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Call
440-287-0101
for One-on-One
Installation
Assistance
M-F, 9a-5p ET

GENERAL INFORMATION

Stud cavities at far right and far left of each wall must be clear of all obstacles from top to bottom.

Side (return) walls cannot exceed 37-1/8" in depth (front to back).

Rear wall cannot exceed 60" in overall width.

Overall height of wall panels is 94-1/2" (two 47-1/4"H panels stacked.) Bottom panel may be trimmed by up to 5" on the bottom edge. Top panels may be trimmed by up to 22" on the top edge. See ['Altering a Panel'](#) for additional information.

Plumbing fixtures are to be configured for a 1-1/4" finished wall thickness.

Synthesis™ large-format porcelain panels with polished finishes exhibit a "rippling" effect when viewed in direct light. This is a characteristic of all porcelain products and is simply more noticeable in large-format panels with a polished finish. This is not a basis for replacement of the product.

LIST OF INCLUDED COMPONENTS

- 2 58-1/2"W x 47-1/4"H vitrified porcelain wall panels with moisture-resistant backer
- 4 35-7/8"W x 47-1/4"H vitrified porcelain wall panels with moisture-resistant backer
- 7 60" Lengths of Receiver
- 56 Receiver mounting brackets
- 112 #8 x 3/4" Receiver screws
- 112 #10 x 3/4" Receiver installation screws
- 7 Fixed clips
- 21 Floating clips
- 4 36" x 7" moisture-resistant skirt boards
- 2 60" x 7" moisture-resistant skirt boards
- 40 screws and collars for moisture-resistant skirt boards
- 4 48" x 2" x 1/2" plywood strips
- 24 #6 x 1-5/8" drywall screws
- 10 Lippage control posts
- 10 Lippage control caps
- 1 Roll of closed-cell foam weatherstripping
- 1 Roll of watertight flashing
- 2 Tubes of clear adhesive/sealant
- 1 Tube of color-matched 100% silicone sealant
- 1 Cartridge of 2-part epoxy adhesive



LIST OF TOOLS AND SUPPLIES

- Caulk gun
- Angle grinder with blade designed for cutting porcelain
(4.5" Diamax Cyclone Porcelain Blade or similar)
- Core bits designed for cutting porcelain in sizes to match your plumbing fittings
(Apexx UCS/Porcelain Core Bit or similar)
- Screw gun with Philips screwdriver bit
- 1 pair 8" glass-handling suction cups
- 6ft Spirit (Bubble) Level
- 2ft Spirit (Bubble) Level
- 360 degree Laser Level (optional)
- Eye protection
- Safety dust mask
- Painters Tape
- Carpenters square
- Phillips screwdriver
- Hearing protection
- Spray bottle of water
- Pencil
- Tape measure
- Power Miter Box
- Epoxy applicator gun *
- Synthesis vertical aluminum jig *
- Synthesis horizontal aluminum jig *

* Available separately from Panel Composite Systems, Inc.

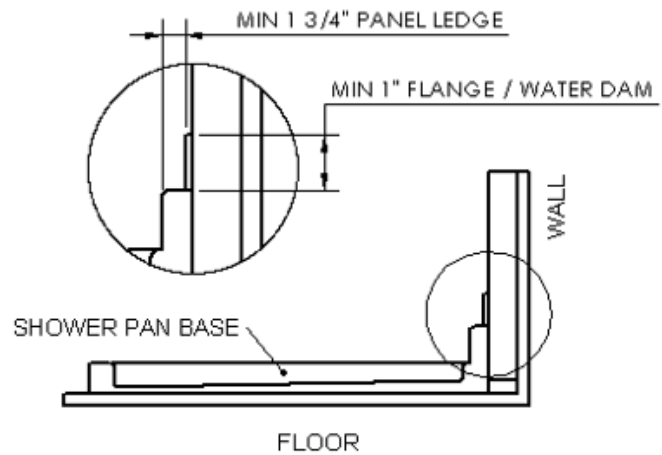


COMPATIBLE SHOWER PANS

The Synthesis™ porcelain shower surround system is compatible with multiple types and styles of shower pans.

