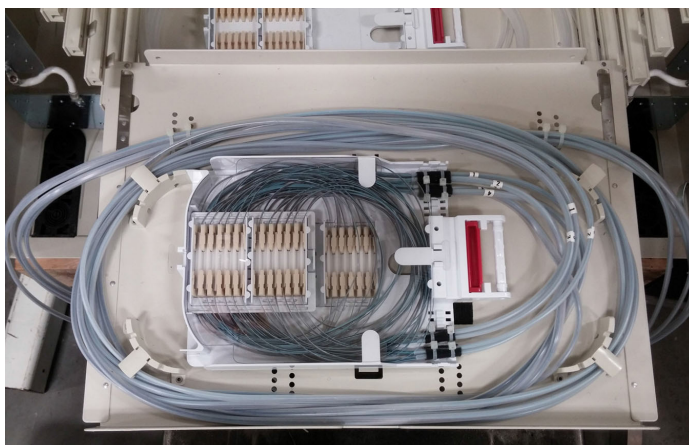


**FST-XD-MT and FOSC-450C Splice Trays for FEC-36 Cabinet**



**FST-XD-MT Splice Tray**



**FOSC-450C Splice Tray**

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## INTRODUCTION

These instructions tell how to install a CommScope FST-XD-MT or FOSC-450C splice tray in a CommScope FEC-36 cabinet. The procedure is the same except for installation of the stacking modules which are used only in the FOSC-450C splice tray.

## Revision History

ISSUE	DATE	REASON FOR CHANGE
1	May 2016	Original.
Rev B	June 2021	Added FST-XD-MT splice tray. Updated to new document format.

## Trademark Information

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## Admonishments

Admonishments — in the form of Dangers, Warnings, and Cautions — must be followed at all times.



**Danger:** *Danger is used to indicate the presence of a hazard that will cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*



**Warning:** *Warning is used to indicate the presence of a hazard that can cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*



**Caution:** *Caution is used to indicate the presence of a hazard that will or can cause minor personal injury or property damage if the hazard is not avoided.*

## General Safety Precautions



**Caution:** *When mounting equipment in the frame, make sure mechanical loading is even to avoid a hazardous condition, such as loading heavy equipment in the frame unevenly. The frame should safely support the combined weight of all equipment it supports.*

## RELATED PUBLICATIONS

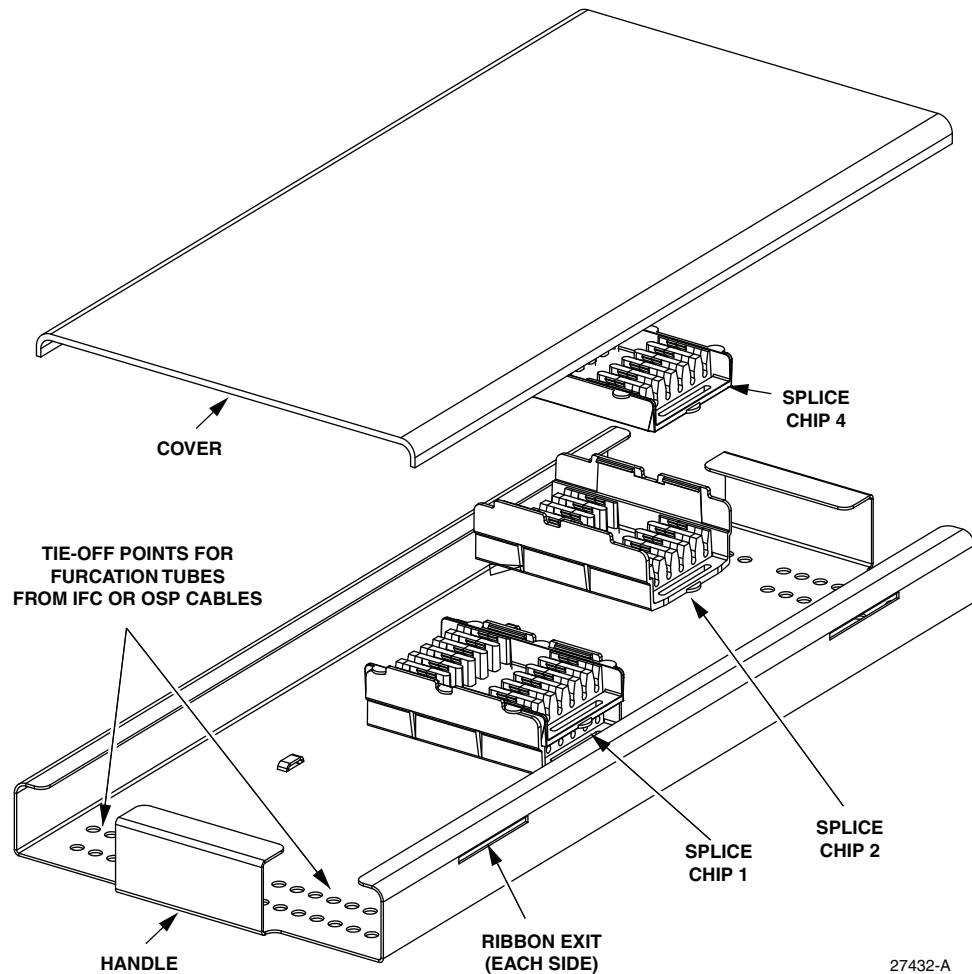
Listed below are related manuals and their publication numbers. Copies of these publications can be ordered on the web at <http://www.commscope.com/SupportCenter>

Title/Description	Publication Number
10K Fiber Entrance Cabinet (FEC-36) User Manual	TECP-31-106

