

## DROP AND BLOCK WIRING

### MULTIPLE DROP WIRE

### DESCRIPTION

#### 1. GENERAL

**1.01** Multiple drop wire is used for making multiple drop connections where fuseless-type protection or no station protection is required.

**1.02** This section is reissued to include limitations on the length of C Multiple Drop Wire runs.

**1.03** Information on B Multiple Drop Wire and C Multiple Drop Wire of earlier design is included.

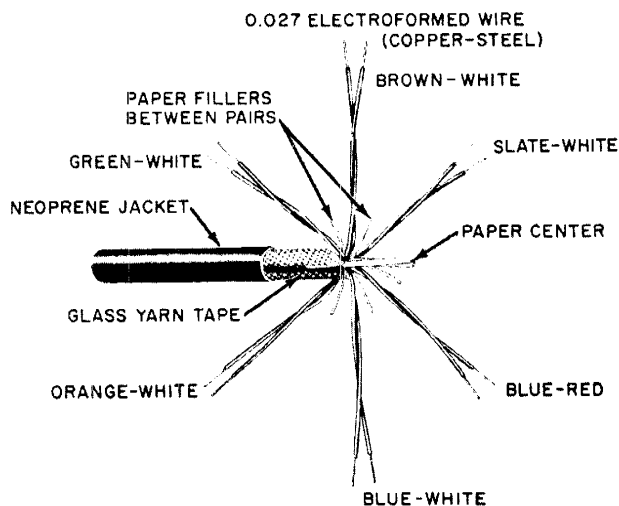
#### 2. DESCRIPTION OF MULTIPLE DROP WIRE

**2.01** Multiple drop wire is a self-supporting type consisting of six twisted pairs of conductors. Each conductor is rubber-insulated and neoprene-jacketed. The insulation of one conductor of each pair is of a distinctively different color to provide ring and tip identification, as well as pair identification. The six pairs are cabled together, and wrapped with glass yarn tape into a tight core. The assembly is encased in a black neoprene jacket.

**2.02** The color identification of the C Multiple Drop Wire is as follows:

PAIR NO.	TIP	RING
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Slate
6	Red	Blue

**2.03** Fig. 1 illustrates the makeup of C Multiple Drop Wire.



**Fig. 1—C Multiple Drop Wire (Present Design)**

**2.04** The color identification of the C Multiple Drop Wire of earlier manufacture is as follows:

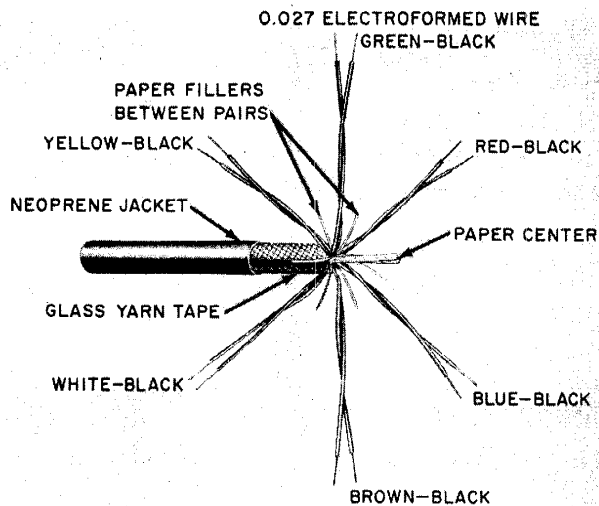
PAIR NO.	TIP	RING
1	Black	Brown
2	Black	White
3	Black	Yellow
4	Black	Green
5	Black	Red
6	Black	Blue

**2.05** Makeup of this wire is shown in Fig. 2.

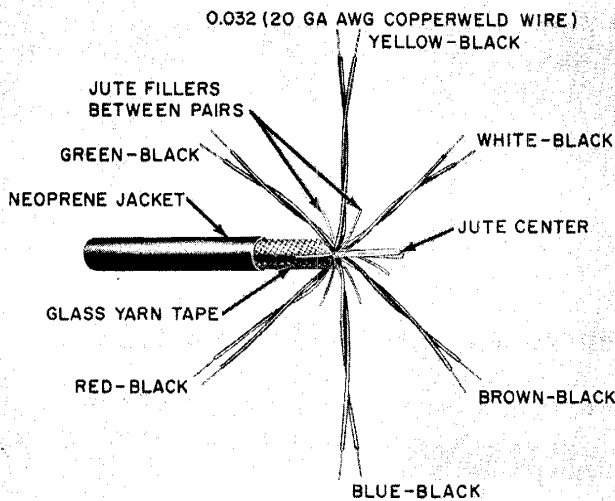
**2.06** Fig. 3 illustrates the makeup of B Multiple Drop Wire which was superseded by the C Multiple Drop Wire.

**2.07** The B Multiple Drop Wire supplied during the early production period differs from the present standard in that five pairs were cabled around a center pair. The makeup of this wire is shown in Fig. 4.

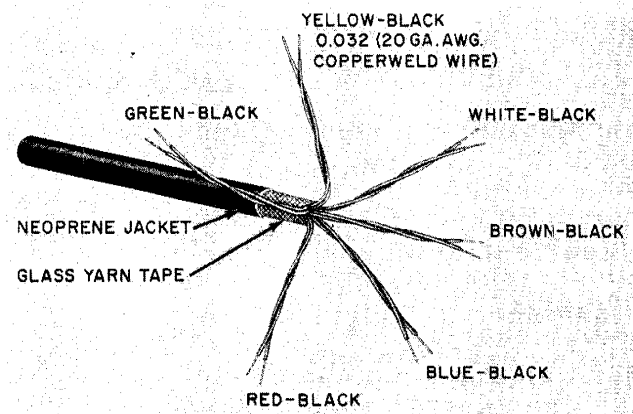
**2.08** C Multiple Drop Wire weighs approximately 14 pounds per hundred feet; B Multiple Drop Wire weighs approximately 16 pounds per hundred feet. The early design of B Multiple Drop Wire weighed 14 pounds per 100 feet.



