Splice On Connectors
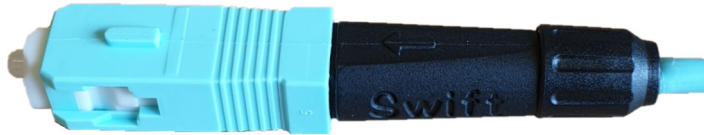
This splice on connector (SOC) series from UCL Swift make field termination of fibre optic connectors easy. SOCs are a low cost alternative to Mechanical Splice Connectors which are expensive at £10 to £15 each and can have a high scrap rate. The UCL Swift KF4A is the splicer of choice for SOCs as it has an all in one facility which uses connector holders and active cladding alignment for low loss results.

The UCL Swift splice on connector system allows you to terminate a connector directly onto a fibre cable. The fibre cable is prepared and placed in a cable holder which is then transported between heat stripper, alcohol cleaning, optical cleaver and finally to the splice position. The ferrule of the splice on connector is placed in a holder and is then stripped, cleaned, cleaved and positioned in the other splicing position. The ferrule is spliced to the cable in the normal way. The assembly is then brought to the heat shrink oven and the heat shrink is shrunk down to protect the splice. The assembly is then taken out and the final assembly of the connector body is carried out. The result is a finished connector assembly completed in around 4 minutes

The splice on connector comes in a small packet and includes a connector body, a factory finished ferrule with fibre stub and back end boot . This splice on connector comes in several connector styles: SC, LC,FC, ST and there is an MPO version for use with ribbon fibre .
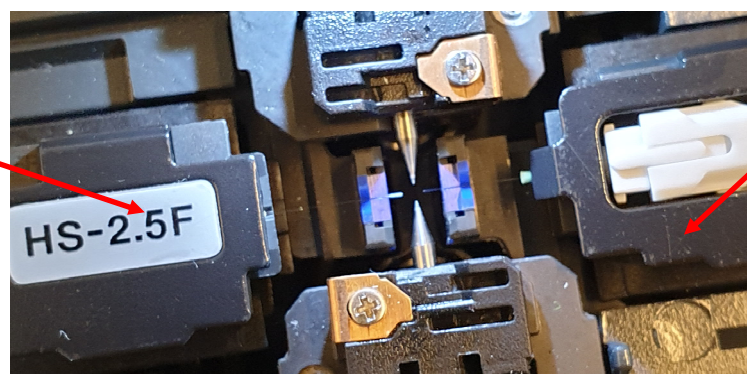
SOC Package

SOC Parts

Connector Front end	Ferrule with fibre stub	Heatshrink	Back end Body	Cable nut
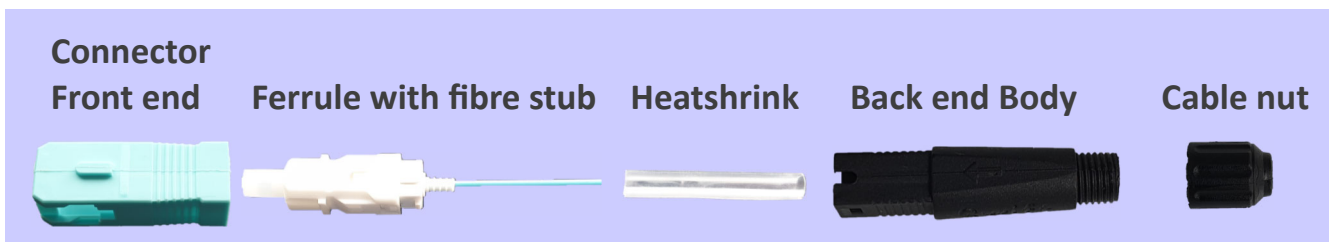
Fusion Splicer

Fibre Cable Holder
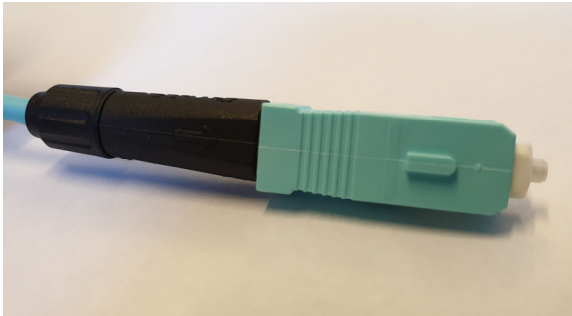
HS-2.5F

Ferrule Holder

First Stage Assembly

Finished Assembly

Finished Assembly
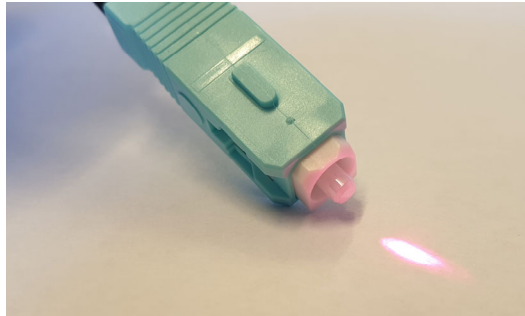
SOC Internal Construction

