

RACK MOUNT CABINETS

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper Optical Cable Corporation product before application.

Catalog#	Product Description (Where X is color: A = Almond, B = Black)
RTC18X	Rack Mount Cabinet with Fiber Mgmt System, accepts up to 3 Adapter Plates
RTC36X	Rack Mount Cabinet with Fiber Mgmt System, accepts up to 6 Adapter Plates
RTC72X	Rack Mount Cabinet with Fiber Mgmt System, accepts up to 12 Adapter Plates
RTC72SX	Rack Mount Cabinet same as RTC72X, includes extra storage compartment
RTC144X	Rack Mount Cabinet with Fiber Mgmt System, accepts up to 24 Adapter Plates

Catalog#	Product Description
R24S	Splicing Tray Kit RTC18/36
R48S	Splicing Tray Kit RTC36
R72S	Splicing Tray Kit RTC72
R96S	Splicing Tray Kit RTC72/144
R144S	Splicing Tray Kit RTC144

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1.00 NOMENCLATURE

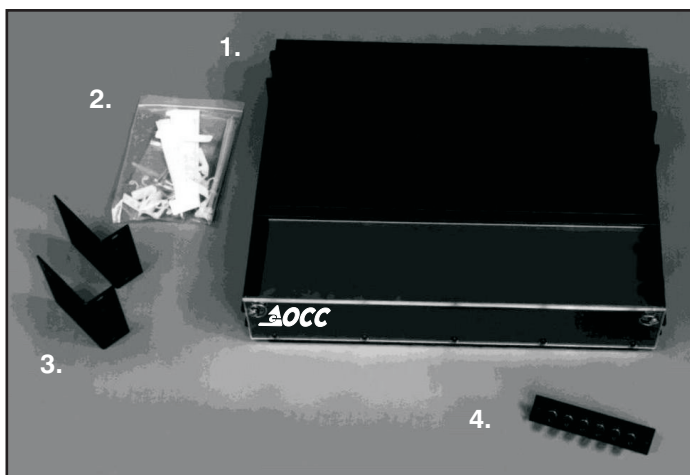


FIGURE 1A - CABINET ASSY (RTC18 shown)

1. Rack Mount Cabinet Assembly
2. Small Part Bag (mounting screws, tie wraps, L-Bracket Assembly)
3. Mounting Brackets (2)
4. Adapter Plates (sold separately)

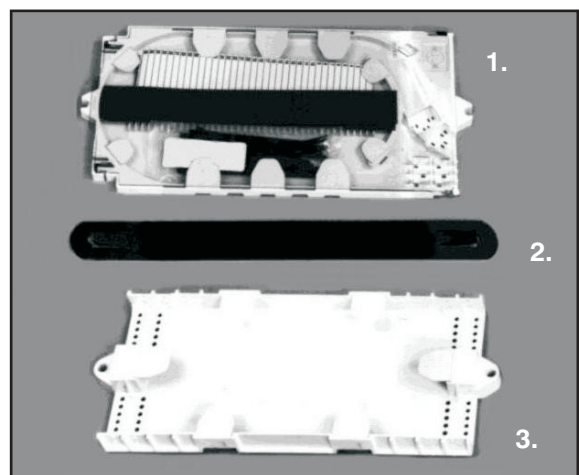


FIGURE 1B - SPLICE TRAY KIT (R24S shown)

1. Transition Assembly
2. Splice Tray(s)
3. Splice Tray Hold Down Strap
4. 1/4" Studs and Nuts (not shown)

2.00 DESCRIPTION

- 2.01** The Rack Mount Cabinets are designed to protect and organize optical fiber splices and connectors in the central office, equipment room, and CEV.
- 2.02** Four sizes of cabinets are available to accommodate from 18 to 144 fiber splices and connectors.
- 2.03** The Splicing Kits which are purchased separately, provide the Splice Trays and associated components required to splice pigtails (sold separately) to the fibers of the feeder cable. Each Splice Tray accommodates 24 splices.
- 2.04** The Mounting Brackets allow mounting the cabinets to either 19" or 23" equipment racks.
- 2.05** Adapter Plates are available with all standard fiber optic connectors (6 connectors per plate) and are ordered separately. (See Section 10.00)

3.00 MOUNTING ON RACK

- 3.01** Attach the appropriate Mounting Bracket to each side of the cabinet using the screws provided. Shorter brackets are included for mounting to a 19" equipment rack. The longer brackets are used for mounting to a 23" equipment rack.
- 3.02** Mount the cabinet to the equipment rack at the desired height with the screws provided.

