INSTALLATION INSTRUCTIONS

AFL Apex® X-3 Sealed Splice Closure

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PACKAGE CONTENTS

Apex Closure
Cable Attachment Unit Kits - as ordered
Splice Trays installed in Apex - as ordered
X-3 Tray Brake
Shield Bond Kit included in CAU Kit

Installation Kit
3/8" Velcro®
Installation Instructions
Grease Packet

REQUIRED TOOLS

216 can wrench
Tape measure
Tie wrap or Velcro for basket retention
Wire cutter for strength member
Splicer's scissors
Splice equipment and sleeves
Cable entry tools
Cable stripper
Cable splicer knife
9" Lineman's pliers

Optional Consumables
AFL Foam Retention Kit (pack of 25 - AFL no. HW000406)
Mesh transition tube, if desired (AFL no. AX-KIT-TUBE-014-XX*)
Silicone spiral wrap (AFL no. FC001657)
Advanced Fiber Retention System Kits

*Replace "XX" with any of the following for colors per the TIA-598 color code:
BL, OR, GN, BR, GY, WH, RD, BK, YL, VI, NP or PP

ADDITIONAL KITS

Kits and other accessories are available for the Apex X-3 Closure.
See Apex X-3 specification sheet for ordering information.

For complete installation instructions and videos on the Apex X-3, scan the QR code below.

Apex X-3 web page

Scan this QR code for AFL's Apex Classroom Video Series.

Apex Classroom Video Series

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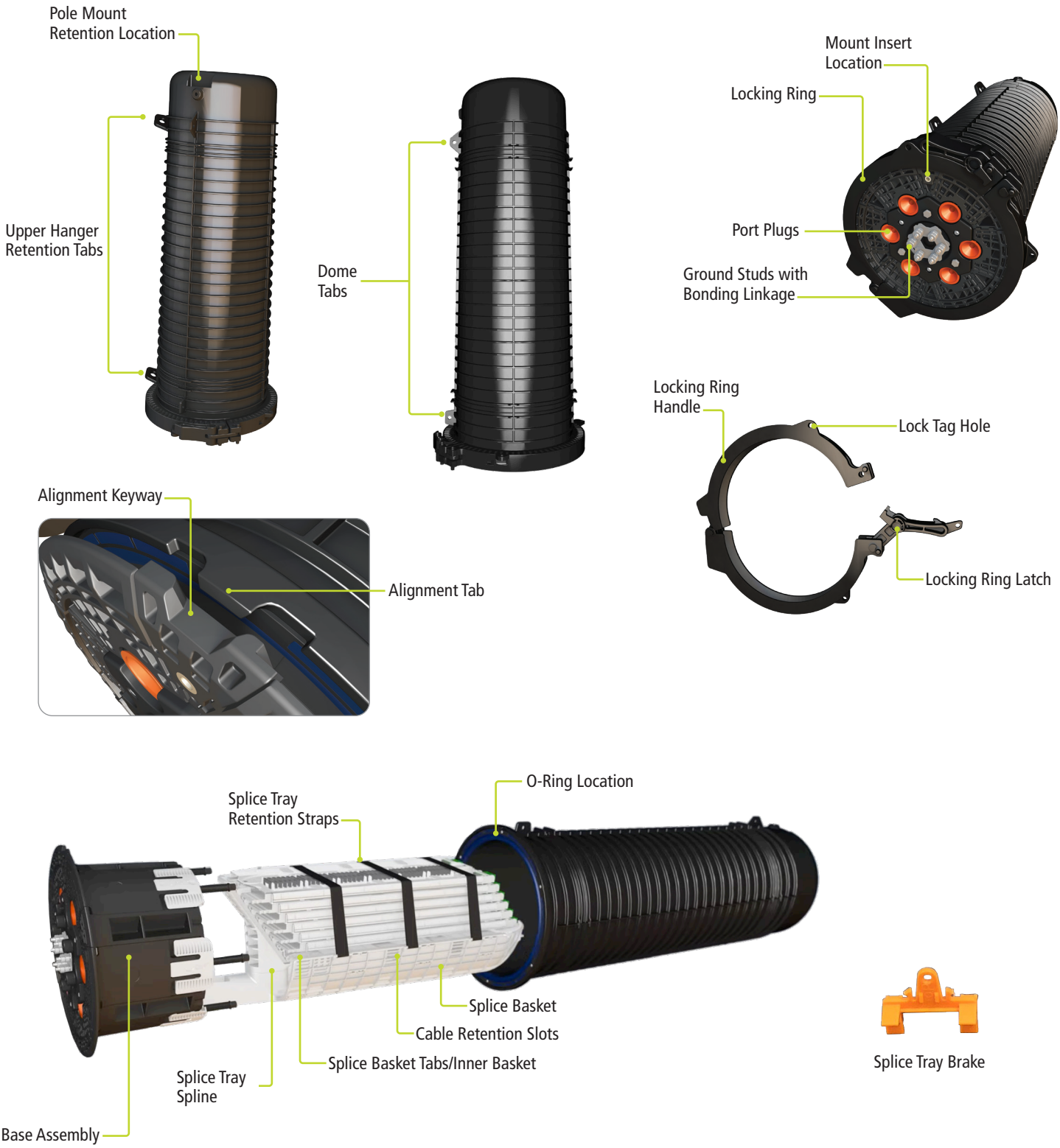

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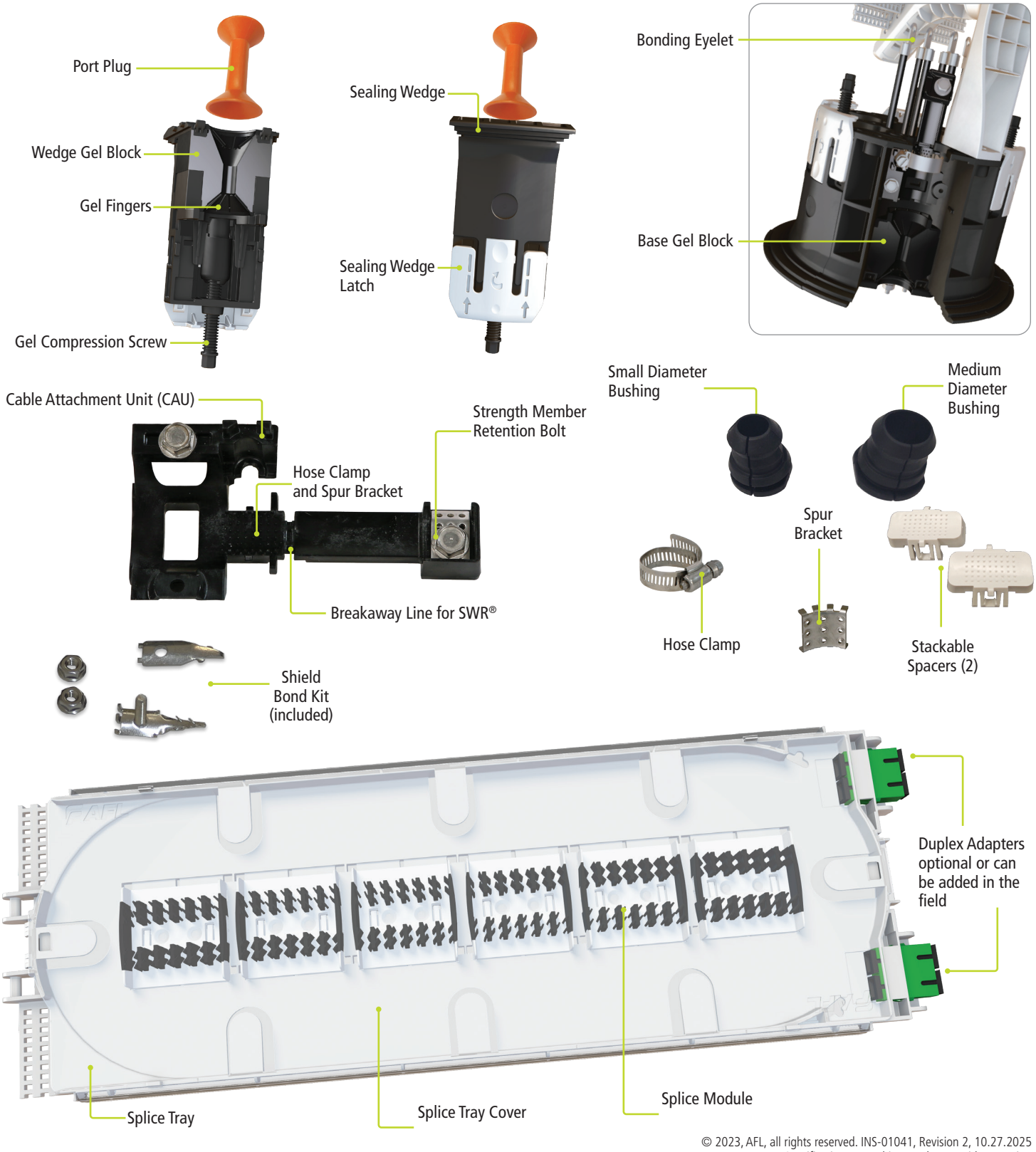

