

## OSP Copper Core Lay-up Diagrams

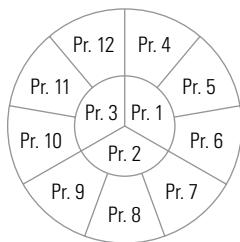
### Full Count

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).

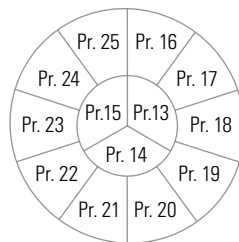
There are two common core configurations for copper cables that are 1,200-pair and larger and constructed with 100-pair super-units. This document addresses the first type "Full Count" binder color coding, based on RUS (RDUP/REA) standards. It is used in the Independent Telco (non-Bell) market. The second 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)

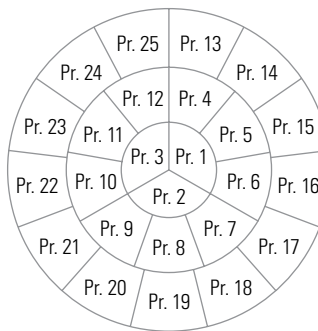


**12-Pair Unit**  
U12



**13-Pair Unit**  
U13

### Group Assemblies (G)

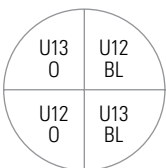


**25-Pair Group**  
G25

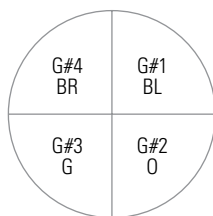
#### COLOR KEY

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

### Super Unit Assemblies (SU)

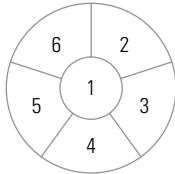


**50-Pair Super Unit**  
SU50 or 2-U12 and 2-U13

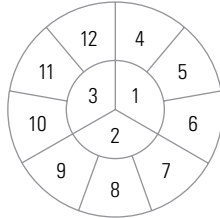


**100-Pair Super Unit**  
SU100 or 4-G25

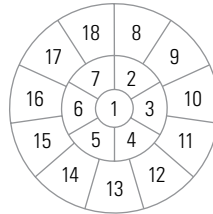
## Core Configurations



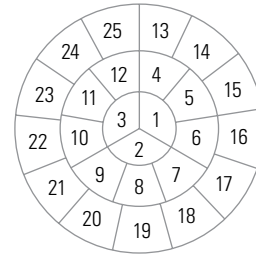
**6-Pair Core**



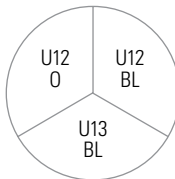
**12-Pair Core**



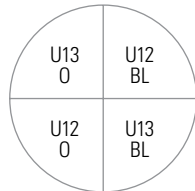
**18-Pair Core**



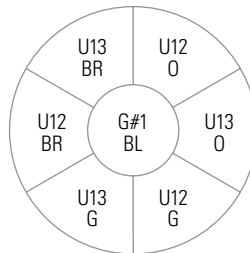
**25-Pair Core**



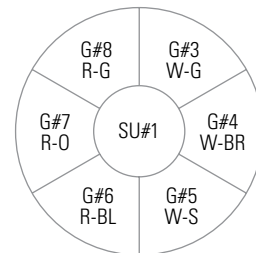
**37-Pair Core**  
2-U12 and 1-U13



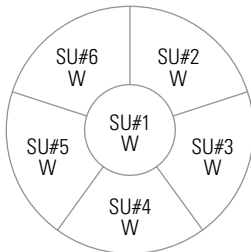
**50-Pair Core**  
2-U12 and 2-U13



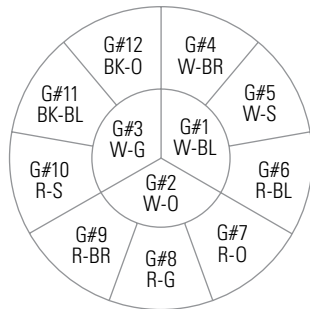
**100-Pair Core**  
1-G25, 3-U12 and 3-U13



