | R-3359 Tape Gray Plastic 1/2"  |
| <u>2. INSTALLING EQUIPMENT</u>  | <u>3. REPAIR OF DAMAGED CABLE</u>  |
| <u>NOTE:</u> The tools and supplies generally used for operations covered by this section are as follows:   | <u>3.1 Check for Damaged Insulation</u>  |
|   | 3.1.1 As cables and wires are being grouped and secured, observe the condition of the insulation and repair any damaged insulation.  |
|   | 3.1.2 The covering of switchboard cable should be repaired if it has been snagged, torn or similarly damaged during shipment or in the process of installation and the cable is not otherwise defective. |

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### 3.2 Repair of Damaged Switchboard Cable

3.21 Where the outer jacket of the (PVC) covered cable is cut or torn and no material has been removed, close the opening and wrap the cable neatly with one layer of gray plastic tape R-3428.

3.22 When outer jacket at time of installation has been seriously damaged, the damaged portion of the covering shall be replaced with a sound covering obtained from a similar cable and wrapped neatly with gray plastic tape R-3428.

3.23 When the outer braid of fabric covered cable has been damaged or removed, cover with at least one layer of Gray Plastic Tape, R-3428.

3.24 When the inner tape of fabric covered cable is badly damaged, the tape shall be removed and a check made for defective conductors. Wrap the exposed portion with Gray Plastic Tape, R-3428, at least a half lap with the adhesive surface inward.

### 3.3 Repair of Damaged Insulation of Wire Run with Switchboard Cable

3.31 Repair the damaged insulation of wire run with switchboard cable with a layer of gray plastic tape R-3359. Wound with a half-lap and applied so as to be neat and inconspicuous.

## 4. SPLICING SWITCHBOARD CABLE (INCLUDING TYPE WIRE RUN ON CABLE RACKS)

### 4.1 Authorization Required for Splicing

4.11 Switchboard cables should be run in continuous lengths without splices on the cable racks (from the butt location at one end of the cable run to the butt location at the other end) unless otherwise authorized in telephone company or Western Electric Company specifications, by other instructions from the Equipment Engineering organization or by a telephone company letter applicable to the particular cables involved.

4.12 Type AM or BH wire run on cable racks (from the butt location at one end of the cable run to the butt location at the other end), should be run in continuous lengths without splices unless otherwise authorized in the telephone company or Western Electric Company specifications or by other instructions from the Equipment Engineering Organization. An exception to this is the running of 20 AM or BH wire underneath cable racks for emergency alarm systems which may be spliced. See Handbook 9.

### 4.2 Method of Splicing

4.21 For splices in cable conductors or AM or BH type wire in cable forms, see Handbook 9.

## 5. STORING SWITCHBOARD CABLE AND WIRE

### 5.1 Listing and Storing

5.11 Determine whether the amount and code of cable ordered in the specification is on hand.

5.12 Compile a list of all cable on reels so the lengths can be readily located. Include in this list the code and individual lengths of each cable.

5.13 Make a card (one for each code of cable) or a book record listing the length of each short piece of cable received on the job. File the information in numerical order by codes of cable. Arrange the record so the length of each short piece of cable developed on the job may be added. This record is for use when running cable and is to be consulted before starting each cabling operation. Compare the lengths required, as shown in Section A of the cabling specification, with the lengths available so short lengths may be used wherever possible.

5.131 The application of short lengths of cable will be facilitated by the maintenance of such records of short lengths.

5.132 By maintaining and using these records a number of economies will result such as:

- (a) Saving of job labor in planning and running cable.