OPENING APEX

1. Release pressure valve to ensure no pressure or vacuum is present. **(Figure 1)**
2. Disengage locking ring.
3. Pull lock ring handle to disengage. **(Figure 2)**
4. Disengage lock ring latch.
5. Set aside Lock ring.
6. Orient Apex to have mount insert alignment tab up. **(Figure 3)**
7. Slide Apex dome off base and take care to keep attached dome O-ring seal area clean.
8. Install Apex into optional Universal Installation Stand. **(Figure 4)** *Skip to line 12 if not using installation stand.*
9. Ensure universal stand is configured for X-3. **(Figure 4A)** Align mount insert\alignment tab on top in center, basket down.
10. Set Apex on stand with base secured in stand.
11. Engage both retention clamps on base.
12. Undo splice tray retention straps.
13. Remove splice trays if installed at the factory.
14. If trays are installed from the factory, raise tray to a 45 degree angle. Gently rock the tray side-to-side until it releases from both hinges. Do not force it. It is designed to release at a certain angle. **(Figure 5)**
15. Using the same process, remove the inner basket if installed. **(Figure 6)**
16. Loosen stand retention clamps to install backbone cable in port 1 and port 2. Rotate Apex to have basket on top, mount insert at bottom, and re-engage stand retention clamps.

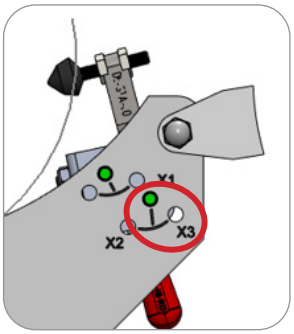

Figure 4A

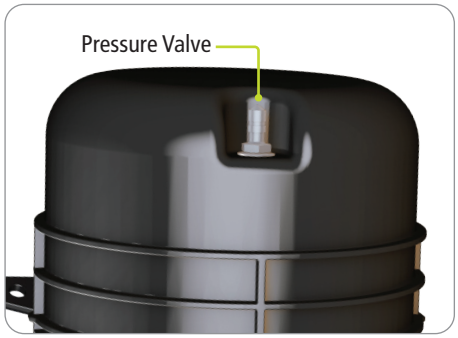

Figure 1

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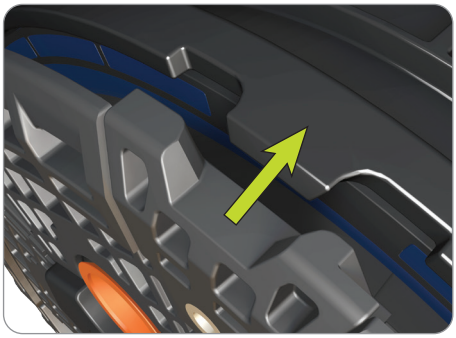

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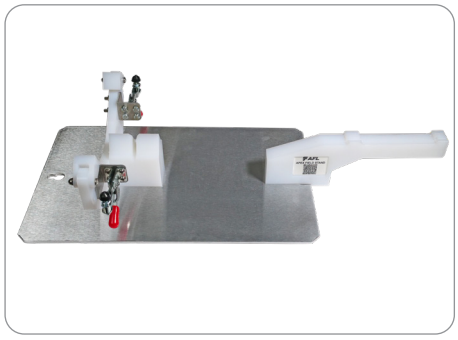


Figure 4

Figure 5

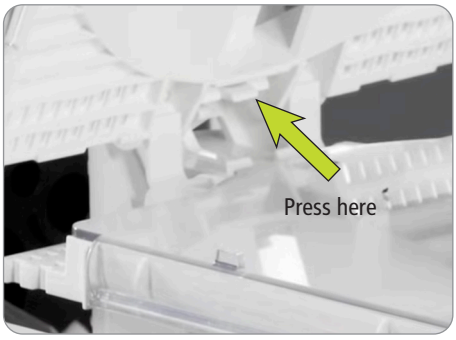


Figure 6

SEALING WEDGE REMOVAL

For the port to install a cable:

1. Confirm gel compression screw is not engaged. Then depress sealing wedge latch and slide fully-loosened wedge cover toward the base. **(Figure 7)**
2. Rotate wedge away from base pivoting at the base of the wedge.
3. Rotate until the wedge tabs disengage from the base.

Tip: Hold tip of orange plug in base when opening wedge.

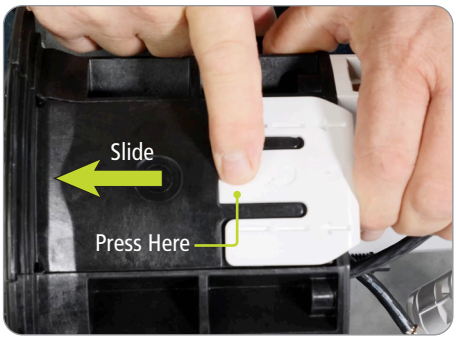
4. Take orange port plug and discard after installation is complete. **(Figure 8)**
5. Ensure the base gel remains secure in the base.

If it becomes separated, simply re-install making sure the lower fingers engage properly in the base.

6. Manually compress the base gel block. **(Figure 9)**
7. Confirm that sealing wedge gel compression screw is fully open.
8. Manually elongate wedge gel block. **(Figure 10)**
9. Set aside in a safe location.

If either gel block is contaminated with dirt or debris, simply rinse gel block with water.

Do not close the Apex wedge to base and then insert orange port plug. The orange port plug must be in place when closing the wedge.



