

PREPARATION OF LOOP CHECKER DISTANCE ZONE MAP

1. GENERAL

1.01 The circuit distance from the central office to the telephone at which the test is being made must be set on the Loop Checker "Length" dial. This dial is calibrated 2, 4, 6, 8, 10, 12, 14, 16, 18, and over 18, representing thousands of feet. For most applications, it will not be necessary to interpolate and set the dial with more accuracy than 2000 ft steps. The appropriate setting therefore applies to a zone, or range, of loop lengths within 2000 ft.

1.02 An error of 1000 ft or even 2000 ft, in the loop length setting for loops 0-18,000 ft, will not result in overlooking an appreciable number of substandard loops nor will it produce a "yellow" reading for loops which are designed according to current standards.

1.03 The Loop Checker will be more critical at the "over 18" setting and any loops that are actually less than 18 kf in length and are checked at an "over 18" setting will probably produce a yellow reading. Conversely, some loops over 18 kf in length which have substandard design may check "green" if an 18 setting is used rather than "over 18." It is important, therefore, that the 18 kf boundary be accurately shown on the map.

2. PREPARATION OF DISTANCE ZONE MAP

2.01 While there are several approaches such as posting line cards, assignment records, etc, to providing loop length to the craftsman using the Loop Checker, a simple map indicating 2000 ft zones has been found to be most appropriate and economical. An illustration of such a map is shown as Attachment A.

2.02 Suggestions for preparing such a map are as follows:

- (1) Obtain a base map of approximately 1000 ft = 1 in. scale, including all street names and with streets preferably indicated by a single line.

- (2) From a set of Location Cable Records for the exchange involved, obtain actual cable lengths at points along main and branch feeders as close to 2000, 4000, 6000, 8000, 10,000, 12,000, 14,000, 16,000 and 18,000 ft points as may be obtained conveniently from the Records.

- (3) Plot these points tentatively on the 1000 ft = 1 in. scale map and establish the 2000 ft interval points by interpolation with an engineer's scale.

- (4) Using the location records or an Outside Plant Map as a guide, follow the minor feeders and distribution cables out, indicating additional 2000 ft interval points by scaling.

- (5) Join the 2000 ft equidistant points with lines circumscribing the central office.

- (6) Adjust the lines as necessary to improve clarity of the zones, bearing in mind that, in adjusting the position of these lines, errors in determining loop length in excess of approximately 1000 ft should not result.

- (7) Verify more closely the accuracy of the 18,000 ft line. This line should be so plotted that there are no loops actually shorter than 18,000 ft that are shown in the "over 18 kf" zone. Also there should be very few loops that are actually over 18 kf in length included within the 18 kf line.

- (8) Between the equidistant lines, indicate in large numerals the Loop Checker length setting to be used. Between 12,000 and 14,000 ft, the setting "14" will be indicated, etc. Beyond the 18,000 ft line show "over 18."

2.03 Upon completion of the master map it may be reproduced by various processes and it may be reduced to any suitable size. Since this will, in most cases, be carried by craftsmen, it should be of such size that it can be cut or folded to fit into an 8-1/2 in. by 11 in. binder. The legibility of the map will be improved if alternate zones are shaded. This can be done

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by applying Zip-A-Tone or similar plastic adhesive film to the master map before it is reproduced or by applying a colored wash to the reproduced copies as required. Since the recommended procedure for using the Loop Checker involves a "Survey" by specifically assigned craftsmen followed by continuing use to check poor transmission reports, only a few copies of the map should be required.

2.04 The map may be somewhat more complex for metropolitan exchanges particularly where there has been recentering and back-feeds

have resulted. In these situations the maps may consist of fully enclosed blocks rather than concentric zones.

2.05 An issue date should be included and the map should be corrected periodically and reissued as required by rearrangement and extension of the outside plant. In this connection it should be borne in mind that incorrect settings of the Loop Checker length in the order of 2000 ft will result in missing some standard loops and in getting yellow tickets on loops that are standard.

Attached:

Attachment A