- (b) Reduction in amount of cable scrapped.
  - (c) Saving in number of short lengths returned, and consequent freight and handling charges in Merchandise Organization and on the job.
  - (d) Reduction in the number of requisitions entered due to cable shortage.
- 5.14 Provide means of recording substitutions when necessary because of shortages, back-orders, etc.
  - 5.15 Store cable in locations so cable may be run from upper to lower floors.
  - 5.16 Protect linoleum floors from injury due to moving and storing cable reels.
  - 5.161 Check cable reels before rolling them on floors covered with linoleum and remove any nails or sharp projections on the rims or sides.
  - 5.162 Protect linoleum where cable reels are turned, by first rolling the reels onto a piece of cardboard, which covers the cable when received, then turning the reel on the cardboard.
  - 5.163 Protect linoleum from injury due to stored reels by placing them on a frame as illustrated in Figure 1. Space the reels and arrange each reel so the tag may be easily read.

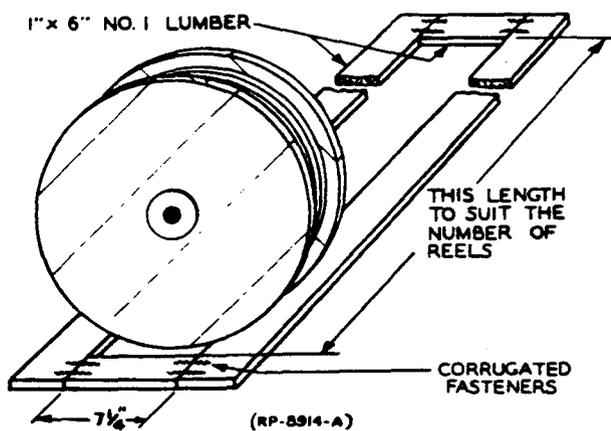


FIG. 1 RACK FOR STORING CABLE REELS (PAR. 5.163)

- 5.17 Store coils of bulk cables, so they are readily identifiable, on cable storing racks (R-2301) as illustrated in Figure 2.
- 5.18 Store formed cable near the equipment on which the formed end is to be terminated.
- 5.181 Store coils on rack (R-2301) in order as illustrated in Figure 2.
- 5.182 Store connected cable, such as short multiple, on rack (R-2301) placing the cables so the jacks hang between the horizontal supports. The spacing between the horizontal supports may be changed, if necessary, by raising and lowering of the beams.

6. DISPOSITION OF EXCESS CABLE

- 6.1 Disposal
- 6.11 Return excess cable in accordance with the instructions given in the Job Clerical Handbook, CI 44.117-23.



FIG. 2 RACK FOR STORING COILED CABLE (PAR. 5.17, 5.181)

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|---|--|
| <p>6.2     <u>Coiling Short Lengths of Cable</u></p> <p>6.21    Place short lengths of cable in coils.</p> <p>6.211   Usable lengths of switchboard cable except those over 1" in diameter such as the codes 243 and 264 may be coiled by use of the coil cable dispenser R-3409.</p> <p>6.212   The inside diameter of coils of switchboard cable when coiled by hand, should be one foot or more.</p> | <p>6.3     <u>Packing Switchboard Cable</u></p> <p>6.31    Pack coils in boxes or cartons to protect the cable sheathing from injury and soiling.</p> <p>6.32    Place long lengths of cable properly marked, on reels.</p> <p>6.33    Wrap a piece of solid fiberboard such as furnished on cable reels (or other suitable material) around the cable, securing it with wire or cord.</p> |
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7.     VERIFICATION

| VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS   | REFERENCE      |          |
|--|----------------|----------|
|  | Par. No.       | Fig. No. |
| 7.1 <u>Specific Verifications</u>  |                |          |
| 7.11    Cables and wires run in continuous lengths without splices on cable racks.   | 4.11 &<br>4.12 |          |
| 7.12    Damaged outer jackets of PVC covered cable repaired with gray plastic tape, R-3428.  | 3.21           |          |
| 7.13    Seriously damaged outer jackets on PVC covered cable repaired with sound covering from similar cable and wrapped with gray plastic tape. | 3.22           |          |
| 7.14    Seriously damaged outer braid or inner tape of Fabric covered cable repaired with gray plastic tape.                                     | 3.23 &<br>3.24 |          |

→ Arrowed lines indicate new or changed information.

[ Vertical lines at side of paragraph indicates requirements

Engineering Planning Manager  
(Installation)

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