BURIED WIRE
GENERAL

1. SCOPE

1.01 The instructions covering buried wire describe the methods, materials and equipment employed in providing underground exchange or toll service by means of rubber insulated wire. Included are instructions covering the splicing, terminating, testing and loading of the two forms in which this wire is supplied.

1.02 This section replaces G36.005.1, Issue 1, covering the superseded UG Distribution Wire, and is reissued to take account of the changes in the design of the wire since the previous issue.

2. USE

2.01 Wire of the type described in these instructions is intended to be buried directly in the ground without added mechanical protection. It can also be placed in water and is suitable for submarine installations where service conditions are not too severe. The outer covering of the wire is weatherproof so that above-ground protection against other than mechanical damage is not required.

2.02 The wire is used primarily in rural service in place of pole line and open wire, normally where circuit requirements do not exceed 2 pairs. With proper loading the wire can also be used for toll service. It can also be used for underground service connections.

2.03 Buried wire can be used in conjunction with open wire or cable by providing the proper protection against lightning or electric power, as described in the information on wiring at terminations.

3. B UNDERGROUND WIRE

3.01 Where the protection of steel armor over the insulation is needed, B Underground Wire is used. This wire is available in one-pair and 2-pair sizes. The one-pair wire consists of a parallel pair of No. 16 AWG copper conductors with a common insulation of rubber compound. The 2-pair size is made up of individually insulated 16 gauge conductors with the wires formed into a spiral-four quad. In both sizes, a serving of closely spaced flat steel armor wires applied over the insulation provides mechanical protection and, when properly terminated, serves also as lightning protection. A weatherproof jacket of neoprene completes the covering.

3.02 For pair identification, the insulation of one wire of the 2-pair size carries a longitudinal tracer ridge. This wire, along with the diagonally opposite wire, constitute a pair.

4. C UNDERGROUND WIRE

4.01 C Underground Wire is available only in the one-pair size. It is identical in construction to one-pair B Underground Wire except that it carries no armor. When used in areas where lightning may cause trouble in buried plant, an 064 Shield Wire is installed along with B Underground Wire for lightning protection.

5. LENGTHS AND WEIGHTS

5.01 One size of shipping reel is used for all types of buried wire. Its weight and major dimensions are as follows:

Weight (empty) with lags	130 pounds
Head Diameter	30 inches
Over-all Width	33 inches
Arbor Hole Diameter	2-3/4 inches

5.02 The reel capacities and wire weights are as shown in the following table.

B Underground Wire				
Size	Reel Length		Weight (pounds)	
	Nominal	Minimum	Wire per 1000 ft.	Full Reel (lagged)
One-Pair	1 mile	5000 ft.	114	730
2-Pair	½ mile	2500 ft.	190	630
C Underground Wire				
One-Pair	1 mile	5000 ft.	100	660

6. PLANNING PROGRESS OF WORK

6.01 In placing buried wire along roads and highways, there are a number of operations which can be performed in advance of the actual wire laying. Such work will usually include placing pipe in culverts and across ditches, pushing pipe under highways, placing pipe on bridges, the preparation of hand dug trenches, setting posts for terminals, and work of a like nature. Completion of such work before the arrival of the wire laying crew will avoid delaying the progress of the work unnecessarily.

6.02 In general, it is more economical in the construction of a line having numerous service connections throughout its length, to proceed with the completion of the main line first. At points where service connections are to be taken off, the plow need be stopped only long enough to draw from the reel the wire necessary to reach the point of termination.