



## M204SMB Surface Mount Box Instructions

### General

The **CommScope®** M204SMB surface mount box (SMB) is designed for interior surface-mounted applications and can support copper and fiber terminations. The standard unit is equipped with two adapters, which can support two M-series outlets each. The two openings on the front side of the box can be fitted with different adapters that will allow for a wide range of connectivity applications. The SMB can accommodate cable entry through three sides of the box and through the base and also has a snap-in fiber spool to assist with fiber management. The SMB can be mounted to a standard electrical box using the screws provided or if mounting to a wall or other smooth, flat surface, by using the double-sided adhesive tape provided.

The SMB is available in four colors.

Material ID	Part No.	Color
760045005	M204SMB-003	Black
760045013	M204SMB-246	Ivory
760044990	M204SMB-262	White
760045021	M204SMB-270	Gray

### How to Contact Us

- To find out more about **CommScope®** products, visit us on the web at <http://www.commscope.com/>
- For technical assistance:
  - Within the United States, contact your local account representative or technical support at 1-800-344-0223. Outside the United States, contact your local account representative or Authorized Business Partner.
  - Within the United States, report any missing/damaged parts or any other issues to CommScope Customer Claims at 1-866-539-2795. Outside the United States, contact your local account representative or Authorized Business Partner.

### Parts List

Verify contents from the parts listed below:

Quantity	Description	Quantity	Description
1	Base	1	Clear label cover
1	Cover	3	Dust covers
2	Adapters	4	Mounting screws
1	Fiber spool	3	Cable ties
1	Cover attachment screw	2	Double-sided adhesive tape
1	Paper label	1	Instruction sheet

## Available Accessories

Material ID	Part No.	Description
760009464	M30FP-BLANK-003	Blank adapter (Black)
760009472	M30FP-BLANK-246	Blank adapter (Ivory)
760009480	M30FP-BLANK-262	Blank adapter (White)
760009498	M30FP-BLANK-270	Blank adapter (Gray)
760009423	M30FP-1RJ45-003	Single adapter (Black)
760009431	M30FP-1RJ45-246	Single adapter (Ivory)
760009449	M30FP-1RJ45-262	Single adapter (White)
760009456	M30FP-1RJ45-270	Single adapter (Gray)
760008649	M30FP-2RJ45-003	Duplex adapter (Black)
760008656	M30FP-2RJ45-246	Duplex adapter (Ivory)
760008664	M30FP-2RJ45-262	Duplex adapter (White)
760008672	M30FP-2RJ45-270	Duplex adapter (Gray)
760005256	M81-SVHS-110-003	S-video outlet (Black)
760005264	M81-SVHS-110-246	S-video outlet (Ivory)
760005272	M81-SVHS-110-262	S-video outlet (White)
760005280	M81-SVHS-110-270	S-video outlet (Gray)
760028704	M30FP-VGA-PT-003	VGA adapter (Black)
760028712	M30FP-VGA-PT-246	VGA adapter (Ivory)
760028720	M30FP-VGA-PT-262	VGA adapter (White)
760028738	M30FP-VGA-PT-270	VGA adapter (Gray)
760017541	M30FP-3RCA-110-003	3-port RCA adapter (Black)
760017558	M30FP-3RCA-110-246	3-port RCA adapter (Ivory)
760017566	M30FP-3RCA-110-262	3-port RCA adapter (White)
760017574	M30FP-3RCA-110-270	3-port RCA adapter (Gray)
108009424	M81-BNC-B	BNC coupler
108009432	M81C-B	Coaxial coupler
M81LC-029	107782641	LC coupler (Clear)
M81SC-B	108009416	SC coupler (Black, Ivory, White, Gray)
M81ST-B	108009408	<b>ST</b> <sup>®</sup> coupler (Black, Ivory, White, Gray)

**Note:** Outlets are available in a variety of colors. Refer to the **CommScope** catalog or contact your account representative for more information.

## Additional Configurations

Possible Configurations per SMB Opening	Material ID
(1) Blank	760009464, 760009472, 760009480, 760009498
(1) M-series outlet	(see note)
(2) M-series outlets	(see note)
(1) S-video outlet	760005256, 760005264, 760005272, 760005280
(2) S-video outlets	760005256, 760005264, 760005272, 760005280
(1) VGA adapter	760028704, 760028712, 760028720, 760028738
(1) RCA adapter	760017541, 760017574, 760017558, 760017566
(1) BNC coupler	108009424
(2) BNC couplers	108009424
(1) Coaxial coupler	108009432
(2) Coaxial couplers	108009432
(1) LC coupler	107782641
(2) LC couplers	107782641
(1) SC coupler	108009416
(2) SC couplers	108009416
(1) <b>ST</b> coupler	108009408
(2) <b>ST</b> couplers	108009408

**Note:** Outlets are available as Cat 5e and Cat 6 and in a variety of colors. Refer to the **CommScope** catalog or contact your account representative for more information.