4.00 FIELD TERMINATION

APPLICATIONS

- 4.01** Remove the following minimum length of jacket from the cable.

RTC18.....	70"
RTC36.....	70"
RTC72.....	80"
RTC72S.....	80"
RTC144.....	90"
- 4.02** Remove the rear cover from the cabinet by turning the 1/4 turn fasteners counterclockwise.
- 4.03** Slit the grommet in the cable entry at the rear of the cabinet on the side being used for cable entry, and position the cable into the entry.

- 4.04** Install the L-Bracket Assembly adjacent to the entry being used with the 1/4" bolt, nut, and lock washer provided.
- 4.05** If required, install a bond connector at the end of the cable jacket and secure it to the L-Bracket Assembly.
- 4.06** Capture the central strength member or any other strength member into the clip on the L-Bracket Assembly.
- 4.07** Install the Adapter Plates (purchased separately) in the cabinet bulkhead. Push the locking fasteners at the ends of the Adapter Plates to secure them in place.
- 4.08** Route the individual jacketed fiber elements around the Fiber Radius Hoops 1 1/2 times for a cable entering the left side of the cabinet and 1 time for a cable entering the right side and then to the Adapter Plates.
- TIP:** Be sure to maintain a 1 3/4" to 2" bending radius on the individual fiber elements as they go around the Fiber Radius Hoops and to the Adapter Plates.
- 4.09** Mark the jacketed fiber elements at a point about 1" beyond where they contact the bulkhead (this provides additional fiber length for application of the connectors).
- 4.10** Field install the connectors to the jacketed fiber elements according to your accepted company practices and the recommendations from the connector supplier.
- 4.11** Install the connectorized fiber elements to the bushings on the Adapter Plates.

5.00 PIGTAIL/SPLICING APPLICATIONS

- 5.01** Sections 6.00 through 8.00 detail the steps required where pigtails are used and spliced into the feeder cables within the cabinet.
- 5.02** Loosen the nuts and remove the Fiber Radius Hoops from the inside of the cabinet.
- 5.03** Screw the 1/4" studs provided with the Splicing Kit into the PEM nuts in the bottom of the cabinet.
- 5.04** Install the Transition Assembly provided with the Splicing Kit over the 1/4" studs and secure in place with the 1/4" nuts provided

6.00 PREPARATION AND ROUTING OF FEEDER CABLE

- 6.01** Remove a minimum of 90” of sheath from the cable and clean cable according to accepted company practices.
- 6.02** Remove the rear cover from the cabinet by turning the 1/4-turn fasteners counterclockwise.
- 6.03** Slit the grommet in the cable entry at the rear of the cabinet on the side being used for cable entry and position the cable into the entry.
- 6.04** Lay the fibers or the unitube into the Transition Assembly. For the unitube application, skip to Step 6.10.
- TIP:** The retaining tabs on top of the Transition Assembly are removable to facilitate placement of fibers.
- 6.05** Mark the fibers at the back wall centerline of the Transition Assembly as shown in Figure 2A. (and Figure 2B)

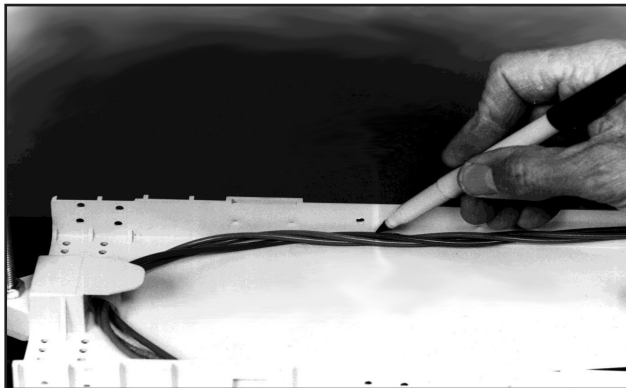


FIGURE 2A- MARK THE FIBER FOR BOTTOM CABLE ENTRY

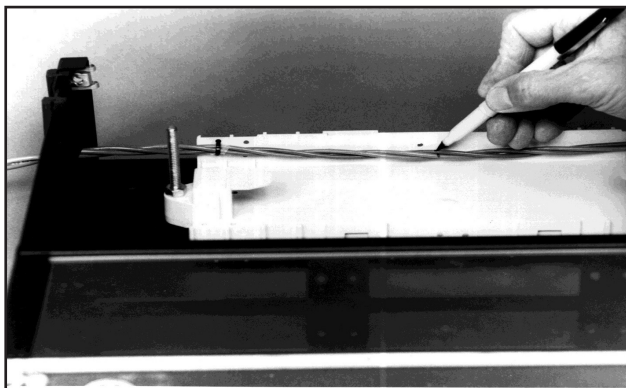


FIGURE 2B- MARK THE FIBERS FOR BOTTOM CABLE ENTRY

(Note that for cable entry into the right side of the cabinet, the buffer tubes are routed against the front of the Transition Assembly and then around to the back wall).