| Ferrule | Plug Frame | Stop Ring | Ferrule Bush | Fiber | Splice Point | Boot | Fiber | Screw Cap |

| Housing | Spring | | Heat Shrinkable Sleeve | | 2.0mm~3.0mm, Indoor cable(2mm×3mm) |

SOC Features

| SC FC ST LC Common Features	- Telcordia GR-326-core certificated (Mar. 2012) - Splice point is inside of Connector, no need for extra splice fixtures. - Enhanced high quality with improved optical features (Insertion Loss & Return Loss) - Enhanced & improved high Tensile Strength (exceeding 60N) - Satisfy Vertical Burning Test. Materials Compliant with UL94V-0
SC	- In accordance with IEC61754-4, KS C6974(F04), JIS C5973(F04) - Possible to directly splice with drop cable & Indoor cable - Four parts can easily be assembled after splicing by one-touch push-pull system. (optionally tighten a screw)
FC	- In Accordance with IEC61754-13, KS C6970(F01), JIS C5970(F01) - Four parts can easily be assembled after splicing by one-touch push-pull system.
ST	- In Accordance with IEC61754-13, KS C6970(F01), JIS C5970(F01) - Possible to directly splice with drop cable & Indoor cable - Four parts can easily be assembled after splicing by one-touch push-pull system.
LC	- In accordance with IEC61754-20, TIA/EIA604-10-A

SOC Benefits

**Using Pigtail Connectors — Cluttered**
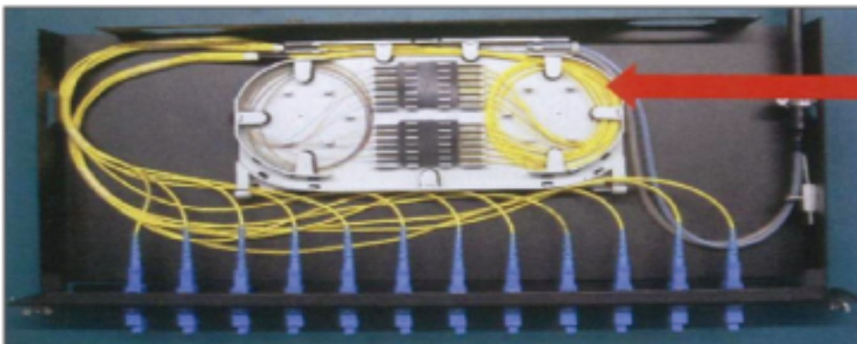
Using Cassettes or splice bridges can lead to a messy or cluttered patch panel.

Using Swift Connectors — Neat result
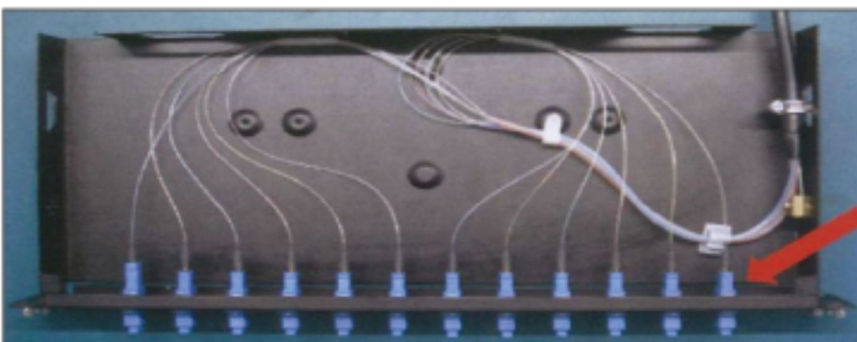
Splice trays and protection sleeves are not necessary, which in turn keeps the space neat and open.

