

IFDF Splicing Cassette

This document has been designed to assist you in preparing and terminating a Loose Tube cable into an IFDF splice cassette. This process applies to a cassette being installed into any position within the frame. Please contact your account manager at AFL if you have any questions or feedback about this product or the instructions.

1. Preparing the Loose Tube cable

- Allow a minimum of 6 metres of cable from point of entry into the top or bottom of the frame. Additional cable slack stored elsewhere is recommended, as cable cannot be stored inside the frame.
- Select the point of entry where the incoming cable will enter the rack. Cables can enter in all 4 corners
- Knockout the blanking plug at this point and fasten a suitable gland to the hole. Cables entering from the bottom of the frame are fed through the opening and fastened to the gland plate.
- Push the cable into the gland, till it is in the required location and mark the cable jacket at point A shown in **Figure 1**. This will be around 50 mm below the gland.
- Remove the cable from the gland and measure the cable to a distance of 6 metres. Cut the excess cable off at this point. Shown as point B in **Figure 1** below
- Remove the sheath material(s), e.g. nylon, polyethylene, PVC etc up to point A. Use the appropriate cable sheath stripper (AFL part number EGE1890) for the removal of nylon and polyethylene sheaths.
- Remove all binding tapes and wrappers.
- Cut away any interstitial fillers and kevlar (aramid yarn).
- Leave 140 mm of central strength member from cable breakout point.
- The use of rubber vulcanising or electrical tape at the cable breakout point is recommended to prevent tube kinking. (AFL part number TMES023) see **Figure 2**.

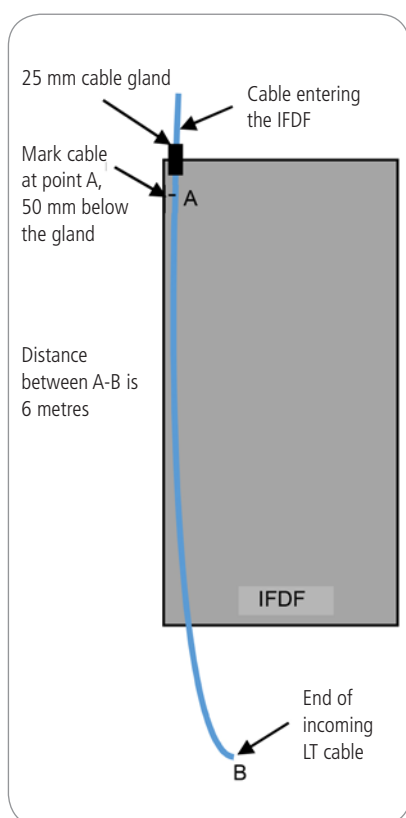


Figure 1.
Measuring the incoming cable

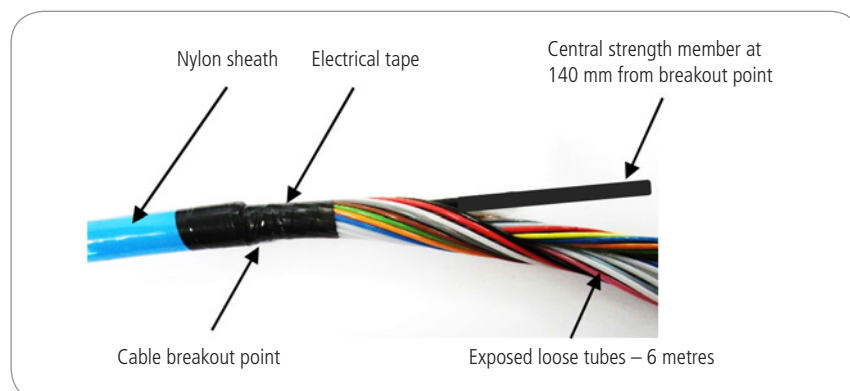


Figure 2.
Preparing a loose tube cable

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2. Installation of Sub-frame modules

- Mount the sub-frame modules into the required locations within the frame.
The frame will need to be prepared prior to being fitted to the frame. The preparation is determined by the location and application of the sub-frame. Please refer to the Installation Guide found in the document holder.

3. Cable Installation

- For cable entering the top of the frame, feed the prepared cable through the 25 mm gland and fasten to the panel with the gland nut.
For cables entering through the base of the frame, feed the prepared cable through the opening and fasten to the gland as shown in **Figure 4**.
Ensure the central strength member is positioned into the post before fastening the gland nut, then secure the locking screw. See **Figure 3**. If cables were to enter from the bottom, the bottom fibre spool can be relocated to the top position.
- At this point, separate all the tubes so they can be accessed individually for splicing
- Feed all the fibre tubes into the outer row of white clips, then around the bottom spool, and up to a point where the cassettes will be terminated. See **Figure 5**.

