

SYSTIMAX®

SOLUTIONS

SYSTIMAX® VisiPatch® 360 Vertical Trough Cover Kit Field Adjustment Guidelines

General

When installing the **SYSTIMAX®** VisiPatch 360 Vertical Trough Cover (VTC) Kit (760060285), it is extremely important and essential to the smooth operation of the Vertical Trough Covers (Doors) that the Vertical Trough Arms be aligned properly.

Fundamentally, each vertical trough door hinges on pin-pairs located on the left and right side of each door. These pins must drop into corresponding hinge-holes on the Vertical Trough Arms. This simply means that the hinge-holes must be at the same width, 8.9 inches (22.7 cm) apart as the door pins (see Figure 1). Also the hinge holes need to be in the same plane, i.e. one hinge-hole should not be farther back than the other (see Figure 2).



Figure 1. VTC Door Hinge Pin Spacing



Figure 2. Vertical Trough Hole Alignment/Spacing

How to Contact Us

- To find out more about **SYSTIMAX®** Solutions, visit us on the web at <http://www.systemax.com/>
- For technical assistance regarding **SYSTIMAX** products:
 - Within the United States, contact your local account representative or **SYSTIMAX** technical support at 1-800-344-0223. Outside the United States, contact your local account representative or Authorized BusinessPartner.
 - Within the United States, report any missing or damaged parts to **SYSTIMAX** Customer Service in Omaha, NE, at 1-866-539-2795. Outside the United States, contact your local account representative or Authorized BusinessPartner.

Regional Quality Contacts

- APAC – Cecilia Yeo, Quality Coordinator, Singapore (phone: 011-656-303-5460)
- EMEA – Andy Fitzsimmons, Customer Service Manager (phone: 011-353-1-204-2035)
- NAR – Andrew Lucas, Quality Coordinator, Omaha (phone: 1-402-691-4989)

Parts List

Verify all parts were included in VTC kits using the table below:

VP360-12U-10VTCM 12U Vertical Trough Kit (760060285)	
Quantity	Description
6	Base, 4U Vertical Trough (860376862)
1	Assembly, 12 VTCM Door (860378256)
3	Macro cable managers (860377399)
3	Extender, Vertical Trough (860379585)
1	Assembly, Leveling Medallion (860376847)
12	#6-19 x .75" attachment screws (460108111)
6	#10-16 x .50" adjustment screws (460109804)
1	Instruction sheet (860387018)

Initial Inspection

Some of the first VTC Kits did not include attachment screws (460108111) or adjustment screws (460109804). If these were not included, obtain these from a local hardware store or check with your area Technical Manager. All kits shipped after August 1, 2007 include the screws as well as improved Vertical Troughs (80376862) and doors with Nylon Toggle Bushings (860392026). Insure that each VTC (door) is equipped with Nylon (translucent) Toggle Bushings (860392026). If the door has no bushings, or is equipped with Teflon (white) or damaged bushings, see and follow VTC Door Assembly Field Modification Instructions below.

Replacement Doors

VP360 12U VTCM Doors (760060269) are available from the Regional Distribution Centers.

VTC Door Assembly - Field Modifications

1. To rework VTC Door Assembly (860378256), remove door from the package or trough. To avoid scratching finish, lay the door on a clean padded surface for reworking.
2. Check door for quality, appearance, and serviceability. If a door is damaged or latching hardware does not operate smoothly, the door should be replaced.
3. If door looks and functions well, replace Teflon Bushing with Nylon (860392026). See Figures 3 and 4.

Note: If a door is missing any bushing(s), install them using the following steps



Figure 3. Teflon Bushing

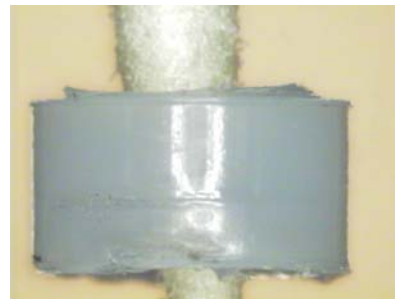


Figure 4. Nylon Bushing

4. Replace the bushing by removing toggle screws (860378413) and toggles (860378389) using a #2 Phillips bit. See Figure 5.