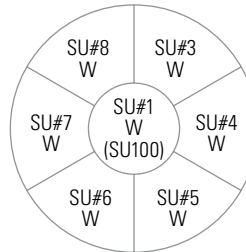
**200-Pair Core**  
1-SU50 and 6-G25



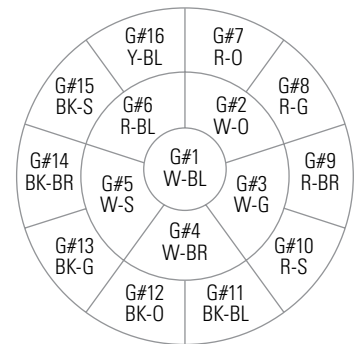
**300-Pair Core**  
6-SU50



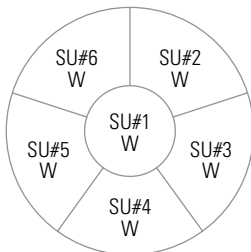
**300-Pair Core Alternate**  
12-G25



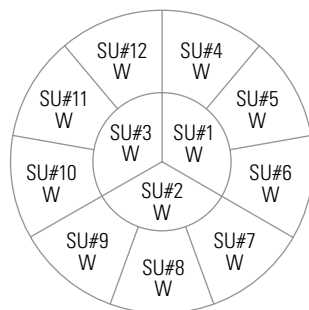
**400-Pair Core**  
1-SU100 and 6-SU50



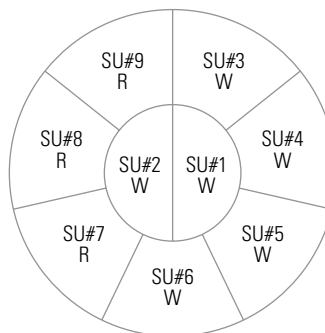
**400-Pair Core Alternate**  
16-G25



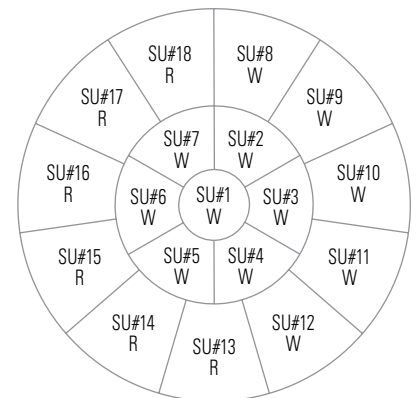
**600-Pair Core**  
6-SU100



**600-Pair Core Alternate**  
12-SU50

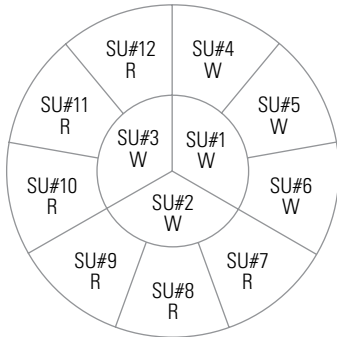


**900-Pair Core**  
9-SU100

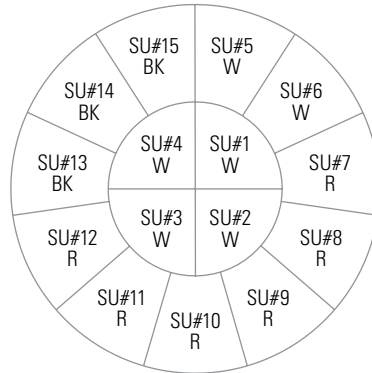


**900-Pair Core Alternate**  
18-SU50

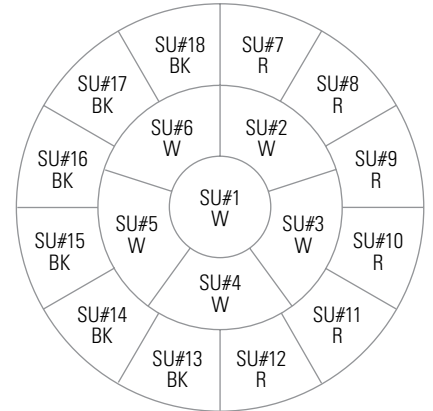
## Core Configurations continued...



