OSP Copper Core Lay-up Diagrams

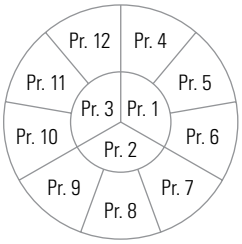
Full Count

Lay-up diagrams provide a cross-sectional view of the core construction. Where the core has 25 pairs or less, the individual pairs are represented. Cores between 25 and 200 pairs are constructed using a combination of unit and group assemblies with color-coded binders to create a cylindrical core. Cores larger than 200 pairs are constructed using 25-pair groups bound with color-coded binders to create unique 50- and 100-pair Super Units (SU).

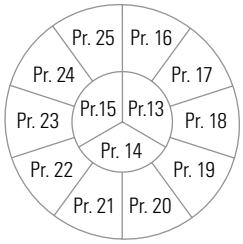
There are two common core configurations for copper cables that are 1,200-pair and larger and constructed with 100-pair super-units. This document addresses the first type "Full Count" binder color coding, based on RUS (RDUP/REA) standards. It is used in the Independent Telco (non-Bell) market. The second is referred to as "Mirror Image" color coding and is traditionally used by Bell operating companies. For more information on "Mirror Image" binder color-coding, please see the **OSP Copper Core Lay-up Diagrams - Mirror Image** Technical Guideline.

Various arrangements of pairs, units, groups and super units are possible for standard non-screened telephone cables both filled and aircore. The following constructions illustrate the Full Count lay-ups normally provided.

Unit Assemblies (U)

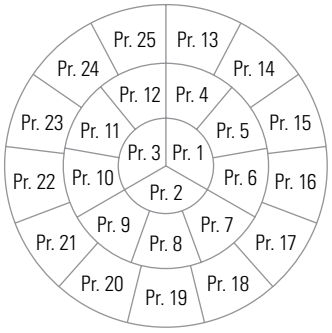


12-Pair Unit
U12



13-Pair Unit
U13

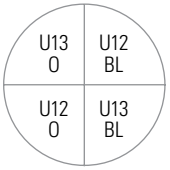
Group Assemblies (G)



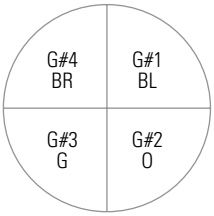
25-Pair Group
G25

COLOR KEY		
BL	=	Blue
O	=	Orange
G	=	Green
BR	=	Brown
S	=	Slate
W	=	White
R	=	Red
BK	=	Black
Y	=	Yellow
V	=	Violet

Super Unit Assemblies (SU)