Using the above table as a guide, it is possible to adapt the two openings in the SMB for numerous configurations.

For example: To install (1) S-video outlet, (1) BNC coupler, and (1) **ST** coupler, all in white, you would use:

(1) 760005272 – M81-SVHS-110-262

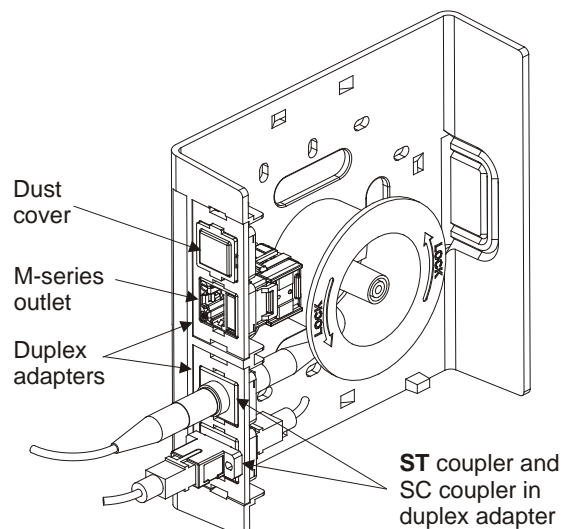
(1) 108009424 – M81-BNC-B

(1) 108009408 – M81ST-B

(1) 760009449 – M30FP-1RJ45-262

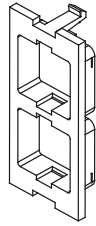
(1) 760008664 – M30FP-2RJ45-262

Offering single and duplex adapters allows the user the flexibility to install a single outlet or coupler in either a single adapter or in a duplex adapter and to use the available dust cover in the unused port. This allows for future use without changing adapters. The figure below illustrates using a dust cover in a duplex adapter.

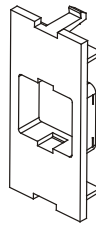


## Determine Adapters To Be Used

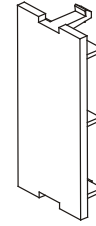
A full range of adapters are available for use in the 4-port SMB.



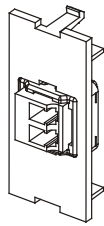
**Duplex Adapter  
(Two Furnished with Box)  
M30FP-2RJ45**



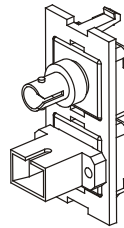
**Single Adapter  
M30FP-1RJ45**



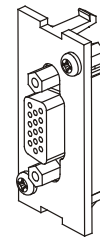
**Blank Adapter  
M30FP-BLANK**



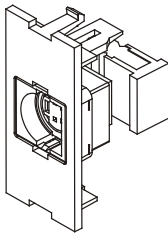
**LC Coupler  
(Adapter not Included)  
M81LC-029**



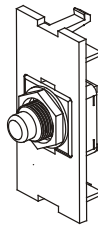
**ST and SC Couplers  
(Adapter not Included)  
M81ST-B and M81SC-B**



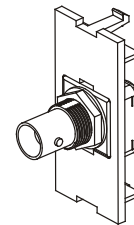
**VGA Adapter  
(Includes Adapter)  
M30FP-VGA-PT**



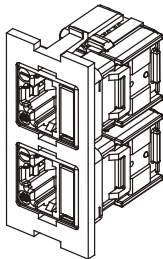
**S-Video Outlet  
(Adapter not Included)  
M81-SVHS-110**



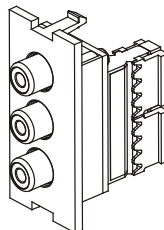
**Coaxial Coupler  
(Adapter not Included)  
M81C-B**



**BNC Coupler  
(Adapter not Included)  
M81-BNC-B**

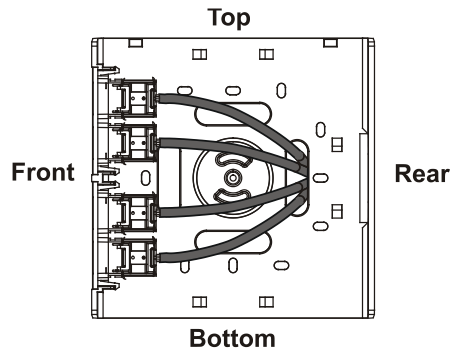


**M-series Outlets  
(Adapter not Included)  
(See Note on page 3)**

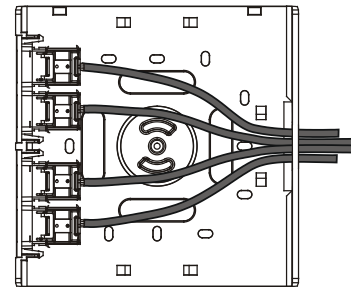


**3-Port RCA Adapter  
(Includes Adapter)  
M30FP-3RCA-110**

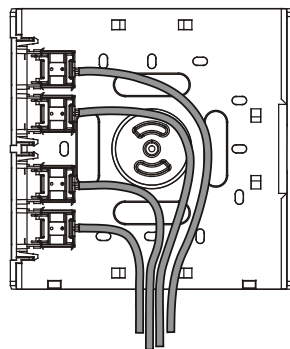
## Step 1 – Determine Cabling Configuration



