CABLE SPLICING — GENERAL
SOLID PIC CABLES

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1. GENERAL

1.01 This section covers the makeup and color code of the AHB, AHA, AKM, and AKT types of solid PIC (polyethylene insulated conductor) cables.

1.02 Information on the superseded types of 19- and 22-gauge PIC cables is contained in another section.

2. DESCRIPTION

2.01 These cables consist of copper conductors having solid polyethylene insulation. In cable sizes from 6 to 51 pairs and in units of 12, 13, 16, 17, 25, 26, 50, or 51 pairs, the pairs are arranged in layers. Cable sizes from 76 to 303 pairs consist of units having distinctively colored binding strings.

2.02 The core of these cables has a rubber wrapper that is applied lengthwise with an overlap. The cables are furnished with alpeth or PAP sheath (polyethylene, aluminum, and polyethylene) as required for the job. Both alpeth and PAP sheath may have gopher tape, buried tape armor, or aerial tape armor protection.

2.03 In the wire armored cables (light wire armor, single armor, and double submarine types) one or two extra pairs are provided to serve as replacements in case there are defects in the remaining pairs. The extra pairs are distinctively colored to distinguish them from the other pairs in the cable.

3. PAIR AND UNIT COLOR CODING

3.01 **The Individual Pair Color Code** shown below is used in cables containing from 6 to 51 pairs, inclusive, and in each unit of 12 to 51 pairs in multiple unit cable containing 76 to 303 pairs, inclusive.

Individual Pair Color Code

Pair Number	Color Code		Pair Number	Color Code	
	Tip	Ring		Tip	Ring
1	Red	Blue			
2	Red	Orange	27	Purple	Slate
3	Red	Green	28	Yellow	Slate
4	Red	Brown	29	Black	Brown
5	Red	Slate	30	Black	Slate
6	Gold	Blue	31	Gold	Purple
7	Gold	Orange	32	Blue	Brown
8	Gold	Green	33	Blue	Orange
9	White	*Blue	34	Green	Slate
10	White	Orange	35	Orange	Brown
11	White	Green	36	Blue	Green
12	White	Brown	37	Orange	Green
13	Gold	Brown	38	Green	Brown
14	Gold	Slate	39	Brown	Slate
15	Black	Blue	40	Blue	Slate
16	White	Slate	41	Red	White
17	Black	Orange	42	Red	Yellow
18	Yellow	Blue	43	Red	Black
19	Yellow	Orange	44	Red	Gold
20	Yellow	Green	45	Red	Purple
21	Yellow	Brown	46	White	Yellow
22	Black	Green	47	White	Black
23	Purple	Blue	48	White	Gold
24	Purple	Orange	49	White	Purple
25	Purple	Green	50	Yellow	Purple
26	Purple	Brown	51	Orange	Slate

3.02 Two series of colors used in these cables are as follows:

Series 1	Series 2
R	B
W	O
Y	G
Bk	Br
Go	S
P	

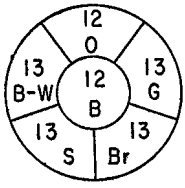
When Series 1 and 2 colors are used as a pair, the Series 1 color is the Tip.

When two colors of one series are used together, the color higher in the series is the Tip. For example. in the Y-P and O-S pairs, the Y and O are Tip Wires.

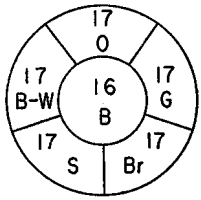
3.03 **Unit Binder Color Code:** The following sketches show the arrangement of units in the various cables and the color code of the binding strings on the individual units. For convenience in locating the units and in establishing the pair count of each unit, the binder colors follow the usual color sequence: Blue, Orange, Green, Brown, Slate, Blue-White, Orange-White, Green-White, Brown-White.

3.04 In this arrangement the lowest numbered pairs in the cable would ordinarily be in the Blue bound unit, the next higher numbers in the Orange bound unit, etc., through the color sequence.