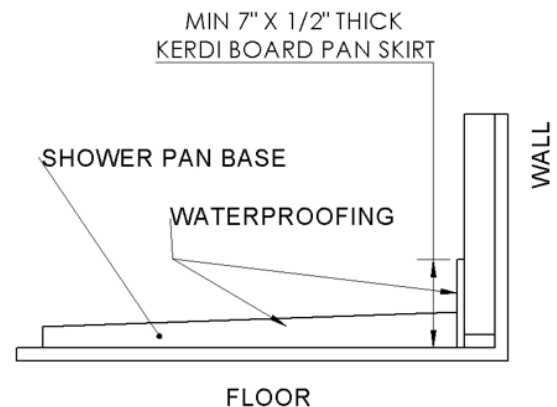
Modular one-piece shower pans may be manufactured from acrylic, fiberglass, cultured marble, solid surface, or any other material.

- The modular shower pan must have a minimum 1" high flange/water dam and a minimum 1-3/4" wide panel ledge.
- Install your modular one-piece shower pan according to the manufacturer's instructions, being sure to make it level, then proceed with installation of your Synthesis™ porcelain shower surround system.



Tiled shower pans may be installed using a traditional mud pan method, a thin-mud-bed-and-membrane method, or a pre-sloped pan form such as those manufactured by Tile-Redi, Schluter, Noble, and others.

- No matter which method is used, the following requirements apply:
 - The pan must be installed according to the manufacturer's instructions.
 - The bottom of the walls must include a 7" high strip of 1/2" moisture-resistant backer board (included with the Synthesis kit).
 - The pan and the 7" high moisture-resistant strips must be waterproofed as part of the pan installation and as recommended by the manufacturer.
 - The edges of the pan should be as level as possible to avoid unsightly gaps at the bottom of the Synthesis™ panels.
- We recommend tiling your shower base **AFTER** the Synthesis™ panels are installed to help conceal any gaps at the bottom of the panels.



ALTERING A PANEL

Alter the Synthesis™ porcelain wall panels by cutting with a 5" angle grinder using a blade designed for cutting porcelain. The panels may be cut either wet or dry.

ALTERING THE WIDTH OF A BACK WALL PANEL

When altering the width of a back wall panel, either the left or right side of the panel may be cut. These edges will be concealed when the installation is complete.

The width of the back wall panel must always be 1-1/2" narrower than the width of the framing to allow for the installation of the seam and pan skirts on the side (return) walls.

For Example: For a stud-to-stud measurement of 40", the back wall panel width must be 38-1/2".

ALTERING THE WIDTH OF A SIDE (RETURN) WALL PANEL

When altering the width of a side (return) wall panel, cut ONLY the 1-1/4" thick edge of the panel. Never alter the 3/4" thick edge of the panel, which is much more visible when the installation is complete.

ALTERING THE HEIGHT OF A WALL PANEL

All panels may be modified for height as follows:

- Up to 22" may be cut from the top of the top wall panel.
- Up to 5" may be cut from the bottom of the bottom wall panel.
 - Be sure to cut the same amount from the bottom of all wall panels to ensure alignment of the horizontal seam between the top and bottom panels.
 - The height of the provided moisture-resistant pan skirts may need to be modified to accommodate this modification.
 - Cutting from the bottom of a panel will change the heights at which receivers are installed in the stud bays and the locations where clips are installed in the vertical jig.

PRO TIP

We do not recommend making cuts to the panels where they meet at the horizontal seam or on the vertical front edges of the side panels. Factory edges produce the best edges and seams.

