The Apex X-2 is a sealed splice closure designed for protecting optical fiber splices in both above- or below-grade applications in a butt configuration. The Apex X-2 is capable of up to 576 single fusion, 1152 mass fusion with standard ribbon, or 3456 mass fusion with "rollable ribbon" fiber types such as AFL's SpiderWeb Ribbon® (SWR®). Cables are sealed by a unique wedge system spaced evenly around the circumference of the closure's base. Each cable seal is opened by a press-to-release lever and sealing is completed by actuating a single screw for each cable. Each cable is sealed individually, ensuring original craftsmanship when cables may be added at a later date. Up to 6 splice trays are attached and hinge off a central organizer. A plastic slack storage basket resides underneath the trays with ample tie down points for managing tube and fiber slack.



#### **Features**

- · Individual cable sealing ports with tool-less release mechanism and gel sealing
- Hinging, lockable splice trays
- Plastic slack storage basket with optional segmented basket to separate ribbon and loose tube slack storage
- Six cable ports with up to six ground lugs
- Capable of up to 16 drop cables with an expressed distribution cable using multi-drop entry kits
- Splice trays with universal splice modules capable of holding single fusion, mass fusion and mechanical splices as well as other devices such as passive optical splitters
- Dome-to-base O-ring seal retained into dome to prevent loss or damage, but is still replaceable if necessary



#### **Specifications**

Parameter	Value		
Dimensions – L x D, in (cm)	25.0 x 12.0 (64 x 30)		
Weight, No Trays – lb (kg)	25 (11.3)		
Splice Capacity – Single, Mass (SWR), Mass (Standard)	576, 3456, 1728		
Splice Tray Capacity	6		
Cable Diameter, Single Port, in (mm)	0.40" - 1.10" (10.0 - 28.0)		
Cable Diameter, Multi-Drop Kit, in (mm)	0.20"-0.39" (5.0-9.9) or flat drop		
Application	Direct Bury, Handhole, Aerial, Pole/Wall		
Testing	Test to and Passed GR-771-CORE 20 ft. Waterhead test		
Operating Temperature	-40°F to 149°F (-40°C to 65°C)		
Shipping Standards	16 per pallet (40x48)		





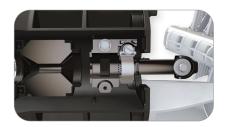
BABA/ BEAD compliant configurations and part numbers indicated where applicable. Non-compliant items may be eligible for BEAD De Minimis waiver. For complete list of compliant part numbers, see AFL BEAD Program Compliant Equipment List: <u>AFLglobal.com/BEAD</u>

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#### **Gel Sealing**

Individual wedges located evenly around the circumference of the base are removed with the press of a button. When cables are in place and ready to be sealed, the gel is compressed by a single screw, decreasing installation time. Individual port seals ensure cables never become unsealed when adding new cables at a later date.



#### **Cable Entry Ports and Strain Relief**

The cable entry ports surrounding the circumference of the base accept single cables from 0.4" to 1.10" in diameter. These ports can be expanded through the use of optional drop cable entry kits, allowing up to 4 flat drops or cables from 0.2" to 0.39" to use a single port. Additionally, each port has the capability to be paired with its own grounding lug if necessary. Closures can be configured with enough strain relief kits for 0 to 6 cables from the factory. For closures with less than 6, additional cables can be added through the use of additional cable strain relief kits sold separately.



#### Slack Storage

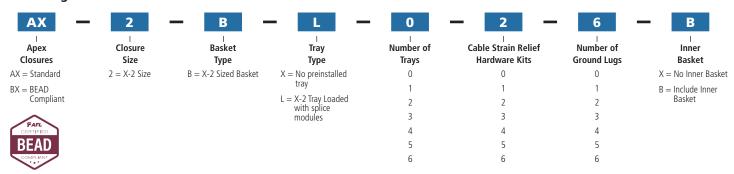
A molded slack storage basket allows for use of the entire cross section of the closure to maximize storage. An optional segmented hinging basket is available to separate ribbon and loose tube slack, and can be locked in the upward position for access to expressed fibers below.