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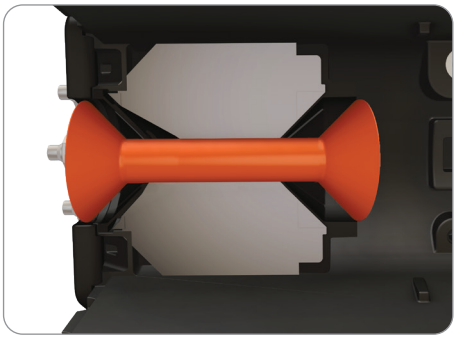


Figure 8

Figure 9

Figure 10

CABLE PREPARATION

Cable diameter, single port, 0.40" - 1.46" (10.16 - 37.084 mm)

Cable diameter, multi-drop kit, 0.20" - 0.39" (5.0 - 9.9 mm) or flat drop

SPACER TABLE

BUSHING	SPACERS REQ'D	CABLE DIAMETER
Small Bushing	2 Spacers	0.4" to 0.57"
Medium Bushing	1 Spacer	0.57" to 0.825"
No Bushing	No Spacers	0.825" to 1.46"

LENGTH TABLE

CABLE /COMPONENT	TYPE OF OPENING	APEX X-3
Prep Length		**(in.)**
Wrapping Tube Cable (WTC)/Non Matrix Ribbon	Mid sheath	210-240
	End cut	110-125
Flat Matrix Ribbon	Mid sheath	148*-188
	End cut	74*-114
***Loose Tube fiber	Mid sheath	220-250
	End cut	110-125
All cable types	Sheath to tray	58
CSM or strength members (Non SWR®)		2 to 2 1/4
Storage		
Each additional basket storage loop		38-40
Each additional Splice tray service loop		39
Sheath to basket for tube retention		8-9
Definition		
Midsheath	Slack loop in basket, service loop in tray, center cut	
End cut	Slack loop in basket, service loop in tray, to far splice location	
Sheath to tray	Slack loop in basket	
* Ribbon minimum is slack loop in basket, no slack waterfall splicing in tray		
** Minimum. No service loop in splice tray – maximum allowing for service loop in splice tray		
*** LT storage max tubes	Additional tubes will decrease cable lengths	36 tubes

AFL Wrapping Tube Cable (WTC)

- No need to secure strength rods.
- Strength rods bound in place should be installed parallel to the basket in all ports.
- 8-11" of dielectric sheath or water block tape can be brought to basket.

Flat matrix ribbon including tubed ribbon fiber

- Core tube or ribbon tube should extend from the sheath opening to be secured on the basket.
- Ribbon should be exposed from that point.
- Do not route tubed ribbon in Apex basket.

Loose tube and Jettable Micro Cable

- Tubes should be secured at basket entrance and again at basket exit to splice tray.
- Returning loose tube cable to original stranding lay will be more efficient to store and help prevent kinking.

CABLE ATTACHMENT UNIT (CAU)

Parts of the CAU (Figure 11 and 12)

- Sheath end
- Hose clamp gear nest in CAU
- Strength member retention bolt
- Alignment tab on back
- SWR breakaway line
- Spur bracket
- Small diameter cable (0.40" to 0.57") Bushing
- Medium diameter cable (0.57" to 0.825") Bushing
- Stackable Spacers (quantity 2)
- Shield Bond Kit

Strength member (single or dual) trim to 2-2 ¼" as needed.

Cable must be clean and free of all tape, dirt or contamination for proper sheath retention and sealing.

For WTC/SWR

1. Remove by hand, the strength member retention from the CAU at the breakaway line by hand. **(Figure 11)**
2. Armored WTC sheath will end at the CAU sheath end location.
   - Armor bond tab should be at 90 degrees to the CAU. **(Figure 13)** See page 19 for Apex Shield Bond instructions.
3. Dielectric WTC or water block tape may be brought all the way to the basket.

For Flat Matrix and Loose Tube Cable

1. Sheath should be installed even with (or beyond) the breakaway line.
2. Secure strength members under retention bolt without trapping or pinching tubes. **(Figure 14)**

Bushing Test for Small (<0.57") and Medium (<0.825") Diameter Cable

****NOTE: A spacer and bushing are not needed when using a multi cable drop kit.**

1. Test if Spacer and Bushing are needed by putting the small diameter cable bushing on the fully-jacketed cable.
   a. If the seams touch, you will use the small diameter Bushing and both Spacers stacked. **(Figures 14A and 14B)**
   b. If the seams do NOT touch, test the medium diameter bushing the same way. **(Figure 14C)**
2. If the seams touch, you will use the Medium diameter Bushing and a single Spacer. **(Figures 14A and 14B)**
3. Simply snap the spacer(s) on the CAU as shown in **Figure 14**. It is universal and may be installed in either direction. Ensure the spacer is secured and clipped on both sides of the CAU.
4. Continue with installation of Cable and utilize the small diameter cable bushing after wedge is in place but before it is tightened as directed.

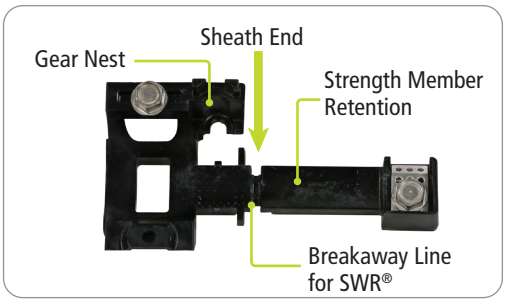
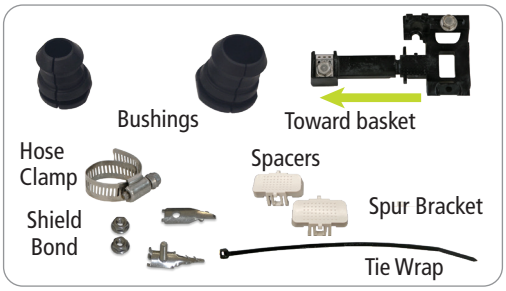


Figure 11



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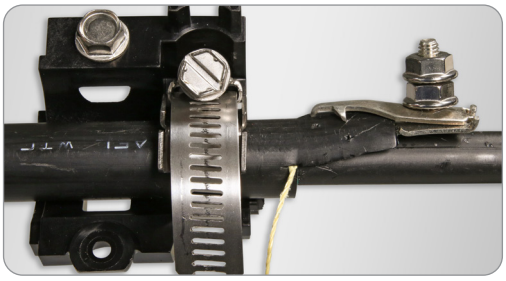

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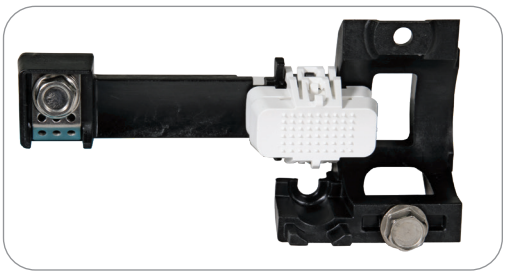


Figure 14

Figure 14A

Figure 14B

Figure 14C

Spur Bracket Orientation under Hose Clamp

1. The spur bracket **MUST** be installed completely under the hose clamp ring at the top of the cable. This will be the same with or without a spacer. **(Figure 15A)**
   Figure 15B shows small diameter cable with the spacer installed , spur bracket at the top of the cable and the hose clamp.