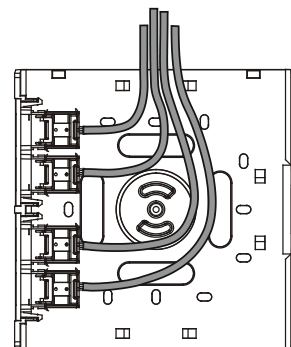
**Cable Entry Thru Base**



**Cable Entry Thru Rear**



**Cable Entry Thru Bottom Side**



**Cable Entry Thru Top Side**

**Note:** M-series outlets in duplex adapters shown for illustration purposes

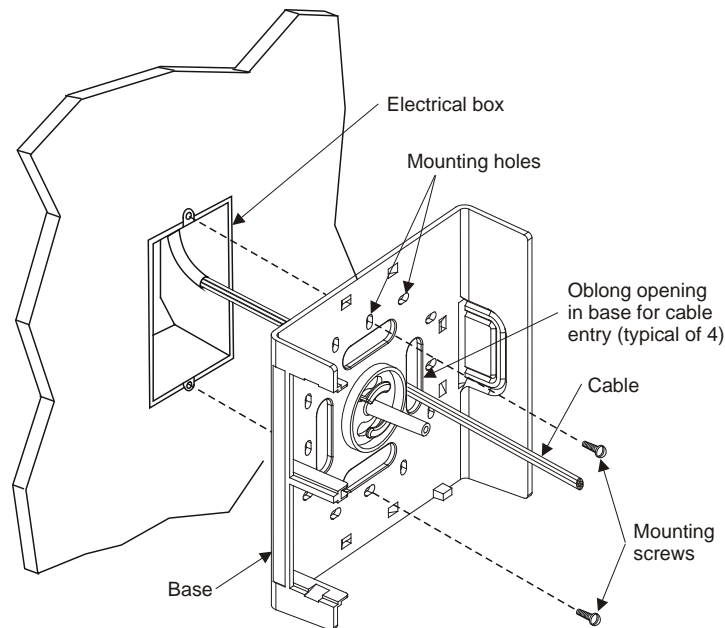
The SMB can accommodate cable entry from four different locations as described below and shown in figure above:

- **Cable Entry Through Base** – Cables from a standard single or duplex electrical box enter base through any of four oblong openings provided.
- **Cable Entry Through Rear** – Cables enter rear of base from either an electrical raceway or from surface mounted conduit. One of two knockouts molded into base will need to be removed to allow cable entry.
- **Cable Entry Through Bottom Side** – Cables enter bottom side of SMB from either an electrical raceway or from surface mounted conduit. In this configuration, one of two knockouts molded into cover will need to be removed to allow cable entry.
- **Cable Entry Through Top Side** – Cables enter top side of SMB from either an electrical raceway or from surface mounted conduit. In this configuration, one of two knockouts molded into cover will need to be removed to allow cable entry.

## Step 2 – Mount Base Unit

**Note:** Procedure to mount base unit will depend on type of cable entry selected in Step 1. Therefore, this section is divided into three parts.

### Mounting Base Unit for Cable Entry Through Base



#### A. Mounting Screw Method

1. Route cables through any of four large oblong openings provided in base. It is best to use entrances that provide for the least amount of bending and stress on cables.
2. Position base over electrical box so that two of the mounting holes provided in base line up with mounting holes in electrical box. Secure using screws provided with unit. The above figure shows mounting to a single electrical box. If mounting to a duplex box, four screws (provided) should be used to secure base.

**Note:** The base may be rotated in any orientation and there are numerous mounting holes provided in base for mounting flexibility.

#### B. Adhesive Tape Method

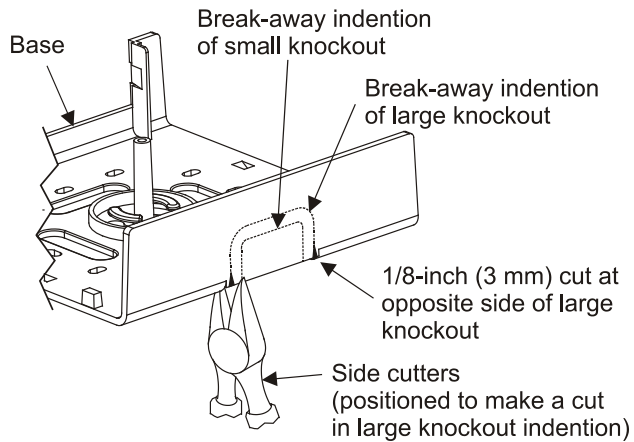
1. Route cables through any of four large oblong openings provided in base. It is best to use entrances that provide for the least amount of bending and stress on cables.
2. Peel away protective backing from one side of double-sided adhesive tape pieces and stick both pieces of tape to back of base unit. Locate the two pieces of tape on opposite ends of base to create a secure bond.