- 6.06** Starting with one of the fibers, mark and clean the fibers per your accepted company practices.
- 6.09** Using two of the tie wraps supplied with the Splice Tray(s), secure the buffer tubes to the back wall of the Transition Assembly. (Figure 3).
- 6.10** Mark the unitube at a point 2” from where it enters the Transition Assembly (for either right or left side cable entry).
- 6.11** Remove the unitube and clean the fibers per your accepted company practices. Make sure to maintain the identity of each bundle of twelve fibers.

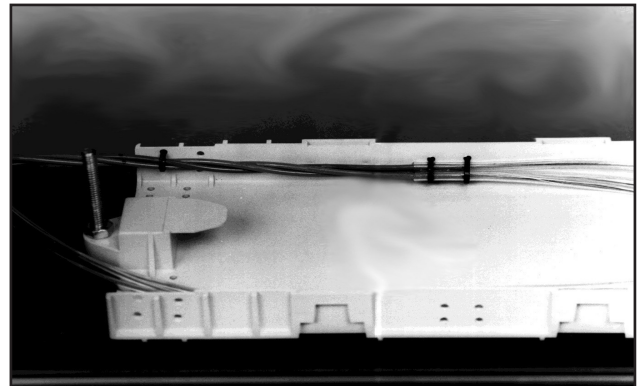


FIGURE 3- SECURING THE FIBERS TO THE TRANSITION ASSEMBLY

- 6.12** Secure the unitube to the Transition Assembly with the tie wraps provided. Use two sets of the tie down holes in the side of the Transition Assembly.

7.00 PIGTAIL PREPARATION & ROUTING

- 7.01** The following are the required pigtail lengths for each Rack Mount Cabinet:
- | | |
|--------------|----------|
| RTC18 | 3 meters |
| RTC36 | 3 meters |
| RTC72 | 3 meters |
| RTC144 | 3 meters |
- 7.02** Select one of the Adapter Plates (purchased separately) and install it in one of the locations in the cabinet bulkhead. Push the locking fasteners at the ends of the adapter plate to secure it in place.

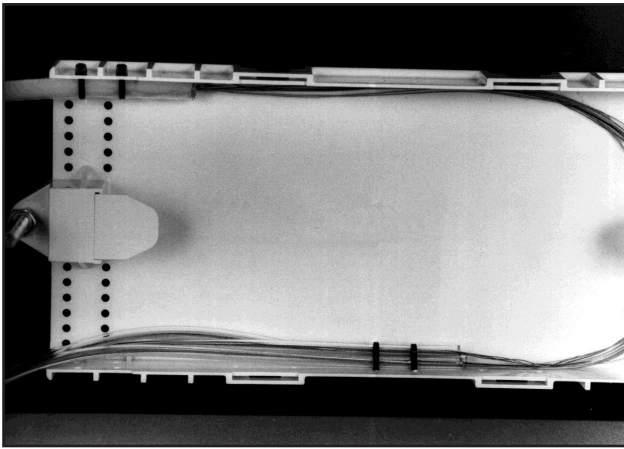


FIGURE 4A - FIBER ROUTING & LOCATION FOR RIGHT SIDE CABLE ENTRY

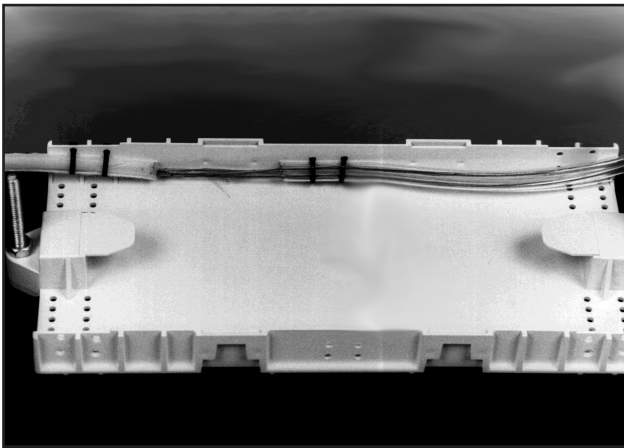


FIGURE 4B - FIBER ROUTING & LOCATION FOR LEFT SIDE CABLE ENTRY

TIP: For the RTC36 Cabinet, install the lower row of Adapter Plates first.

