BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G50.607.3
Issue 2, February, 1959
AT&TCo Standard

EVEN PIC CABLES
DESCRIPTION

Contents **Page**

1. GENERAL

1.01 This section replaces Issue 1 and covers the make-up and color code of BHB, BHA, BKM, and BKT types of solid PIC cables. It has been reissued to include information on sheath markings for 400- and 600-pair PIC cables. Also included is additional information on extra pairs in wire armored cables and the counting procedure used with 900-pair PIC cable.

1.02 Information on the superseded types is given in separate sections.

2. DESCRIPTION

2.01 These cables consist of copper conductors having solid polyethylene insulation. The sizes from 6 through 25 pairs consist of a single unit. The basic subdivision in other sizes is the **Binder Group** which has 25 distinctively colored pairs. A Binder Group may consist of a single 25-pair unit or a combination of 8-8-9 or 12- and 13-pair units having the same colored binding strings.

2.02 EVEN PIC cables of 25 pairs and larger are made in even multiples of 25 pairs, i.e.: 50, 75, 100, 150, 200, etc.

2.03 The core of these cables has a rubber-mylar tape 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.

2.04 In the wire armored cables (light wire armor, single armor, and double armor submarine types) one or more 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.

2.05 **Cable End Markings:** The inner and outer sheath ends of 400- and 600-pair PIC cables are marked with bands of colored tape to indicate the progression of the unit count. Looking into the end of the cables, **yellow** indicates **clockwise** rotation of the unit count; **green** indicates **counter-clockwise** rotation.

2.06 Like colored binder groups should be spliced straight through. Placing the cable so that the yellow end is spliced to the green end will ensure correct alignment of the units for splicing. The core of the cable may be twisted to bring like colored binder groups opposite each other.

2.07 When like colored sheath ends are to be spliced, the binder groups should be criss-crossed so that like colored binder groups can be spliced together.

3. COLOR CODE

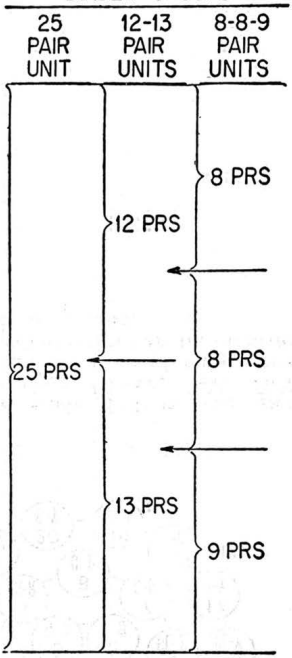
3.01 **Pair Color Code:** The pairs in each binder group and the binder strings are color coded in such a way as to permit selection of any binder group and any pair in the cable by color.

3.02 The following sketch shows the individual pair color code for cables of 6 through 25 pairs, and for the units comprising the 25-pair Binder Groups used in the remaining sizes.

25 PAIR COLOR CODE

PAIR NUMBER SEQUENCE	COLOR CODE TIP	COLOR CODE RING
1	W	BL
2	"	O
3	"	G
4	"	BR
5	"	S
6	R	BL
7	"	O
8	"	G
9	"	BR
10	"	S
11	BK	BL
12	"	O
13	"	G
14	"	BR
15	"	S
16	Y	BL
17	"	O
18	"	G
19	"	BR
20	"	S
21	V	BL
22	"	O
23	"	G
24	"	BR
25	"	S

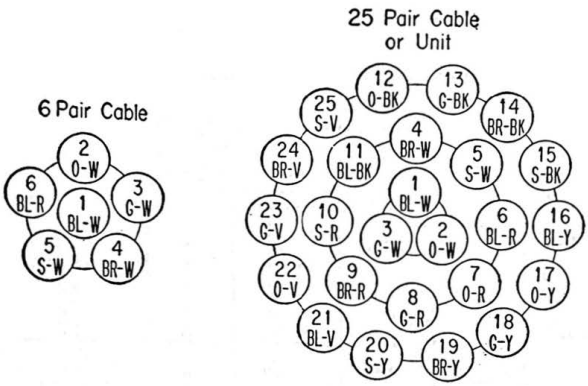
COLOR CODE IN STANDARD BINDER GROUPS



ABBREVIATIONS

Bl – Blue	W – White
O – Orange	R – Red
G – Green	BK – Black
BR – Brown	Y – Yellow
S – Slate	V – Violet

3.03 In each instance, the lowest numbered pair is in the center of the cable or unit and the other pairs follow in sequence as illustrated below.