Figure 5. Location of Toggle Screws

5. Dispose of the existing Teflon bushings.
6. Place a new Nylon bushing (860392026) on the toggle pin, ensuring bushing stays on toggle stud and rests in door handle cam.
7. Install the toggle and bushing back onto the door, reattaching with the washer and screw.
8. Repeat steps 4 through 6 for all four toggles.
9. With the door lying on a flat horizontal surface, open handle and release latch bar at least three times to ensure a smooth function. If sticking or squeaking occurs, check to see that bushing is properly seated on the toggle stud and handle cam. For further guidance, contact your technical manager.

Preparing for a Successful Installation

Because of the widespread use of backboards, Australia has fewer instances of the VisiPatch 360 doors not fitting properly. A good solid backboard covers many wall imperfections and provides a true, flat surface to work with since walls are rarely flat or square. Mounting the components straight and square allows the VTC covers to attach easily. The implication is that when wall mounting a VisiPatch 360 panel, any deviation from flat and square will have to be accommodated for during the installation of VisiPatch 360 patching solution. Additionally, because the VP360 Back Panels and Vertical Troughs are molded out of structural foam, they are slightly flexible. **It is strongly recommended to mount a backboard on the wall before installing the VisiPatch 360 system.** The backboard should be 18-20 mm thick Melamine, sanded plywood or a similar material.

The Vertical Trough hinge to hinge hole spacing will change once the VP360 Wiring Blocks are installed into the adjacent VP360 Back Panel. When the VP360 Wiring Blocks are not installed the hinge arms are in a fairly neutral position; but installing the VP360 Wiring Blocks into the adjacent Back panel will cause the hinge arms to point slightly outwards. This will alter the arm spacing by several millimeters, which is enough to misalign the hinge-holes. **It is essential that the VP360 Vertical Trough arm alignment is completed with the VP360 Wiring Blocks in place.**

When the Vertical Trough is installed and interlocked with the Back Panel, the attachment screws supplied must be installed to maintain proper alignment.



Figure 6. Mounting Screws

Installing these screws, including the screw positioned at the hinge arms will allow the vertical trough and

860 414 325
Instruction Sheet

the back panel to be bound together to provide additional rigidity and also allow a certain amount of adjustment of the hinge arms toward each other. In most instances this adjustment is all that is necessary to complete a quality alignment of hinge-holes to door pins.

Adjusting Vertical Trough Arms

There are three approved methods for making adjustments to the spacing of the Vertical Trough arms. If your kit was manufactured after August 1, 2007 it will be supplied with attachment screws and adjustment screws. If your kit was manufactured prior to August 1, 2007, then an adjustment screw hole (blind hole) will need to be added to the Vertical Trough to adjust arms using the adjustment screw method. The adjustment screw method is recommended in new installations.

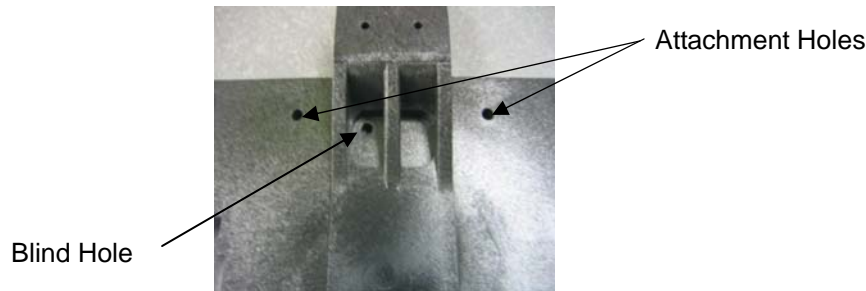
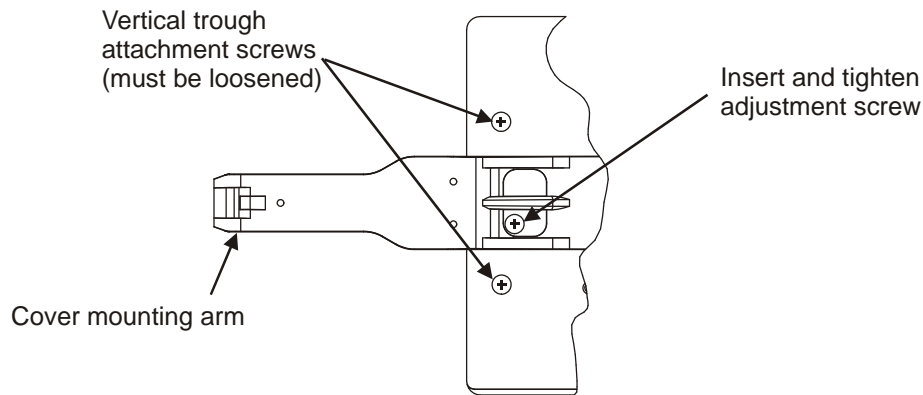