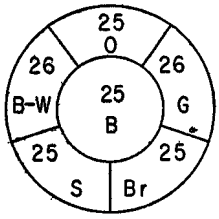
ARRANGEMENT OF UNITS
AHB-TYPE (19 Ga) 083 Mf CABLES



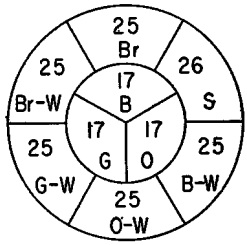
76 Prs.



101 Prs.



152 Prs.

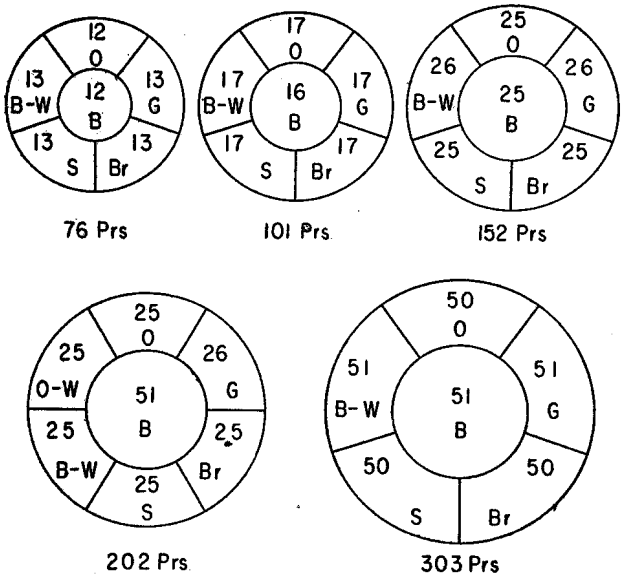


202 Prs.

Numbers denote total pairs in unit.
Letters indicate colors of unit binding strings.

B - Blue	B-W - Blue-White
O - Orange	O-W - Orange-White
G - Green	G-W - Green-White
Br - Brown	Br-W - Brown-White
S - Slate	

ARRANGEMENT OF UNITS
AHA (22 Ga.), AKM (24 Ga.) AND AKT (26 Ga.) TYPES



Numbers denote total pairs in unit.
Letters indicate colors of unit binding strings.

B – Blue	B-W – Blue-White
O – Orange	O-W – Orange-White
G – Green	G-W – Green-White
Br – Brown	Br-W – Brown-White
S – Slate	

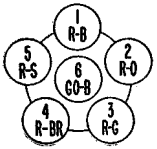
4. ARRANGEMENT OF PAIRS IN CABLES AND UNITS

4.01 For transmission reasons, the pairs are not arranged in the same color sequence within a layer nor in the same layer in the various cables and units. However, each pair color retains the same pair number in the individual unit or cable.

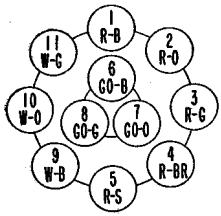
4.02 The following sketches, furnished for ready reference, show the arrangement of pairs by layers for each size of cable and unit.

ARRANGEMENT OF PAIRS IN CABLES AND UNITS
19,22,24 and 26 Ga.