#### **Splice Trays with Modular Splice Holders**

Splice trays are organized in a hinging array that automatically lock when tilted to the upward position for easy access to the splice trays and slack storage below. The universal splice module holds up to 24 single fusion, 6 mass fusion or 12 mass fusion double-stacked when using SWR, or 6 mechanical splices as well as devices such as PLC splitters or OADM devices. This eliminates the need for specifying and stocking multiple splice trays for multiple applications.

#### **Ordering Information**



### **Splice Trays and Splice Modules**

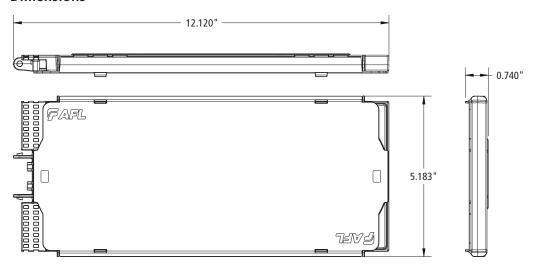
Apex X-2 closures utilize X-2 size splice trays. Trays can be ordered fully loaded or half loaded with splice modules. For "rollable" type ribbon such as AFL's SpiderWeb Ribbon®, trays can be fully loaded for 48 double-stacked mass splices, or 576 fibers total per tray. For standard ribbon, AFL recommends partially loaded for up to 16 mass splices single-stacked, or 192 fibers. Adapter kits available to install FOSC® A-B optical trays.

### **Ordering Information**

Description	Tray Capacity		AFL No.	AFL BABA	
Description	Single	Mass	AFL NO.	Compliant No.	
X-2 Tray Fully Loaded with Four Splice Modules (576 fibers per tray only recommended for rollable ribbon, e.g. AFL SWR)	96**	576*	AX-TRAY-2-4	BX-TRAY-2-4	
Additional splice module (18 single fusion triple stacked, 12 mass fusion double stacked, 6 mechanical) – Pack of 20	-	_	AX-TRAY-MOD-20	BX-TRAY-MOD-20	
X-2 Tray Empty	-	-	AX-TRAY-2-E	BX-TRAY-2-E	
FP-40 40 mm Single Fiber Slim Protection Sleeve	_	_	S018262	NA - May be Eligible for	
FP-60 60 mm Single Fiber Slim Protection Sleeve	-	-	S018263	BEAD De Minimis Waiver	

<sup>576</sup> fibers per tray with mass fusion double-stacking (3456 total closure capacity) only recommended for  $200~\mu m$  type rollable ribbon. For 250 µm, cut capacity in half with single-stacking. When using AFL's Slim Protection Sleeves

#### **Dimensions**









#### **Installation Kits and Accessories**

The AFL Apex closure line has a variety of installation accessories kits to fit many applications. Additional accessories may be available. Contact AFL.











CAU Kit

Ring Clamp Replacement Kit

O-Ring Grease Kit

Wedge Replacement Kit

Foam Retention

### **Ordering Information — Replacement Kits**

Description	AFL No.	AFL BEAD Compliant No.
Replacement Kits		
X-2 and X-2S Single Cable Strain Relief/Cable Attachment Unit (CAU) Kit	AX-KIT-CBLSTRN	
X-2 and X-2S Dome to Base O-Ring Replacement Kit	AX-KIT-ORING-2	
Apex O-Ring Grease, Pack of 10	AX-KIT-GREASE-10	
X-2 and X-2S Dome to Base Locking Ring Clamp Replacement Kit	AX-KIT-CLAMP-2	
X-2 and X-2S Wedge Replacement Kit	AX-KIT-WEDGE-2	NA - May be Eligible
X-2 and X-2S Inner Base Gel Replacement Kit	AX-KIT-GEL-2	for BEAD De Minimis
X-2 Basket and Yoke Assembly Kit. Can be used in combination with the basket cover.	AX-KIT-BASKET-2	Waiver
X-2 Inner Basket Kit	AX-KIT-SBASKET-2	
X-2 Dome Replacement Kit	AX-KIT-DOME-2	
WTC-SWR Bundle Splice Tray Retention Kit - Includes 25 foam grommets for retaining SWR bundles to splice trays	HW000406	
Velcro, 75 Foot Length Roll – For securing SWR bundles in the slack basket	FC001759	