**Note:** Position tape on back of base unit so as not to interfere with openings that cables will be routed through. Tape may need to be trimmed to fit around cable openings.

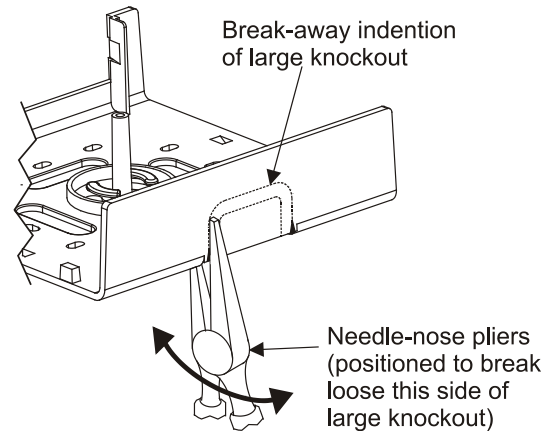
3. Peel away other protective backing from pieces of tape and position base on wall where desired and press firmly.

**Note:** For mounting base to any other surface, mounting hardware will need to be obtained locally.

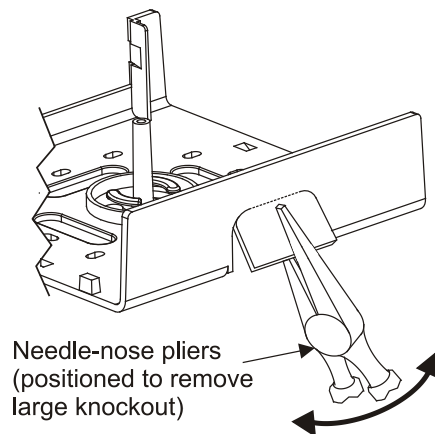
## Mounting Base Unit for Cable Entry Through Rear



