

Technical Tip

CommScope Tri-Shield XpressPrep™ Cables

CommScope's tri-shield XpressPrep™ cables significantly reduce the time normally required for cable end preparation of tri-shield cables while increasing consistency and quality of connector termination. This is accomplished by simplifying cable end preparation through an innovative process of bonding the outer tape to the inside of the cable's jacket. Speed of preparation is improved since the outer tape is cleanly removed by the stripping tool. Consistency is improved because this simplified process eliminates the need for frustrating tape removal procedures and the temptation to cheat the process which can damage the interface.

There are slight differences in cable end preparation for the tri-shield XpressPrep cables compared to a standard tri-shield cable. This Tech Tip will provide a set of recommendations on prepping XpressPrep tri-shield to insure consistent results using both universal tooling as well as tri-shield specific tools.

The steps necessary to prep standard design tri-shield cables are shown in Figure 1. The combination of these four steps can nearly double cable preparation time compared to the time required to prepare a cable end of an equivalent XpressPrep tri-shield cable. When compared to a quad shield cable, XpressPrep tri-shield cable is dramatically faster to prepare, and eliminates the risk of poor connections brought about by frustration with the process.

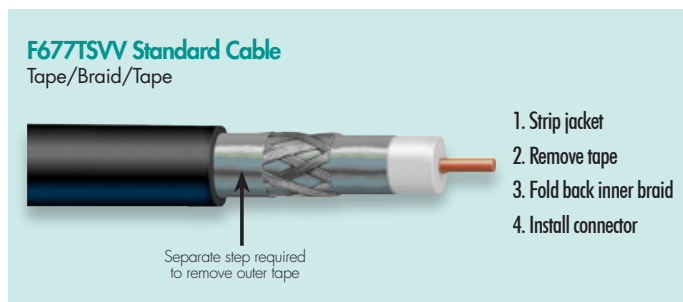


FIGURE 1

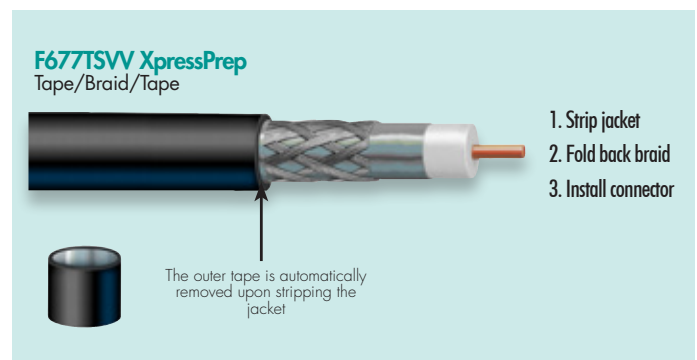


FIGURE 2

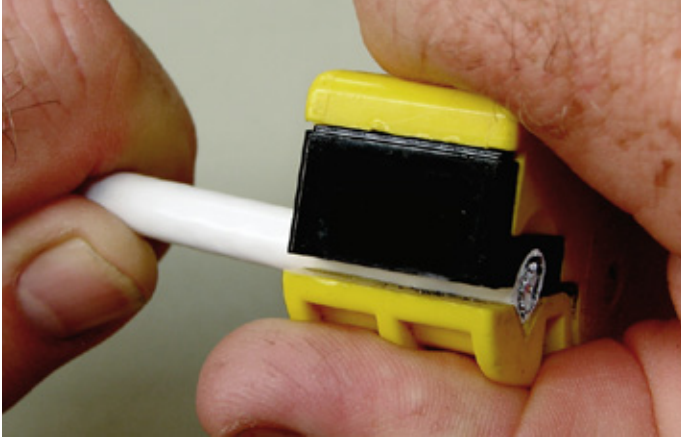
With XpressPrep tri-shield, the bond between the jacket and outer tape of the cable eliminates the additional step of tape removal as the tape is removed with the jacket, thereby simplifying the preparation process as shown in Figure 2 and increasing the likelihood of a clean, even braid distribution. The same preparation tools used for standard tri-shield cables can also be used for the XpressPrep tri-shield cables. However, it should be noted that a majority of preparation tools on the market today accommodate cable sizes and constructions ranging from a F59 series tape/braid to a F6 series quad-shield. This often requires some adjustment in the preparation method used with a tool to ensure the jacket is cut cleanly from the cable end. The XpressPrep tri-shield cable is no different.

Tool Wear Indicator Feature

One feature of XpressPrep is that the cable will notify the installer that their tools are wearing and require blade replacement. Should an installer of a tri-shield XpressPrep cable find that the jacket/tape is not easily removed during cable preparation, the likely problem is a dull blade in the preparation tool.

Prep Method

As with typical cable end preparation, the tool is rotated four 360° rotations in one direction. The illustration demonstrates the prescribed method. This technique will delay cartridge replacement and effectively remove the jacket and tape. Once the blade becomes too dull to cut through both the jacket and outer tape, or as recommended by the tool manufacturer, it is recommended that it be replaced with a fresh blade cartridge. The inability to cut through the tape is clear evidence that a blade requires replacement. Risk of an installer continuing to perform their job with dull tools is reduced in this way.



Install New Blade

The installer should replace a dull blade (i.e. cartridge) with the same model or type recommended for the cable type and tool being used.

Use of Tri-Shield Specific Blade

The installer can replace the dull 'universal' blade with a blade designed specifically for tri-shield cable applications. Tool vendors such as CablePrep (RBC 6590TS) and Ripley (RC EU 250) have replacement cartridges that will fit into the existing preparation tools (The preparation tool itself does not require replacement).

Summary

It is well documented that improper cable termination and connector preparation are major contributors to call backs, maintenance costs and unnecessary subscriber dissatisfaction. CommScope's tri-shield XpressPrep cables significantly reduce the time normally required for cable end preparation of tri-shield cables while increasing consistency and quality of connector termination.

FAQ

How can XpressPrep be so much faster to terminate?

The outer tape in an XpressPrep tri-shield is bonded to the inside of the cable jacket, so when the jacket is scored and removed with a prep tool the outer tape is automatically removed. This eliminates the difficult and time consuming step of removing the outer tape by hand.

How does cable choice affect reliability?

Properly prepared cable is foundational to connection reliability. A cable that is challenging to prepare, like quad shield, will on occasion be prepared incorrectly as installers try to develop shortcuts to make preparation faster and easier. XpressPrep is so fast and easy that no shortcuts are needed, and the cable strips and preps the same way every time.

Why is XpressPrep being presented as "cost effective"?

Product pricing is only one component of the total cost of a drop. Labor is a larger component, and return truck rolls is larger still. XpressPrep reduces labor because of its quicker preparation time, and it can reduce truck rolls due to its improved reliability and repeatability.



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