ALTERING A PANEL FOR AN OUT-OF-LEVEL SHOWER PAN

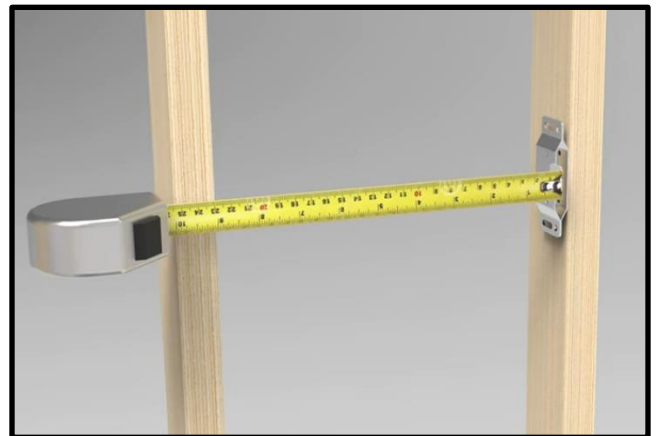
1. Using a spirit (bubble) level or a laser level, draw a level line around the perimeter of the shower 6" above the flange of the shower pan.
2. Measure down from your level line to your shower pan in all four corners of your shower to locate the highest corner and lowest corner of the shower pan.
3. Cut the bottom of the panel to accommodate the height difference at the shower pan.
 - PLEASE NOTE that this modification may require altering all of the bottom panels in the Synthesis system.
4. Adjust the clip locations on your vertical jig to accommodate your alteration.
 - The vertical jig should ALWAYS be configured to the highest point of the shower pan. See [Setting up the Vertical Jig](#) in these instructions for more information.

CHARTING THE RECEIVERS

Receivers will be installed in the left-most stud cavity and the right-most stud cavity in each wall that is to receive the Synthesis™ porcelain wall panels.

Receivers must fit TIGHT within the width of the stud cavity, so each receiver location must be measured for width to accommodate for variations in the width of the stud cavities. This is called Charting the Receivers.

1. Take each measurement for holding two Receiver brackets together, pressing them against the inside of the stud, and measuring from the open side of the brackets to the inside of the other stud. (See *Example at Right*)



2. Width measurements should be taken at the following heights above the panel ledge for modular one-piece shower pans or from the shower floor for tiled shower pans.
 - 83-1/4" high
 - 58-1/2" high
 - 36-1/4" high
 - 11-1/2" high

These heights will need to be modified for installations where the panels are being trimmed significantly for height.

3. Repeat these measurements in each stud cavity in which Receivers are to be installed. Document the measurements on the worksheet on the next page for ease of reference.

RECEIVERS CHARTING WORKSHEET

For most standard installations, width measurements are to be taken at the following heights above the panel ledge for modular one-piece shower pans or from the shower floor for tiled shower pans.

- 83-1/4" high
- 58-1/2" high
- 36-1/4" high
- 11-1/2" high

These heights will need to be modified for installations where the panels are being trimmed significantly for height.

BACK WALL

Left-Most Bay	4 _____	Right-Most Bay	4 _____
	3 _____		3 _____
	2 _____		2 _____
	1 _____		1 _____

LEFT RETURN WALL

Left-Most Bay	4 _____	Right-Most Bay	4 _____
	3 _____		3 _____
	2 _____		2 _____
	1 _____		1 _____

RIGHT RETURN WALL

Left-Most Bay	4 _____	Right-Most Bay	4 _____
	3 _____		3 _____
	2 _____		2 _____
	1 _____		1 _____

ASSEMBLING THE RECEIVERS

Each receiver requires two metal receiver brackets – one at each end of the receiver. It is CRITICAL that the receiver brackets are installed correctly on the receivers as outlined below.

1. Refer to your completed Receivers Charting Worksheet and cut all receivers to length. Mark the length on each receiver so they can be easily identified when installing them later.
2. Refer to the images below for the correct orientation of the receiver brackets. When properly installed, the bracket edge is flush with the back (flat side) of the receiver.
 - a. Note that the slotted part of the bracket is at the front (open side) of the receiver and the round screw hole is at the back (flat side) of the receiver.
3. Attach the receiver brackets to the pre-cut receivers using two #8 x 3/4" Receiver screws on each bracket.



SETTING UP THE VERTICAL JIG

There are two methods that may be used to align and install the clips in the vertical jig. Both are outlined below.