**Fig. 2—C Multiple Drop Wire (Early Design)**



**Fig. 3—B Multiple Drop Wire**



**Fig. 4—B Multiple Drop Wire (Early Design)**

**2.09** The approximate breaking strength of C Multiple Drop Wire is 1200 pounds; the breaking strength of B Multiple Drop Wire is 1700 pounds. The early design of B Multiple Drop Wire had a breaking strength of 1200 pounds. Stringing sags, which remain common for all types, are shown in Section 462-500-011.

### SPAN LIMITATIONS

**2.10** Multiple drop wire can be used in spans up to 300 feet. However, due to transmission limitations, it should not be used in runs exceeding 370 feet in length.

### 3. ASSOCIATED MATERIALS AND APPARATUS

**3.01** Materials and apparatus required in connection with the installation of multiple drop wire and their uses are as follows:

- |                        |  |
|------------------------|--|
| D Drop Wire Clamp      | — For supporting the wire at span attachments.   |
| Drop Wire Puller       | — For pulling the wire to proper tension and snubbing it.                              |
| 116A or 116C Protector | — A 6-pair fuseless station protector for inside or outside mounting.                  |
| 104-Type Wire Terminal | — A 6-pair wire terminal similar to the 116A or 116C Protector but without protectors. |

B Drive Hook	— Pole attachment.
Drop Wire Hook	— First building attachment.
No. 18 RH Galv Wood Screw 2-1/2 inch or longer	— For fastening drop wire hook to stud- ding of frame build- ing.
5/16-inch by 1-3/4 inch Hammer Drive Anchor	— For fastening drop wire hook on ma- sonry walls.
No. 9 Cable Clamp	— For second and last building attach- ments. May also be used as intermediate attachments.
5/8-inch Drive Ring	— For intermediate build- ing attachments.
No. 10 Ground Wire	— For grounding the 116A or 116C pro- tector to water pipe.

#### 4. CUTTING MULTIPLE DROP WIRE

**4.01** Use 6-inch SW diagonal pliers for cutting across multiple drop wire. It will be necessary to make several cuts with the pliers to complete the operation. Make an initial cut in the wire with the points of the pliers and bend the wire back at the cut to expose the inside conductors. Then cut a few conductors at a time until the cut is completed.

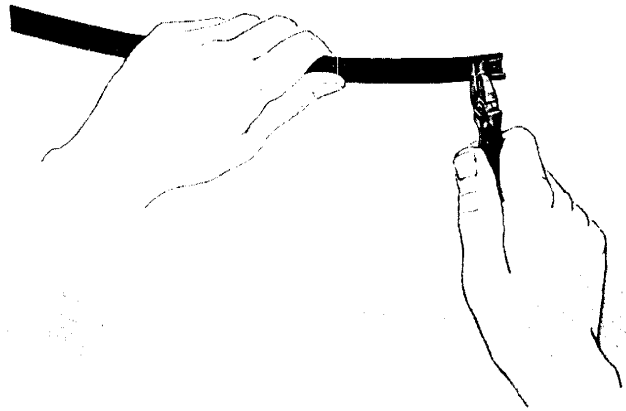
**4.02** Eight-inch side-cutting pliers can also be used for cutting multiple drop wire. It may require several presses of the pliers to cut through the wire.

#### 5. REMOVING OUTER JACKET ON MULTIPLE DROP WIRE

**5.01** In terminating multiple drop wire at terminals and protectors, it is necessary to remove the outer jacket so the pairs can be fanned out. Strip the jacket as follows:

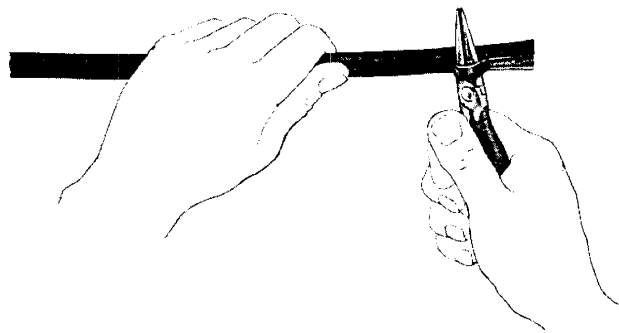
- (a) Make two longitudinal cuts opposite each other on the multiple drop wire by means of the large groove of the C Braid Stripper.

- (b) Grip the jacket at the wire end with diagonal pliers and roll the jacket back on itself as illustrated in Fig. 5.



**Fig. 5—Rolling the Jacket with Diagonal Pliers**

- (c) Release the rolled back portion of jacket and grip it again with long-nose pliers. Again roll the jacket back on itself until it pulls free of the glass yarn tape. Then pull the jacket off with a strong steady pull over the required distance from the wire end (Fig. 6).



**Fig. 6—Rolling the Jacket on Itself with Long-Nose Pliers**

- (d) Repeat operations of Steps (b) and (c) for the remaining segment of jacket.
- (e) Unwrap the glass yarn tape around the wire core and fan out the pairs for conductor skinning and terminating. Cut off excess yarn tape and filler.