Step 1



Step 2

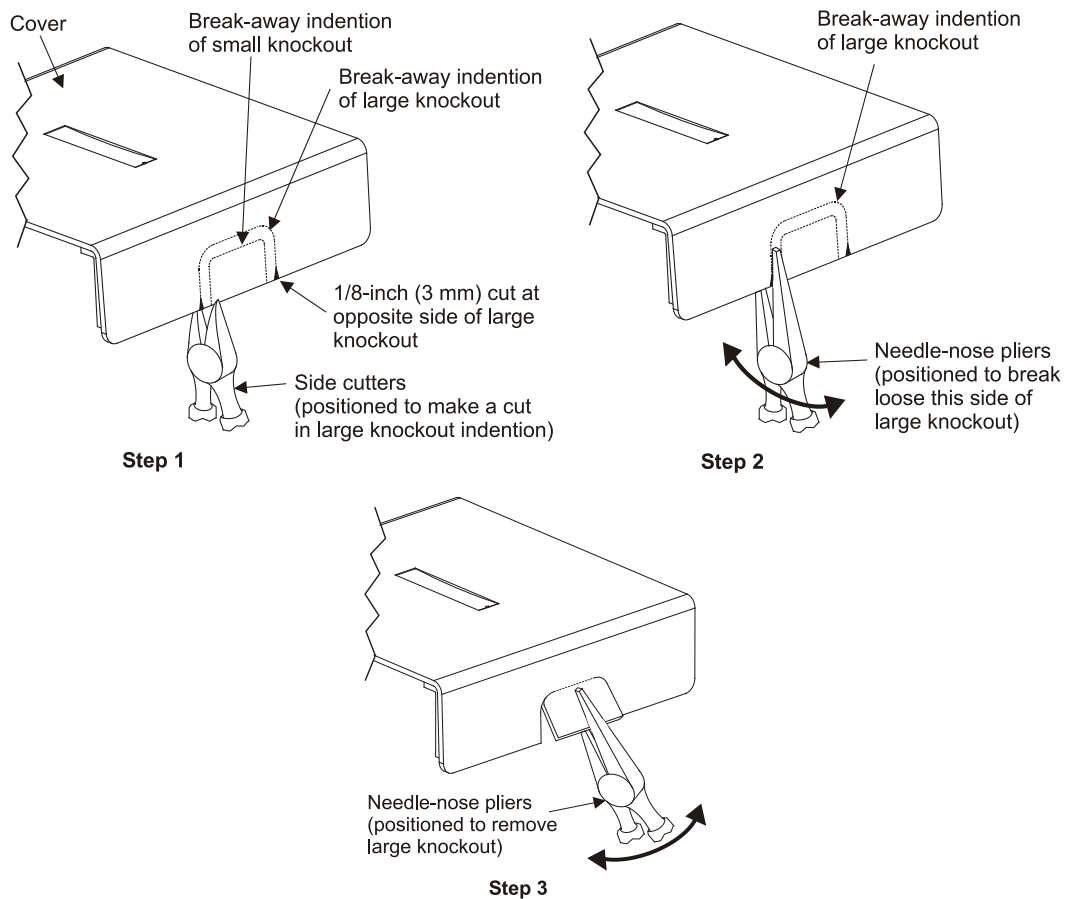


Step 3

**Note:** Before mounting base using this cable entry, one or both knockouts molded into base unit must be removed first.

1. Determine whether to remove small or large knockout by comparing the total size of cables to be routed against size of knockouts.
2. Position side cutters at bottom edge of base at large or small knockout indentation line as shown in Step 1. The indentation line is best viewed from inside of base. Using side cutters, make a 1/8-inch (3 mm) cut in base along indentation line. Figures above show large knockout being removed.
3. Position needle-nose pliers on knockout to be removed, next to indentation line, and rock pliers back and forth until edge breaks loose (see Step 2).
4. Repeat this on opposite edge of knockout.
5. Position needle-nose pliers in center of knockout and rock back and forth until entire knockout breaks loose (see Step 3).
6. Position base as desired and secure it to wall using either the mounting screw method or double-sided adhesive tape method described on page 6. **Disregard item 1 that addresses routing cables through base.**

## Mounting Base Unit for Cable Entry Through Top or Bottom Sides



Before mounting base using this cable entry, one or both knockouts molded into cover should be removed first.

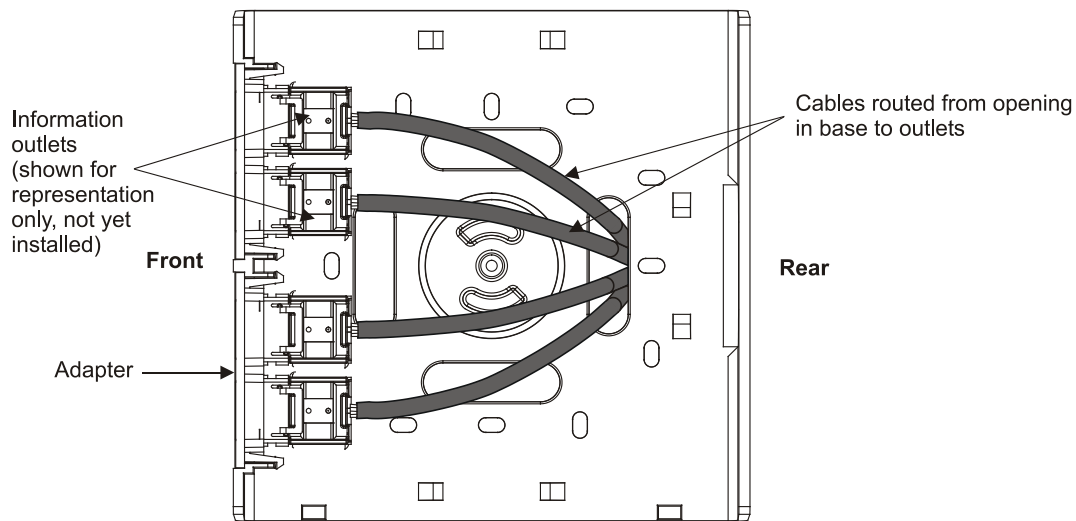
1. Determine whether to remove small or large knockout by comparing the total size of cables to be routed against size of knockouts.
2. Position side cutters at bottom edge of cover at large or small knockout indentation line as shown in Step 1. The indentation line is best viewed from inside of cover. Using side cutters, make a 1/8-inch (3 mm) cut in cover along indentation line. Figures above show large knockout being removed.
3. Position needle-nose pliers on knockout to be removed, next to edge, and rock pliers back and forth until edge breaks loose.
4. Repeat this on opposite edge of knockout.
5. Position needle-nose pliers in center of knockout and rock back and forth until knockout breaks loose.
6. Set aside cover.
7. Position base as desired and secure it to wall using either the mounting screw method or double-sided adhesive tape method described on page 6. **Disregard item 1 that addresses routing cables through base.**

**Note:** If SMB is to be installed tight against an electrical raceway, allow about 1/16-inch (1.6 mm) space between base and raceway for cover to fit.