METHOD 1

1. Place a fixed clip in the bottom track of the bottom panel.
2. Measure from the bottom of the installed clip to the bottom of the panel.
3. Add 1/8" to your measurement.
4. Measure from the bottom of the jig and draw a line at the resulting measurement from step 3.
5. Insert 2 fixed clips into the two tracks of the vertical jig.
6. Install the 2 fixed clips, lining up the bottom of the clip with your line from step 4, holding them straight with a carpenter's square.
7. Starting at the bottom of the clips installed in step 6, measure up 25 1/8" and draw a line.
8. Insert 2 fixed clips into the two tracks of the vertical jig.
9. Install the 2 fixed clips, lining up the bottom of the clip with your line from step 7, holding them straight with a carpenter's square.
10. Starting at the bottom of the clips installed in step 9, measure up 22 1/4" and draw a line.
11. Insert 2 fixed clips into the two tracks of the vertical jig.
12. Install the 2 fixed clips, lining up the bottom of the clip with your line from step 10, holding them straight with a carpenter's square.
13. Starting at the bottom of the clips installed in step 12, measure up 25 1/8" and draw a line.
14. Insert 2 fixed clips into the two tracks of the vertical jig.
15. Install the 2 fixed clips, lining up the bottom of the clip with your line from step 13, holding them straight with a carpenter's square.
16. Double check to ensure that all clips are installed in the jig with the angle of the clips facing down.

METHOD 2

1. Place both top and bottom back wall panels face down on a flat soft surface.
2. Place a 1/8" spacer between each panel at the center seam.
3. Place the clips in the tracks of the panel at the edge and tighten.
4. Lay the jig next to the row of clips you just installed.
5. Align the jig such that it overhangs the bottom of the bottom panel by 1/8" to allow for a caulk joint when the panels are installed.
6. Use a carpenter's square to line up each of the clips on the jig to be in line with the ones on the panel and tighten them down.
7. Double check to ensure that all clips are installed in the jig with the angle of the clips facing down.

SETTING UP THE HORIZONTAL JIG

The horizontal jig will need to be set up once for each wall of the shower.

1. Measure the horizontal distance between the two stud bays on the wall where the receivers will be placed.
2. Add 16" to your measurement and transfer the resulting measurement to the horizontal jig, marking the jig at each end of the measurement.
3. Add two fixed clips to the horizontal jig at each mark (a total of four fixed clips.) Place the clips approximately 1" away on each side of the marks.
4. Install all four fixed clips, holding them square to the jig with a carpenter's square.
5. Using the same steps and methodology, repeat this process to set up the horizontal jig for each wall of your install.
6. Double check to ensure that all clips are installed in the jig with the angle of the clips facing down.

INSTALLING THE RECEIVERS**USING THE VERTICAL JIG TO INSTALL ALL RECEIVERS IN A STUD BAY**

1. Using a spirit (bubble) level or a laser level, draw a level line around the perimeter of the shower 6" above the flange of the shower pan.
2. Measure down from your level line to your shower pan in all four corners of your shower to locate the highest corner of the shower pan. Begin installing your receivers in the stud bay at the highest corner of the shower pan.
3. Attach the receivers to the vertical jig you configured earlier, being sure to refer to your Receiver Charting Worksheet to place the receivers in the correct locations.
4. Place the vertical jig on the threshold/panel ledge of your modular one-piece shower pan or on the floor of your tile-ready shower pan and tilt the receivers into the stud bay.
5. Place your 6ft level on the side of the vertical jig and plumb the jig from right to left.
6. Align the front of the receivers with the face of both wall studs.
7. Place your 6ft level on the back of the vertical jig (facing toward you) and plumb the jig from front to back.
8. Use the #10 receiver screws to install the receivers.



INSTALLING THE RECEIVERS

Continued

USING THE HORIZONTAL JIG TO INSTALL THE RECEIVERS IN AN ADJACENT STUD BAY

1. Attach the bottom receiver to the horizontal jig that you configured earlier. Refer to your Receiver Charting Worksheet to place the receiver in the correct location.
2. Attach the remaining clips in the horizontal jig to the bottom receiver you just installed.
3. Place your level on the top of the horizontal jig and adjust for level.
4. Once the jig is level, use the #10 receiver screws to install the receiver, making sure to align the front of the receiver brackets with the front of the wall studs.
5. Attach the remaining three receivers for the new stud bay to the vertical jig you configured earlier, Refer to your Receiver Charting Worksheet to place the receivers in the correct locations.
6. Attach the bottom clips of the vertical jig to the bottom receiver you just installed.
7. Place your 6ft level on the side of the vertical jig and plumb the jig from right to left.
8. Align the front of the receivers with the face of both wall studs.
9. Place your 6ft level on the back of the vertical jig (facing toward you) and plumb the jig from front to back.
10. Use the #10 receiver screws to install the remaining receivers.

