

## BURIED PLANT

### DESCRIPTION OF BURIED WIRE

#### 1. GENERAL

**1.01** This section covers the description of buried service wire and buried distribution wires.

**1.02** This section is reissued to:

- Include F-59307 filled service wire
- Include F-59377 filled service wire
- Change nomenclature of F-44541 buried wire to F-44541 armored service wire.

**1.03** The outer jacket of buried wire is marked at 2-foot intervals, from the inside end, to show the accumulated footage. These markings simplify the measuring and recording of wire length for accounting purposes and permit a more accurate measurement of lengths being cut to fit a specific location. The markings also indicate the amount of wire remaining on a reel.

**1.04** The recommended depths for placing service wires are specified in Section 629-200-206.

#### 2. B SERVICE WIRE

**2.01** B service wire is intended for direct burial without added mechanical protection in nonrodent infested areas. It is used as a buried service connection to customer's premises. Its use is limited to lengths not to exceed 500 feet. The approximate breaking strength is 230 pounds. It weighs 36 pounds per 1000 feet.

**2.02** B service wire, shown in Fig. 1, consists of one quad of 20-gauge (AWG) copper covered steel conductors, individually insulated with distinctively colored (red, green, yellow, and black) solid polyethylene. The insulation of the conductors is colored for purposes of identification.

**2.03** The quad is formed into a spiral and is jacketed with gray PVC underlaid by a jacketed slitting cord of nylon. An aluminum tape is applied over the jacketed quad and is covered with an

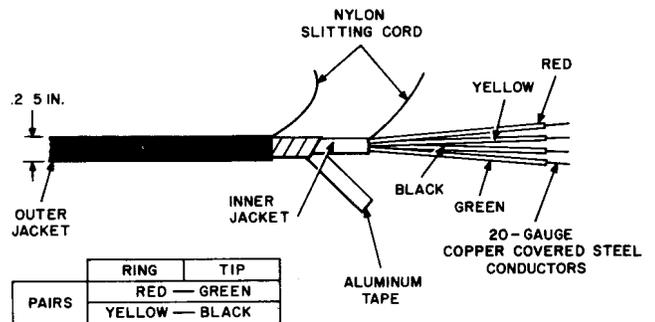


Fig. 1—B Service Wire

outer jacket of black PVC which is also underlaid with a slitting cord of nylon.

**2.04** B service wire is furnished:

- On reels containing lengths totaling approximately 5000 feet.
- On small reels containing lengths totaling approximately 2000 feet for use with the pivot mounted vibratory plow.
- In coils of approximately 1000 feet for use with C drop wire reels.

#### 3. F-59307 FILLED SERVICE WIRE

**3.01** The F-59307 filled service wire (Fig. 2) is the same as B service wire (2.01 through 2.04) except that the inner jacket is filled with a flame resistant thermoplastic water resistant compound and does not have an inner jacket rip cord. The wire is intended for use in providing buried service connections and is approved for building entrances.

#### 4. F-59377 FILLED SERVICE WIRE

**4.01** The F-59377 filled service wire is intended for use in providing buried service connections and is approved for building entrances.

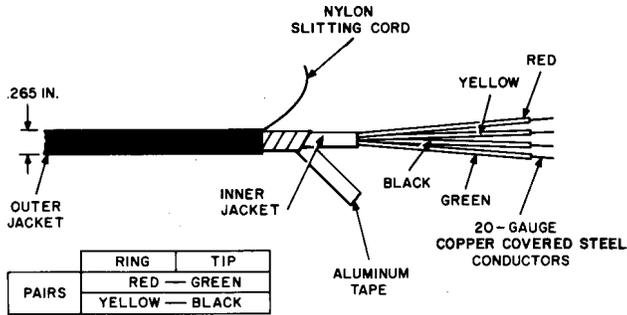


Fig. 2—F-59307 Filled Service Wire

4.02 The F-59377 filled service wire (Fig. 3) consists of five pairs of 22-gauge solid copper conductors individually insulated with distinctly colored polyethylene. The insulation on the conductors is colored for purpose of identification as follows.

Pair No.	Tip	Ring
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Slate

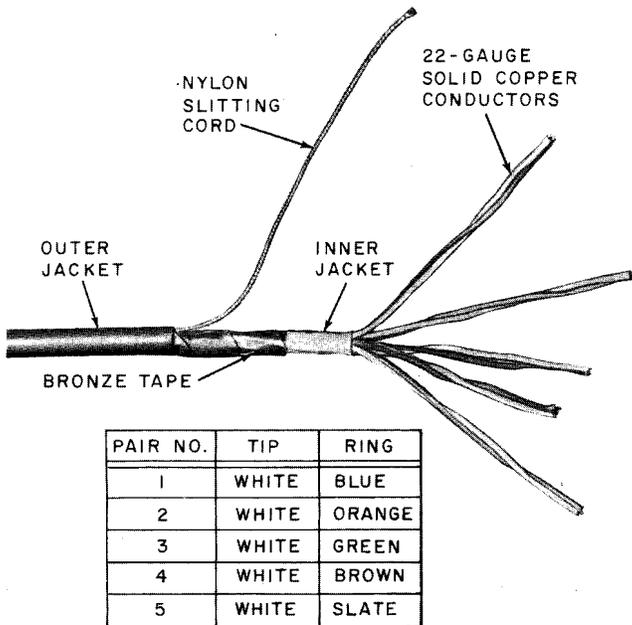


Fig. 3—F-59377 Filled Service Wire

4.03 A flame retardant thermoplastic filling compound is applied throughout the twisted pairs and enclosed by a inner vinyl jacket. A helical bronze tape shield is applied over the inner vinyl jacket. A slitting cord of nylon is laid between the bronze tape shield and black outer PVC jacket.