## 1 DESCRIPTION

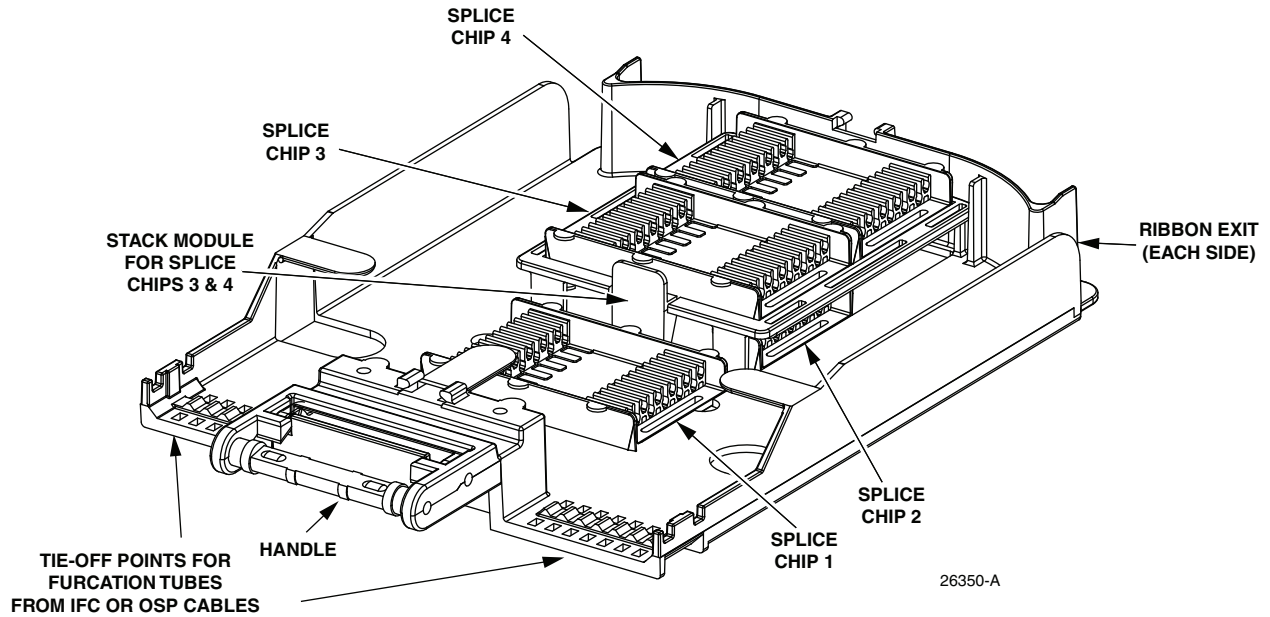
The CommScope FST-XD-MT and FOSC-450C splice trays documented in these installation instructions are used in the high-density FEC-36 cabinet. Both splice trays accommodate 288 mass fusion splices, which is equivalent to the capacity of one splice drawer. One splice tray is loaded in each of the 36 drawers of the FEC-36 for a total capacity of 10,368 splices per cabinet.

[Figure 1](#) shows the FST-XD-MT splice tray with cover removed and with features called out that are important in installation.



**Figure 1. FST-HD-RR Splice Tray Features Important in Installation  
(Shown With Tray Cover Removed)**

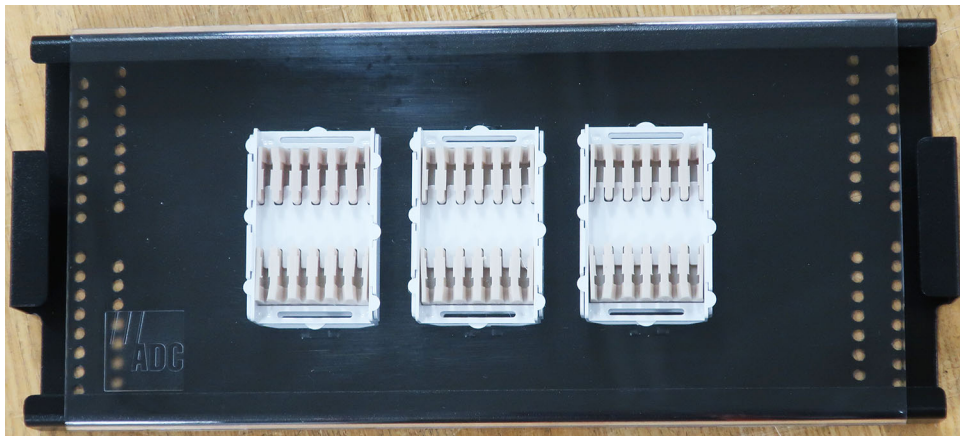
[Figure 2](#) shows the FOSC-450C splice tray. The FOSC-450C splice tray is twice the height of the standard FOSC splice tray and twice the height of the FST-HD-RR Splice Tray. This is because the FOSC-450C splice tray uses stack modules to increase its splicing capacity.



**Figure 2. FOSC-450C Splice Tray Features Important in Installation (Shown With Tray Cover Removed)**

## 2 KIT COMPONENTS

Figure 4 shows the FST-XD-MT splice tray kit as shipped. The only internal components are the splice chips.

