



***Society of Cable
Telecommunications
Engineers***

**ENGINEERING COMMITTEE
Interface Practices Subcommittee**

AMERICAN NATIONAL STANDARD

ANSI/SCTE 93 2013

**Test Method For
Connector/Cable Twist**

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140 Philips Road
Exton, PA 19341

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1.0 SCOPE

This document details the equipment and procedures required to measure the relative degree of twisting imparted to a coaxial cables when installed into mainline plug connectors specifically.

Trunk and distribution cables meeting ANSI/SCTE 15 2006 and connectors meeting ANSI/SCTE 92 2012 are addressed.

2.0 BACKGROUND

This document provides procedures for evaluation of 2 and 3-piece pin type connectors. While this method can determine the relative degree of twisting imparted to a given cable by the connector under test (CUT), it does not take into consideration those factors that tend to influence cable twist during field installation. Results obtained using this procedure should not be construed to imply that cable twisting would occur similarly in the field.

Some of those mitigating factors are:

- o Connector design
- o Connector/cable alignment
- o Cable construction variations
- o Cable size
- o Plant architecture- aerial or underground.
- o Cable lashing tension
- o Cable clamping hardware

3.0 NORMATIVE REFERENCES

The following documents contain provisions, which, through reference in this text, constitute provisions of the standard. At the time of Subcommittee approval, the editions indicated were valid. All standards are subject to revision; and while parties to any agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents may not be compatible with the referenced version.

- 3.1 ANSI/SCTE 15 2006: Specification for Trunk, Feeder and Distribution Coaxial Cable
- 3.2 ANSI/SCTE 92 2012: Specification for 5/8-24 Plug (Male), Trunk and Distribution Connectors

4.0 COMPLIANCE NOTATION

“SHALL”	This word or the adjective “REQUIRED” means that the item is an absolute requirement of this specification.
“SHALL NOT”	This phrase means that the item is an absolute prohibition of this specification.
“SHOULD”	This word or the adjective “RECOMMENDED” means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighted before choosing a different course.
“SHOULD NOT”	This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
“MAY”	This word or the adjective “OPTIONAL” means that this item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another vendor may omit the same item.

5.0 FIXTURES AND TOOLS

- 5.1 A vise or other holding fixture capable of securing the body subassembly of the CUT in a horizontal orientation. The body subassembly is that section of the connector including the pin and male 5/8-24 threads.
- 5.2 A vise or other holding fixture capable of securing the cable at the end of the test sample opposite the CUT.
- 5.3 Hand tools recommended by connector manufacturer for cable preparation and connector installation.
- 5.4 Torque wrench(es) or other torque device(s) capable of the following:
 - 5.4.1 Pre-torquing main nut and/or back nut subassemblies to 18-22 lb-ins. Example: Utica click type torque sensing adjustable wrench, 10-50 lb-ins., Part #CHA6
 - 5.4.2 Torquing main nut and/or back nut subassemblies to meet the connector manufacturer’s tightening torque or other tightening conditions as specified. Example: Utica click type torque sensing adjustable wrench, 15-75 lb-ft, Part #CH75F