

RIBBONMASTER* Splice Tray Assemblies 559308-[] and 1435839-[]



Figure 1

1. INTRODUCTION

RIBBONMASTER Splice Tray Assemblies 559308–[] and 1435839–[] are used to protect and manage ribbon, discrete, and multi–fiber jacketed fiber optic cable with mechanical splices, sleeved fusion splices, splitters and couplers, and other passive devices. The trays are designed to mount into various types of enclosures.

Read these instructions thoroughly before starting installation or cable routing.



Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale. Reasons for reissue of this instruction sheet are provided in Section 5, REVISION SUMMARY.

2. DESCRIPTION (Figure 1)



Not all holders shown in Figure 1 are included with all trays. Refer to Section 4 for a cross-reference list. Holders and end cap tops are also available separately.

The fiber is held in place by end caps located on each end of the tray or, for multi–fiber cable (diameter greater than 3 mm [.12 in.]), by use of cable ties in tie–down holes along each side of the end caps. This design enables the tray to accommodate both butt cable splicing and in–line cable splicing. Each end cap has two removable tops which secure the fiber.

©2008 Tyco Electronics Corporation, Harrisburg, PA All International Rights Reserved TE logo and Tyco Electronics are trademarks. TOOLING ASSISTANCE CENTER 1-800-722-1111 PRODUCT INFORMATION 1-800-522-6752 This controlled document is subject to change. For latest revision and Regional Customer Service, visit our website at www.tycoelectronics.com

*Trademark. Óther products, logos, and company names used are the property of their respective owners.

After splicing, the fiber is routed to the holder. The holder is positioned in the tray according to the application and provides positive retention for the fibers.

Each tray has a clear removable cover with retention tabs which make a clicking sound when the cover is properly installed. Each tray has latches which are used to connect the trays together when stacking trays. The trays also have center mounting holes which can be used for stacking by inserting studs (not included with the tray) through the holes.

Also included with each tray is a 12–line splice label and a warning label.

3. INSTALLATION

Use the following guidelines when installing and routing the cable in the tray. Whatever method is used, make sure that it not only meets the application needs, but also conforms to local codes and standards:

- Allow enough cable in the tray for the service loop and cable routing
- Coil excess cable in the tray
- Keep bend radii of cable as large as possible (always follow manufacturer's minimum bend radius)

3.1. Preparation



ALWAYS wear eye protection when working with optical fibers. NEVER look into the end of a terminated or unterminated fiber. Laser radiation is invisible but can damage eye tissue. Never eat, drink, or smoke when working with fibers. This could lead to ingestion of fiber particles.



BE VERY CAREFUL to dispose of fiber ends properly. The fibers create slivers that can easily puncture the skin and cause irritation.

1. Slightly lift one of the retention tabs on the cover. While lifting the tab, slide the cover toward the end nearest the latch and remove the cover from the tray. See Figure 2.

2. For butt cable routing, remove the end cap tops from the end of the tray where the fibers will enter and exit; and for in–line cable routing, remove the end cap tops from both ends of the tray. Lift the tab end of the end cap top and roll the top to the outside edge of the end cap. See Figure 3.

3. Remove the backing from the foam tape on the underside of the holder. Then install the holder onto the tray according to the following.



Figure 3

a. For butt cable routing of ribbon fiber:

— place the universal device or elastomeric splice holder toward the unused end of the tray, and position it so that it meets the approximate dimensions given in Figure 4

— place the mechanical splice or fusion splice holder in the center of the tray with the mounting hole facing the center and the long edge facing the side of the tray (if stacking trays using studs, position the mounting hole over a center mounting hole in the tray)

— place the corelink splice holder in the center of the tray with the long edge facing the end of the tray (if stacking trays using studs, make sure the holder does not cover the center mounting hole in the tray) b. For in-line cable routing of ribbon fiber or butt cable routing of discrete fiber or multi-fiber cable:

— place the universal device or elastomeric splice holder adjacent to the center mounting hole and position it so that it meets the approximate dimensions given in Figure 4

— place the mechanical splice, fusion splice, or corelink splice holder as described in Step a

If routing more than six fibers inside the tray, install an additional holder (also available separately).

Installing Universal Device, Elasometric Splice, or Corelink Splice Holder Butt Cable Routing of Ribbon Fiber A Corner of Holder to Side of Tray Corner of Holder to Center Mounting Hole Unused End of Tray

In–Line Cable Routing of Ribbon Cable or Butt Cable Routing of Discrete Fiber or Multi–Fiber Cable



HOLDER	DIMENSION (Approximate) (mm [in.])			
	Α	В	С	
Universal Device	7.6 [.30]	5.1 [.20]	127 [5]	
Elastomeric Splice	9.1 [.36]	5.1 [.20]	127 [5]	
Figure 4				

Figure 4

Illustrations for the following procedures show installation of fiber using the universal device holder. The concept of the illustrations also applies to all other holders.

3.2. Butt Cable Routing of Ribbon Fiber

1. Measure approximately 762 mm [30 in.] of incoming fiber and fit the fiber into the first slit in the end cap (either slit closest to the outside edge of the tray). Refer to Figure 5, Detail A.

