

## DROP AND BLOCK WIRING

### MULTIPLE DROP WIRE

#### DESCRIPTION

CONTENTS	PAGE
1. GENERAL . . . . .	1
2. DESCRIPTION OF MULTIPLE DROP WIRE . . . . .	1
3. PHYSICAL AND MECHANICAL PROPERTIES . . . . .	2
4. ASSOCIATED MATERIALS AND APPARATUS . . . . .	3
5. CUTTING MULTIPLE DROP WIRE . . . . .	3
6. REMOVING OUTER JACKET ON MULTIPLE DROP WIRE . . . . .	3

2.02 The color identification of E multiple drop wire and C (MD) 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

#### 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 information on E multiple drop wire which replaces C multiple drop wire. Due to the shortage of the smaller diameter steel core, C multiple drop wire is rated MD. Information on B multiple drop wire is deleted from this issue.

1.03 Information on C multiple drop wire is included for reference purposes.

#### 2. DESCRIPTION OF MULTIPLE DROP WIRE

2.01 Multiple drop wire is a self-supporting type consisting of six twisted pairs of copper covered steel conductors. Each conductor has dual insulation consisting of distinctively colored rubber inner layer and a black neoprene outer layer. 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.

2.03 Figure 1 illustrates the makeup of E multiple drop wire.

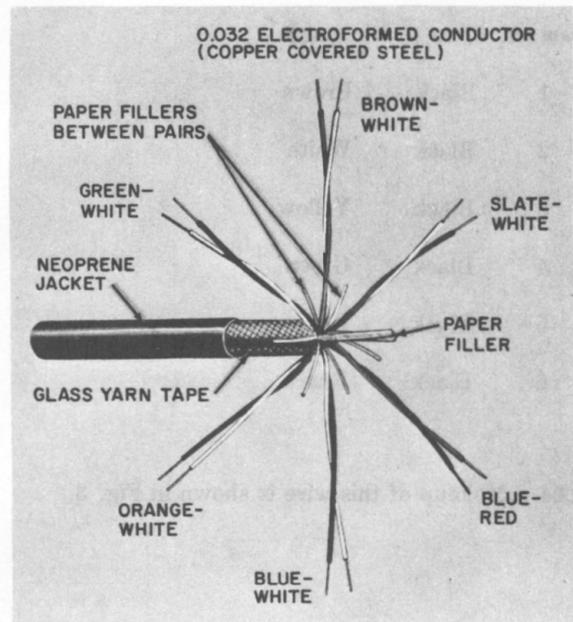


Fig. 1—E Multiple Drop Wire

2.04 Figure 2 illustrates the makeup of C multiple drop wire of later manufacture.

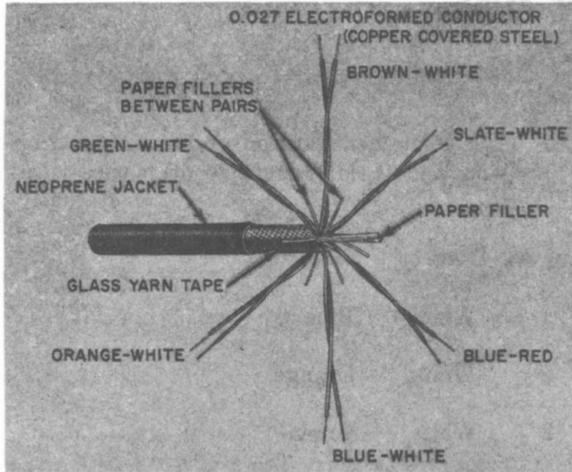


Fig. 2—C Multiple Drop Wire (MD)

2.05 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

2.06 Makeup of this wire is shown in Fig. 3.

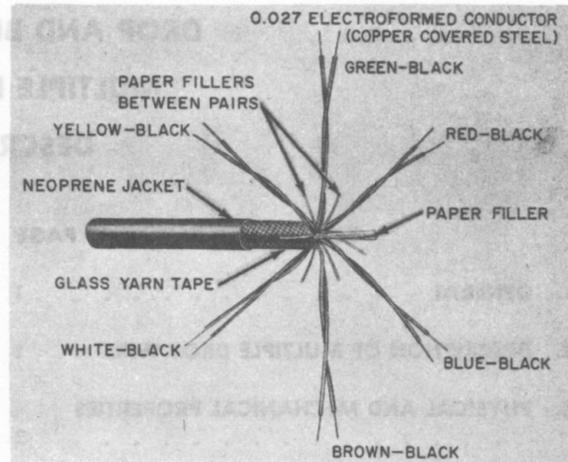


Fig. 3—C Multiple Drop Wire (Early Design) (MD)