PRO TIP

Use your 2ft level to align the bottom receiver in a stud bay on an adjacent wall that is perpendicular to your installed receivers. Then, use the vertical jig to install the remaining receivers as outlined above.

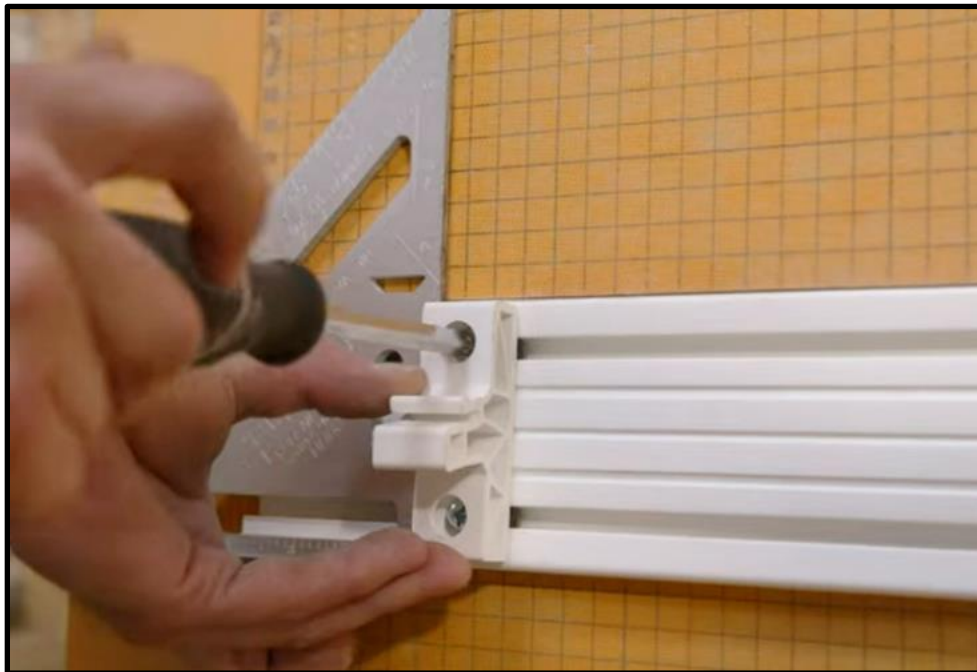


INSTALLING THE CLIPS

Use fixed clips for the bottom row of clips on each wall (bottom row of bottom panel only.)

Use floating clips for all other clips (top row of bottom panel and all rows at top panels.)

1. Measure the horizontal distance between the center of the left receiver and the center of the right receiver on the wall where the panel is to be installed. Mark the back of the panel with these measurements.
2. Slide the clips into the top and bottom tracks on the back of the panel to be installed, making sure that all clips are installed with the angle of the clips facing down.
3. Use a carpenter's square to square the clip to the track and tighten the mounting screws with a Philips screwdriver to install the clips.
 - Do not over-tighten the floating clips, as this will prevent the clip from floating as intended.
4. Using the same steps and methodology, repeat this process to install the clips on each panel to be installed.



TEST-FITTING AND LABELING THE PANELS

DO NOT APPLY ANY ADHESIVES OR SEALANTS WHILE TEST-FITTING THE PANELS

PRO TIP

All panels may be moved or rotated to achieve satisfactory pattern consistency. The 3/4" edge on the side panels **MUST** remain at the front of the shower and any desired panel rotation **MUST** be performed prior to any cutting or fitting.