Figure 7. Blind Hole

Cover Mounting Arm Adjustment (Method 1 – Adjustment Screws)



Partial Side View of Vertical Trough

Note: The vertical trough arm hinge-holes must be 8.9 inches (22.7 cm) apart, the same width as the door pins for covers to fit properly. Use the following instructions to make adjustments.

1. Install cover on the four cover mounting arms and verify which mounting arm requires adjustment. Each cover mounting arm can be independently adjusted inward.
2. If the two vertical trough mounting screws are not loosened, unscrew them slightly before continuing. **They must be loose for adjustment to be performed.**
3. Insert provided #10-16 x .5 self-tapping adjustment screw into hole as shown above and tighten until the screw contacts adjacent back panel. Continue tightening screw a couple of turns and install vertical trough cover and verify fit.
4. If cover still does not fit on mounting arm properly, remove cover and tighten adjustment screw more and check cover again for fit. Repeat as necessary until mounting arm contacts socket in trough cover properly. Tighten the two vertical trough mounting screws on affected vertical trough to complete the adjustment procedure.

5. Repeat items 1 through 4 for adjustment on other mounting arms, if necessary.
6. After adjustments are complete, the vertical trough mounting screws should be tightened until snug with inside of vertical trough. **Do not over tighten.**

Cover Mounting Arm Adjustment (Method 2 – Using Adjustment Fixture)

The Vertical Trough Arm hinge-holes must be at the same width as the door pins, which is 8.9 inches (22.7 cm). To make adjustments and obtain this measurement, an adjustment fixture device is available (see figure below) or a ruler may be used.. When using the adjustment fixture device, simply place over the Vertical Trough Arms you wish to adjust. Using adjustment screws, adjust each arm in halfway until the fixture drops easily into the hinge holes without displacing the arms. This technique will assure good alignment of the Vertical Trough arms with the Vertical Trough Covers (Doors).

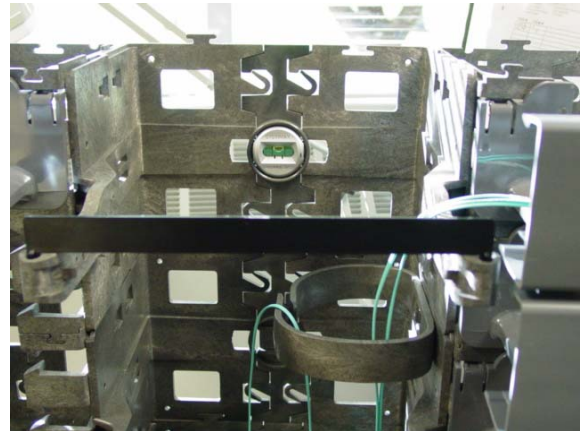


Figure 8. Vertical Trough Arm Adjustment Fixture Device

Cover Mounting Arm Adjustment (Method 3 – Shimming)

When using Adjustment Method 3 packing material for shimming will be needed. If the kit is already installed, the shimming method is recommended.

It is recommended that two thickness of packing material be obtained, which will be inserted between the Vertical Trough and the Back Panel to adjust the hinge arms inward.

The packing material must not compress over time, so materials such as cardboard, Velcro strips and anything similar are not acceptable. The suggestion is 3 mm hardboard and 1 mm Perspex, which are readily available at most hardware stores.

The reason for two sizes is that it allows a good range for packing or adjusting, and generally one would never require more than two pieces of packing at any location.



To install the packing loosen attachment screws



Pull the hinge arm away from the back panel



Insert the required packing

Ensure the packing material is placed securely and permanently.

