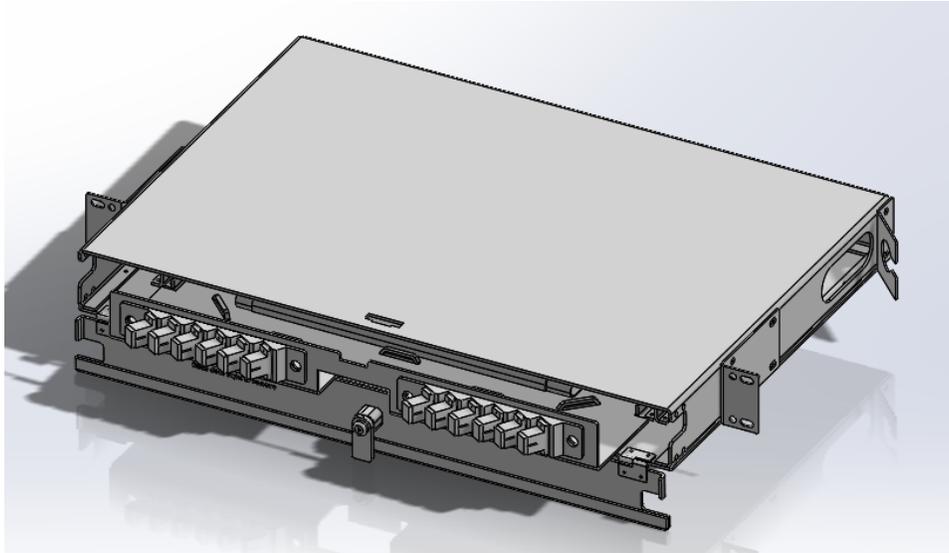
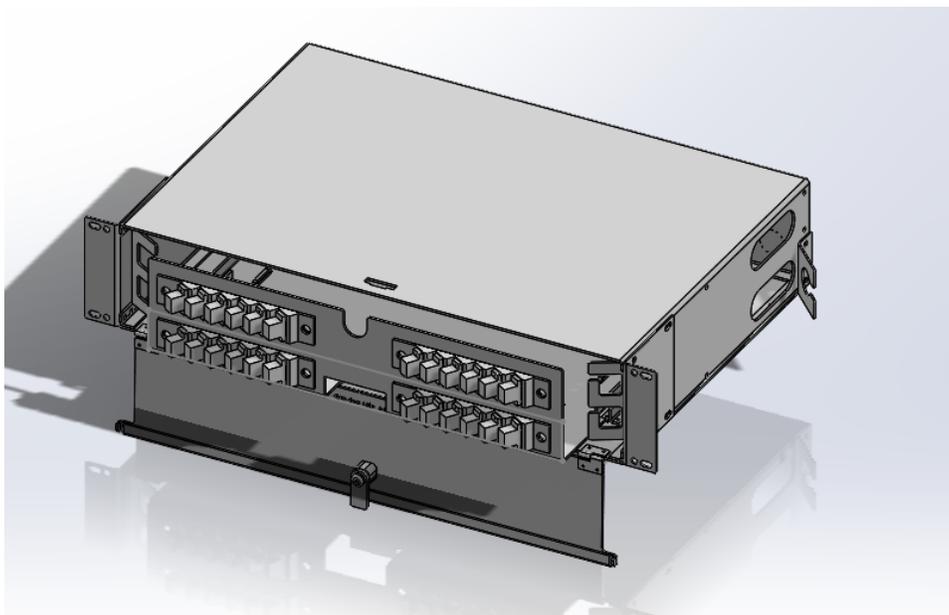


Rack Mount Termination/Splice Panels:

R-1 Single, R-2 Double



R-1 Single shown with (2) SC/UPC Bulkhead Adaptors



R-2 Double shown with (4) SC/UPC Bulkhead Adaptors



1. Description and Features:

The R-1 Single and R-2 Double rack mount panels both facilitate fiber splicing and patching of ISP cables in an industry standard telecommunication rack, either 19" or 23".