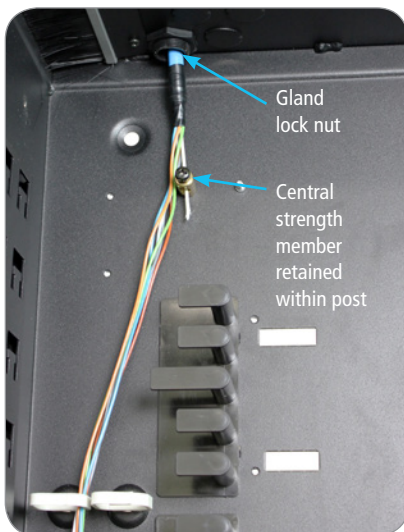


Figure 3.

Securing the incoming cable to the top of the frame

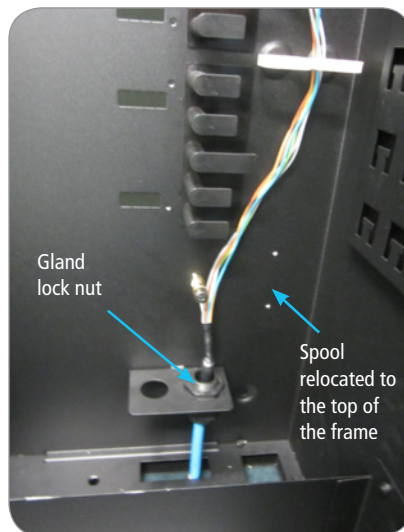


Figure 4.

Securing the incoming cable to the bottom of the frame

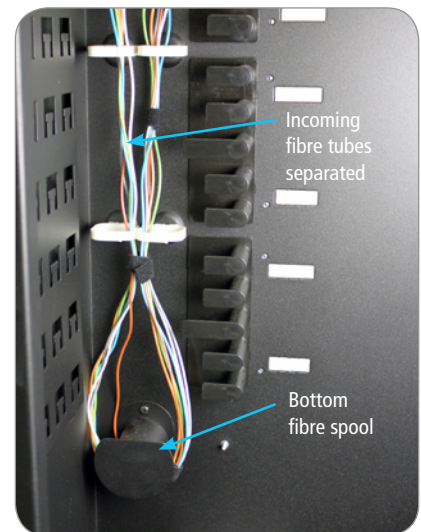


Figure 5.

Separating the fibre tubes

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4. Fibre preparation

- Carefully separate the first pair of tubes from the bundle, to a minimum distance of 2 metres.
Follow the TIA 598 standard fibre colour code. i.e. blue/orange in 1st cassette, green/brown in 2nd cassette etc.
 - Run these separated tubes through the fibre comb opening where splicing is required.
The blue and orange tubes are typically terminated in the top row and the remaining pairs subsequently.
 - Mark the tubes at a distance of 300 mm from the comb. See **figure 6**.
Once they are marked, remove the entire tube length from the management comb and the rack. This will make it easier to complete the tube preparation and splicing process.
 - Carefully remove the tubing at these marks using a loose tube stripper (AFL part number IDE5163) exposing the 250 µm fibres and wipe each fibre clean with alcohol and lint free wipes.
 - Slide the corrugated fibre protection tubing over the exposed fibres and tube, till they are level with the end of the tubes. Fasten the tubes to the splice cassette as shown in **Figure 7** using 2 cable ties.
- The corrugated tubing is provided in 500 mm lengths to protect and prevent the fibre tubes from being kinked.
- Remove the tab at the rear (LHS or RHS) of the cassette to allow the protective tubing to be fitted to the cassette