Repeat the process on all hinge arms as required. Note that most of the time, the packing will only be required on one side of the vertical trough. Also note that just because the packing required for the top arm was 3 mm the bottom arm may require a different amount of packing. The practice of "Dry Fitting" the packing; that is placing the packing in place and trying the doors prior to tightening up all the screws works well also. This will provide a high confidence level that once the packing is placed correctly and the screws tightened, that a good functioning trough door will result.

Also note the middle arm may also need to be adjusted. While the tolerance of the middle arms is not as critical or precise, its positioning is equally important, as this arm facilitates the release of the spring loaded pin mechanism in the door, which secures the pins into the hinge-holes as the door is closed.

Ensure that prior to attaching, the door handles have been opened 90 degrees to the point where the door hinge pins are locked in the up position. The handles should not be hyper-extended.

TIP: Be very careful with the Aluminum doors, they can be easily marked or dented, which will then be quite obvious. **NEVER** try to adjust the shape of the door in order to change the alignment to match the hinge-holes. This **DOES NOT WORK** and may result in a damaged door that will need to be replaced, usually at the installers cost.



Tighten the screws that were loosened earlier

Instructions for Vertical Troughs and Vertical Trough Covers (Doors) Located at the End of a Wall Field

If a vertical trough is used at either end of a wall mount installation, the use of the VP360 Side Panel Kit (MID 760080630) is highly recommended. If the Side Panel kit is not used the doors may sag when opened as shown below.



Figure 9. Door Sag

Side Panel Kit Installation

1. Remove one side panel from its packaging. Orient the side panel in relation to the Vertical Trough and wall surface as shown in Figure 10 below for mounting on the right side.

Note: Rear flange on side panel must be flat against wall.

The side panel should be rotated 180 degrees when mounting on the left side of a Vertical Trough.

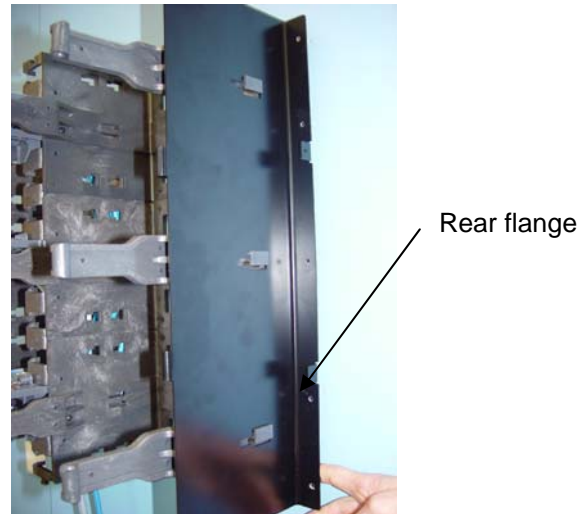


Figure 10. Side Panel in Upright Position

2. Locate tabs on outside of 12U Vertical Trough section (Figure 11). Position side panel as shown and hang it on side of Vertical Troughs so that tabs extend through slots in side panel (Figure 12).