- The R-1 Single fiber optic splice/termination panel has 12 ports and occupies one rack unit.
- The R-2 Double fiber optic splice/termination panel has 24 ports and occupies two rack units.
- Features angled bulkhead adaptors that allow the egress of patch cords in the desired direction, either to the left or to the right.
- The drawer is easily removed, and the design incorporates a physical stop to prevent the end user from unintentionally pulling the drawer out too far and risk dropping the drawer.
- The splice tray included is manufactured from aluminum and has a clear plastic snap cover.
- Includes a cable strain relief bushing and cable entrance bracket that is slotted that can allow the removal of the splices while remaining intact.
- The front door is removable with pin and sleeve hinges.
- The panel may be installed in either 19" or 23" standard racks. It may also be installed flush, 2 3/4" or 4 3/4" proud to the face of the rack.

2.0 Cautions and Warnings

Warning: Fiber Optic Cables may emit light that is invisible to the eye. Never look directly at the end of any fiber optic cable, glass stands thereof, or into the optical bulkhead of any fiber optic panel.

Warning: Glass strands are a significant eye and skin hazard. Always dispose of glass strands in a dedicated container. Wear safety glasses to minimize risks. Small glass shards should be handled with tweezers.

Caution: Glass cables are fragile and can be damaged by excessive bending, pulling, and crushing. Cables should never be manipulated beyond specification.

3.0 Unpacking the panel

The panel incorporates a built-in catch to stop the end user from dropping the drawer if it is pulled out too far. To remove the drawer:

1. Open the front cover and slide the drawer out approximately 2 inches.
2. Remove the mounting hardware and fan-out pigtail if included.
3. Lift the drawer straight up. The drawer is now free to be removed.

4.0 Package contents

General list of hardware included in package. Quantities may vary depending on order configuration.

- Panel Housing with removable slide out drawer
- (2) mounting brackets
- (10) #10 x 32 x ¼ Robertson machine screws
- (1) Cable support bracket
- (1) Strain relief bushing
- (1 or 2) Splice tray(s) with self-adhesive splice chip for 12 fibers
- Cable ties
- Velcro strapping
- (1 or more) Bulkhead adaptor(s) available with following connectors: (SC or LC)/(APC or UPC)/(SM, MM, or 50µ)
- (1 or more) Fan-out pigtail to match bulkhead adaptor.
- (4) #10 x 32 x ¾ rack screws
- Labels

5.0 Installing the panel in a rack

The panel may be installed flush to the face of the rack, or it may be installed to project proud of the rack. Install the mounting bracket with the supplied #10 x 32 screws in the panel to match the desired position.