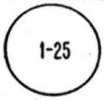


4. CORE LAYUP

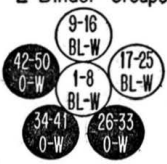
4.01 **The Binder Group Color Code** follows the same sequence as the pair color code, BL-W, O-W, G-W, etc. The following sketches show the make-up of cables from 25 through 600 pairs, in which individual pairs can be identified by color of binding strings and pair insulation.

CORE MAKE-UP OF EVEN PIC CABLES

25 Pairs
1 Binder Group

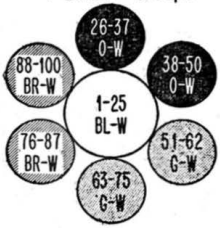


50 Pairs
2 Binder Groups

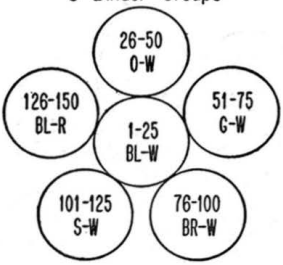


75 Pairs
3 Binder Groups

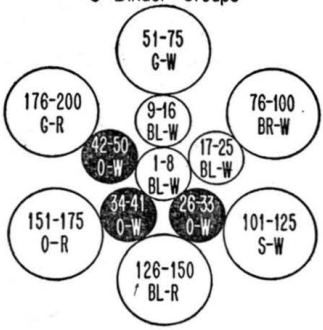
100 Pairs
Binder Groups

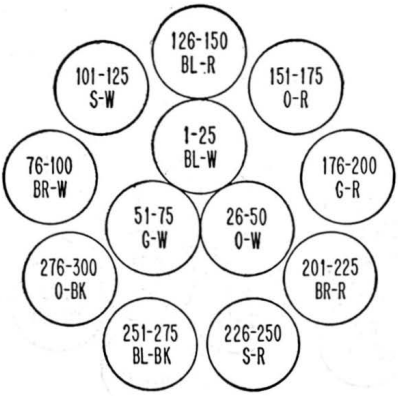


150 Pairs
6 Binder Groups



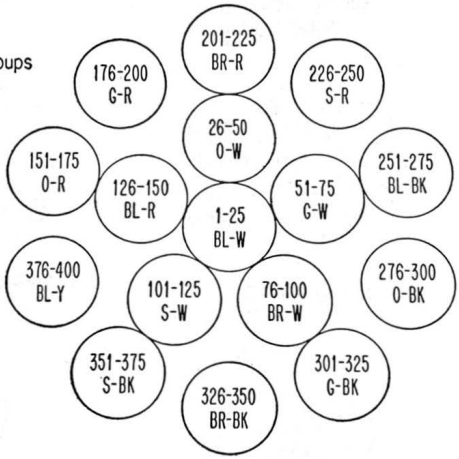
200 Pairs
8 Binder Groups



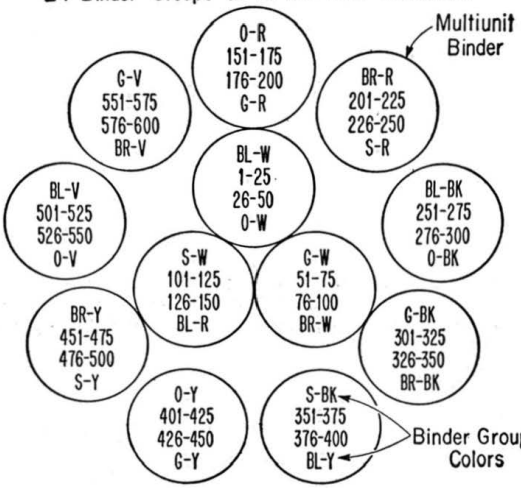


300 Pairs
12 Binder Groups

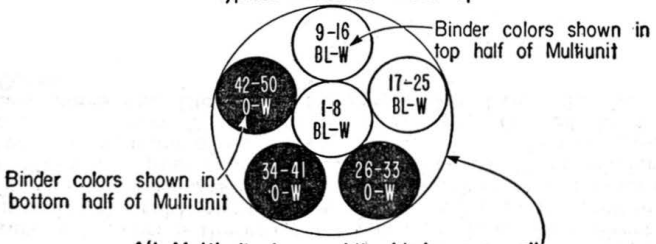
400 Pairs
16 Binder Groups



600 Pairs
24 Binder Groups in 12 50-Pair Multiunits



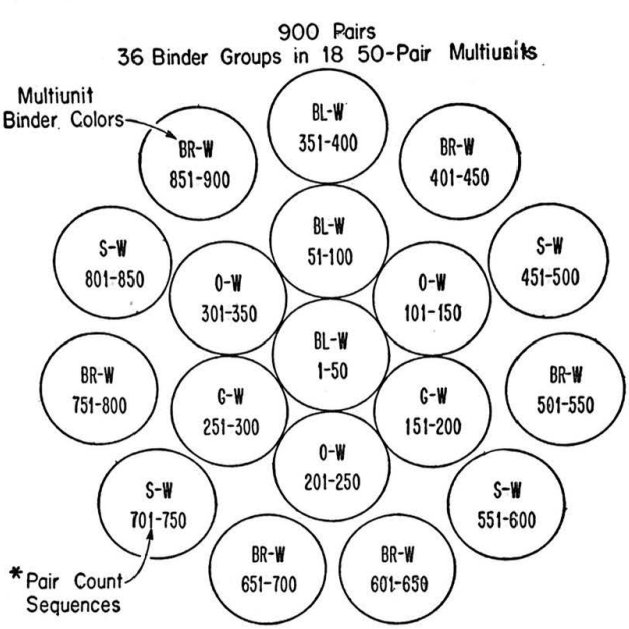
Typical Multiunit Make-up

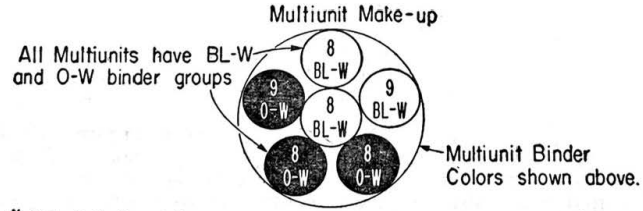


All Multiunits have white binder over all.

4.02 The 600-pair size has 24 binder groups arranged in 12 multiunits, each of which is similar to a 50-pair cable.