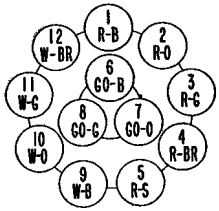
6 Pairs



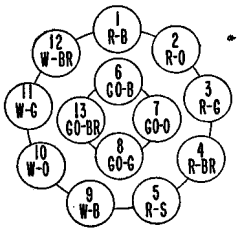
11 Pairs



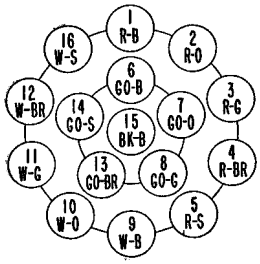
12 Pairs



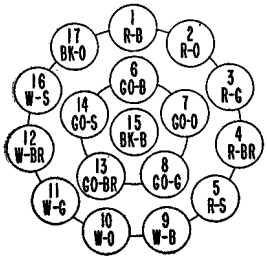
13 Pairs

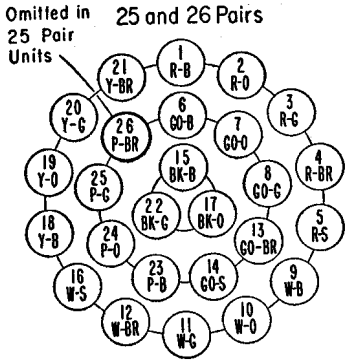


16 Pairs

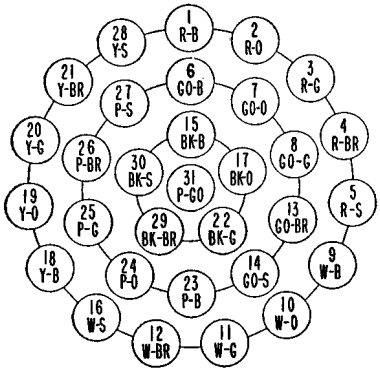


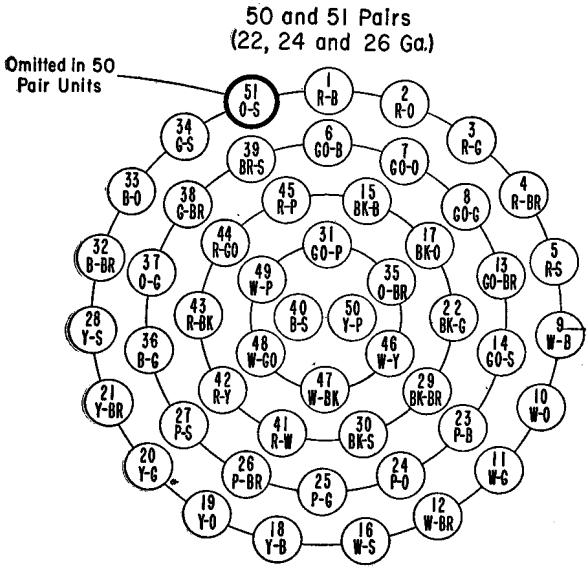
17 Pairs



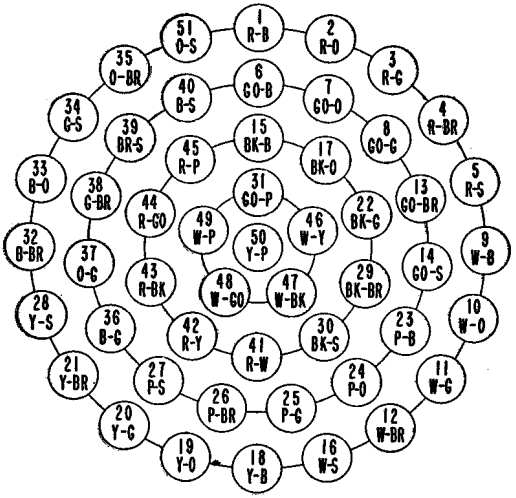


31 Pairs
(19 Ga. Only)




50 and 51 Pairs
(22, 24 and 26 Ga.)
Omitted in 50 Pair Units
51 O-S
1 R-B
2 R-O
3 R-G
4 R-BR
5 R-S
6 GO-B
7 GO-O
8 GO-G
9 W-B
10 W-O
11 W-G
12 W-BR
13 GO-BR
14 GO-S
15 BK-B
16 W-S
17 BK-O
18 Y-B
19 Y-O
20 Y-G
21 Y-BR
22 BK-G
23 P-B
24 P-O
25 P-G
26 P-BR
27 P-S
28 Y-S
29 BK-BR
30 BK-S
31 GO-P
32 B-BR
33 B-O
34 G-S
35 O-BR
36 B-G
37 O-G
38 G-BR
39 BR-S
40 B-S
41 R-W
42 R-Y
43 R-BK
44 R-GO
45 R-P
46 W-Y
47 W-BK
48 W-GO
49 W-P
50 Y-P