ALWAYS START WITH THE BOTTOM PANEL ON THE BACK WALL

1. Cut and fit the bottom panel for the back wall of the shower. Push the bottom panel into place, gently tapping it to ensure the clips are engaged. Look over the top of the panel and down toward the clips to verify clip engagement if necessary.
2. Place the seam skirt at the top of the bottom panel and in between the stud framing and the panel. Do not permanently attach the seam skirt at this time.
3. Place four lippage control spacers on the top edge of the bottom panel.
4. Cut and fit the top panel for the back wall of the shower. Rest the bottom edge of the top panel on the lippage control spacers at the top of the bottom panel. Push the upper panel into place, gently tapping it in to ensure the clips are engaged.
5. Using the same steps and methodology, repeat this process to cut and fit the panels on the right and left return walls.
6. Once the fit is satisfactory, label all panels and their orientation prior to removal to ensure it is installed in the correct location at final installation.

PRO TIP

A slight bow sometimes develops in larger Synthesis™ wall panels. This can be corrected by installing extra receivers and clips where necessary to remove the arc.

INSTALLING PLYWOOD STRIPS AT FRONT VERTICAL EDGES

The 1/2" plywood pieces included in your Synthesis™ porcelain shower surround kit are to be used as backer pieces at the front of the shower to provide suitable attachment for shower doors. These pieces are to be attached to the doubled 2x4 wall studs on each side of the opening and behind the front edges of the Synthesis™ wall panels.

1. Place one of the 48" x 2" x 1/2" plywood pieces vertically on one side of the opening, against the doubled 2x4 wall studs, and resting on the flange (water dam) of your shower pan.
2. Attach the plywood using the provided 1-5/8" drywall screws. Use six screws per piece in a side-by-side format, placing two screws each at the top, middle, and bottom of the piece.
3. Place another plywood piece vertically on top of the piece that was just installed. If necessary, trim the length of the piece to fit your installation. Attach this second plywood piece using the provided 1-5/8" drywall screws in the same quantity and pattern as noted above in Step 2.
4. Using the same steps and methodology, repeat this process to install two plywood pieces on the opposite side of the shower opening.



INSTALLING THE PAN AND SEAM SKIRTS

Start by installing the shower pan skirt on the back wall.

1. Place a heavy bead of clear sealant on the bottom edge of the moisture-resistant shower pan skirt.
2. Place the shower pan skirt horizontally on top of the shower pan flange and attach the skirt to the wall studs using two rows of the provided screws and collars in each stud, one at the top of the skirt and one at the bottom.
3. Install the shower pan skirts on the left and right return walls using the same steps and methodology as above but trimming them to fit between the 1/2" plywood and the back wall pan skirt. Add a heavy bead of clear sealant on the back edge of the skirt where it abuts the pan skirt on the back wall.



Once all shower pan skirts have been installed, continue by installing the seam skirt on the back wall.

The center of the seam skirt is located 47-1/4" up from the threshold/panel ledge of your modular one-piece shower pan or from the floor of your tile-ready shower pan. This will ensure equal overlap behind both the top and bottom panels.

1. Attach the seam skirt horizontally to the wall studs using two rows of the provided screws and collars in each stud, one at the top of the skirt and one at the bottom.
2. Install the seam skirts on the left and right return walls using the same steps and methodology as above but trimming them to fit between the 1/2" plywood and the back wall seam skirt. Add a heavy bead of clear sealant on the back edge of the skirt where it abuts the seam skirt on the back wall.



INSTALLING THE FLASHING

Start by installing the pan flashing.

Use the 14ft length of flashing to flash the pan skirt to the shower pan flange from the left front of the shower all the way around to the right front of the shower using one continuous piece.



Continue by installing the vertical corner flashing.

Use the two 10ft lengths of flashing to flash the two back corners of the shower.

Starting at the top of the wall, apply the flashing down each corner in one continuous piece, covering the center seam skirt and continuing over the shower pan skirt before finishing inside the flange of the shower pan.