When Splice on connectors are directly connected to cables there is no longer a need for fibre storage or splicing cassettes and bridges.
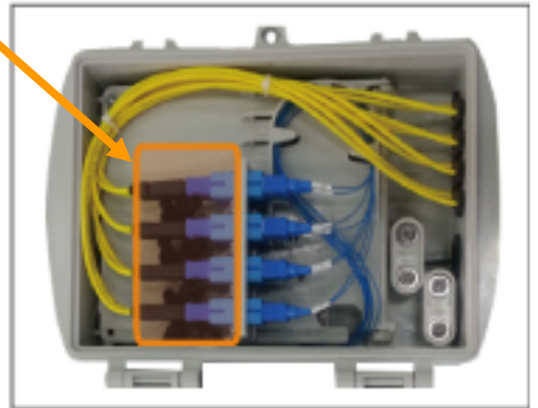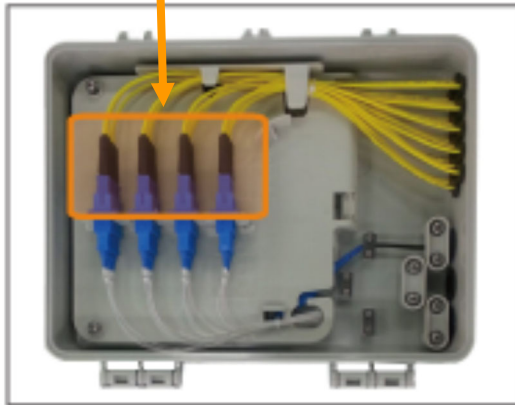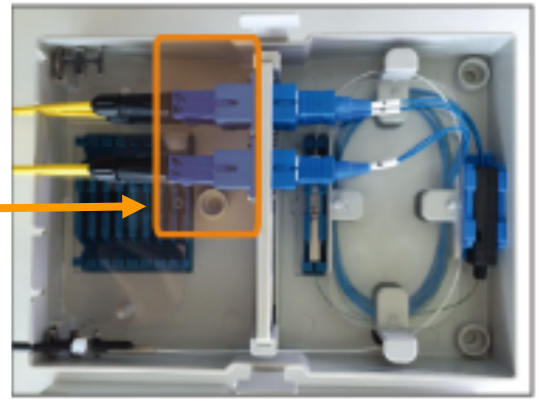
This opens up the possibilities for smaller joints and gives designers and installers greater flexibility.
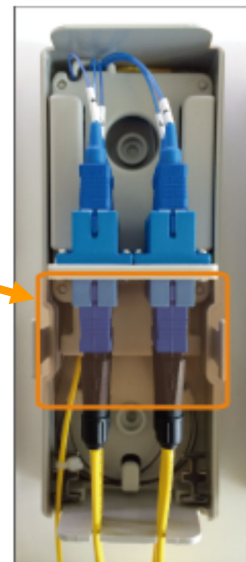
SOC Performance

Connector	Fibre	Polish	Maximum Loss	Average Loss	Return Loss
SC, FC, ST, LC	SM	UPC	<= 0.3dB	<=0.2dB	>=50dB
SC, FC, ST, LC	SM	APC	<= 0.3dB	<=0.2dB	>=60dB
SC, FC, ST, LC	MM	PC	<= 0.3dB	<=0.2dB	

Splice on connector (SOC) Ordering Guide

The SOC Coding is Connector-Fibre-Polish-Cable so an example could be SC-SM-APC-3.0 for an SC, singlemode with APC polish for 3mm jacket.
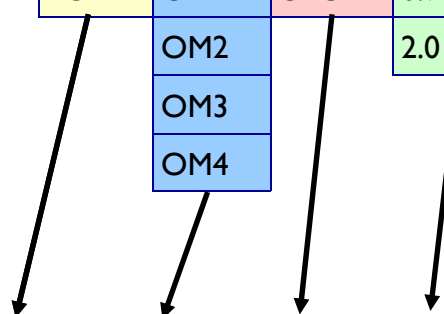
SC FC ST Configurations

Connector	Fibre	Polish	Cable
SC	SM	UPC	0.9
FC		APC	3.0/IN
ST			

Connector	Fibre	Polish	Cable
SC	OM1	UPC	0.9
FC	OM2		3.0/IN
ST	OM3		
	OM4		

LC Configurations (simplex or duplex are available)

Connector	Fibre	Polish	Cable
LC	SM	UPC	0.9
		APC	2.0

Connector	Fibre	Polish	Cable
LC	OM1	UPC	0.9
	OM2		2.0
	OM3		
	OM4		

Example Product Code

LC-OM4-UPC-2.0