Universal/Toneable FTTP Cable Applications Guideline

This procedure details the steps to be taken to prepare the ends of a Superior Essex Universal or Toneable FTTP Optical Fiber Cable for splicing. This procedure does not include methods to prepare and splice the fiber or perform splice testing. Cable end preparation and splicing must be performed by personnel trained and familiar with handling of optical fiber cable, components, and splicing accessories. Mishandling of fiber cable can cause damage to the fiber and result in cable length cuts or system degradation.

Materials Required

- Tape measure
- White marker (or equivalent) for marking cable jacket
- Cable knife or utility razor
- Scissors (optional for toneable element)
- Diagonal cutters
- Buffer tube scoring tool
- Aramid shears (for tight buffer version)
- Lint-free wipes
- Fiber optic drop cable slitter (FOD-2000) by Jonard Industries (optional)
Procedure

1. Ensure all required materials are on hand. It is recommended that the processes of cable end preparation, fiber splicing, and splice closure assembly be performed from beginning to end with minimal interruption. If for any reason actions are interrupted, ensure fiber cable end and fibers are adequately protected.

2. Determine end location of cable where the splice point is to be located. If the end of the cable is not capped, cut 3 feet (1 meter) from the end to ensure uncontaminated internal components.

3. Measure and mark the length of cable to be stripped according to the manufacturer’s recommendations for the splice/termination system utilized.

4. If the cable does not contain a toneable element, skip to Step 6. To remove the toneable element, using the cable knife, utility razor or scissors, slice/cut the web between the toneable element and the cable approximately 2 inches (50 mm) at the end of the cable. Do not remove the jacket from the toneable element.

5. Grasping the jacketed toneable element in one hand and the cable in the other, pull the toneable element back on itself, slightly crossing back over the cable, and down the length of the cable to the desired length (at least past the mark created in Step 3.) Leaving the jacket on the toneable element and pulling it close to the cable jacket will ensure more consistent results.
6A. **Using a cable knife or utility razor** and starting at the mark created in Step 3, cut down to the rigid strength member on one side (thin side) and peel away the jacket to the end of the cable. **DO NOT SLIT DOWN THE MIDDLE – THE BUFFER TUBE IS IN THE MIDDLE.**

Repeat for the opposite side of the cable (again the thin side).

6B. **Using a fiber optic drop cable splitter** (Jonard FOD-2000 shown), open tool, slide onto cable and position tool around cable. Close and pull tool. Blades will slit the cable jacket for easy access to components. **NOTE:** This tool can be used for mid span access to cable by separating tool halves and re-assembling at mid span location.

7. Starting at the cable end, separate the jacket from the internal components all the way to the beginning of the cut.

8. Using the diagonal cutters or scissors, cut the jacket away at the mark.
9. Using the diagonal cutters, cut the rigid strength members to the length required by the termination method being used.

10. For tight buffer version, skip to Step 14. To expose fibers, score the buffer tube at the length required by the termination method being used.

11. Gently flex the tube at the score mark to complete the break and remove the free end from the fibers by pulling at the far end of the tube (opposite the break/score).

12. Using a dry, clean, lint-free wipe and firm pressure between the thumb and index finger, wipe the buffer tube filling compound from the exposed fibers. Begin near the buffer tube and work toward the fiber ends.

13. Clean any residue off the buffer tube.
14. **Tight buffer version** – NOTE: If pulling the simplex cable independent of the outer portion of the cable, pull via the aramid yarns underneath the jacket – **DO NOT PULL THE SIMPLEX JACKET.**

![Image of tight buffer version]

15. To expose the tight buffered fiber, ring-cut the simplex jacket at the length required by the termination method being used and slide the jacket off the end of the cable.

![Image of exposing tight buffered fiber]

16. Using the aramid shears, cut aramid yarns to suit.

![Image of cutting aramid shears]

**For the Toneable Element**

1. Using 24 AWG wire strippers, expose the desired amount of toneable element.

![Image of using 24 AWG wire strippers]
Aerial Installation

When using Superior Essex FTTP drop for aerial applications, it is important to select the appropriate fiber optic drop wire clamp. Superior Essex has tested and recommends the MSI - Maclean Senior Industries SI-0972SBL flat fiber optic drop wire clamp. This clamp is intended for use with the following Superior Essex FTTP drops:

- Universal Drop FTTP - Series 6U
- Toneable Drop FTTP - Series 6T
- Universal Flex FTTP - Series 6S
- Toneable Flex FTTP - Series 6R - Series W7U
- Universal FTTP Tight Buffered Indoor/Outdoor Drop - Series W7U
- Toneable FTTP Tight Buffered Indoor/Outdoor Drop / Toneable - Series W7T

¹This guideline is for reference only. Compatibility is not warranted. All part numbers have been verified as accurate at time of publishing, but fiber optic drop wire clamp manufacturers may change their specifications or part numbers without our knowledge.