Figure 15A

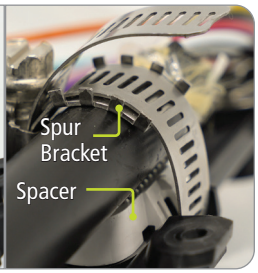


Figure 15B

For WTC/SWR or other preferential bend cable, the strength rods should be parallel to the basket for all cables entering the closure. This aids with the natural direction and ease of coiling all cables.

For mid-sheath on all WTC / SWR binders and tubed flat matrix ribbon, ensure there is no twisting in the mid sheath opening that occurs to trap groups in the splice basket.

For all Thin-Walled Jettable Micro Cable

1. Install hose clamp without the spur bracket on any jettable Micro Cable **(Figure 15C)**.

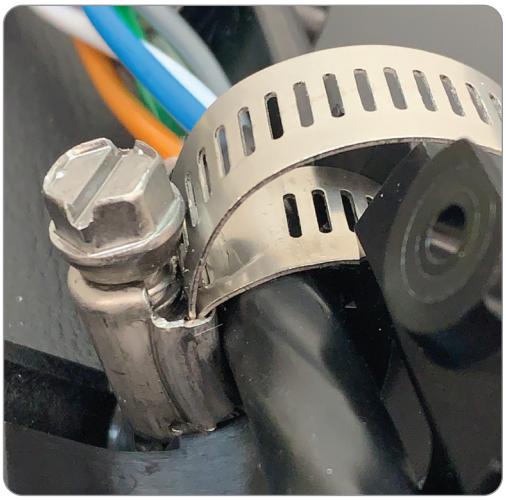


Figure 15C

- Bushing and spacer may be needed if not using a multi drop kit. If cable is over 0.40", add applicable spacers and bushings to CAU if Bushing test shows it is "Small Diameter Cable" (<0.57") or "Medium Diameter Cable" (0.57" to 0.825"). Install the cable(s) so the sheath extends just past the breakaway slot on CAU allowing the hose clamp to fully engage on the cable.
- Trim and secure all cable strength members under the Central Strength Member (CSM) retention bolt and tighten.
- Install hose clamp WITHOUT spur bracket on all jettable Micro Cable and nest worm gear in CAU.
- Tighten hose clamp to secure cable but not to the point of crushing the cable or attenuating the fiber.

If cable is less than 0.40" (0.20"- 0.39"), a multidrop kit must be used. Blank inserts must be installed in all unused positions. Follow Apex multidrop instructions.

Cable must be clean and free of all tape, dirt or contamination for proper sheath retention and sealing.

CABLE GROUNDING

For traditional cable types

1. Secure hose clamp and install spur bracket making sure it is properly oriented (spur bracket on top of cable), but **do not fully tighten**.
2. If cable is armored a tab will be left for the ground stud, it should be oriented to the side of the CAU. **(Figure 16)**
3. Tighten hose clamp to tighten to 30-35 in-lb which is about the maximum you can get on a can wrench.

- Armored cables can be bonded using Apex ground clips. Simply slit cable armor on both sides at approximately 1" and install bonding hardware. **(Figure 17)**
- Bonding hardware is included in the CAU kit or can be defined by local practice or end user. Apex offers a bonding eyelet for up to a ¼" ground stud. **(Figure 18)**
- Armor bond tab should be at 90 degrees to the CAU. **(Figure 13 on page 8)**

See Addendum for Shield Bond Instructions on page 19.

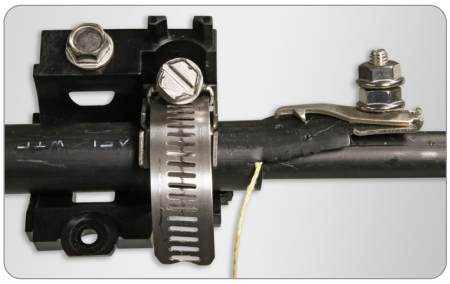


Figure 16
See Addendum for Shield Bond Instructions on page 19

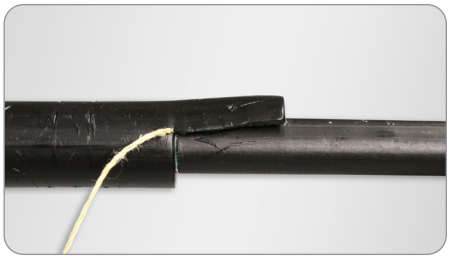


Figure 17

Installing the populated CAU into Apex base

1. Bring CAU and Cable to base and carefully guide the exposed fiber to the basket.
2. Lower CAU to base and engage alignment tab. **(Figure 19)**
3. Using 216 can wrench, begin to thread the CAU retention screw.
   - Confirm alignment of CAU and fiber cable orientation. Rolling the CAU clockwise may help the hose clamp tail to lay under the CAU.
   - Confirm the tail of hose clamp is in position to be retained.
   - Confirm CAU is fully seated and flush to base. Fully tighten CAU retention bolt. **(Figure 20)**
4. If applicable, verify WTC cable rods are aligned in the same orientation parallel to the basket. This goes for all ports on Apex.
5. Tighten the hose clamp to 30-35 in.-lb. to secure cable.

Do not over tighten hose clamp. It may affect the optical characteristics of the cable.

6. Secure inbound fibers or tubes with Velcro or tie wraps near spline of basket and outbound fibers should be secured closer to the outside of the basket. **(Figure 21)**

Figure 18

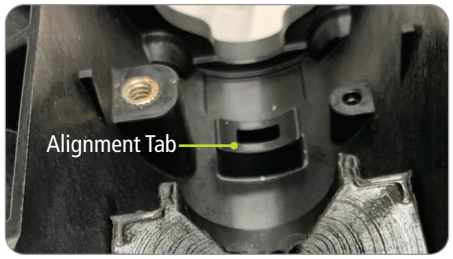
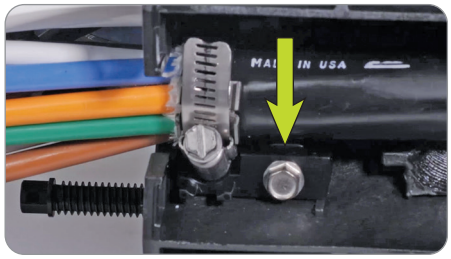


Figure 19



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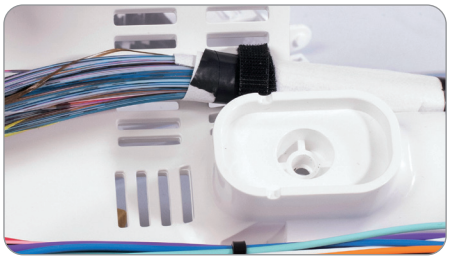


Figure 21

INSTALLING SEALING WEDGE

Make sure cable and ground are properly oriented and will not interfere with sealing wedge installation.