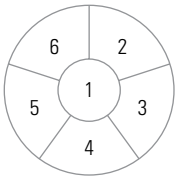


50-Pair Super Unit
SU50 or 2-U12 and 2-U13

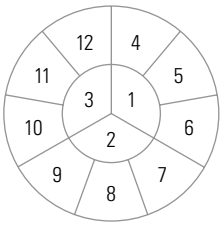


100-Pair Super Unit
SU100 or 4-G25

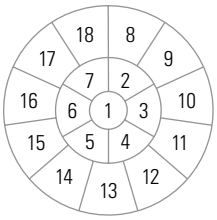
Core Configurations



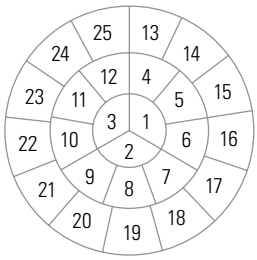
6-Pair Core



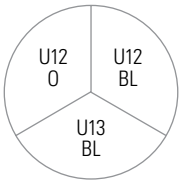
12-Pair Core



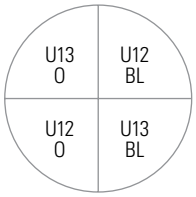
18-Pair Core



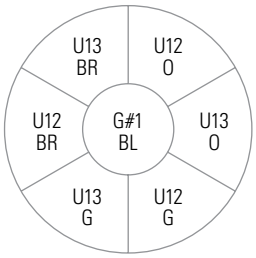
25-Pair Core



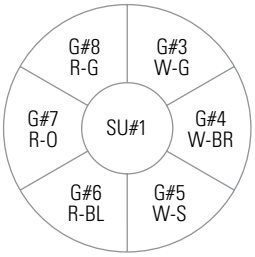
37-Pair Core
2-U12 and 1-U13



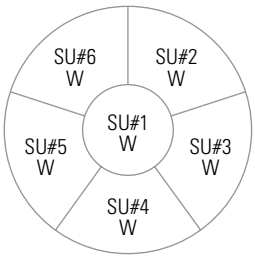
50-Pair Core
2-U12 and 2-U13



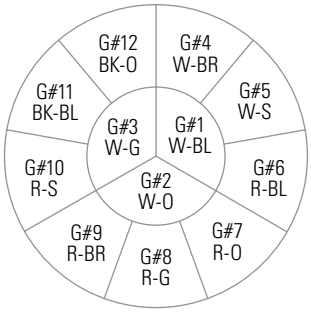
100-Pair Core
1-G25, 3-U12 and 3-U13



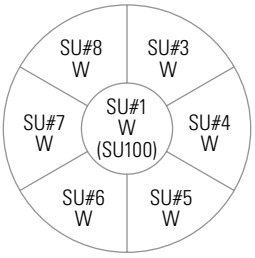
200-Pair Core
1-SU50 and 6-G25



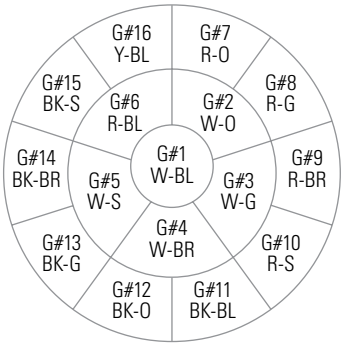
300-Pair Core
6-SU50



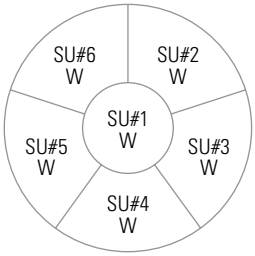
300-Pair Core Alternate
12-G25



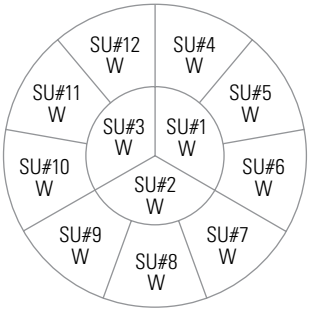
400-Pair Core
1-SU100 and 6-SU50



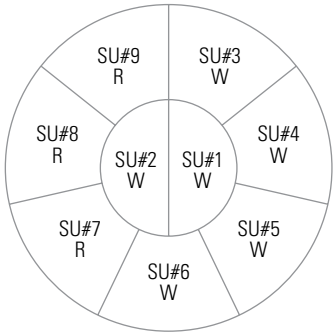
400-Pair Core Alternate
16-G25



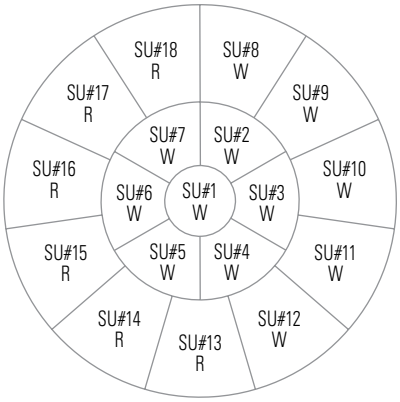
600-Pair Core
6-SU100



600-Pair Core Alternate
12-SU50

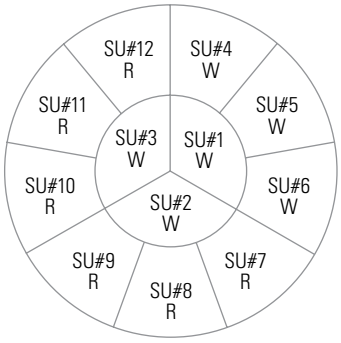


900-Pair Core
9-SU100

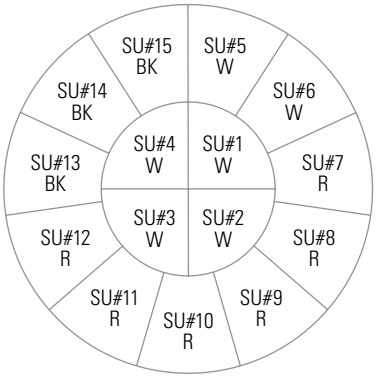


900-Pair Core Alternate
18-SU50

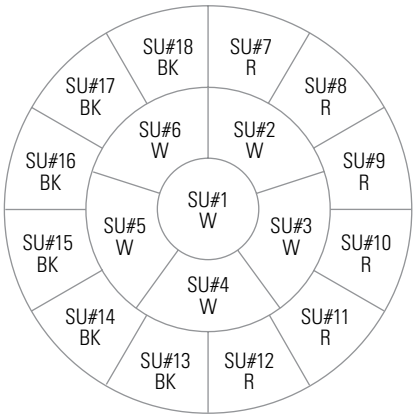
Core Configurations continued...