## Step 3 – Cable Routing

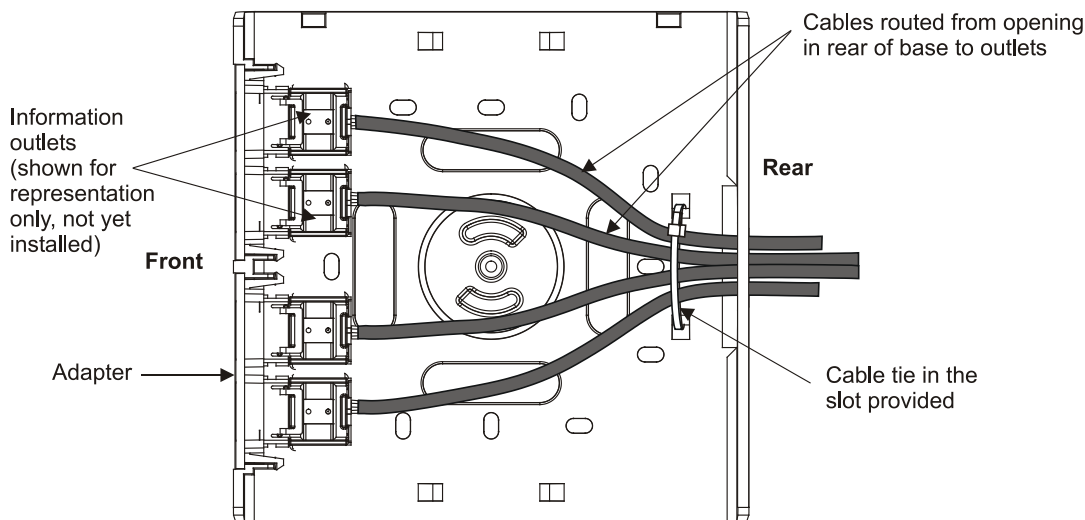
### A. For Entry Through Base



1. The figure above shows the most common cable routing for entry through base. For this type of entry, cables will already have been routed through one of large oblong openings provided in base as part of base mounting procedure.

**Note:** Always use care to minimize movement and stress on cables and twisted-pair conductors.

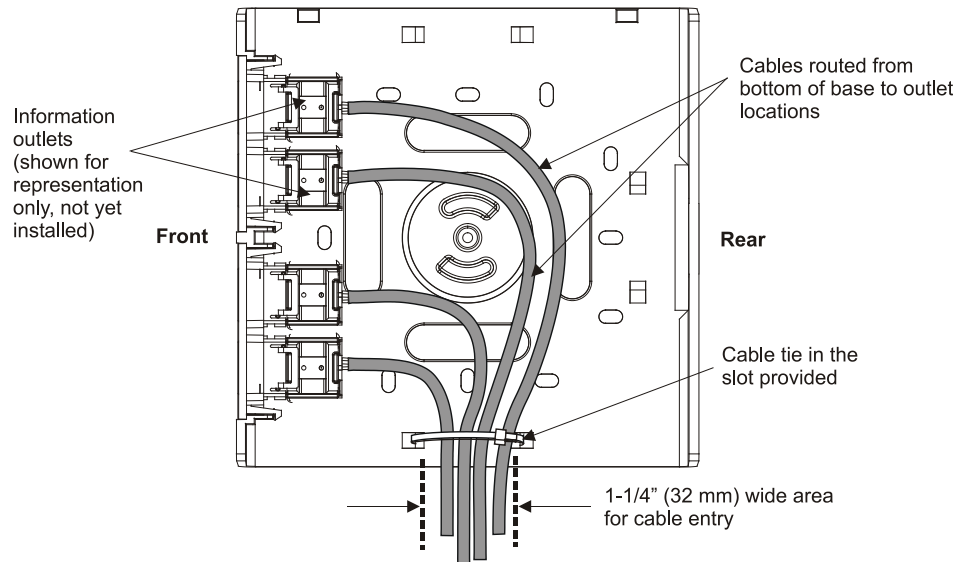
### B. For Entry Through Rear



1. Route cables through knockout previously removed in Step 2.
2. After routing cables into base, insert a cable tie in slots provided and secure cables to base as shown.

