

## HANDLING WIRE AND CABLE

### 1. GENERAL

- 1.01** This section covers the general factors to be considered when handling wire and cable.
- 1.02** This section is reissued to include information on terminating fine gauge wire at screw terminals and to rate E inside wiring cable MD and replaced by G station wire. G station wire is supplied in cartons and on disposable cardboard reels.



*Exercise care to protect wire and cable from injury. When transporting in vehicles, see that wire and cable are not subjected to damage by tools or other equipment.*

- 1.03** Due to the reduced tensile strength of the D station wire (22-gauge to 24-gauge), care should be taken when pulling the wire through conduits.

### 2. DISPENSING WIRE OR CABLE FROM CARTONS AND COILS

- 2.01** To dispense D or G station wire from the carton:
- (1) Remove large perforated knockout from carton.
  - (2) Remove loose end of wire from slot in bottom. Do not remove plastic insert.
  - (3) Place carton on floor and feed wire from carton (Fig 1).
  - (4) Replace wire in slot (in bottom of carton) after cutting.
- 2.02** To dispense twisted wire such as cross-connecting or block wire from a coil:
- (1) Place coil flat on floor so that inner end will feed from coil in a counterclockwise direction.
  - (2) Feed from center of coil (Fig. 2).

- 2.03** To pay out station cable, remove cable from coil by paying it off from outside of coil (Fig. 3).

### 3. DISPENSING WIRE OR CABLE FROM REELS

- 3.01** To dispense G station wire from a small reel, open top of carton and fold sides down to match holes in side of carton; then insert pipe or equivalent implement through holes in carton and hole in reel, using the carton as reel support (Fig. 4).

### 4. STRIPPING CABLE

- 4.01** To strip plastic-jacketed inside wiring cable with jacket-slitting nylon cord:
- (1) Slit end of jacket with diagonal pliers for approximately 1 inch.
  - (2) Locate jacket-slitting nylon cord under jacket.
  - (3) Grasp cable firmly in one hand and, using long-nose pliers, pull nylon cord through cable jacket to the desired stripped length (Fig. 5).
- 4.02** To strip lead-covered cable:
- (1) Score a groove around cable.
  - (2) Bend cable at score until sheath breaks loose.
  - (3) Slide section of sheath off free end of cable.
  - (4) When a long section of sheathing is to be removed, score in short (approximately 4-inch) lengths and remove each separately.

### 5. STRIPPING JACKETED WIRE

- 5.01** To strip SK or G station wire:
- (1) Slit end of jacket with diagonal pliers for approximately 1 inch.
  - (2) Locate jacket-slitting nylon cord under jacket.

(3) Grasp wire firmly in one hand and, using long-nose pliers, pull nylon cord through jacket to the desired stripping length (Fig. 5 and 6).

**5.02** To strip D station wire (desired stripped length exceeds 12 inches):

- (1) Use diagonal pliers to cut through jacket and insulation to expose conductors (Fig. 7).
- (2) Hold wire firmly with long-nose pliers, grasp two of the exposed conductors and pull, use conductors to split jacket to desired stripped length. Do not use diagonal pliers to pull conductor from the jacket. The wire will be damaged by cutting the surface during the slitting process.

**5.03** Alternate method of stripping D station wire (desired stripped length shorter than 12 inches):

- (1) Cut the jacket, using diagonal pliers, around the circumference of the wire, through to

the insulated conductors, being careful not to nick the conductor insulation (Fig. 7).

- (2) Pull the severed jacket off the end. It will come off as a hollow tube (Fig. 8).

## 6. SKINNING CONDUCTORS

**6.01** Use diagonal or long-nose pliers to skin the insulation from individual conductors as shown in Fig. 9, 10, and 11.

## 7. TERMINATING WIRE AT SCREW TERMINALS

**7.01** To terminate wire at a screw terminal, bend the wire clockwise in a hairpin loop around the screw. Push wire away from the screw, especially finer gauge wires, to prevent the wire being caught in the threads and broken when the screw is tightened. (See Fig. 12).

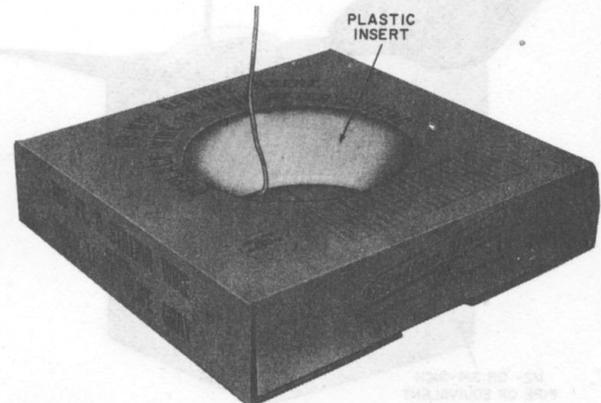
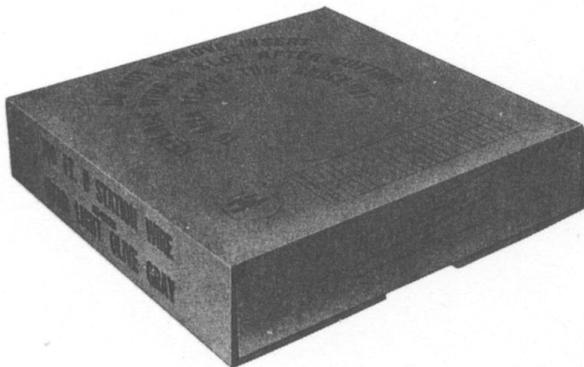