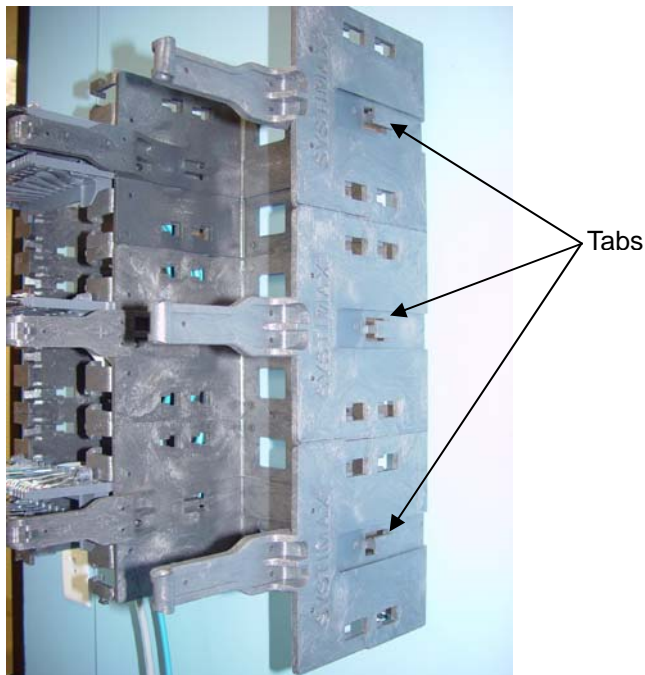


Figure 11. Tabs on Vertical Troughs

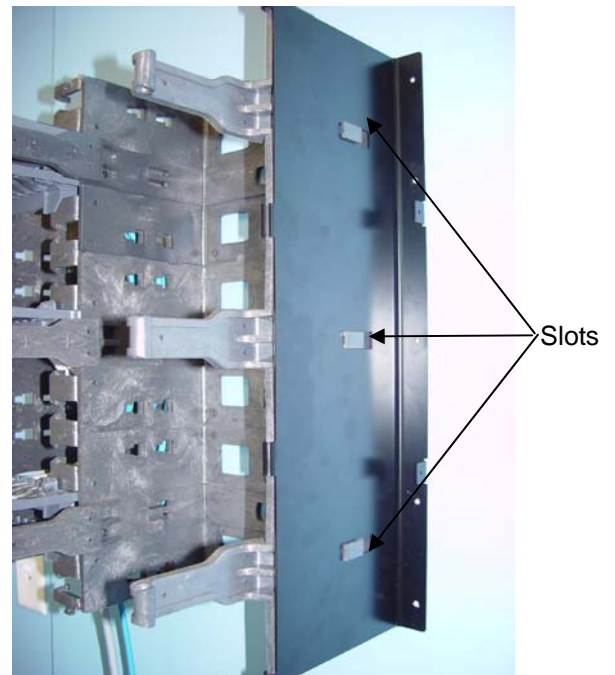


Figure 12. Mounted Side Panel

3. Slide mounted side panel to the rear so that it is snug against wall.
4. Secure the panel to the wall using five #8 drywall screws (not included) as shown in Figure 13.

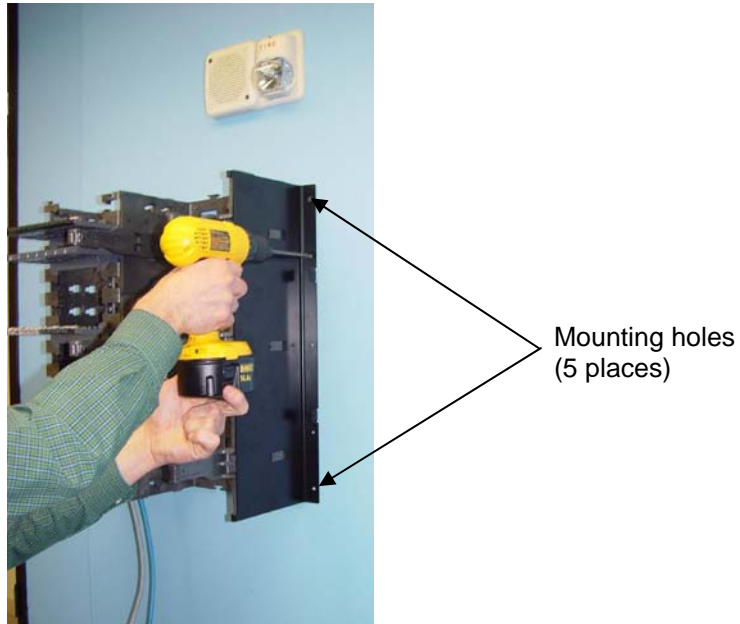


Figure 13 Secure Panel to Wall

5. Repeat steps 1 thru 4 along the entire vertical length of the unsupported end of a VP360 wall field.

Returning Vertical Trough Cover Doors

Replacement Doors may be obtained by receiving a Return Material Authorization (RMA) and returning the Door to your Regional Distribution Center.

This is a current list of Regional Distribution Centers:

Connectivity Solutions Mfg
12500 "I" Street
Omaha, NE 68137

CSSolutions Singapore Pte
89 Science Park Drive #01-03/04,
Singapore Science Park
Singapore 118261

COMMSCOPE SOLUTIONS EMEA
Nieuwe Havenweg 6
Hilversum 1216 BR
Netherlands