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Southern California Area

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

ADDENDUM G50.636.1
Issue B, December, 1949-S
T. P. T. & T. Co.

CABLE SPLICING - GENERAL
SOLDERED TWISTED JOINTS

NOTES CONCERNING THIS ADDENDUM

This Addendum supplements Section G50.636.1 with information relative to soldered twisted joints and instructions for the dipper method of soldering. Included are precautions relative to soldering operations.

The cross-reference "See Addendum" should be marked in Section G50.636.1 at Part 3 which is replaced herein and following Paragraph 4.04 to indicate the addition of new information.

3. LIST OF TWISTED JOINTS TO BE SOLDERED

3.01 Twisted joints shall be soldered in accordance with the following:

(a) All quadded conductors.

Note: This does not apply to a quadded stub cable from a loading case that is spliced to a non-quadded cable that does not require soldering.

(b) All joints containing one or more 10, 13, 14, or 16 gauge paired conductors.

Note: Joints between 13 gauge conductors shall be made with tinned copper sleeves as covered in other sections of the practices.

(c) All 19 gauge paired conductors except those intended for use in exchange loop plant, unless otherwise specified on the detail plans.

Note: If the Wire Joining Tool is used in splicing 19 gauge paired conductors, it will not be necessary to solder the joints.

- (d) All joints between a 19 gauge conductor and 24, 26, or 28 gauge conductors.
- (e) Joints in 22 gauge and smaller paired conductors intended for use in exchange loop plant need not be soldered. When 22 gauge and smaller paired conductors are intended for use in high grade transmission circuits, and soldered joints are required, it shall be clearly specified on the detail splicing plans.
- (f) Solder all joints containing one or more rubber insulated conductors.
- (g) If a permanent bridge wire is added to a soldered joint, it will be necessary to resolder the joint.

4. METHOD OF SOLDERING

4.05 When the dipper method of soldering is used, the solder is heated in the solder dipper to the proper temperature for tinning by use of the furnace. The pigtaills are coated with stearine and dipped into the solder in the dipper and held there long enough to insure proper tinning for at least 1/4 inch on the end of the pigtail.

Note: If the solder is too hot it may ignite the stearine on the pigtaills or burn and blacken the pigtaills and prevent proper tinning.

5. PRECAUTIONS

5.01 In order to avoid contact with hot particles of solder, caution should be used when flipping excess solder from pigtaills.

5.02 When soldering joints in conductors of working circuits care must be taken to avoid service interruptions. Solder one pigtail at a time and slip a cotton sleeve over each joint as it is soldered.