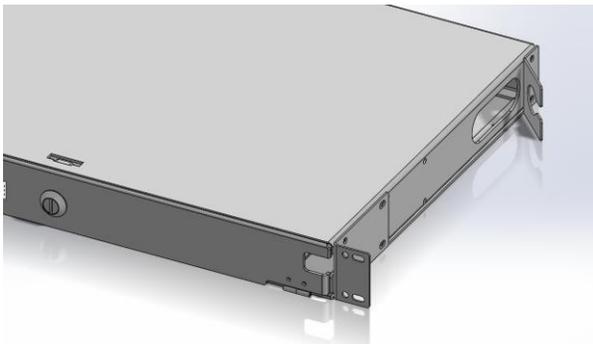


Figure 1. Flush installation

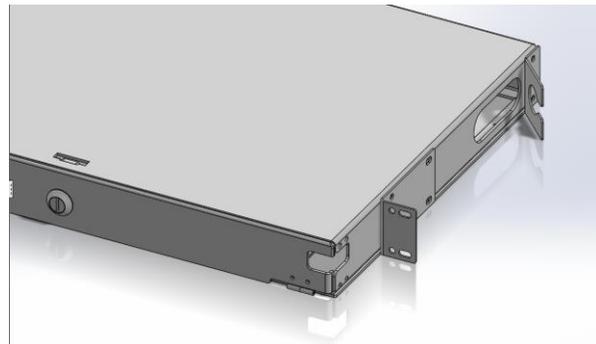


Figure 2. 2 ¾" approximate projection

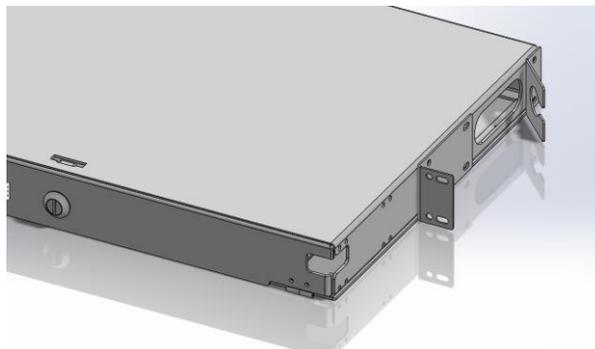


Figure 3. 4 ¾" approximate projection

5.0 Installing the panel in a rack (con't.)

The panel may also be installed in a 23" rack by reversing the bracket as shown:

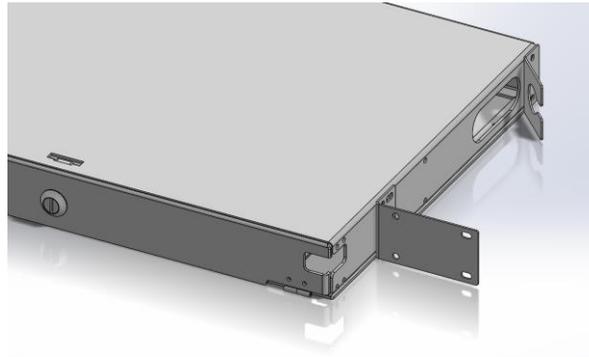


Figure 4. Bracket position for 23" rack installation with 2 ¼" projection

6.0 Regarding angled bulkhead adaptors and fiber dressing best practices

- a) Angled bulkhead adaptors inherently provide advantages over straight adaptors in that it enforces a continuous arc in the dressed cable and results in fewer opportunities for micro bends. Bends in patch cords are also minimized and naturally flow in the desired direction, either right or left, by reversing the orientation of the bulkhead adaptor.
- b) Project layout: The desired direction, right or left, in which the patch cords exiting the front panel should be assessed prior to dressing the interior glass strands. The direction of the patch cords will dictate whether the cables are dressed inside the panel clockwise direction or alternatively a counterclockwise direction. For best results, where possible, the entrance cable should be routed into the panel on the same side as the patch cords. That is, if the patch cords will exit the panel on the left side, the cable entering into the panel should also be routed into the left side of the panel. Conversely, if the patch cords will flow to the right, the entrance cable should also be routed to the right. Doing so avoids the need for a figure '8' inside the panel to achieve the desired direction.

7.0 Installation and cable dressing instructions:

Note: The following instructions pertain to dressing and splicing a loose tube entrance cable to a fan-out pigtail into the panel; dressing an entrance cable that is tight buffered will follow the same general procedure. Similarly, routing and securing a cable when only terminating to connectors will also follow the same general procedure. The following instructions refer to an installation where the patch cables are expected to be dressed out the left side of the panel.

1. Unpack the panel, open the front door and removing the drawer, hardware, and fan-out pigtail if ordered as such. See per paragraph 3.0.
2. Per paragraph 5.0 (b), identify which side the patch cords will exit the panel and attach the supplied cable strain relief bracket to the same side, if possible, with the supplied #10-32 screws. Install the supplied strain relief bushing onto the bracket.
3. Identify whether the panel will be flush with the rack or projecting forward and install the support brackets accordingly.
4. Install the panel into the rack with supplied 4 #10 x 32 screws.

7.0 Installation and cable dressing instructions (con't.):

5. Thread enough entrance cable through the strain relief Bushing to reach your worktable or area. Do not tighten the strain relief bushing at this time. After the cables are fully dressed and terminated, the excess entrance cable will be pulled back.



Figure 5. Panel shown with entrance cable pulled through to worktable.

6. Remove approximately 4' of the outer jacket of the entrance cable to expose the inner tube(s), to allow the cable to be dressed in the drawer and spliced in the tray. Secure the cable to the tray in the manner shown, using the supplied tie straps, or alternatively use the provided Velcro strapping. Note that the cable is only secured in the opposite corner from the entry point. This will allow the drawer to move freely when the panel is fully assembled.