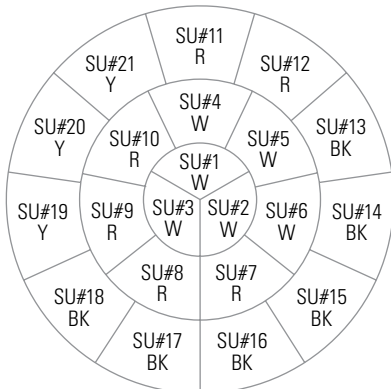
**1,200-Pair Core**  
12-SU100



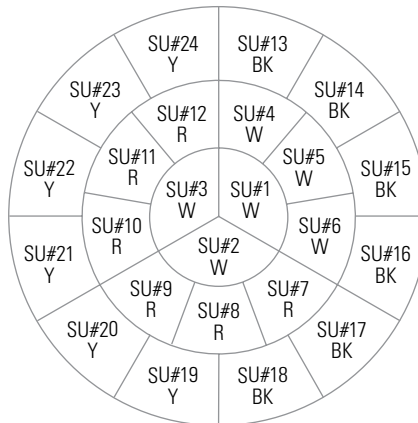
**1,500-Pair Core**  
15-SU100



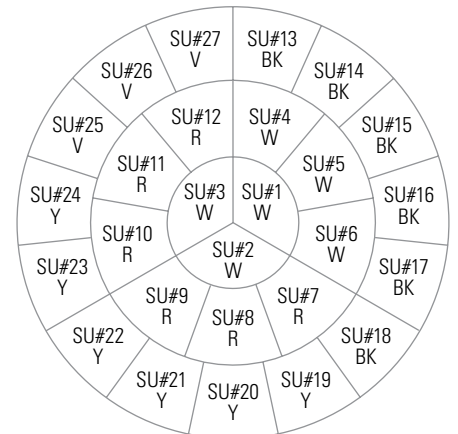
**1,800-Pair Core**  
18-SU100



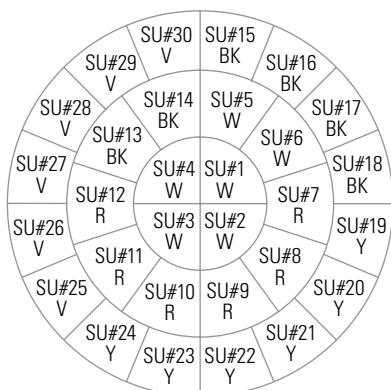
**2,100-Pair Core**  
21-SU100



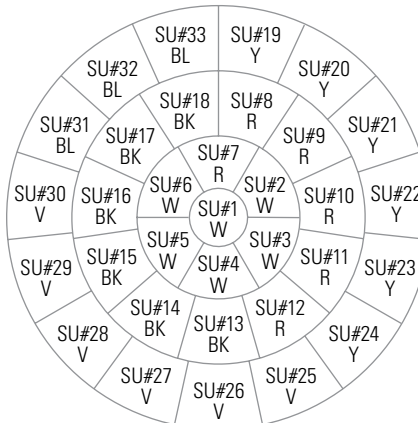
**2,400-Pair Core**  
24-SU100



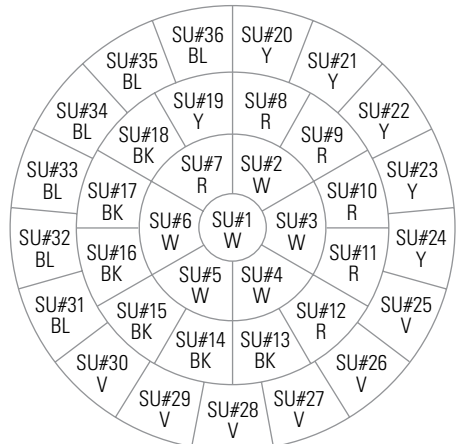
**2,700-Pair Core**  
27-SU100



**3,000-Pair Core**  
30-SU100



**3,300-Pair Core**  
33-SU100



**3,600-Pair Core**  
36-SU100