BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G50.668.1
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AT&T Co Standard

CABLE TESTING—GENERAL
SECTION REPLACEMENT—GENERAL RULES

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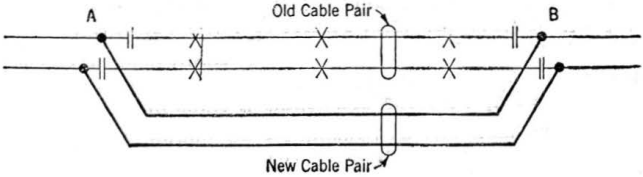
1. GENERAL

1.01 This section covers items which must be considered in replacing one or more sections of cable, if the conductors are not in trouble and tone methods can be used for identification.

1.02 The method of identifying conductors and the steps followed in making replacements are covered in separate sections.

2. IN-SERVICE REPLACEMENT

2.01 In making a section replacement it is necessary to identify the conductors in the old and new cables, cut the old conductors, and splice them to the new conductors, as shown in the following diagram.



2.02 In no case should a defective conductor in the new cable be spliced to a working conductor.

2.03 If the old cable has segregated conductor groups for 4-wire circuits, 2-wire circuits, K carrier circuits, etc., similar groups should be established in the new cable.

2.04 If the old cable is under gas pressure, it may be necessary to maintain gas pressure protection during the replacement operations.

2.05 If the new cable is longer than one section, the intermediate splice or splices should be completed and the cable should be tested for defective conductors and insulation resistance. The splicing work at the two ends of the section is generally done at the same time, thus requiring two splicing gangs. In replacing a small cable the operation can be arranged in steps so that only one gang is required.

3. OUT-OF-SERVICE REPLACEMENT

3.01 In this case, the old cable is cut and removed before the new cable is placed, interrupting all service temporarily. Such a replacement is generally made when it will cause the least service interruption. The old cable is usually boarded at each end during normal working hours before the replacement. The boarding is done with short lengths of wire tied to the test boards. It can be done rapidly by sending tone from a termination and using a 107A amplifier at both A and B. All three points should be connected to a common talking circuit.