### 3. PHYSICAL AND MECHANICAL PROPERTIES

3.01 Table A shows the characteristics of C and E multiple drop wire.

TABLE A  
CHARACTERISTICS OF  
MULTIPLE DROP WIRE

MULTIPLE DROP WIRE	E	C
Rating	STD	MD
Weight (lbs/100 ft)	16	14
Breaking Strength (lbs)	1200	1200
Max. Span Length (ft) (See Section 462-500-011)	300	300
Max. Drop Wire Run (ft) (Note)	500	370

Note: Restriction due to transmission limitations.

**3.02** Splicing of multiple drop wire is not recommended for the following reasons:

- The restricted working space of a small multiple conductor core prevents a compact, reliable tape wrap.
- The difficulty in equalizing the lengths of all spliced conductors results in uneven distribution of wire tension.

#### 4. ASSOCIATED MATERIALS AND APPARATUS

**4.01** 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 studding of frame building.
5/16-inch by 1-3/4 inch Hammer Drive Anchor	— For fastening drop wire hook on masonry walls.
No. 9 Cable Clamp	— For second and last building attachments. May also be used as intermediate attachments.
5/8-inch Drive Ring	— For intermediate building attachments.
No. 10 Ground Wire	— For grounding the 116A or 116C protector to an acceptable ground.

#### 5. CUTTING MULTIPLE DROP WIRE

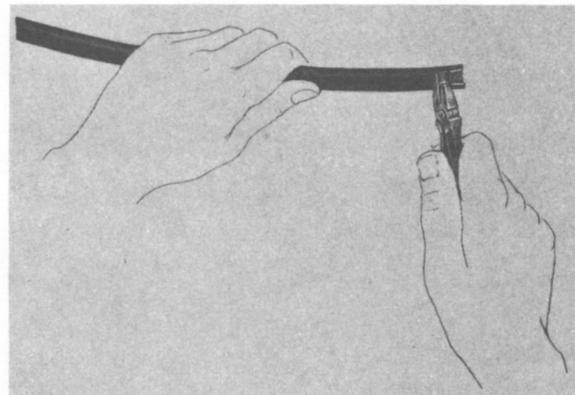
**5.01** Use 6-inch SW diagonal pliers for cutting across multiple drop wire. It will be necessary to make several cuts with the pliers to complete the operation. Make an initial cut in the wire with the points of the pliers and bend the wire back at the cut to expose the inside conductors. Then cut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

**5.02** 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.

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

**6.01** 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 or with diagonal pliers.
- (b) Grip the jacket at the wire end with diagonal pliers and roll the jacket back on itself as illustrated in Fig. 4.



**Fig. 4—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. 5).

(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.

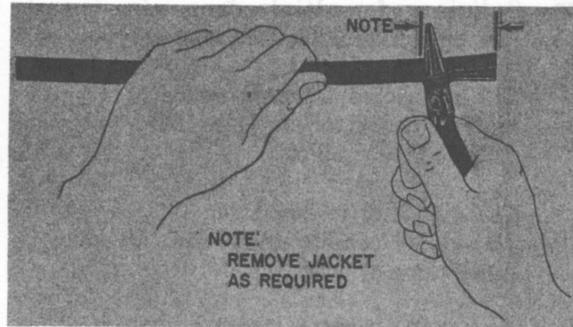


Fig. 5—Rolling the Jacket on Itself with Long-Nose Pliers

REMOVING OUTER JACKET ON MULTIPLE DROP WIRE

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 or with diagonal pliers.

(b) Grip the jacket at the wire end with diagonal pliers and roll the jacket back on itself as illustrated in Fig. 4.



Fig. 4—Rolling the Jacket with Diagonal Pliers