4.03 The following sketch shows the make-up and color code of the 900-pair and 24- and 26-gauge cables. This cable has 36 binder groups arranged in 18 multiunits, each of which is similar to a 50-pair cable Blue-White and Orange-White binder groups. In order to avoid crossover splicing, the multiunit binder colors are arranged symmetrically. The appearance of the core is therefore uniform regardless of the direction in which the cable is pulled in. The selection of the multiunits for counting purposes is similar to the method used in counting multiple unit pulp cables. The Blue-White multiunit binder is the starting point of each layer, the unit count then progresses around the core **Counterclockwise, Looking Toward the Central Office** and **Clockwise, Looking Away From the Central Office.**





* This Pair Count Sequence applies when the units are counted in a clockwise direction, looking away from the central office.

4.04 **Extra Pairs in Wire Armored Cables:** One extra pair (Red-White) is provided in matching cables of 6 to 75 pairs; two extra pairs (Red-White and Black-White) in matching cables of 100 to 300 pairs; and three extra pairs (Red-White, Black-White, and Yellow-White) in matching cables of 400 to 900 pairs, inclusive.

4.05 In cables of 25 pairs and smaller, the extra pair is in the outside layer. In cables of 50 pairs and larger, the extra pairs are laid in the spaces between units where they can be found readily.