1. Depress base gel and elongate sealing wedge gel. **(Figures 8 and 9 — page 6)**
2. Ensure gel compression screw is in the relaxed position.
3. Engage sealing wedge pins into bottom of base. **(Figure 22)**
4. Rotate sealing wedge into place and depress the sealing wedge lock tab to engage latch and fully lock into place.
5. Inspect top and bottom of sealing wedge for complete engagement.
6. Attach bonding eyelet if applicable. **(Figure 23)**

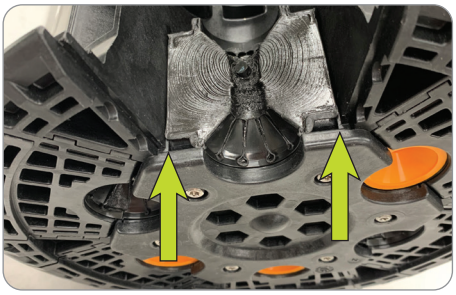
SMALL OR MEDIUM DIAMETER CABLE BUSHING

1. Open bushing and install over small or medium diameter cable with the taper toward the base. **(Figure 24)** If the seam of the bushing closes, the grommet should be installed. The spacer should have been attached to the CAU with smaller cable installation.
2. Take suppled tie wrap, begin to secure it within the groove.
3. Align head of tie wrap in opening of bushing slot. **(Figure 25)**
4. Pull tie wrap to cinch. Do not over tighten to deform bushing.
5. Slide bushing toward base port and firmly insert into wedge gel. You will hear the fingers click as they engage the bushing. **(Figure 26)**

✻ ***This bushing MUST be installed prior to compression of the gel compression screw.***

6. Tighten gel compression screw with 216 can wrench or similar tool (14-15 in.-lb). This will tighten to a positive stop; no need to tighten past that stop. **(Figure 27)**

✻ ***Once all cables have been installed and the gel compression screws have been tightened, the remaining empty port gel compression screws must be tightened on the orange port plug to seal the closure.***



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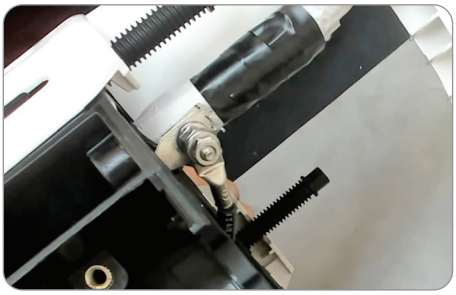

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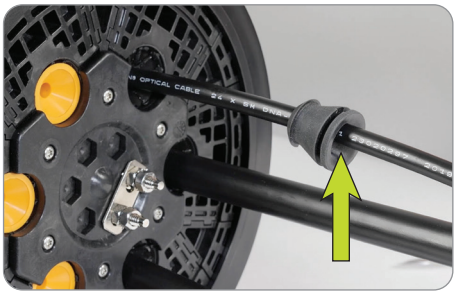

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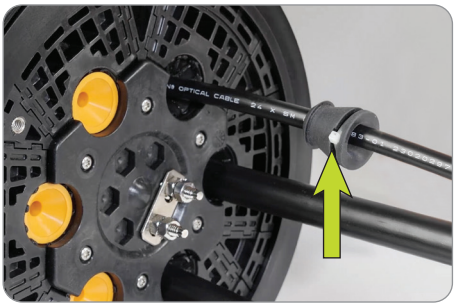


Figure 25

Figure 26

Figure 27

ROUTING IN SPLICE BASKET

All length cables include a storage loop in the basket. (Figure 28)

1. Rotate closure in stand to basket down position for the fiber to be routed and spliced.
2. Basket tabs or inner basket may be removed for ease of initial installation. Release the inner basket hinge to remove by squeezing and rotating the basket tab to remove. These tabs may be replaced in the basket after initial installation.
3. End plate will unlatch from back corner by releasing tabs under edge. The entire end plate can be removed the same as the tray at a 45 degree angle and wiggle to release hinge. **(Figure 28A)**
4. Input cables are installed near the spline base and exit near the top edge of basket.
5. Secure ribbon, loose tube or ribbon tubes may be secured with Velcro tie wraps. **(Figure 29)**
6. When storing high count loose tube, it is recommended to use the minimum lengths in the table. It is strongly recommended to keep the fiber cable stranded after removal of the central strength member Remove the fibers that will be spliced and secure any unused fiber lower in the Apex basket with Velcro tie wraps. Run tubes that will be splice along the outer edge of the Apex basket.
7. Transport ribbon fiber from basket to tray with or without additional protection. AFL AFRS, silicone spiral wrap, transition tubes or nylon weave may be used if desired.
8. Do not completely tighten the retention on fibers exiting to the tray. Basket fiber slack may need to be adjusted before final dressing.

⊛ ***SWR and ribbon fiber can be safely transported from the basket to the tray without any additional protection. Secured with AFL foam retention or AFL AFRS V Clip.*** **(Figure 30)**

9. Additional storage loops can be retained in the basket – see length table, p. 7.
10. Ribbon fiber should be retained toward the center of the basket if Branch or Drop cables will be installed.
11. Branch or drop cables should be routed to the upper edge of the basket.

⊛ ***There is an Apex X-3 Tray Brake for splice tray support in an upright position if needed. It is stored in the top of the spline.***

⊛ ***Fiber must be routed below basket tabs in lower position.***

1. The tray brake is stored at the top of the Splice Tray Spline. **(Figure 31)**
2. Make sure to orient the brake so "TOP" is on top. **(Figure 31)**
3. To use this brake, simply rock into place. **(Figure 32)**
4. To release, simply press down on the center of the brake and support the splice tray. **(Figure 33)**

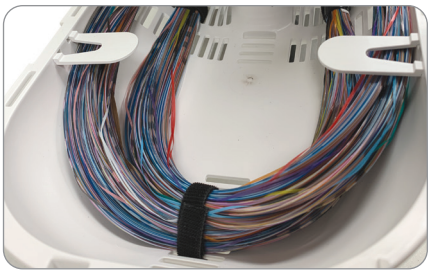


Figure 28

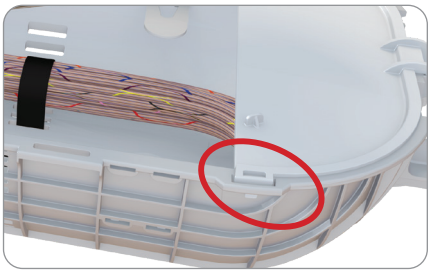


Figure 28A

Figure 29

Figure 30

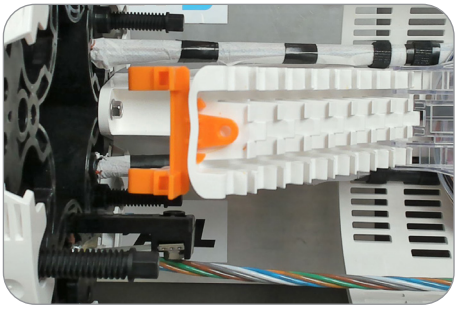


Figure 31

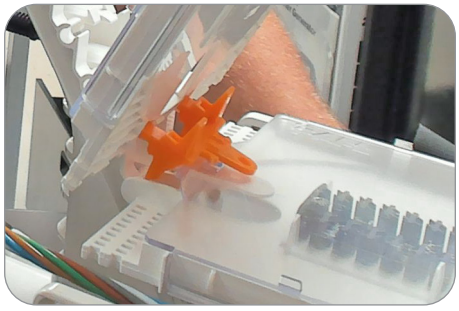


Figure 32

Figure 33

INNER BASKET APPLICATIONS

The optional Apex inner basket can be used to add additional protection to the backbone fiber when installing branched and drops.

The inner basket should be removed from the main basket for initial cable installation.