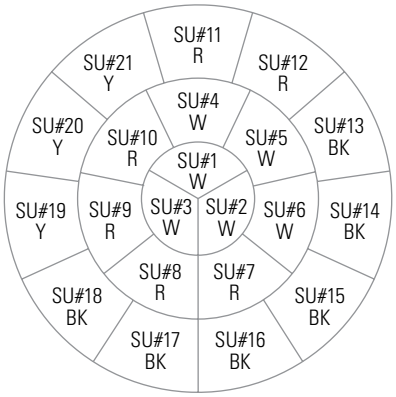
1,200-Pair Core
12-SU100



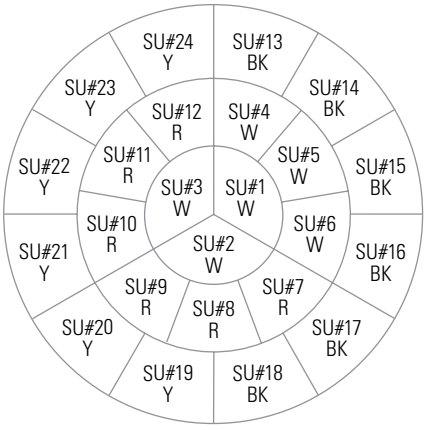
1,500-Pair Core
15-SU100



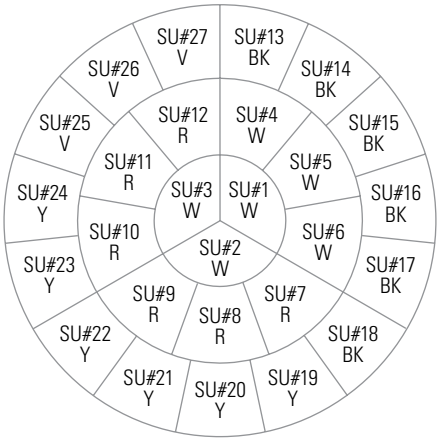
1,800-Pair Core
18-SU100



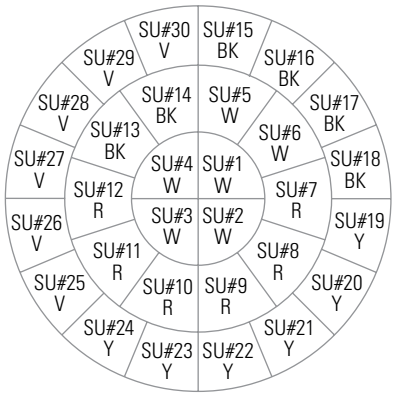
2,100-Pair Core
21-SU100



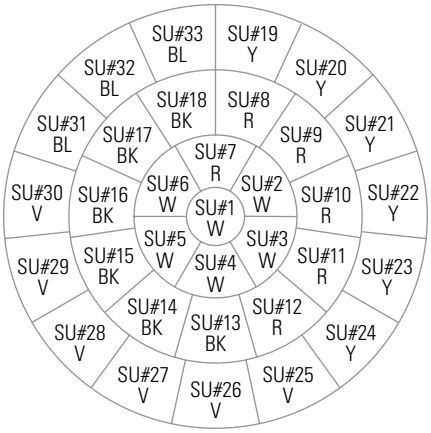
2,400-Pair Core
24-SU100



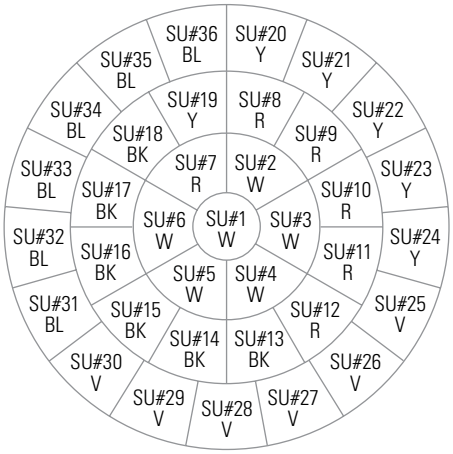
2,700-Pair Core
27-SU100



3,000-Pair Core
30-SU100



3,300-Pair Core
33-SU100



3,600-Pair Core
36-SU100