BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G50.215.1
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AT&T Co Standard

CABLE TESTING—GENERAL
ONE MAN PAIR IDENTIFICATION USING TRACER WIRES

1. GENERAL

1.01 This section describes a method of identifying non-working pairs by one man in cutting in distribution cable terminals making use of the tracer pair to facilitate identification. In this method the tracer pair is transposed at each splice making it the count of the first pair of the next terminal to be spliced. The pairs are identified using a 76-type test set, a head set and a needle point test pick.

1.02 While the illustration covers the splicing of T-type terminals, the method is also applicable to splicing N-type terminals. When N-type terminals are spliced, the pairs in the stub must be identified and boarded before the pairs in the cable are identified.

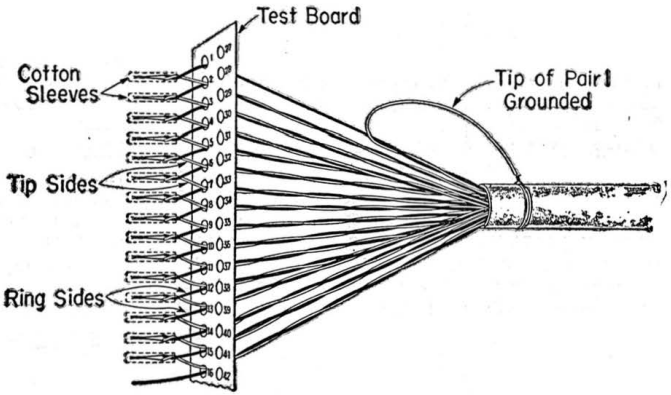
2. PROCEDURE

2.01 The basic method is illustrated by the following example:

(1) Clear the conductors at the far end and wrap the end of the cable to keep it dry.

(2) Place the conductors at the other end (that which is to be spliced into the feeder cable) in a testboard.

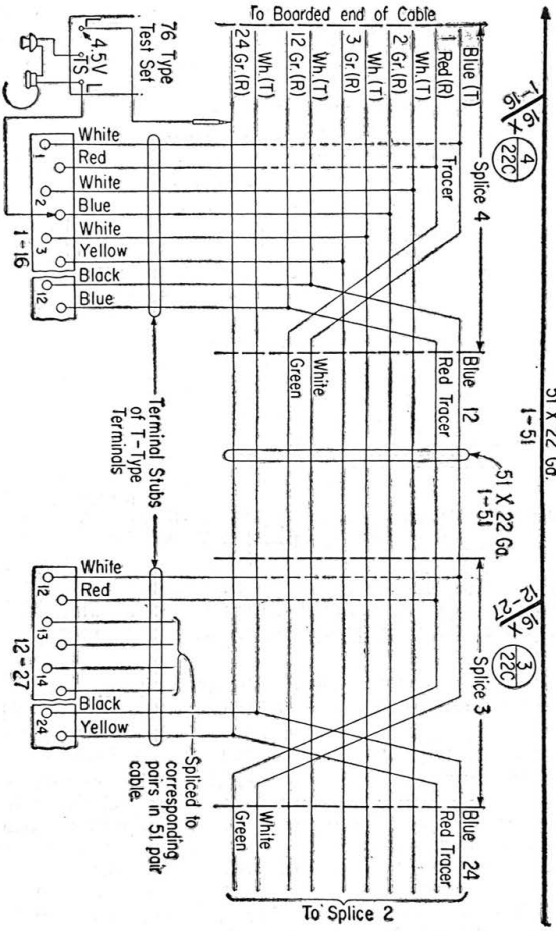
(3) Ground the tip side of pair 1 (tracer) and connect the ring side of this pair to the tip side of pair 2, as shown. Then connect the ring side of pair 2 to the tip side of pair 3; the ring side of pair 3 to the tip side of pair 4, etc., until all the wires except the ring side of pair 51 have been connected. Place a cotton sleeve over each joint and wrap the end of the cable to keep it dry.



(4) At splice 4, cut the tracer pair and turn back the side away from the boarded end.

(5) Connect battery from the 76 set to the ring side of the tracer pair toward the boarded end.

(6) Probe for pair 2 with the needle point test pick, touching the tip sides of the pairs. Battery will be found on the tip side of pair 2. Bridge pair 2 (White-Blue) in the stub of the terminal to pair 2 in the cable.



(7) Connect the test set to the ring binding post of pair 2 in the terminal and probe for battery on the tip side of pair 3 in the splice.

(8) Bridge pair 3 (White-Yellow) in the terminal stub to pair 3 in the cable.

(9) Continue to identify and splice the pairs in this manner up to pair 12. Note that this is also the count of the first pair in the terminal to be cut in at splice 3. When pair 12 has been identified, cut this pair in the splice; then bridge splice pair 12 (Blue-Black) in the terminal stub to pair 12 in the cable toward the boarded end and the tracer pair toward the unboarded end. This makes the tracer toward the unboarded end pair 12, the first pair of the count in the terminal at splice 3.

(10) Bridge pair 1 (White-Red) in the stub to pair 1 (tracer) toward the boarded end and the free pair toward the unboarded end.

(11) Continue to identify and splice the pairs until all the pairs in the stub have been bridged to pairs in the cable.

2.02 At splice 3, the tracer is pair 12. Proceed to splice this terminal in the manner outlined for the terminal at splice 4, carrying pair 24 through on the tracer toward the unboarded end of the cable.

2.03 In splicing N-type terminals, the pairs in the stub should be identified and boarded before the pairs in the cable are identified.