7.03 Select six of the pigtails, clean the fiber connector and connect them to the rear side of the adapter plate.

7.04 Route the pigtails along the Transition Assy toward the right side of the cabinet, while maintaining a smooth bending radius behind the Adapter Plates. (Figure 5)

7.05 Mark the jacket of each of the pigtails at a point 2" beyond the bending radius as shown in Figure 6.

7.06 Carefully remove the jacket on each pigtail up to the mark. Number or color code the connector strain relief and the 900 micron tight buffer of each pigtail for fiber identification.

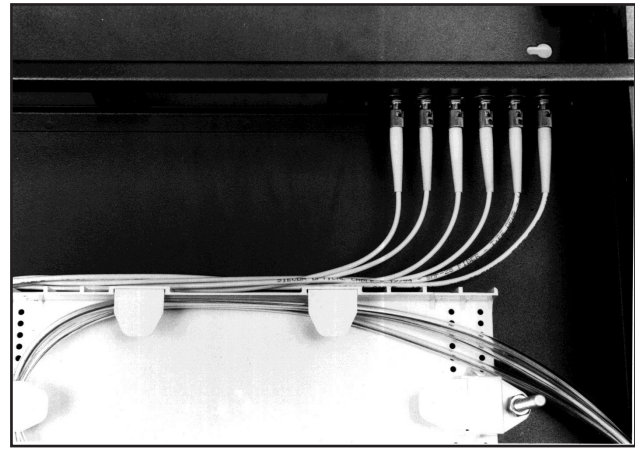


FIGURE 5 - ROUTE THE PIGTAILS

TIP: Optical Cable Corporation has pigtails available with different colored 900 micron tight buffer coatings to simplify fiber identification.

8.00 FIBER SPLICING AND ROUTING

8.01 Route the fibers of the feeder cable fibers and the Pigtail Tube Assemblies within the Transition Assembly so that they will exit at the front left corner of the Transition Assembly. (Figure 7, see next page)

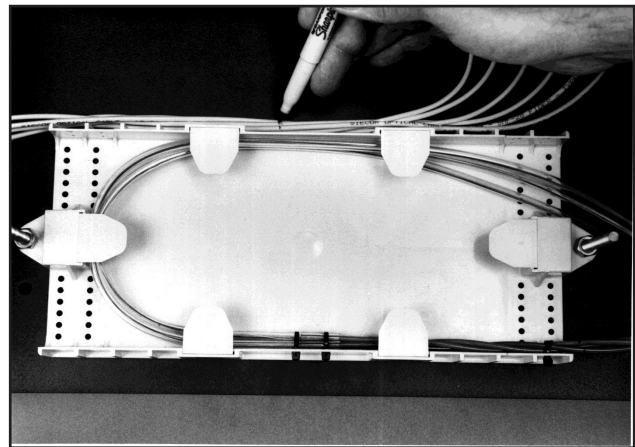


FIGURE 6 - MARK THE PIGTAILS

8.02 Use two tie wraps to gently secure the Pigtail Assemblies to the back right side of the Transition Assembly as shown in Figure 7 (see next page).

8.03 Place a Splice Tray on the threaded studs over the Transition Assembly.

TIP: Install the tie wraps into the Splice Tray tie down holes prior to installing the Splice Tray. (Figure 8, see next page)

- 8.04 Select four Pigtail Assemblies (use three if working with the RTC18) and fibers for installation onto the Splice Tray.