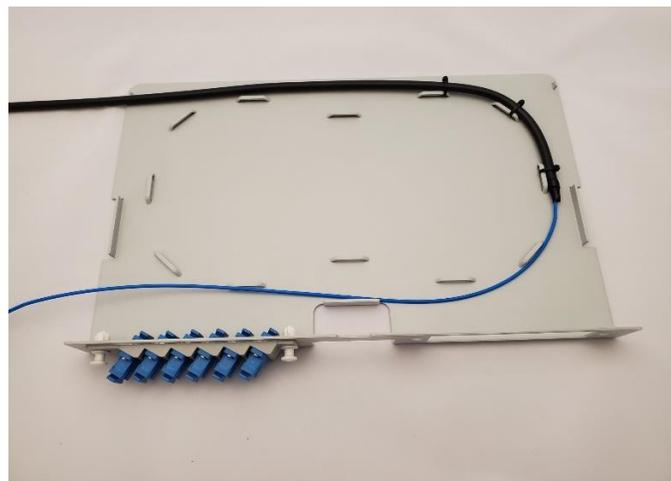


Figure 6. Drawer shown bulkhead adaptor installed and with entrance cable stripped, ready for splicing. Note the cable is only secured in the opposite corner from the entrance point of the panel.

7.0 Installation and cable dressing instructions (con't.):

7. Dress the fan-out pigtail onto the drawer, securing it with the provided tie straps or with the supplied Velcro strapping. OPTI-pro fanout pigtails are manufactured without Kevlar strengthening members. This allows individual fiber strand length of the fanout pigtail to be adjusted by straightening the cable and pulling out excess length. Where fiber strands are exposed it is recommended to use Velcro strapping when securing it to the drawer to avoid a pinch point.

While securing the fan-out pigtail to the drawer, include the exposed tube of the entrance cable.

Note, the entrance cable remains secured only in the opposite corner from the entry point. Again this will allow the drawer to open freely.

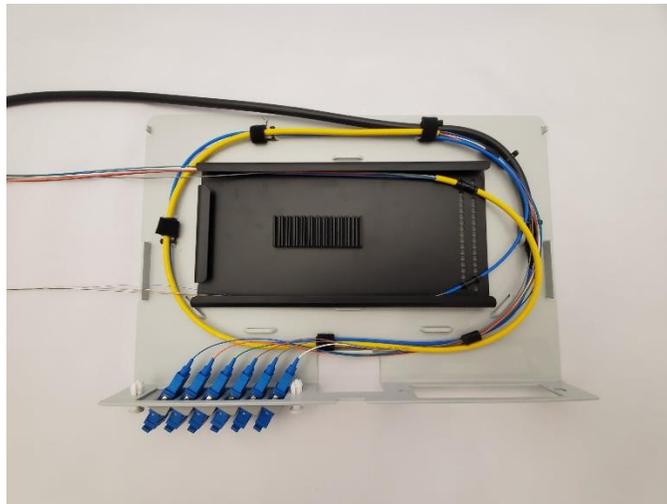


Figure 7. Drawer shown with fan-out pigtail dressed into drawer, plugged into the adaptor, and ready to splice. The strands of the pigtail are aligned with the bulkhead adaptor. The splice chip is affixed to the tray.

8. Splice the fibers per the operating procedure of your fiber splice machine.

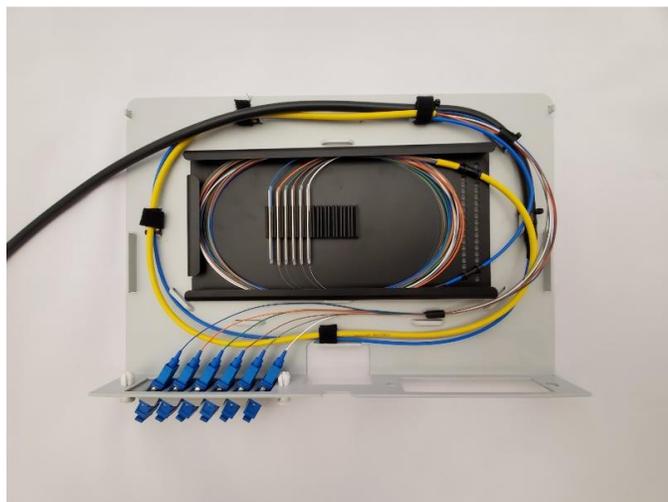


Figure 8. Drawer shown with fan-out pigtail spliced to the entrance cable. The entrance cable remains secured in the opposite corner from the entry point.