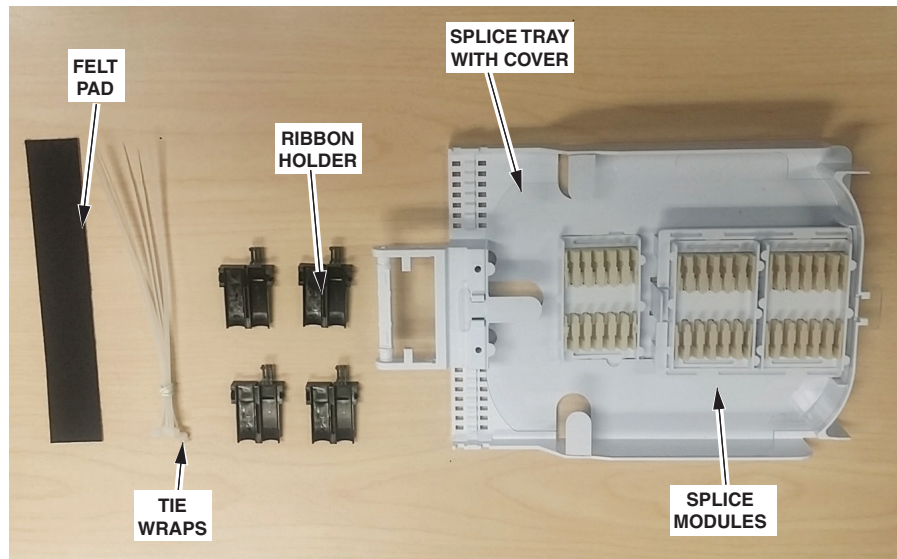


**Figure 3. FST-XD-MT Splice Tray Kit Components**

The FOSC-450C Splice Tray Kit, shown in [Figure 4](#), contains the following components:

- Splice tray with cover
- Four SM-6 six-position splice modules and module holder

- Four ribbon holders
- Felt pad
- Tie wraps
- Velcro straps (on back of splice tray)



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Figure 4. FOSC-450C Splice Tray Kit Components

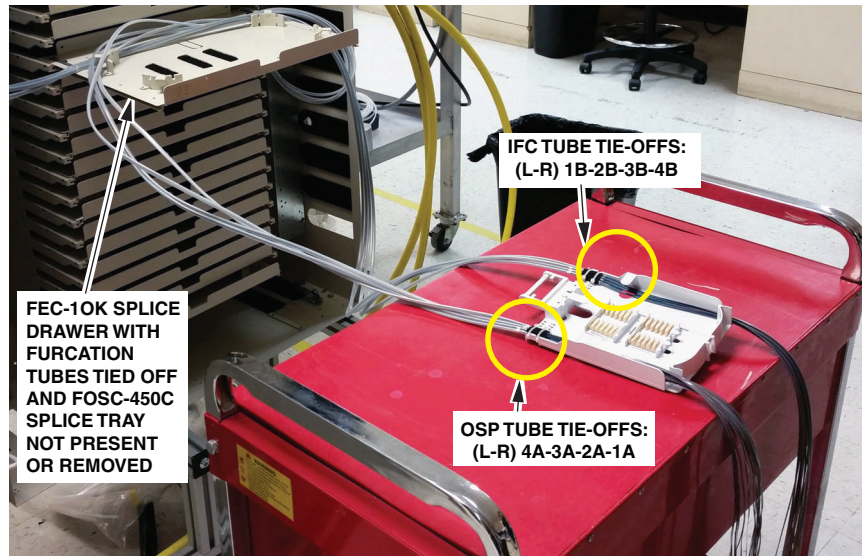
### 3 INSTALLATION OF TRAY

Use the following procedure to install an FST-XD-MT or FOSC-450C splice tray in a splice drawer in the FEC-36 cabinet. The photos in this procedure show the FOSC-450C splice tray. The FOSC-450C splice tray has stack modules, which are not present in the FST-XD-MT splice tray. As noted in the procedure, the steps involving the stack modules are skipped if installing an FST-XD-MT splice tray.

- ▶ **Note:** This procedure assumes that the OSP and IFC cable sub-units have been broken out and routed to the FEC-36 splice drawer within furcation tubes as described in the FEC-36 user manual (TECP-31-106). The section of the cable sub-unit within the drawer will then consist of eight furcation tubes and attached bare ribbon ready to be spliced.
1. Set up a work table directly in front of the FEC, as shown in [Figure 5](#). Open the splice drawer. Unpack a splice tray and place it on the table with the handle facing the FEC, as shown. Draw the OSP and IFC furcation tubes and ribbons straight out of the front of the FEC to the work table. Tie off the furcation tubes to the handle end of the splice tray.
- ▶ **Note:** Each tube houses six 12 fiber ribbons.



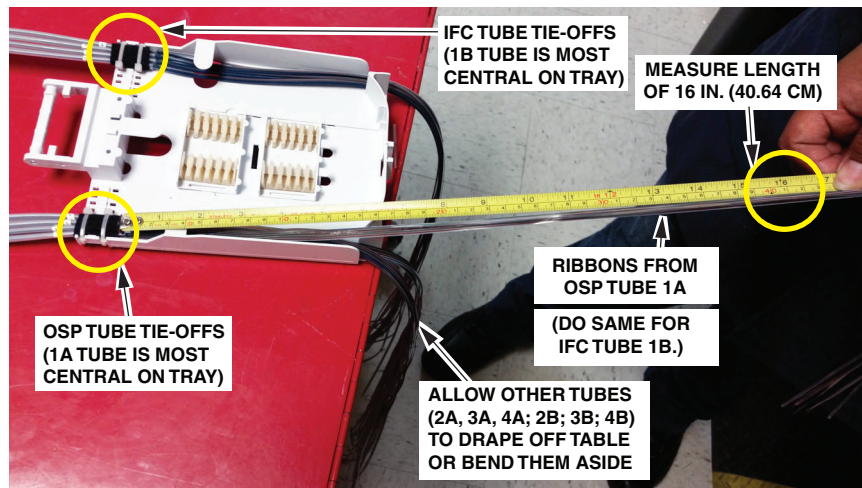
- ▶ **Note:** The ribbons within the tubes must be in correct numerical order to match up the OSP and IFC ribbons correctly. Within this procedure, the eight tubes are referred to, in numerical order, as 1A-4A (OSP) and 1B-4B (IFC). The lowest number fibers should be in the middle. So, from left to right along the tray, the tie off's should be: 4A, 3A, 2A, 1A on the left side; 1B, 2B, 3B, 4B on the right side, as shown in [Figure 5](#).