2. Loop the incoming fiber around the holder and temporarily fit the fiber into the first slit in the holder (the slit furthest from the center mounting hole) as shown in Figure 5, Detail A.

3. Measure approximately 457 mm [18 in.] of outgoing fiber, and fit the fiber into the first slit in the opposite side of the end cap. Refer to Figure 5, Detail B.

4. Loop the outgoing fiber around the holder to the opposite side, and temporarily fit the fiber into the first slit in the opposite end of the holder as shown in Figure 5, Detail B.



When routing the fiber, make sure to keep the outgoing fiber between the incoming fiber loops to prevent fiber cross-over.



5. Remove both fibers from the holder, and splice them according to local practices. Be careful not to twist the fibers. Fit the fibers back into the first slit in the holder with the splice positioned in the cutout.

6. Repeat these steps for a maximum of six splices—working from the outside to the center of the tray. See Figure 6 for a properly loaded tray.



Figure 6

3.3. In-Line Cable Routing of Ribbon Fiber

1. Splice the fiber according to local practices.

2. Measure approximately 152 mm [6 in.] of incoming fiber and fit the fiber into the first slit in the end cap (either slit closest to the outside edge of the tray). Refer to Figure 7.

3. Fit the fibers into the first slit in the holder (the slit furthest from the center mounting hole) with the splice positioned in the cutout.

4. Fit the outgoing fiber into the first slit in the end cap on the opposite end of the tray as shown in Figure 7.

5. Repeat these steps for a maximum of six splices with one holder or a maximum of 12 splices with two holders—working with the fibers in succession. See Figure 8 for a properly loaded tray.

3.4. Butt Cable Routing

A. Discrete Fiber (Diameter of 3 mm [.12 in.])

1. Remove approximately 457 mm [18 in.] of the outer jacket from the incoming fiber and fit the fiber into the first slot in the end cap (either slot closest to the outside edge of the tray). Refer to Figure 9.

2. Carefully loop the slack incoming fiber in the tray.



In-Line Cable Routing of Ribbon Fiber

Figure 8

3. Remove approximately 457 mm [18 in.] of the outer jacket of the outgoing fiber. Fit the fiber into the first slot in the opposite side of the end cap.

4. Carefully loop the slack outgoing fiber in the tray.

5. Splice the fibers according to local practices. Fit the incoming fiber into the first slit in the holder (the slit furthest from the center mounting hole) and fit the outgoing fiber into the first slit in the opposite end. Position the splice in the cutout. See Figure 9.

6. Repeat these steps for a maximum of six splices with one holder—working from the outside to the center of the tray.



Only one holder can be used in this application.



Figure 9

B. Multi-Fiber Cable (Diameter Greater than 3 mm [.12 in.])

1. Remove approximately 457 mm [18 in.] of the outer jacket from the incoming fiber. Position the cable so that the jacket is over the tie–down holes on one side of the tray.

2. Secure the cable with cable ties and carefully loop the slack fiber in the tray.



DO NOT overtighten the cable ties when securing cable.

3. Remove approximately 457 mm [18 in.] of the outer jacket from the outgoing fiber. Position the cable so that the jacket is over the tie-down holes on the opposite side of the tray.

4. Secure the cable with cable ties, and carefully loop the slack fiber in the tray.

5. Splice the fibers according to local practices.

6. Fit the incoming fiber into the first slit in the holder (the slit furthest from the center mounting hole) and fit the outgoing fiber into the first slit in the opposite end. Position the splice in the cutout. See Figure 10.



7. Repeat these steps for a maximum of six splices with one holder.



Only one holder can be used in this application.

3.5. Closing the Tray

1. Assemble the end cap tops onto the end caps to secure the fibers. See Figure 11. Position the tab end of the top over the center of the end cap, then press and roll the top over each fiber.





2. Attach the 12–line splice label to the inside of the tray.

3. Lay the cover over the tray. Position the cover so that the short tabs are in front of the tray latches and one retention tab is on top of one latch. Press the short tabs down at this end and slide the cover toward the opposite end. Listen for the "click" to ensure proper installation.

4. Attach the warning label to the outside of the tray.

4. REPLACEMENT AND REPAIR

Additional holders can be ordered for the trays (refer to Figure 1 for part numbers). The tray assemblies contain the following holders:

TRAY ASSEMBLY	HOLDER	QUANTITY
559308-1	Universal Device	1
-2	Universal Device	2
1435839–1	Elastomeric Splice	1
	Fusion Splice	1
-2	Corelink Splice	1
-3	Universal Device	1
-4	Mechanical Splice	1

Also available is a kit that contains four end cap tops:

Cable Cap Kit 559406–1 (for discrete fiber) Cable Cap Kit 559406–2 (for ribbon fiber) Order additional trays and components through your representative, or call 1–800–526–5142, or send a facsimile of your purchase order to 1–717–986–7605, or write to:

CUSTOMER SERVICE (38–35) TYCO ELECTRONICS PO BOX 3608 HARRISBURG PA 17105–3608

The trays and components are not repairable if damaged.

5. REVISION SUMMARY

Revisions to this instruction sheet include:

• Updated document to corporate requirements