1. The Inner basket is released from the base by squeezing the two keyholes in the inner basket cover. **(Figure 34)**
2. Bring X-3 inner basket to 45 degrees and walk hinge pin from hinge. **(Figure 35)**
3. Rotate inner basket to remove from spline.
4. To replace the inner basket, simply address the tray to the #1 hinge position at 45 degrees and gently engage hinge pin into hinge. Raise and lower inner basket with two hands to utilize inner basket. Basket tabs must be removed (if present).
5. Secure tubes and fiber in inner basket with proper slack to open and close without pinching. **(Figure 36)**
6. Do not completely tighten the retention on fibers exiting to the tray. Basket fiber slack may need to be adjusted before final dressing.

Figure 34

Figure 35

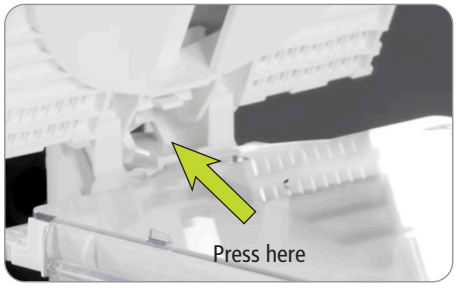


Figure 36

SPLICE TRAY OPTIONS AND ROUTING

Apex splice trays are universal for Loose tube, Ribbon and SWR® splicing applications.

Each Apex X-3 can hold up to 6 splice trays. Each Apex X-3 splice tray holds up to 6 modules. For "rollable" type ribbon such as AFL's SpiderWeb Ribbon®, trays can be fully loaded in six trays for 864 quad-stacked single fiber splices or 144 fibers per tray. For standard ribbon, AFL recommends half loaded for 18 mass splices single-stacked, or 216 fibers per tray.

FIBER	SLEEVES* PER MODULE	X-3 SPLICE TRAY CAPACITY 6 MODULES
Single loose tube	18 Single splices triple stacked 24 Single with AFL Slim Splice Protection Sleeves	108 fibers/triple stacked 144 fibers/quad stacked
Flat matrix ribbon	Up to 12 double stacked	432 fibers
SWR/Non-matrix ribbon	Up to 12 double stacked	864 fibers

***NOTE: Splice sleeves must be allowed to cool prior to installing them in splice module.**

Splice trays can be shipped empty, partially loaded or fully loaded and splice modules are field movable. **(Figure 37)**

1. To add a splice module to Apex splice tray, simply align the latch tabs. **(Figure 38)**
2. Slide to engage. **(Figure 39)**
3. To remove a splice module simply disengage the locking tabs on the back with a pair of shears and slide module to release latch. **(Figure 40)**
4. SWR and Loose Tube fiber is spliced using slack storage in the tray. Allow splice sleeves to cool before installing into splice modules. Lightly press down on the sleeve using two fingers directly above the two flexible tabs until the sleeve(s) is secured within the splice module. **(Figure 41)**
5. At the ends of the splice tray, do not route fiber toward closest end of the tray. The three-end splice sleeve locations at each end should always route away from the tray end. **(Figure 42)**
6. Flat matrix ribbon is typically waterfall spliced; but there is room for storage if desired. **(Figure 43)**

✻ ***The openings between modules are designed to act as a fiber pathway if desired.***

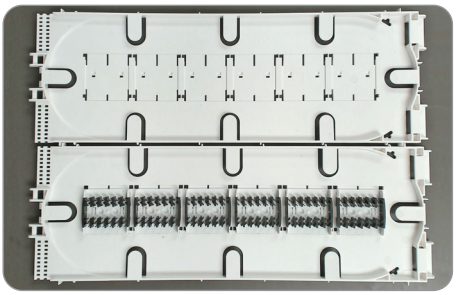


Figure 37

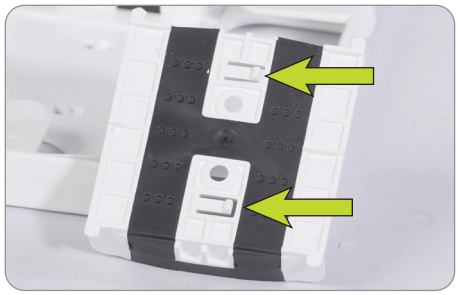


Figure 38

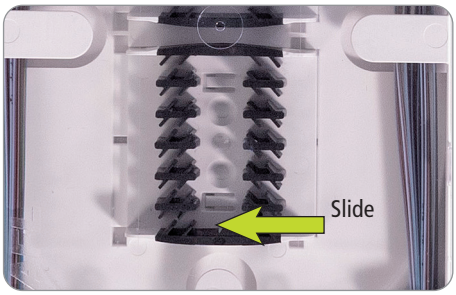


Figure 39

Figure 40

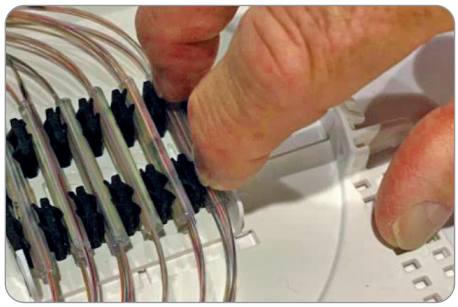


Figure 41

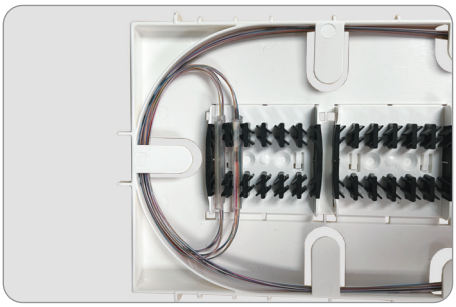


Figure 42

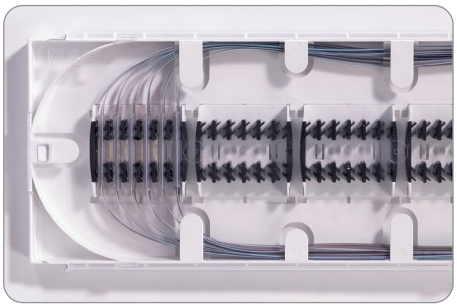


Figure 43

INSTALLING SPLICE TRAY

All types of splicing, loose tube or ribbon, can be done in the same splice tray and can coexist in the same tray if desired.

1. Splice trays should be installed from the bottom up without a gap.
2. Tubes should be attached to tray one layer at a time, bottom up to prevent trapping.
3. To install splice tray, bring X-3 splice tray to 45 degrees and walk hinge pin from hinge. **(Figure 44)**
4. Raise the tray to its upper locked position.
5. Secure the tray in the upper locked position with the X-3 Tray Brake IF NEEDED. Simply rock in place from side to side until tray is fully supported. **(Figure 45)**
6. To lower tray simply depress the tab on the tray brake and roll it out from the hinge. Secure Tray Brake back on X-3 spline as shown. Then depress the hinge lock tab to lower splice tray.
   - For loose tube applications, use adhesive foam supplied in splice tray and use two tie wraps per bundle – supplied. **(Figure 46)**
   - Secure with optional AFL foam retention. **(Figure 47)**
   - Optional transition tube – not supplied. **(Figure 48)**
   - AFL AFRS system can be used for both Loose Tube and ribbon applications. AFRS system is sold separately, but no tie wraps needed.
   - For SWR® (up to 288 fibers), Ribbon (up to 144 fibers) or buffer tubes, AFL Foam Retention may be used. Make sure fiber is surrounded by foam retention and then secure with 2 tie wraps – not supplied. Fiber should have some movement after tie wraps are secured to ensure no attenuation.
7. Begin routing to splice.
   - Each bundle of fibers will make a full loop in the tray to splice to the furthest location.
8. Once all splices are complete, address the slack behind the spline in both open and closed positions. Adjust slack and secure both the tray and basket retention on the fibers.
9. At the ends of the splice tray, do not route fiber toward closest end of the tray. The three-end splice sleeve locations at each end should always route away from the tray end. **(Figure 49)**
10. If the tray is not loaded to capacity, leave the end 3 slots open for future needs. This eliminates the bend radius concern at each end.