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**Figure 5. FOSC-450C Splice Tray on Work Table**

2. Install and splice tubes 1A and 1B as follows:
  - a. Extend the ribbons straight out to measure them as shown in [Figure 6](#).



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**Figure 6. Measuring and Trimming 1A and 1B ribbons.**

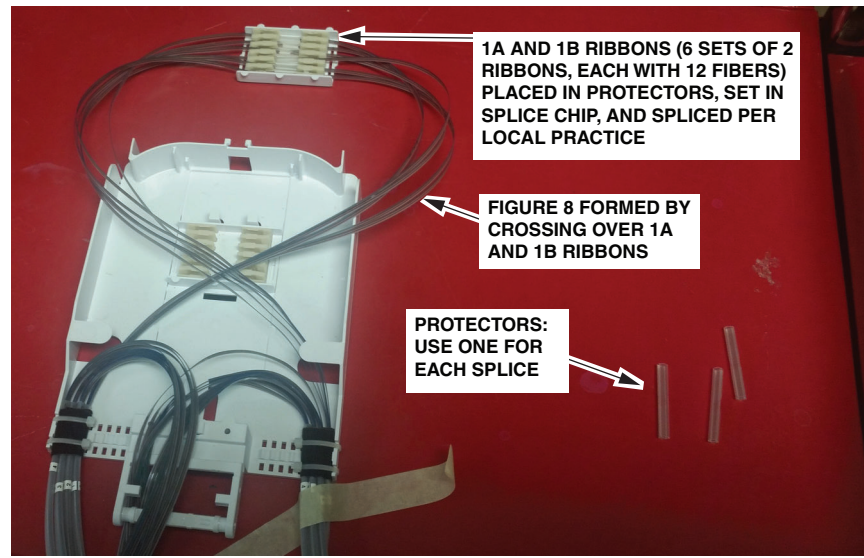
- b. Carefully trim the 1A and 1B ribbons to the 16-inch length just measured as shown in [Figure 7](#).



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**Figure 7. Trimming 1A and 1B Ribbons at 16-Inch Length**

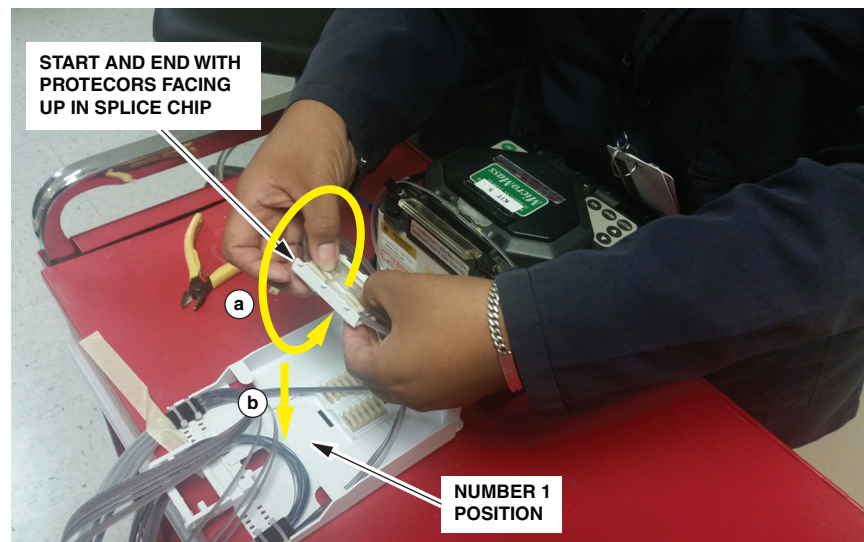
3. Splice the 1A and 1B ribbons per local practice as follows:
  - a. Place a splice protector on one of the ribbons (on either side). Clean off the ribbon matrix, cleave, and splice per local practice. Slide the splice protector over the splice. Heat shrink the splice.
  - b. Do this for remaining five pairs of ribbons.
  - c. Cross over the 1A and 1B ribbons to form a figure 8 as shown in [Figure 8](#).
  - d. Place the six splice protectors in the number 1 splice chip.



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**Figure 8. Splicing 1A and 1B Ribbons**

4. Starting with splice chip facing upward with protectors on top ([Figure 9](#)).
  - a. Rotate the splice chip a full 360 degrees away from the splice tray so that the protectors wind up on top again.
  - b. Install the splice chip in the number 1 position (closest to the handle).