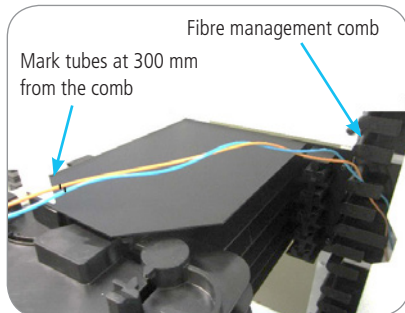


Figure 6.
Marking the tubes

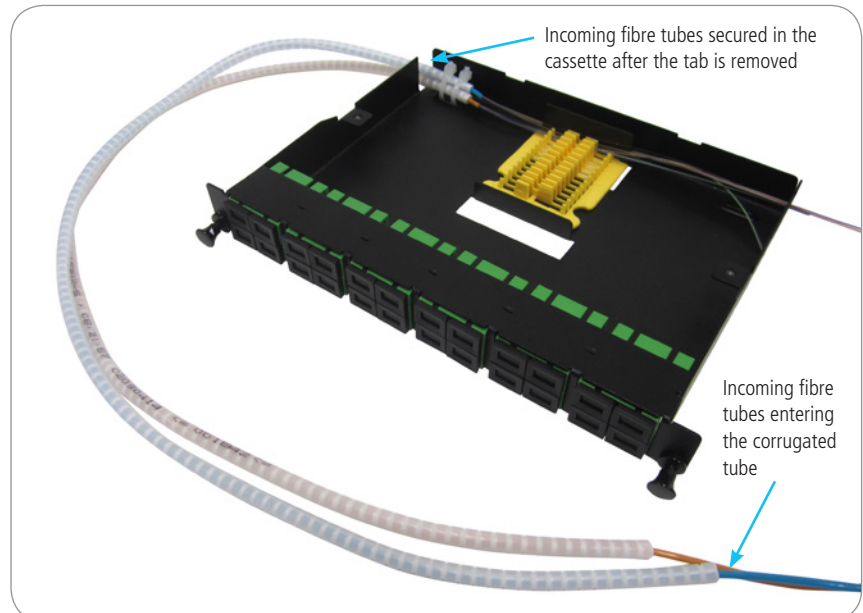


Figure 7.
Splice cassette with fibre tubes attached

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5. Fibre splicing

The following procedure demonstrates the correct method for preparing and splicing pigtails to the incoming loose tube cable. In the example below, there are 24 SCA pigtails being spliced to two incoming 12 fibre loose tubes. It is recommended to install and terminate one 12 pk of pigtails at a time.

Ensure all cleaning and inspection practices are maintained during the splicing and testing process.

- Remove the pigtails from the pack and connect them to the lower row of adaptors using the standard colour code.
- Once all the pigtails are fitted to the adaptors, loom the pigtails around the cassette twice. A small piece of tape will help manage the fibres and keep them neatly routed. Cut the excess fibre near the centre of the splice comb. Repeat this process for the incoming loose tube fibres. See **Figure 8**.
- Splice all fibres in the bottom row of the comb.
- Connect the top row of pigtails to the remaining adaptors and repeat this process for the top row of adaptors

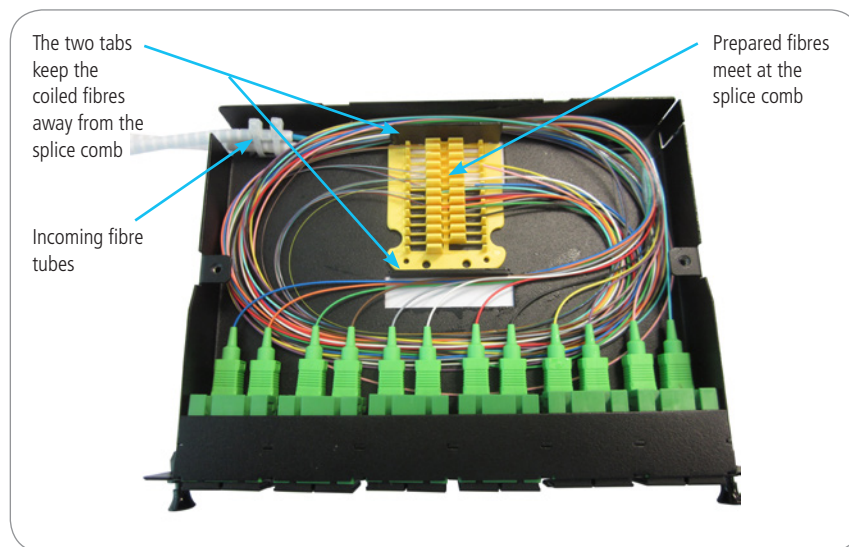


Figure 8.
Preparing the pigtails

- Once all splicing and testing is complete, fasten the lid to the cassette.
- Open the required swing tray and carefully load the cassette into the sub-frame module and secure it using the 2 front push tabs.
- Route the corrugated tube through to the rear of the module and into the rear fibre management comb. See **Figure 9**.
- Load all excess fibre tubes into the white management clips as shown in **Figure 10**.

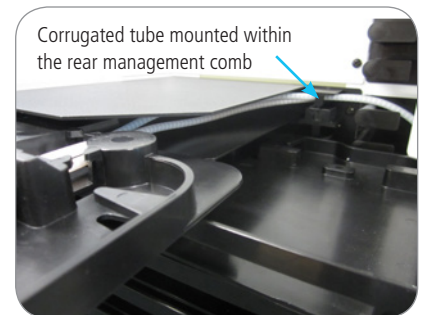


Figure 9.
Installing the spliced cassette

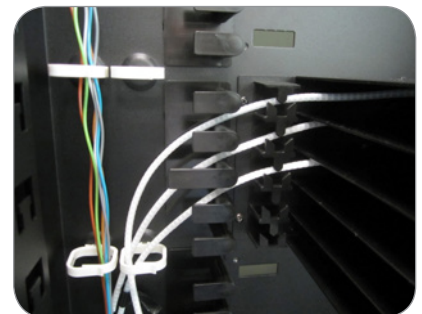


Figure 10.
Storing terminated fibre tubes