Fig. 1—Dispensing D Station Wire or G Station Wire

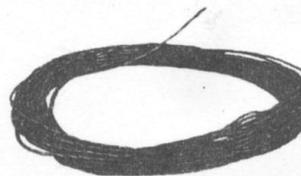


Fig. 2—Dispensing Twisted Cross-Connecting Wire or Block Wire

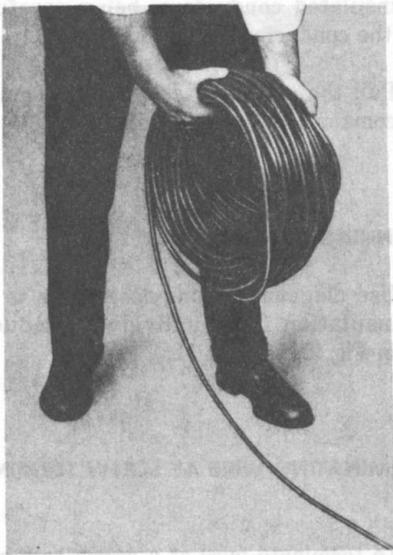


Fig. 3—Paying Out Cable

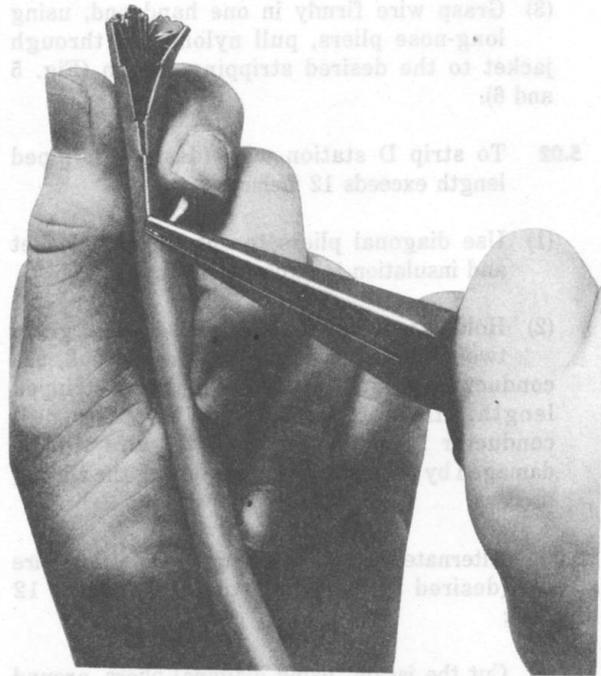


Fig. 5—Stripping D Inside Wiring Cable or G Station Wire (With Jacket-Slitting Cord)