7.0 Installation and cable dressing instructions (con't.):

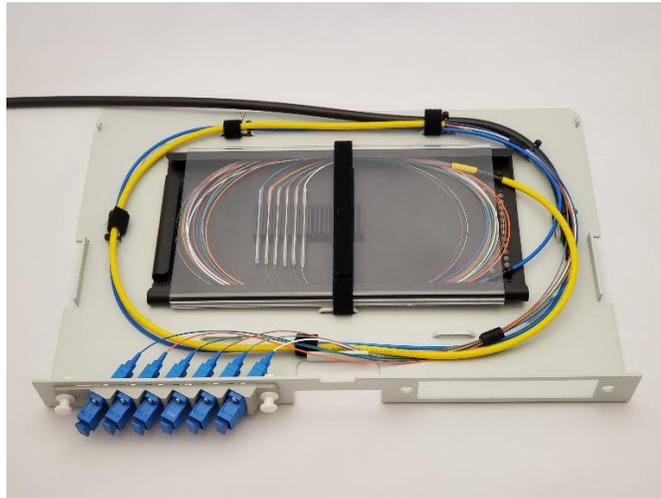
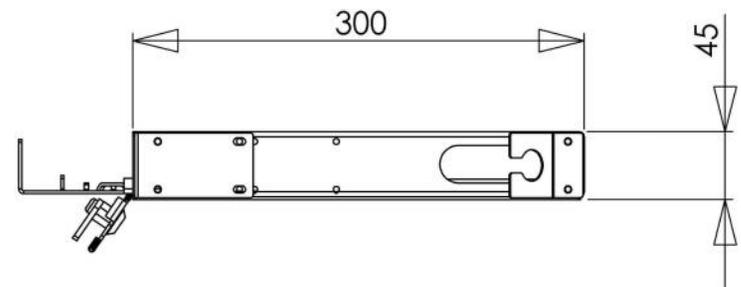
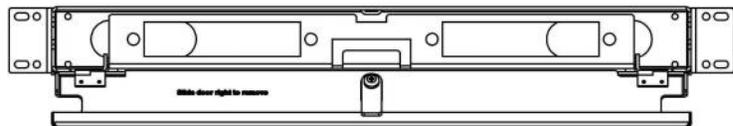
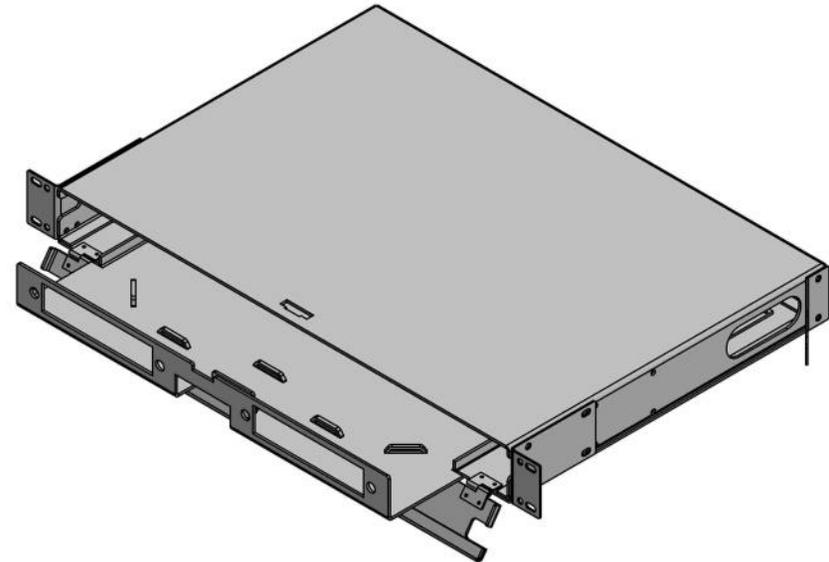
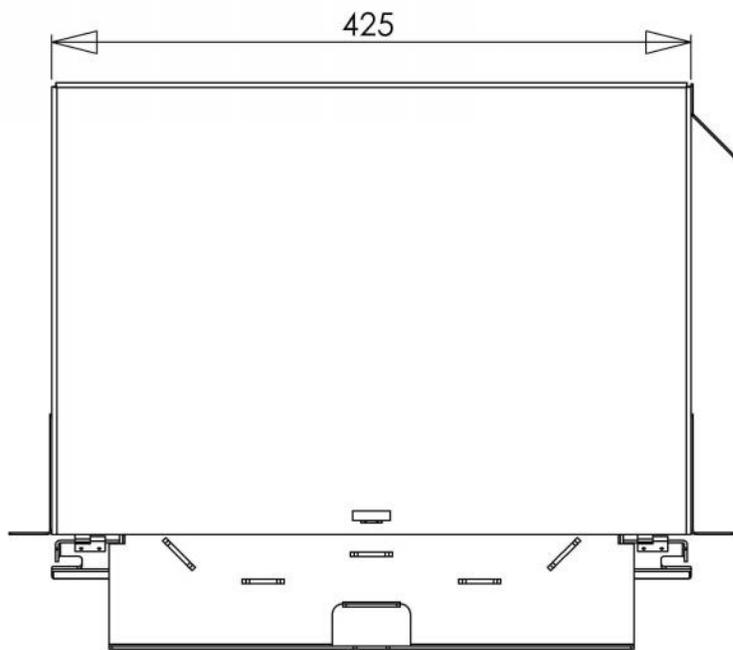