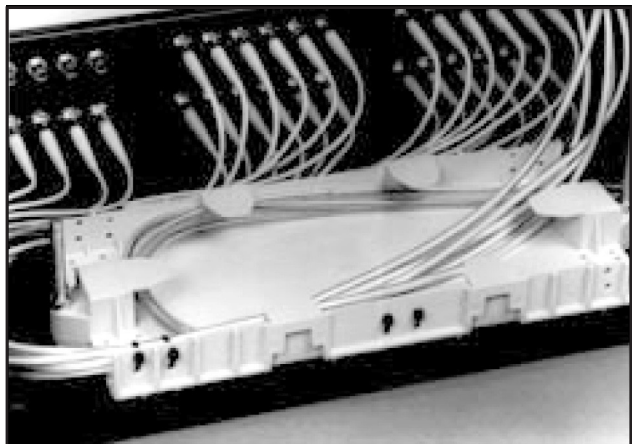


FIGURE 7 - ROUTE FIBERS IN TRANSITON ASSY

- 8.05 Lay the Pigtail Assemblies within the wide entry slot of the Splice Trays and the provider fibers within the first two narrow slots and mark the tubes slightly beyond the tie down locations. (Figure 9)

- 8.06 Carefully cut the groups at the marks and remove the excess length.

- 8.07 Secure the Pigtail Assemblies and Fibers to the Splice Tray with the tie wraps. (Figure 10)

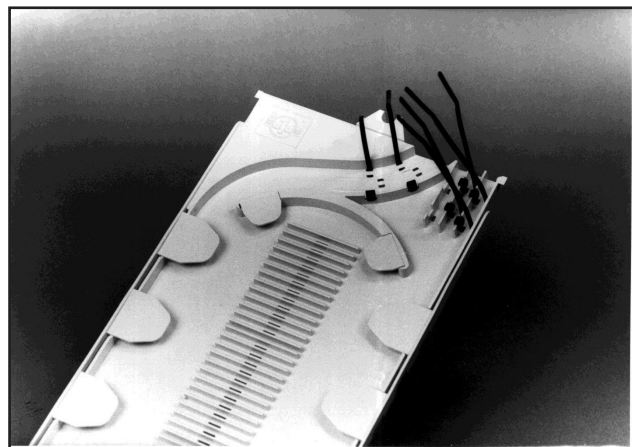


FIGURE 8 - INSTALL TIE WRAPS INTO SPLICE TRAY

- 8.08 Route the Pigtail and feeder cable fibers one complete turn around the Splice Tray and into the splice groove farthest from the entry point of the tubes. (Figure 11)

TIP: Temporarily remove the retaining tabs from the Splice Tray to ease fiber placement.