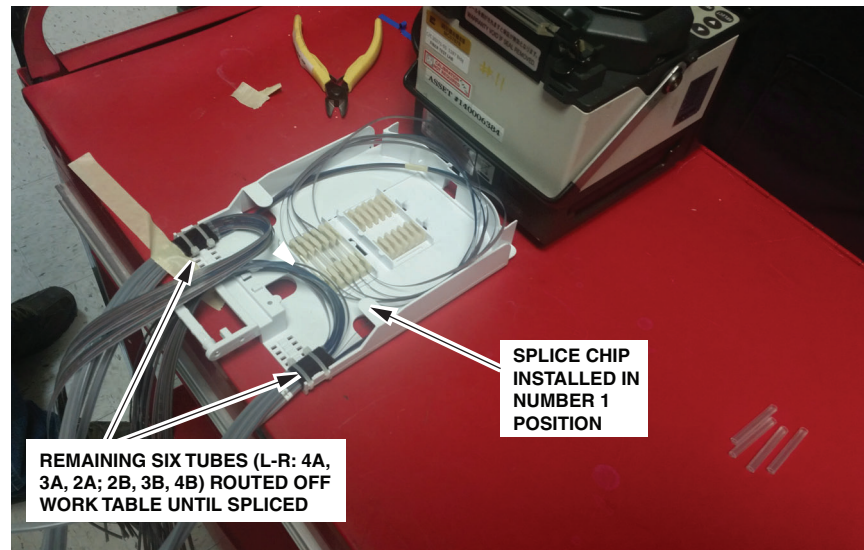


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**Figure 9. Installing Splice Chip 1**

- c. After installation of the first chip in the number 1 position, arrange the fibers neatly into the splice tray, checking that the splice tray appears as shown in [Figure 10](#).

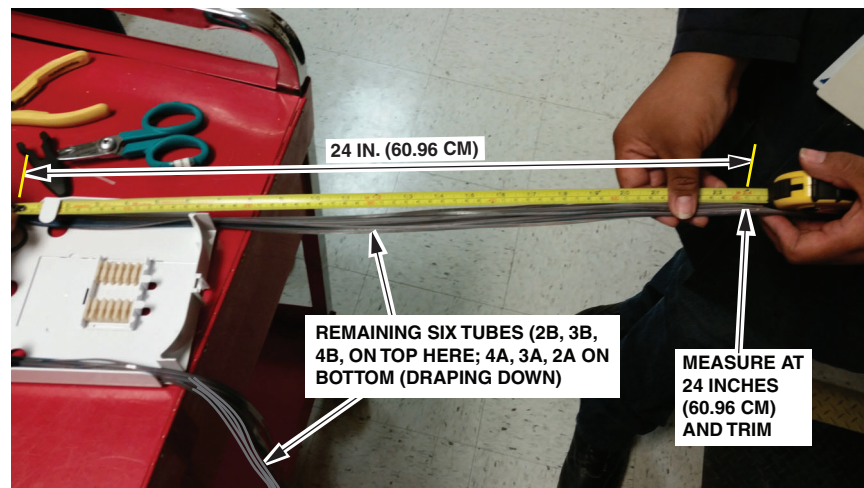




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**Figure 10. Splice Chip 1 Installed**

5. Stretch out the remaining six tubes (left to right: 4A, 3A, 2A; 2B, 3B, 4B) and mark them at a length of 24 inches (60.96 cm) (from the tray tie down point), as shown in [Figure 11](#). Using a snips, sever the ribbons at this mark (refer to [Figure 7 on Page 7](#)).

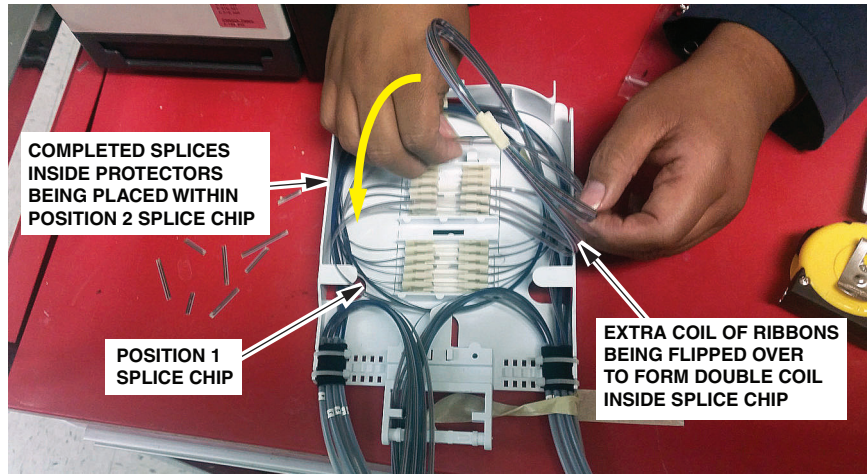


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**Figure 11. Measuring Remaining Ribbons at 24 Inches (60.96 cm)**

6. Splice and install tubes 2A and 2B ribbons in position 2 splice chip as follows:
  - a. Place a splice protector on one of the ribbons (on either side). Clean off the ribbon matrix, cleave, and splice per local practice. Slide the splice protector over the splice. Heat shrink the splice.