Figure 44

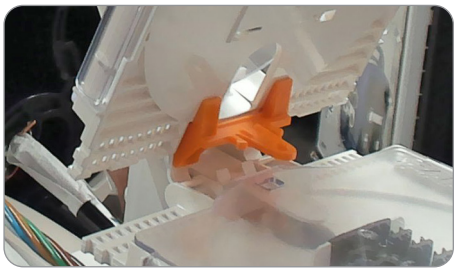


Figure 45

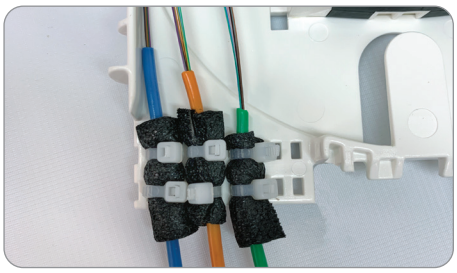


Figure 46

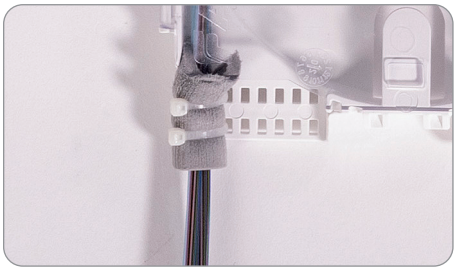


Figure 47

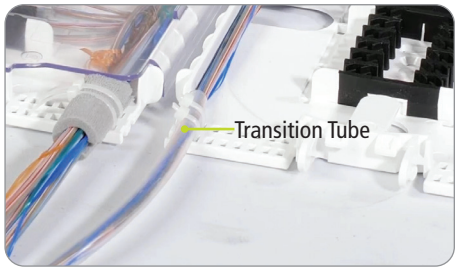


Figure 48

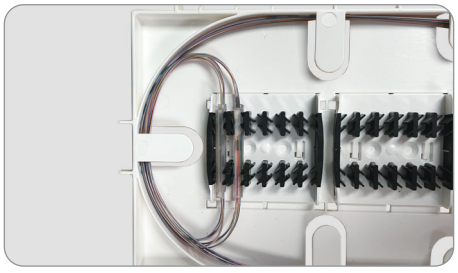


Figure 49

ALTERNATE SPLICING METHOD

Apex is designed for high-count fiber splicing. The following is a method where multiple splicers can work simultaneously on one case.

1. On the length table (page 7), use the "Sheath to Tray"distance.
2. Take fibers straight from CAU over the basket and mark fibers or tube at this distance.
   - Protect the fibers as they lay over the basket edge.
3. Secure fibers or tubes to tray at mark. **(Figure 49)**
4. Splice, route and close tray.
5. Figure-8 the fiber into the tray at the top of the basket and again under the spline. **(Figure 50)**
6. Install trays starting from the bottom (which is position 3 in the X-3) without skipping a slot.
7. Once all splices are complete, address the slack behind the spline in both open and closed positions. Adjust slack and secure both the tray and basket retention on the fibers.

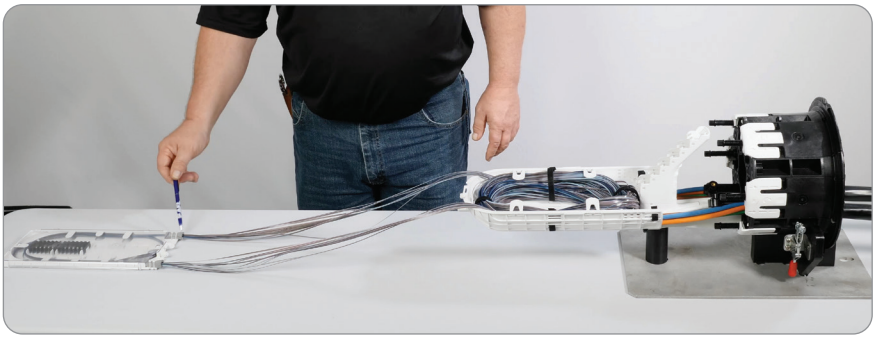


Figure 49

Figure 50

FINAL ASSEMBLY

1. Ensure all cables, tubes and fibers are secured on both tray and basket.
2. Ensure orange blank plugs are installed in every unused port.
3. Ensure proper diameter bushings are fully seated on applicable size cable.

⊛ ***The gel compression screw must be in the open position to install either diameter bushing.***

4. Ensure all gel compression screws are fully engaged.
5. Pull the three Velcro straps through the horizontal strap slots soft side up. **(Figure 51)**
7. Secure 3 straps across the width of the tray. **(Figure 52)**
8. Clean O-ring of debris, with water if needed. Apply a thin coat of supplied Apex Grease on the top and inside of the O-ring to prevent sticking when installing Apex into dome. This must be re greased with Apex Grease every time the closure is opened to maintain the 20 ft. waterhead performance. **(Figure 53)**

⊛ ***For MSDS of the grease, visit our Environment, Health and Safety section at www.AFLglobal.com.***

9. Align the tab and slip dome on.
10. Engage lock ring latch and secure lock ring.
11. Note orientation of lock ring so the handle or hinge will not interfere with mount insert if pole/wall mounting. **(Figure 54)**
12. Secure lock ring handle to lock ring with a sharp push from the palm of your hand to snap it in place.
13. Apply lock tag if desired.

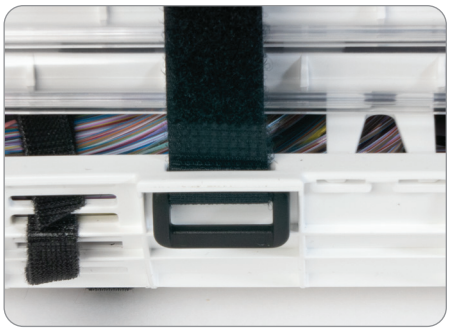


Figure 51

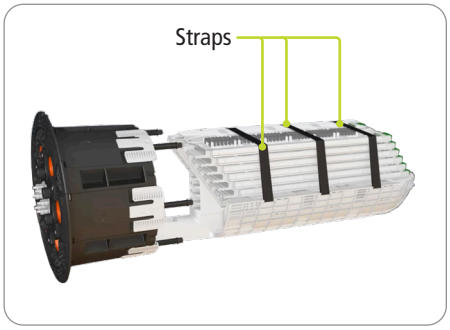


Figure 52

Figure 53

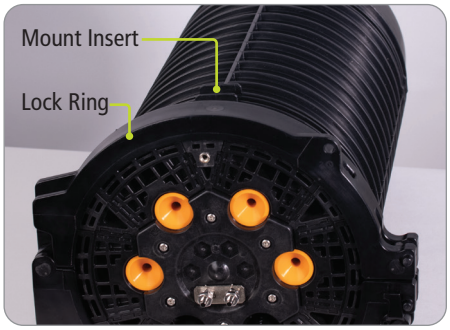


Figure 54

Flash test closure

1. Apply maximum of 5 PSI of air to the flash valve on dome. **(Figure 55)**
2. Inspect base for leaks with a spray of soapy water.
3. If there are no apparent bubbles, the closure passes.
4. If bubbling occurs:
   - Remove dome
   - Check sealing wedges
   - Check CAU brackets and hose clamps
   - Check the O-ring is clean and greased