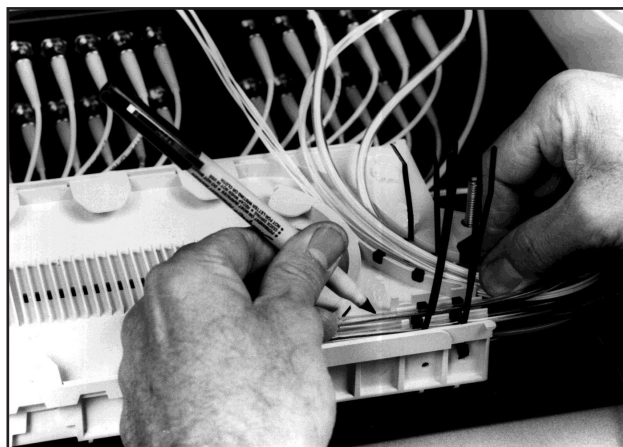


FIGURE 9 - MARK GROUPS IN SPLICE TRAY

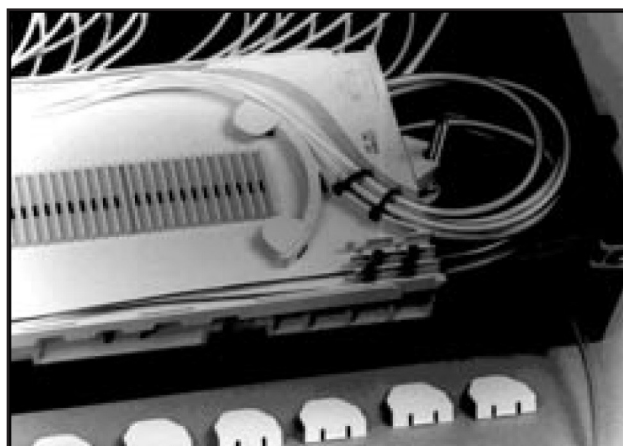


FIGURE 10 - SECURE TUBES TO SPLICE TRAY

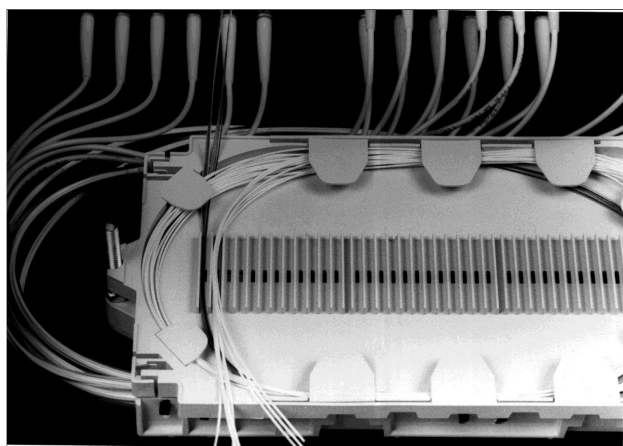


FIGURE 11 - ROUTE FIBERS IN SPLICE TRAY

- 8.09 Splice feeder cable fibers to pigtail fibers per accepted company practices. Place each splice in groove, starting from the farthest groove from the tube entry.

- 8.10 Repeat Steps 8.03 through 8.09 for the additional Splice Trays.

- 8.11 Secure Splice Tray(s) in place with Splice Tray Hold Down Strap. (see Figure 12)

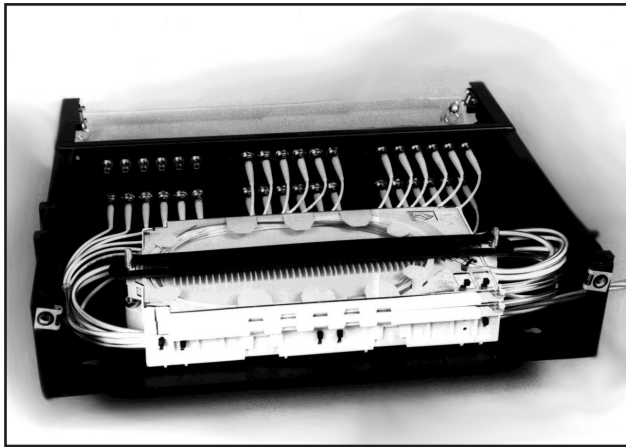


FIGURE 13 - SECURE SPLICE TRAYS WITH SPLICE TRAY HOLD DOWN STRAP

9.00 JUMPER ROUTING

- 9.01 Clean the fiber connectors and attach the jumpers to front side of the Adapter Plates.
- 9.02 Gently bend jumpers toward and through the grommet on either side of the cabinet.
- 9.03 Lightly secure the jumpers to the tie down post with the tie wraps provided.
- 9.04 Lightly secure the jumpers to the equipment rack with the tie wraps.

10.00 ACCESSORIES

- 10.01 Adapter Plates & Pigtail Assy's (Table 1) are available for the Rack Mount Cabinets. For more, contact Optical Cable Corporation.

11.00 SAFETY CONSIDERATIONS

- 11.01 This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. Failure to follow these procedures may result in personal injury.
- 11.02 When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact.
- 11.03 For proper performance and personal safety, be sure to select the proper size Optical Cable Corporation product before application.
- 11.04 This product is intended for use by trained technicians only. The product **should not be used** by anyone who is not familiar with, and not trained to use it.

TABLE 1

ADAPTER PLATE ASSEMBLIES	
Catalog#	Description
616MMST	Plate equipped with 6 multimode ST adapters
616SMST	Plate equipped with 6 singlemode ST adapters
616MMSC	Plate equipped with 6 multimode SC adapters
616SMSC	Plate equipped with 6 singlemode SC adapters
616MMFC	Plate equipped with 6 multimode FC adapters
616SMFC	Plate equipped with 6 singlemode FC adapters
616MMDLC	Equipped with 3 multimode duplex LC adapters
616SMDLC	Equipped with 3 singlemode duplex LC adapters
600	Blank Filler Plate (no port holes or adapters)
12 FIBER PIGTAIL ASSEMBLIES	
Catalog#	Description
P5ST12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 50 μ m multimode ST connectors
P6ST12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 62.5 μ m multimode ST connectors
P8ST12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 9 μ m singlemode ST connectors
P5SC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 50 μ m multimode SC connectors
P6SC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 62.5 μ m multimode SC connectors
P8SC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 9 μ m singlemode SC connectors
P5FC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 50 μ m multimode FC connectors
P6FC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 62.5 μ m multimode FC connectors
P8FC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 9 μ m singlemode FC connectors
P5LC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 50 μ m multimode LC connectors
P6LC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 62.5 μ m multimode LC connectors
P8LC12-3M	12 fibers with different colored 900 μ m buffers, 3 meters long, 9 μ m singlemode LC connectors



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