



Recommended Cabling Practices

Do's:

- Terminate each horizontal cable on a dedicated telecommunications outlet.
- Locate the main cross-connect near the center of the building to limit cable distances.
- Maintain the twist of horizontal and backbone cable pairs up to the point of termination.
- Tie and dress horizontal cables neatly.
- To avoid stretching, pulling tension should not exceed 110N (25 lbf) for 4-pair cables.
- Installed bend radii shall not exceed:
 - 4 times the cable diameter for horizontal UTP cables.
 - 10 times the cable diameter for multi-pair backbone UTP cables.
- Horizontal cables should be used with connecting hardware and patch cords (or jumpers) of the same performance category or higher.
- Avoid cable stress, as caused by:
 - cable twist during pulling or installation
 - tension in suspended cable runs
 - tightly cinched cable ties or staples
 - tight bend radii

Don'ts:

- Do not use connecting hardware that is of a lower category than the cable being used.
- Do not create multiple appearances of the same cable at several distribution points (called bridged taps).
- Do not over-tighten cable ties, use staples, or make sharp bends with cables.
- Do not place cable near equipment (i.e. generators, transformers, engines, medical equipment, etc.) that may generate high levels of electromagnetic interference.
- Do not exceed 90° bend.

Important Note: Installed UTP cabling shall be classified by the least performing component in the link.

Recommended Cabling Practices

Keep bend radius to greater than four times UTP cable diameter



Minimize the number of 90° bends



Never exceed a 90° bend



Minimize amount of jacket twisting



Apply cable ties loosely & at random intervals

Do not over tighten cable ties and avoid applying with periodic spacing

Avoid torn jacket due to over twisting cable during installation and avoid torn jackets due to snags

UTP Connector Terminations

- Pair twists shall be maintained as close as possible to the point of termination.
- Untwisting shall not exceed 75mm (3 in.) for Category 3 links and 13mm (0.5 in.) for Category 5, Category 5e, and Category 6* links.
- Connecting hardware shall be installed to provide well-organized installation with cable management and in accordance with the manufacturer's guidelines.
- Strip back only as much jacket as is required to terminate individual pairs.
- To maintain cable geometry, remove the cable jacket only as much as necessary to terminate the cable pairs on the connecting hardware.

*Category 6 industry standards are currently under development