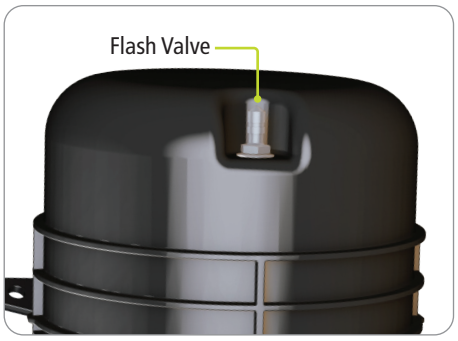


Figure 55

MOUNTING APEX

The Apex closure can be mounted to the strand using cable spacers and straps.

1. Align stack of cable spacers on the same side as the mount insert. **(Figure 56)**
2. Align strap with retention tabs on bottom of dome.
3. Secure straps and Apex to strand.

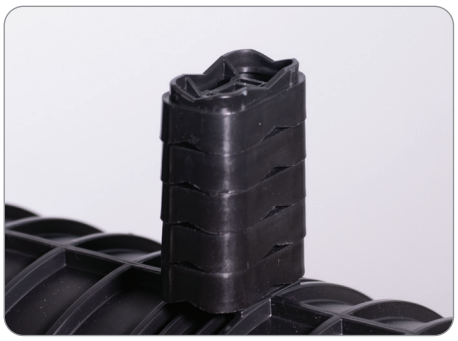
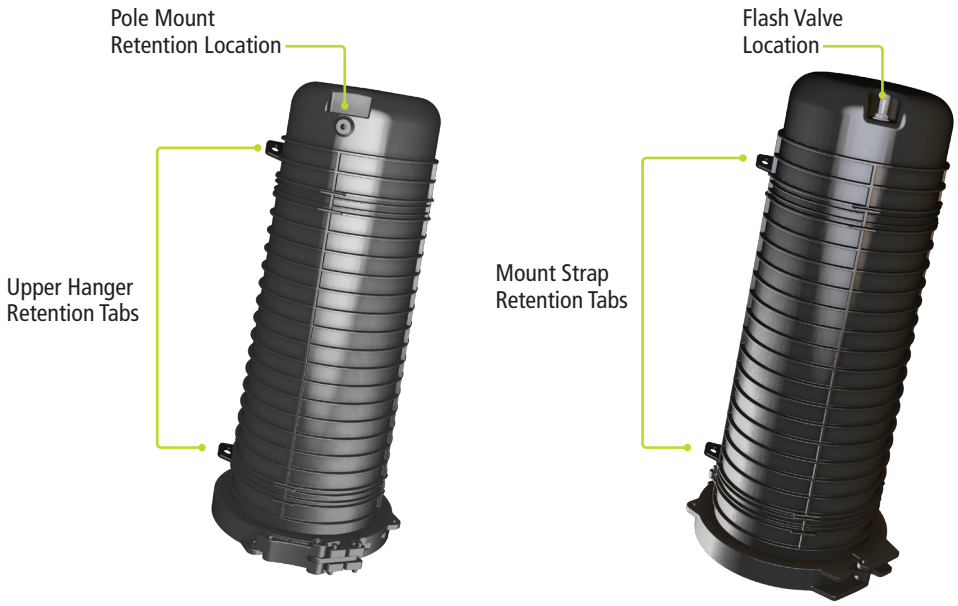


Figure 56



For complete installation instructions and video, visit www.AFLglobal.com/APEX or use the QR code.

AFL APEX® SHIELD BOND KIT

All Apex models ship with the Shield Bond Kit.
This kit includes 10 pieces of individual shield bond kits.

Each individual kit **(Figure 1)** includes:

- Bottom clamp with 3/4" stud for 1/4" eyelet
- Top clamp
- (2) 3/8" nuts

Figure 1

Ordering Information

DESCRIPTION	AFL NO.
Apex Cable Bonding Kit (bonds armored cable sheath to ground eyelet). Pack of 10	AX-KIT-GROUND-10

INSTALLATION OF SHIELD BOND CONNECTORS

The Shield Bond Connectors are designed to make a stable and low-resistance electrical connection between communications cables and a conductor such as a strap, wire or braid.

Tools Required

A. 216 tool or 3/8" Wrench
B. Tabbing Shears (optional)

1. All cables must be slit or tabbed with a 1" slit on the two sides of the sheath **(Figure 2)**. This will ease insertion and avoid fiber damage.
2. Insert connector base between shield directly below the armor layer and core wrap, or inner sheath for double sheath cable, until connector stops meeting the outer sheath. Tap sheath above connector base to set teeth into armor layer providing an electrical path. **(Figure 3)**
3. When attaching bond braid, if additional grounding or bonding eyelet is used, install it above the first nut and secure it. **(Figure 4)**
4. Install grounding medium and add second nut. Both nuts need to be tightened to 35-45 inch-lbs with a company-approved tool to ensure proper connection. **(Figure 5)**

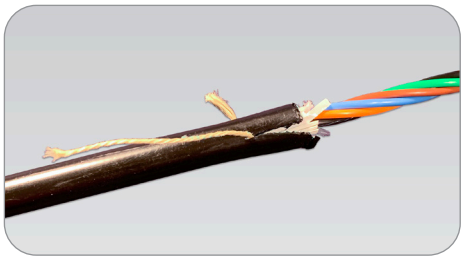


Figure 2

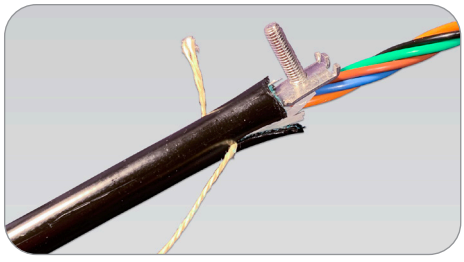


Figure 3

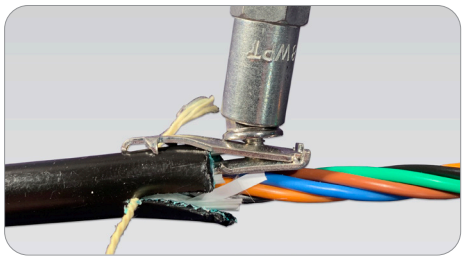


Figure 4

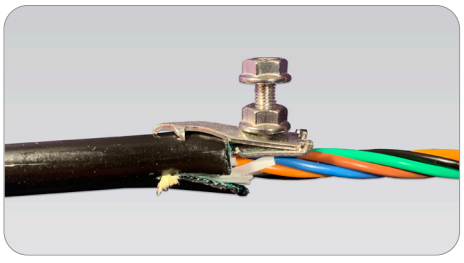


Figure 5