4.04 The F-59377 filled service wire is furnished:

- On reels containing lengths totaling approximately 5000 feet. The lengths of pieces are marked on the reel. No length of wire is less than 1000 feet.
- On small reels containing 950 feet for use with wire plows.

5. F-44541 ARMORED SERVICE WIRE

5.01 F-44541 armored service wire is rodent resistant wire intended for direct burial without added mechanical protection in rodent infested areas. It is used as a buried service connection to customers' premises. Its use is limited to lengths not to exceed 500 feet. It weighs 39 pounds per 1000 feet and has a breaking strength of approximately 200 pounds.

◆**Note:** Plowing shall be done only with a plow equipped with a share and a feed tube.◆

5.02 F-44541 armored service wire, shown in Fig. 4, consists of one quad of 22-gauge (AWG) annealed copper conductors, individually insulated with distinctively colored (red, green, yellow, and black) solid polyethylene. The insulation of the conductors is colored for purpose of identification.

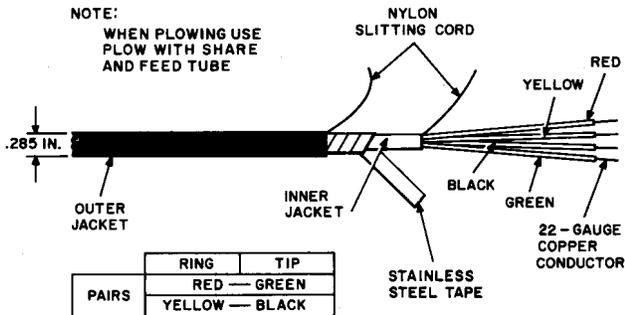


Fig. 4—F-44541 Armored Service Wire

**5.03** The quad is formed into a spiral and is jacketed with gray PVC underlaid by jacket slitting cord of nylon. A stainless steel tape is applied over the jacketed quad and is covered with an outer jacket of black PVC which is also underlaid with a slitting cord of nylon.

**5.04** F-44541 armored service wire is packaged in the same manner as B service wire (2.04).

## 6. E BURIED WIRE

**6.01** E buried wire is a rodent resistant wire intended for direct burial without added mechanical protection. It is used for buried rural distribution of telephone circuits.

**Note:** Plowing shall be done only with a plow equipped with a share and a feed tube.

**6.02** E buried wire weighs approximately 51 pounds per 1000 feet and has a breaking strength of approximately 200 pounds. *The 500-foot limitation for B service wire and F-445-11 armored service wire does not apply to E buried wire.*

**6.03** E buried wire, shown in Fig. 5, consists of two parallel 19-gauge (AWG) annealed copper conductors, insulated with brown-colored polyethylene. An armor of flat bronze tape is applied over the insulated conductors and is covered with an outer jacket of black PVC which is underlaid with a nylon slitting cord.

**Note:** The brown-colored polyethylene conductor insulation is provided with slots to facilitate separation of the insulated conductors when cut with a suitable cutting tool, ie, diagonal pliers, splicer's scissors, etc.

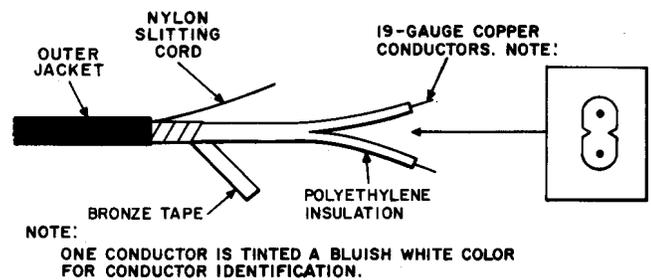


Fig. 5—E Buried Wire

**6.04** E buried wire is furnished on reels containing continuous lengths of either 1500 or 10,000 feet.

## 7. SUPERSEDED BURIED WIRE

**7.01** Figure 6 illustrates the superseded D underground wire (Replaced by E buried wire).

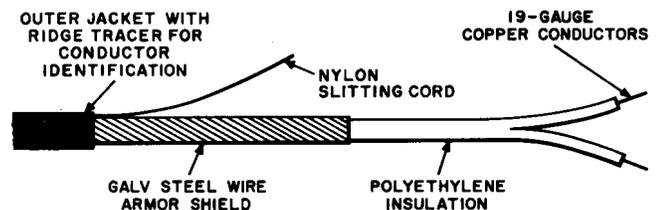


Fig. 6—D Underground Wire