Apex Pole/Wall Mount



Adjustable Aerial Hanger Bracket



X-2 and X-2S Installation Stand



Universal Installation Stand

### Ordering Information — Accessories

Description	AFL No.	AFL BEAD Compliant No.	
Accessories			
Aerial strand mount hanger kit	AX-KIT-AERIAL-1	BX-KIT-AERIAL-1	
Pole/wall mount kit	AX-BR30	BX-BR30	
Adjustable Aerial Strand Mount Hanger kit	AX-KIT-AERIAL-ADJ	BX-KIT-AERIAL-ADJ	
ADSS Aerial hanger brackets	AX-KIT-AERIAL-ADSS	BX-KIT-AERIAL-ADSS	
Multi-Drop Cable Entry Kit (fits up to 4 cables 0.20" to 0.39" in diameter or flat drop cable)	AX-KIT-DROP-4	NIA Maulas Elisible for	
X-2 and X-2S Installation Stand	FC104649	NA - May be Eligible for BEAD De Minimis Waiver	
Apex Universal Installation Stand	AX-KIT-U-STAND		

### **Installation Accessories (cont.)**







Silicone Spiral Wrap



AFRS Kit 1



AFRS Kit 2



A-B Tray Adapter Kit



SC Bulkhead Adapter Kit



Replacement Slack Storage Basket Tabs

### Ordering Information — Accessories (cont.)

Description	AFL No.	AFL BEAD Compliant No.
Accessories		
Apex Cable Bonding Kit (Bonds armored cable sheath to ground) – Pack of 10	AX-KIT-GROUND-10	
Apex Internal Multiple Ground Bonding Kit	AX-KIT-GNDLD-5	
1/4" Colored Mesh Transition Tubing, 250' Spool (*Replace "XX" with color per TIA-598 color code - BL, OR, GN, BR, GY, WH, RD, BK, YL, VI, NP or PP)	AX-KIT-TUBE-014-XX*	
Silicone Spiral Wrap, 5.5 Foot Length	FC001657	
Apex Advanced Fiber Retention System (AFRS) Kit 1 – Used for Ribbon Cable (Flat Matrix, SWR, Tubed, Central Core). Kit includes: Mesh Basket Adapter (2 ea.), Mesh Housing (2 ea.), Mesh Insert (24 ea.), V-Clips (12 ea.), and Clean Cut Gray Mesh (13 ft.).	AX-KIT-AFRSRBN	
Apex AFRS Kit 2 — Used for Loose Tube Cable. Kit includes: V-Clip (24 ea.) and Retention Pads (6 sheets of 8 pads)	AX-KIT-AFRSLT	
Apex AFRS Kit 3 – V-Clip bulk kit. Includes: V-Clips (120 ea.) and Mesh Inserts (120 ea.)	AX-KIT-AFRSVC-120	
Apex AFRS Kit 4 – Mesh bulk kit. Includes: Clean Cut Gray Mesh (100 ft.)	AX-KIT-AFRSMESH-100FT	NA - May be Eligible
Apex AFRS Kit 5 — Mesh Housing bulk kit. Includes: Mesh Basket Adapter (10 ea.) and Mesh Housing (10 ea.)	AX-KIT-AFRSAH-10	for BEAD De Minimis Waiver
Apex AFRS Kit 6 – Mesh Basket Adapter bulk kit. Includes: Mesh Basket Adapter (10 ea.)	AX-KIT-AFRSA-10	
Apex Restoration Kit, 1000' of 144F Non-Armored Wrapping Tube Cable (Apex X-2S is in Restoration Kit)	AX-2S-B-L-4-4-4-X-1R1000F	
Apex A-B Tray Adapter Kit, 1 Kit of 6 pieces	AX-ADPTR-ABTRAY-6	
Apex A-B Tray Adapter Kit, 10 Kits of 6 pieces	AX-ADPTR-ABTRAY-60	
Apex Bulkhead Kit with Plate SC/APC Adapters, 1 kit	AX-TRAY-ASC	
Apex Bulkhead Kit with Plate with SC/UPC Adapters, 1 kit	AX-TRAY-USC	
Apex Bulkhead Kit with Plate SC/APC Adapters, 6 pc kit	AX-TRAY-ASC-6	
Apex Bulkhead Kit with Plate SC/UPC Adapters, 6 pc kit	AX-TRAY-USC-6	
Apex Replacement Slack Storage Basket Tabs — Pack of 25	AX-KIT-BTAB-25	