INSTALLING THE FLASHING

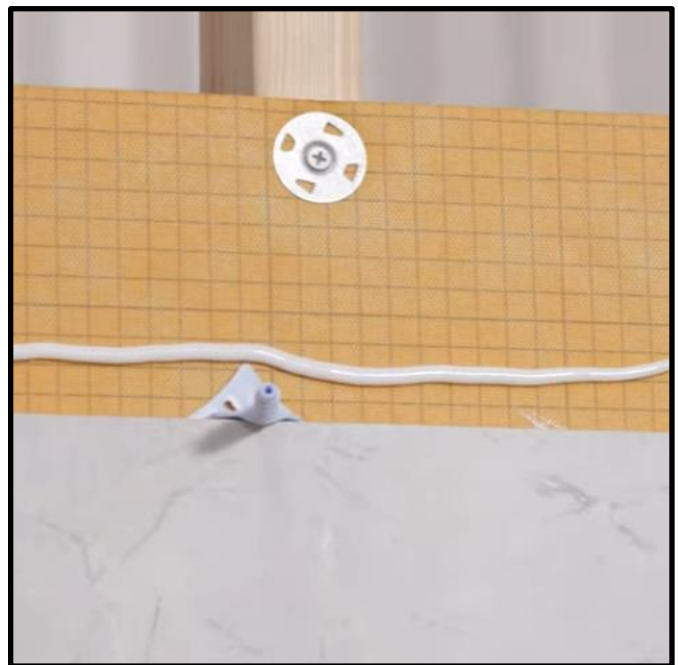
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INSTALLING THE PANELS

ALWAYS START WITH THE BOTTOM PANEL ON THE BACK WALL

1. Apply a heavy horizontal bead of clear adhesive/sealant on the face of the back wall shower pan skirt at 3" above the shower pan.
2. Apply a heavy horizontal bead of clear adhesive/sealant on the face of the back wall seam skirt at 2" below the seam line.
3. Apply a heavy horizontal bead of 2-part epoxy adhesive on the face of the back wall seam skirt at 1" below the seam line.
4. Push the bottom panel into place, gently tapping it to ensure the clips are engaged. Look over the top of the panel and down toward the clips to verify clip engagement if necessary.
5. Install lippage control spacers on the top of the bottom back panel.
6. Apply a heavy horizontal bead of 2-part epoxy adhesive on the face of the back wall seam skirt at 1" above the top edge of the bottom panel.
7. Apply a heavy horizontal bead of clear adhesive/sealant on the face of the back wall seam skirt at 2" above top edge of the bottom panel.
8. Rest the bottom edge of the top panel on the lippage control spacers at the top of the bottom panel. Push the upper panel into place, gently tapping it in to ensure the clips are engaged.



INSTALLING THE PANELS*Continued*

9. Tighten the caps on the lippage control spacers to remove any misalignment between the faces of the top and bottom panels.

PRO TIP

Time is of the essence when installing the panels. To avoid potential misalignment on the face of the panels, make sure that all panels are installed and the lippage control caps tightened before the 2-part epoxy adhesive has cured.

10. Apply the closed-cell foam weatherstripping to the back edge of all four return wall panels, holding it back 1/4" from the front of the panel.
 - a. This weatherstripping will provide an additional seal behind the color-matched silicone sealant in the joint between the side wall panels and back wall panels.
11. Using the same steps and methodology, repeat this process to apply the adhesives and install the panels on the right and left return walls.



12. Wait 30 minutes after the last panel was installed, then remove the lippage control caps from all panels. Using a utility knife, cut out the lippage control spacers on an angle so no part of the remaining spacer is protruding out of the seam.
13. Using the color-matched 100% silicone sealant, thoroughly fill and smooth the center seam, corner seams, and the seam between the bottom panel and the pan.

INSTALLING YOUR ACCESSORIES

The Synthesis™ porcelain shower surround system is compatible with a wide variety of accessories, including shower shelves, shower niches, grab bars, and more!

In-wall blocking is required for any grab bars, shower seats, or any other accessory that may be subject to sudden or prolonged pressure in any direction. The Synthesis™ porcelain wall panels do not provide sufficient support for these items.

When drilling holes through Synthesis™ porcelain wall panels, the hole must be a minimum of 1/8" larger in diameter than the fastener that is to pass through it. This is to avoid any contact between the fasteners or fastener threads and the porcelain.

Installing a Shower Niche

Prior to installing the panels, carefully measure and lay out the location of the niche cutout on the face of the panel using painters' tape. Drill a 3/8" diameter hole at each corner of the cutout. Cut the opening from the face of the panel using a 5" angle grinder equipped with a blade designed for cutting porcelain. The panel may be cut either wet or dry. Install the panels and then your shower niche. Seal the perimeter of your niche with clear sealant.