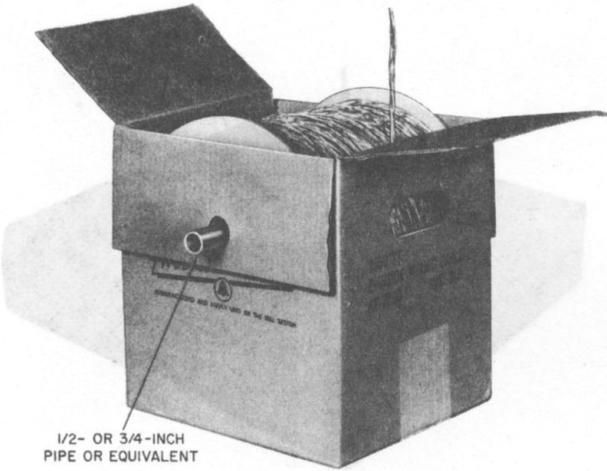


Fig. 4—Carton Used as Reel Support For G Station or E Inside Wiring Cable

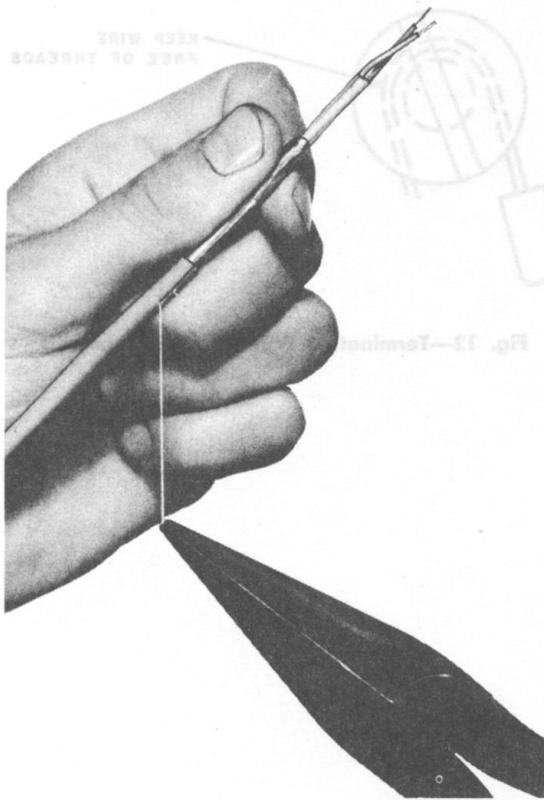


Fig. 6—Stripping SK Station Wire

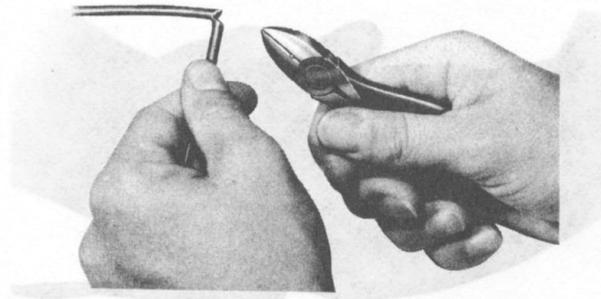


Fig. 9—Stripping Twisted Wire

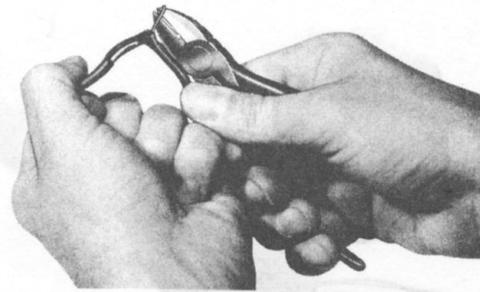


Fig. 7—Stripping D Station Wire

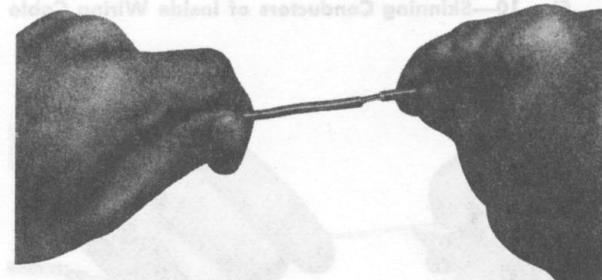


Fig. 8—Stripping D Station Wire, Alternate Method



Fig. 9—Skinning Twisted Wire

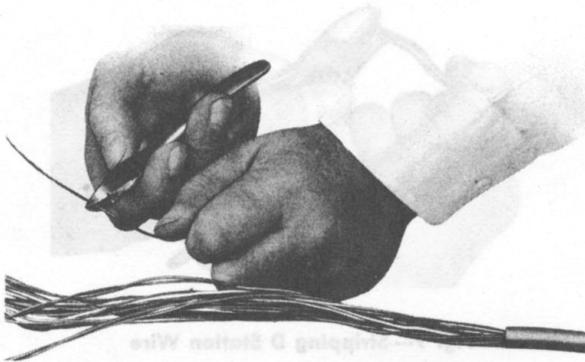


Fig. 10—Skinning Conductors of Inside Wiring Cable

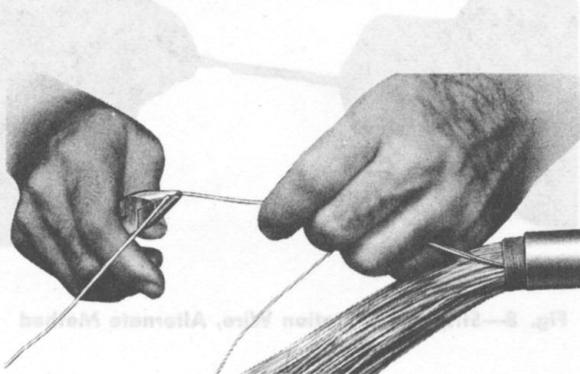


Fig. 11—Skinning Conductors of Lead-Covered Cable

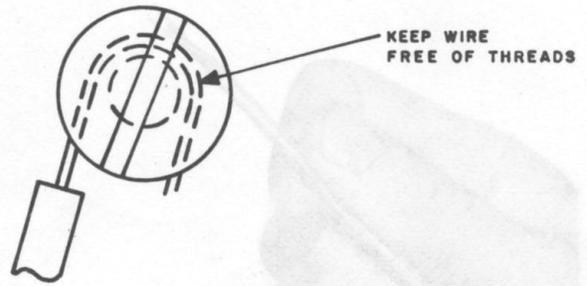


Fig. 12—Terminating Wire at Screw Terminals