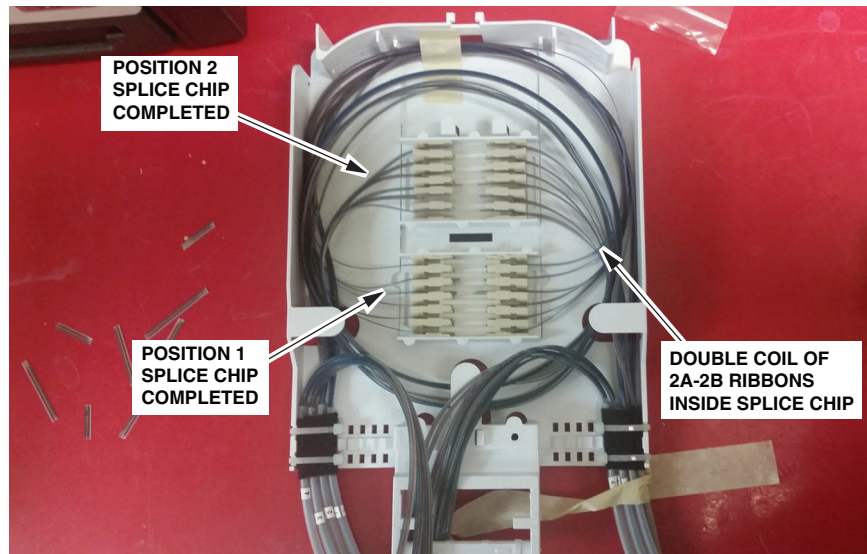
- b. When done with splices, install the protectors within the splice chip, rotate the chip away from the splice tray 360 degrees, place the chip into position 2, and neatly arrange the ribbon coil into the splice tray as shown in [Figure 12](#).



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**Figure 12. Splice Chip 2 Being Installed**

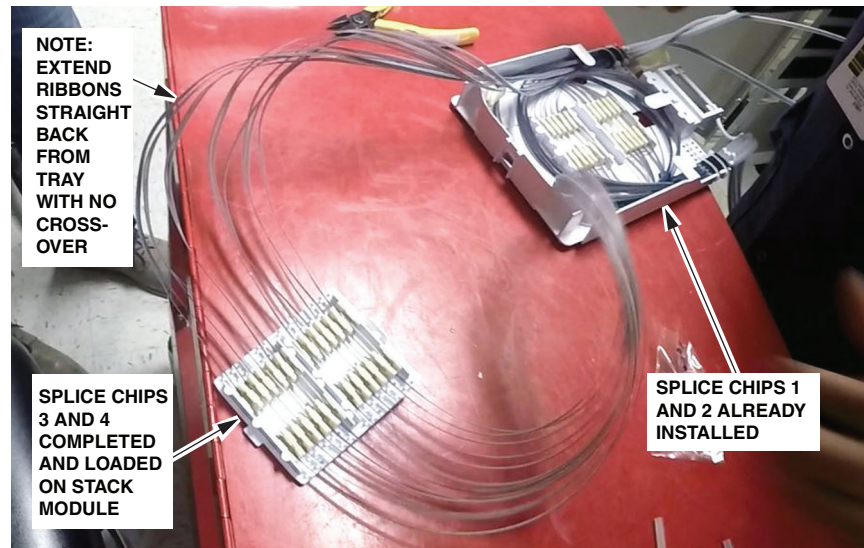
- c. After installation of the second chip in the number 2 position, check that the splice tray appears as shown in [Figure 13](#).



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**Figure 13. Completed First Two Splice Chips**

- **Note:** Steps 7 to 9 describing use of the stack modules do not apply if installing an FST-HD-RR splice tray. If installing an HD-RR splice tray, install splice chips 3 and 4 as described in steps 1 to 6 and then skip to step 10 to complete this procedure.
7. Place on the work table, behind the splice tray, the stack module supporting the last two splice chips. Draw out the last 12 pairs of ribbons (from tubes 3A, 3B, 4A, and 4B). Place a splice protector on either side of each pair and splice per local practice. Heat shrink the splices, placing each fused protector, when completed, into the appropriate row in the splice chips. Refer to [Figure 14](#).



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Figure 14. Third and Fourth Splice Chips on Stack Module



- Starting with the ribbons extended from the splice tray, rotate the stack module with splice chips 3 and 4 away from the splice tray 360 degrees, which creates a twist in the ribbons. Carefully insert the ribbon bundle into the splice tray and neatly arrange the loops into the tray. Carefully snap the stack module onto the splice tray, making sure not to pinch any ribbons. Refer to [Figure 15](#) and [Figure 16](#).