Figure 9. Drawer shown with splice tray cover installed and the tray secured to the drawer with the supplied Velcro strapping.

9. The drawer may now be installed in the panel. Simultaneously pull the excess length of the entrance cable back through the strain relief bushing while guiding the drawer into the panel. Once the drawer is seated fully into the panel, the strain relief bushing may now be tightened. There will be enough slack in the cable to allow the drawer to be opened if the cable is secured in the opposite corner from the entry point as shown in Figure 6.

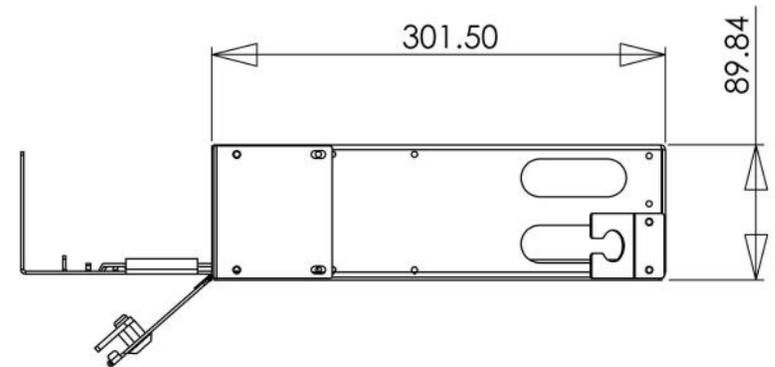
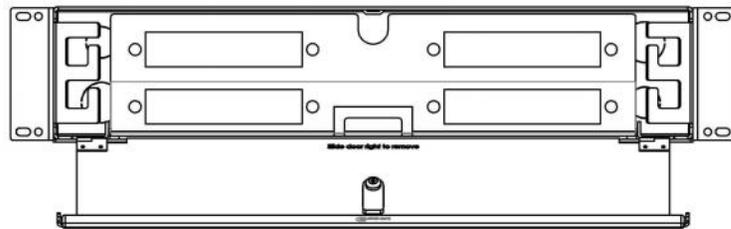
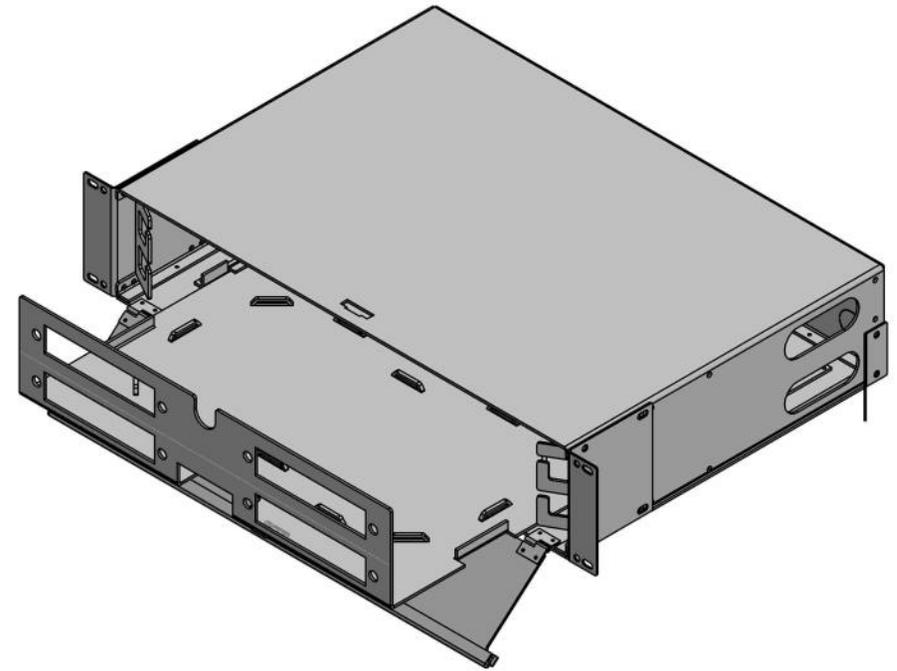