PRO TIP

Corners on square and rectangular cutouts **MUST** be rounded to avoid creating unnecessary stress in the porcelain panel.

Installing a Surface-Mounted Stone Shower Shelf

Prep your quartz, granite, or marble shower shelves by drilling two 1/2" diameter by 1" deep holes in the back edge of each shelf using a core bit designed for drilling into stone products. Insert 3/8" diameter steel dowel rods into the holes so that they extend approximately 1-1/2" from the back edge of the shelf. Affix the rods in place by filling the surrounding hole with two-part epoxy adhesive.

After the wall panels have been installed, locate your shelf on the wall and mark the locations of the dowels, making sure that the shelf is level or slightly sloped for drainage, if necessary. Drill 1/2" diameter holes at the marked locations on the wall panel using a drill bit designed for use with porcelain.

Apply two-part epoxy adhesive to any shelf edge that will be against a panel, press the shelf in place, and tape or prop in place until the epoxy is fully cured.

Installing a Grab Bar

Prior to installing the panels, install in-wall 2x wood blocking where needed and make note of blocking locations for future reference.

Install the panels.

Measure and mark the location of the fasteners for your grab bar, making sure that they align with the previously-installed in-wall blocking.

Mark and drill holes for your grab bar fasteners using a drill bit designed for use with porcelain. The holes must be a minimum of 1/8" larger in diameter than your screws.

Install your grab bar, applying a small dab of clear sealant to each screw. Make sure that the screws are long enough to reach the in-wall blocking and **DO NOT** overtighten the screws.

CARING FOR YOUR SYNTHESIS™ PORCELAIN SHOWER SURROUND SYSTEM

Your Synthesis™ porcelain shower surround is resistant to scratching, etching and stains, but it is not impervious to damage. Keep your Synthesis™ porcelain wall panels looking great by performing regular, basic cleaning with warm water and mild soap or a neutral, pH-balanced cleaner. You may use a gentle multipurpose spray cleaner to remove soap scum, hard water deposits, and mildew. Using a squeegee after each use can help minimize build-up. Do not use cleaning products that contain abrasives, acids, ammonia, or harsh chemicals as these may damage the finish on the surface of the panels.

SYNTHESIS™ WARRANTY

We provide a robust 10 year product warranty on the Synthesis™ vitrified porcelain panel against material and manufacturing defects under normal use and service. Panel Composite Systems, Inc. warrants to the original end-user that we will repair or replace, at our option, any product found to be defective under normal use and care at no charge for a period of ten years from the date of purchase. This warranty covers the product only and does not cover the labor to remove or reinstall the product.

A manufacturing defect is defined as a shortfall in the product to perform within manufacturer's specifications and industry allowable tolerances as set forth by the Tile Council of North America (TCNA) and the American National Standard Institute (ANSI). Variations in the following characteristics do not constitute a defect: color, shade, grain, movement, surface texture, and finish.

This Warranty does not cover:

- Minor conditions such as stains, scratches, chips, water spots and burns
- Mishandling or abuse of the products
- Structural design issues
- Failure of joints or seams or of any adhesive, sealant, or other accessory
- Failure to comply with Panel Composite Systems' Installation Instructions
- Poor installation practices or defects in installation
- Use for purposes other than normal interior use in the United States or Canada
- Any products moved from their original place of installation
- Any factors beyond the control of Panel Composite Systems, Inc

PANEL COMPOSITE SYSTEMS' OBLIGATION UNDER THIS WARRANTY IS LIMITED TO THE REMEDIES SPECIFIED IN THE FIRST PARAGRAPH OF THIS WARRANTY. NO IMPLIED OR EXPRESS WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR ANY OTHER WARRANTY EXCEPT THOSE SPECIFICALLY STATED IN THIS WARRANTY OR REQUIRED BY LAW IS GRANTED. EXCEPT FOR THE REMEDIES DESCRIBED IN THIS WARRANTY, PANEL COMPOSITE SYSTEMS HAS NO LIABILITY FOR ANY LOSS OR ANY DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SYNTHESIS™ PRODUCTS.