**Note:** Always use care to minimize movement and stress on cables and twisted-pair conductors.

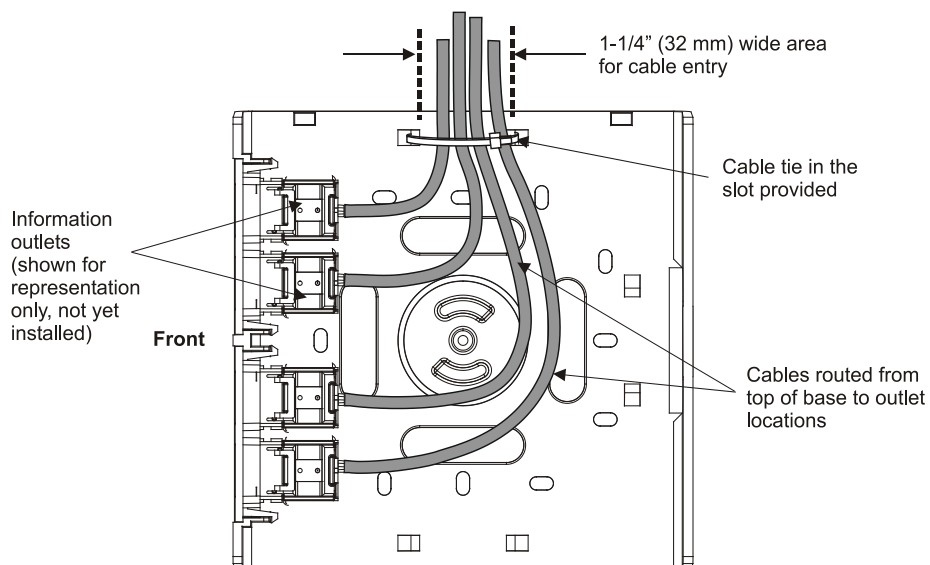
### C. For Entry Through Bottom Side



1. Route cables into base within the 1-1/4" (32 mm) wide area as shown above.
2. After routing cables into base, insert a cable tie in slots provided and secure cables to base as shown.

**Note:** Always use care to minimize movement and stress on cables and twisted-pair conductors.

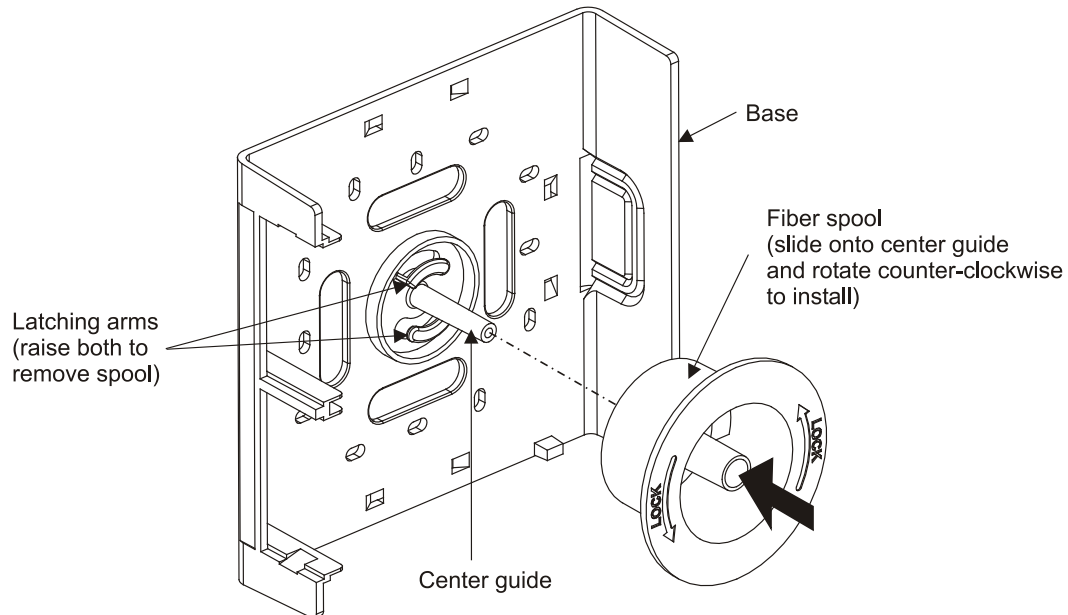
### D. For Entry Through Top Side



1. Route cables into base within the 1-1/4" (32 mm) wide area as shown above.
2. After routing cables into base, insert a cable tie in slots provided and secure cables to base as shown.

**Note:** Always use care to minimize movement and stress on the cables and twisted-pair conductors.

## Step 4 – Install Fiber Spool (Optional)



**Note:** If this product is going to be used with fiber, it is suggested that the snap-in fiber spool be used to assist with fiber storage and bend radius control.

1. To seat spool onto base, slide spool onto center guide and turn counter-clockwise until a “snap” is heard.

**Note:** If there is a need to remove the spool, the two latching arms on base need to be simultaneously lifted while spool is rotated in a clockwise direction. It is easiest to do this by removing base from its mounting surface and then pushing up on arms from bottom of base. The arms need to be moved just enough to clear locking edge of the spool. Bending arms too much could cause them to break.