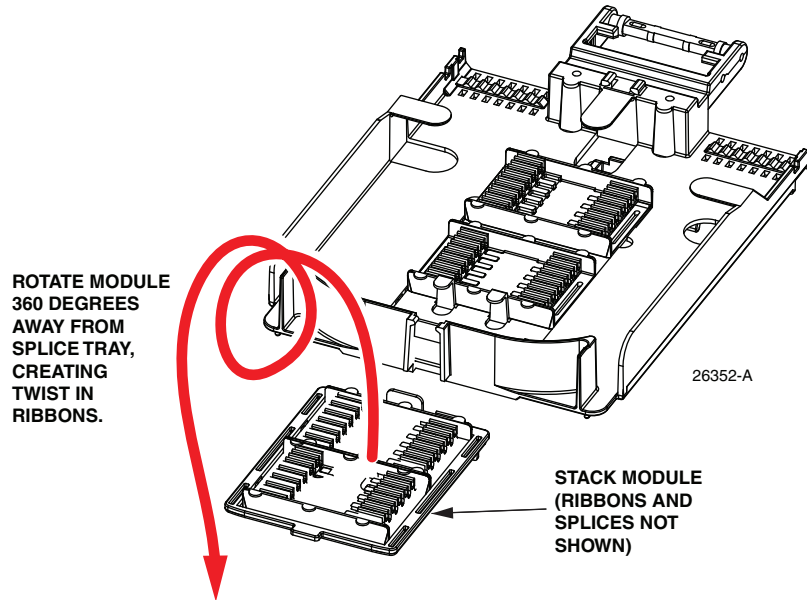


Figure 15. Stack Module Being Moved Into Splice Tray

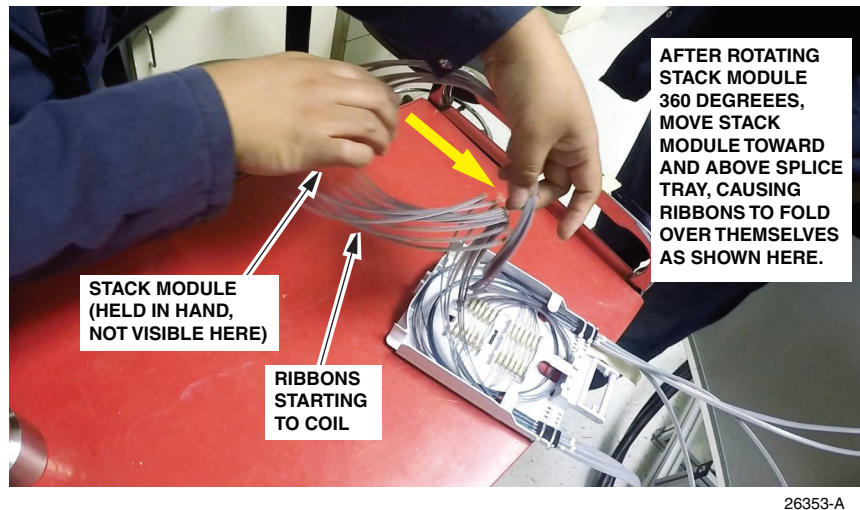
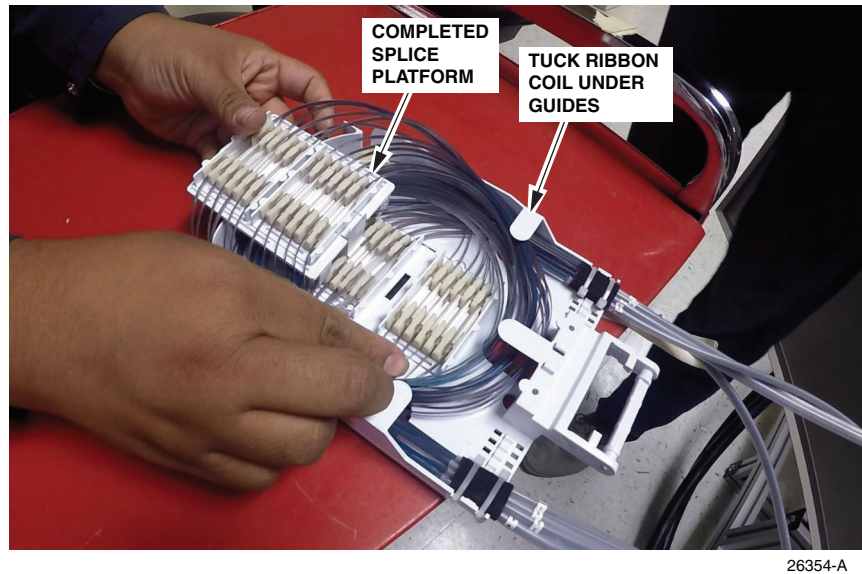


Figure 16. Installing Stack Module

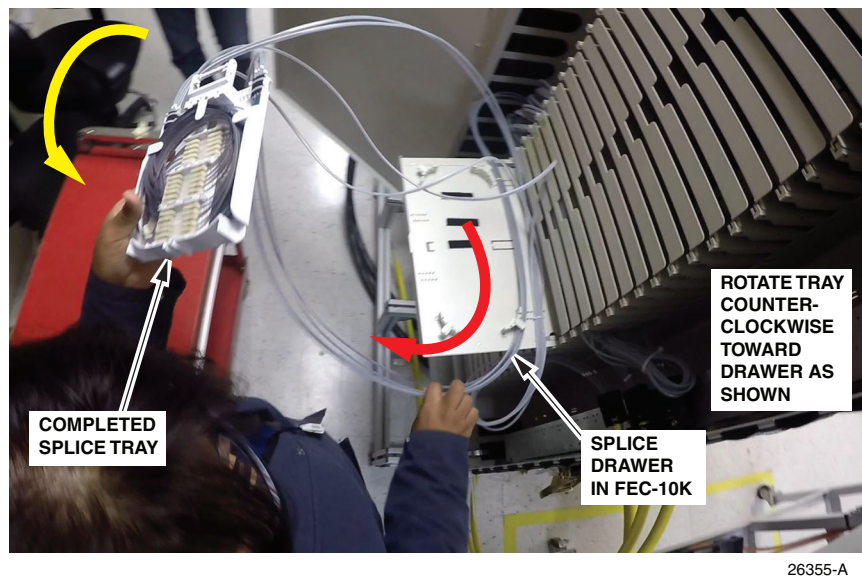


9. Align the stack module at its installation location and press down on the two tabs on the rear of the stack module to snap the stack module into the tray. Refer to [Figure 17](#).