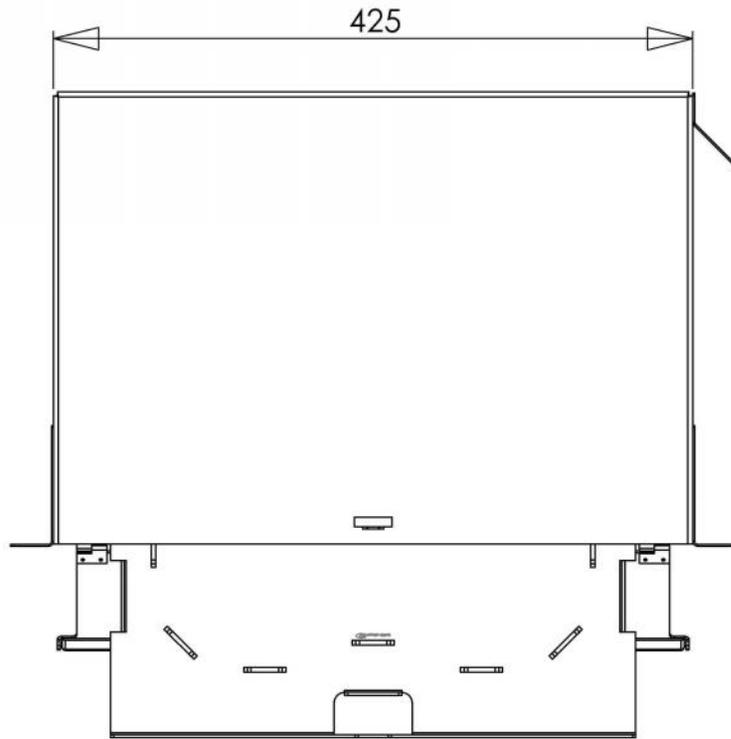
Questions:

www.opti-pro.ca
info@opti-pro.ca
1 403 212 0363



- Occupies one rack unit.
- Reversible brackets allow for 19" or 23" racks.
- Unit can be installed flush or 5" proud to match existing installations.
- Removable access door for ease of installation.

R-1 Assembly Drawing #1 Jan 14 2013		
SIZE A	Finish = Grey Powder coat	
WEIGHT:		SHEET 1 OF 1



- Occupies two rack units.
- Reversible brackets allow for 19" or 23" racks.
- Unit can be installed flush or 5" proud to match existing installations.
- Removable access door for ease of installation.

R-2 Assembly
Drawing #1 Jan 14 2013



SIZE A	Finish = Grey Powder coat	REV.
WEIGHT:		SHEET 1 OF 1