## Step 5 – Prepare Cable and Terminate Information Outlets

1. Prepare cables and terminate outlets or connect fibers to connectors per local practices.

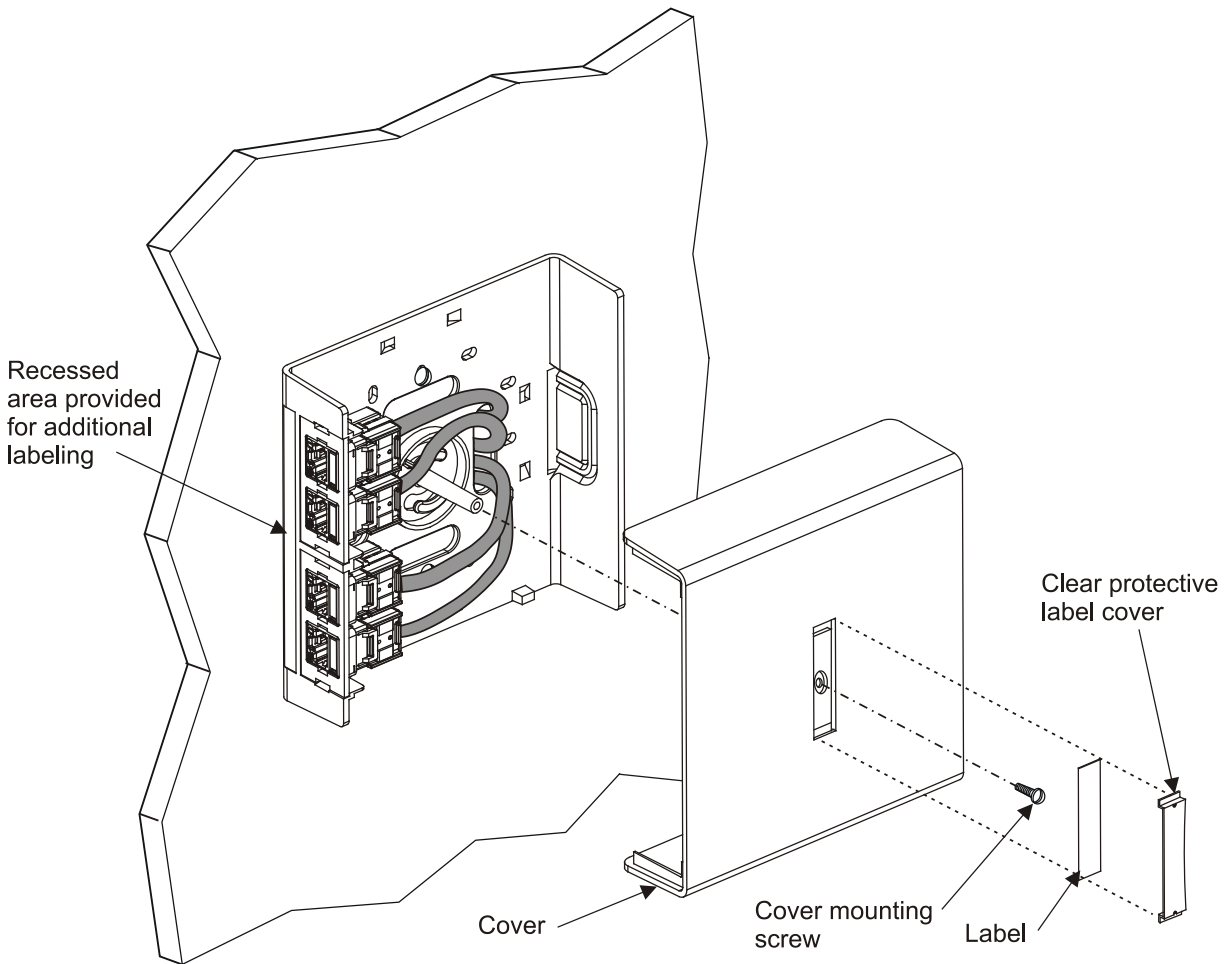
**Note:** Always use care to minimize movement and stress on exposed twisted-pair conductors near outlets.

## Step 6 – Snap Outlets into Adapters

1. Once terminated, outlets should be snapped into adapters from inside of base area. Outlets should be mounted into adapters so the mating plugs (once connected) will have their release tabs located toward base of box.
2. Slide two adapters into two openings on front side of base. Once in place, adapters may still slide up and down, but will be secured once the cover has been installed. Adapters may also be snapped in (or removed) from front with the cover installed.

**Note:** Dust covers should be used in all adapter ports that are not populated with outlets. These covers snap into adapters from outside of the box, in a similar fashion to adapters snapping into base.

## Step 7 – Install Cover and Label



1. Align cover as shown above and install on base. Secure using the provided cover mounting screw.

**Note:** If using raceways, multimedia box and cover should be installed first. Various raceways can then be butted up against outside of box and then attached to wall.

2. Label box as desired using the provided label and then insert it and clear protective cover into indentation provided in box cover.

**Note:** There is also a recessed area provided on base below the adapters for labeling. It is recommended that an adhesive label be used in this area to enhance the labeling. One recommendation is the use of a white polyester adhesive label strip that is 1/4 inch (6 mm) wide. This material is commonly available on a spool. If a spool is used, cut a 4-inch (102 mm) piece and apply it in recessed area provided on base.