51 Pairs
(19 Gauge Only)



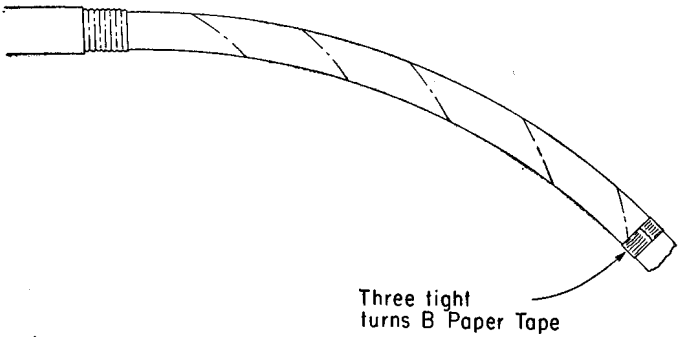
4.03 **Extra Pairs in Wire Armored Cables:** One extra pair (Yellow-Black) is included in cables of 6 to 76 pairs, inclusive, and two extra pairs (Yellow-Black and Black-Gold) in cables of 101 to 303 pairs, inclusive. The extra pairs are distinctively colored to distinguish them from the remaining pairs in the cable.

4.04 In cables of 51 pairs and smaller sizes, the extra pair is included in the outside layer, which results in a slightly different layup from those illustrated above.

4.05 In multiple unit cables, 76 to 303 pairs, inclusive, the individual units have the same layup and color code as those illustrated above. The extra one or two pairs are laid in the spaces between units where they can be found readily.

5. PREPARING CABLE ENDS FOR PAIR SELECTION

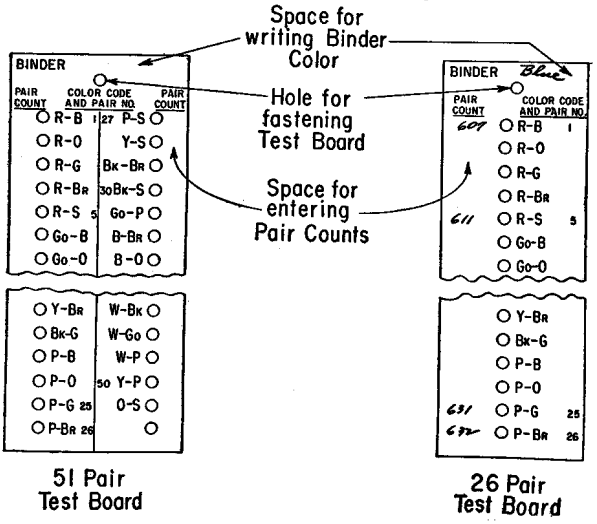
5.01 After the sheath is taken off and before the core wrapper is removed, the core end should be wrapped tightly with B Paper Tape, as illustrated below. This will keep the pairs in position and facilitate location of the desired colors for splicing color-to-color or for boarding the pairs.



5.02 When the core wrapper is removed, the core can be spread to locate pairs in the inside layers without disturbing the layup.

6. TEST BOARDS

6.01 **New Type Test Boards** are provided for convenience in associating pairs when splicing PIC cables or units of dissimilar size, making cable transfers, etc. Two sizes are available: 26 pairs and 51 pairs, as illustrated below. The boards are marked to show pair numbers and colors arranged as covered in Paragraph 3.01. Space is provided for writing in the color of unit binding strings and the main frame or cross-connecting terminal pair count when necessary.



6.02 The 26-pair board is used for cables and units in sizes from 6 to 26 pairs. The 51-pair board is used for 31-pair and 51-pair cables and for units of 50 or 51 pairs.