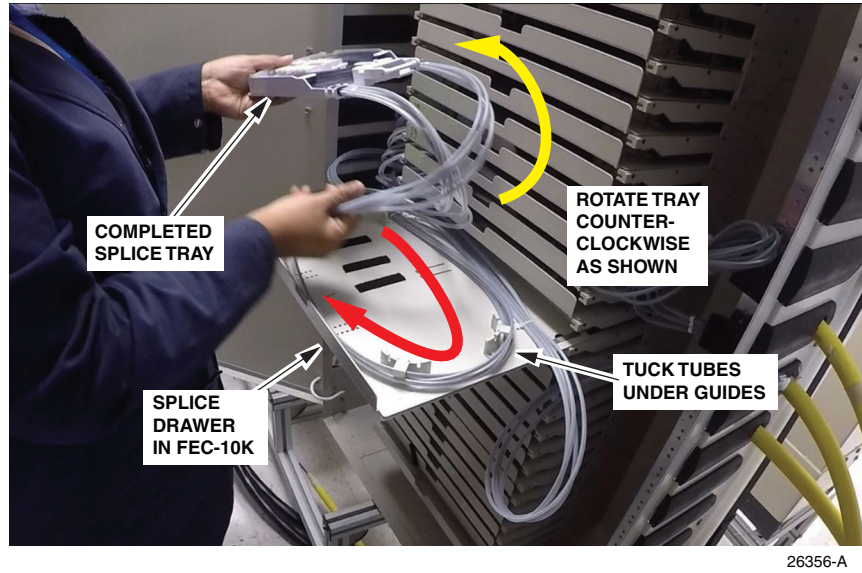
**Figure 17. Installing Stack Module**

10. Install the splice tray cover onto the splice tray.
11. Pick up the completed splice tray and in a wide sweep, rotating the tray counter-clockwise, as shown in [Figure 18](#), move the tray toward the open drawer in the FEC-36 where the tray is to be installed,



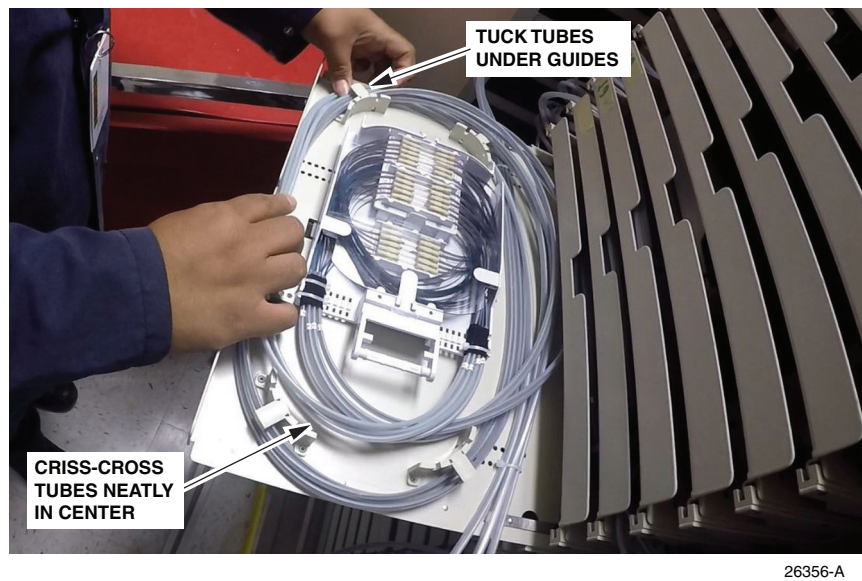
**Figure 18. Moving Completed Splice Tray into FEC-36 Splice Drawer**

12. Continue the counter-clockwise motion to move the tray into position above the drawer, as shown in [Figure 19](#), being careful to tuck the furcation tubes under the guides.
- ▶ **Note:** When placing the tray in the drawer, be careful to align the Velcro straps on the bottom of the tray with the Velcro straps in the drawer.



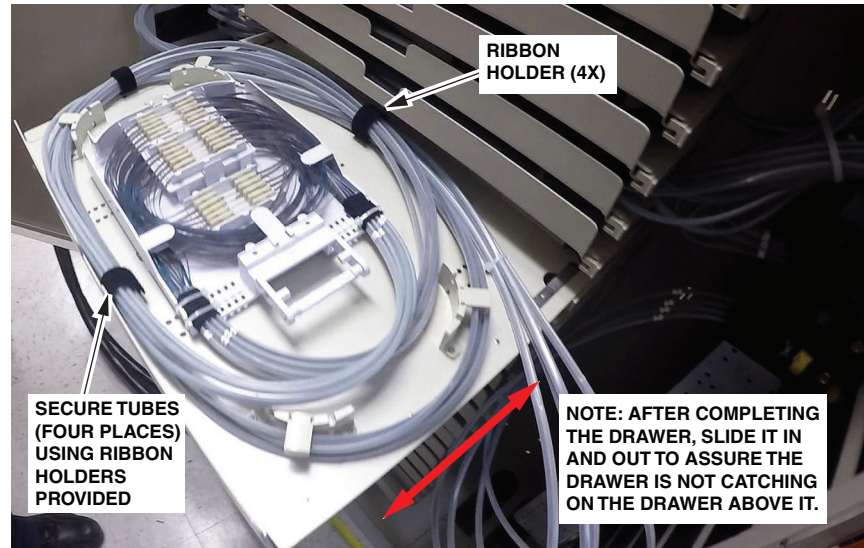
**Figure 19. Moving Splice Tray Closer to Drawer**

13. With the splice tray resting in the drawer, as shown in [Figure 20](#), tuck the furcation tubes more securely under the guides. Criss-cross the tubes neatly as shown.



**Figure 20. Tucking in and Criss-Crossing Tubes**

- Secure the tubes neatly with the ribbon holders provided, as shown in [Figure 21](#). Check for clearance by sliding the drawer in and out to assure the tubes are not catching on the drawer above.



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**Figure 21. Securing Tubes With Ribbon Holders and Checking Drawer for Clearance**

- Check again for clearance, and close the drawer.

## 4 TECHNICAL ASSISTANCE

For technical assistance, contact the CommScope Support Center using the following website address: <http://www.commscope.com/SupportCenter>