### **Splitter Splice Trays**

Passive optical splitters, or PLCs (Planar Lightwave Circuits), can be provided preinstalled into the Apex X-2 splice tray. PLCs can either be installed and splice within the same tray, or provided with a separate dedicated tray for splicing, with fibers routed between trays using protective tubing. A third option provides one additional tray to separate input and output fiber splicing.



#### **Ordering Information**

Description	Split Ratio	AFL No.	AFL BEAD Compliant No.
Splitter Modules for Splice Trays			
X-2 Tray with Four Splice Modules, (1) 1x2 PLC Splitter	1x2	AX-TRAY-2-12-1	AX-TRAY-2-12-1
X-2 Tray with Four Splice Modules, (1) 1x4 PLC Splitter	1x4	AX-TRAY-2-14-1	AX-TRAY-2-14-1
X-2 Tray with Four Splice Modules, (1) 1x8 PLC Splitter	1x8	AX-TRAY-2-18-1	AX-TRAY-2-18-1
X-2 Tray with Four Splice Modules, (1) 1x16 PLC Splitter	1x16	AX-TRAY-2-116-1	AX-TRAY-2-116-1
X-2 Tray with Four Splice Modules, (1) 1x32 PLC Splitter	1x32	AX-TRAY-2-132-1	AX-TRAY-2-132-1
X-2 Tray with (1) 1x2 PLC Splitter and Separate Splicing Tray with Four Splice Modules	1x2	AX-TRAY-2-12-2	AX-TRAY-2-12-2
X-2 Tray with (1) 1x4 PLC Splitter and Separate Splicing Tray with Four Splice Modules	1x4	AX-TRAY-2-14-2	AX-TRAY-2-14-2
X-2 Tray with (1) 1x8 PLC Splitter and Separate Splicing Tray with Four Splice Modules	1x8	AX-TRAY-2-18-2	AX-TRAY-2-18-2
X-2 Tray with (1) 1x16 PLC Splitter and Separate Splicing Tray with Four Splice Modules	1x16	AX-TRAY-2-116-2	AX-TRAY-2-116-2
X-2 Tray with (1) 1x32 PLC Splitter and Separate Splicing Tray with Four Splice Modules	1x32	AX-TRAY-2-132-2	AX-TRAY-2-132-2
X-2 Tray with (1) 1x2 PLC Splitter and 2 Separate Splicing Trays with Four Splice Modules each	1x2	AX-TRAY-2-12-3	AX-TRAY-2-12-3
X-2 Tray with (1) 1x4 PLC Splitter and 2 Separate Splicing Trays with Four Splice Modules each	1x4	AX-TRAY-2-14-3	AX-TRAY-2-14-3
X-2 Tray with (1) 1x8 PLC Splitter and 2 Separate Splicing Trays with Four Splice Modules each	1x8	AX-TRAY-2-18-3	AX-TRAY-2-18-3
X-2 Tray with (1) 1x16 PLC Splitter and 2 Separate Splicing Trays with Four Splice Modules each	1x16	AX-TRAY-2-116-3	AX-TRAY-2-116-3
X-2 Tray with (1) 1x32 PLC Splitter and 2 Separate Splicing Trays with Four Splice Modules each	1x32	AX-TRAY-2-132-3	AX-TRAY-2-132-3