

Installation Instructions

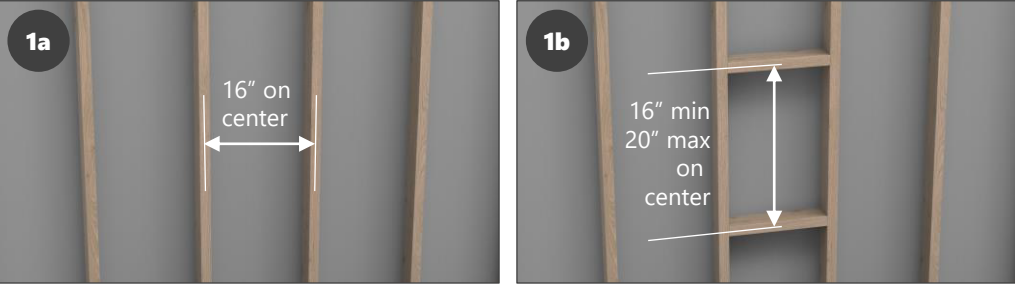


Victoria™ Series ADA GRAB BARS

T	Complete Kit	Anchor
		PermaTile™ Rough-In
Tile Thickness Range 5/32" – 1/2" (4mm – 13mm)		Tile Substrates 1/2" Integrate into Substrate

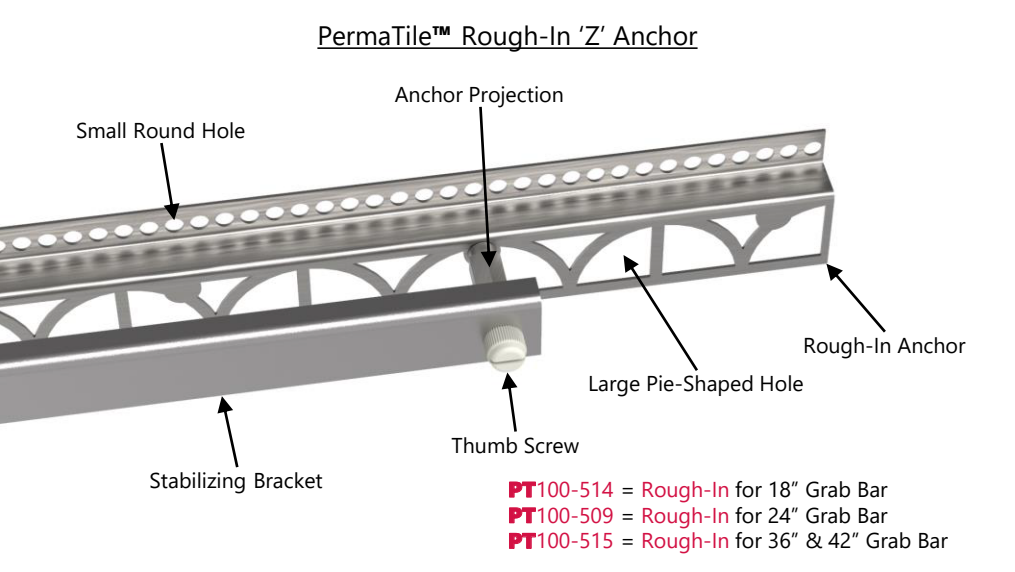
TX	Instructions also apply to Trim Only Kits (sold separately)	PT	Instructions also apply to Rough-In Only Kits (sold separately)
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STEP 1 – Framing Requirements



- Horizontal or diagonal installs require stud walls to be 16" on center. [See 1a].
- Vertical installs require additional structural framing. Additional framing should span vertical studs as illustrated. Spacing should be no less than 16" to a maximum of 20" on center, which assumes an anchoring position between 2 vertical studs. [See 1b].
- This system will attach to both wood and metal studs.

STEP 4 – Understanding Anchor Components



Each PermaTile™ Rough-In 'Z' Anchor is equipped with a stabilizing bracket. The bracket is a tool that guarantees that each grab bar will mount properly. The stabilizer is fixed to anchor projections with thumb screws.

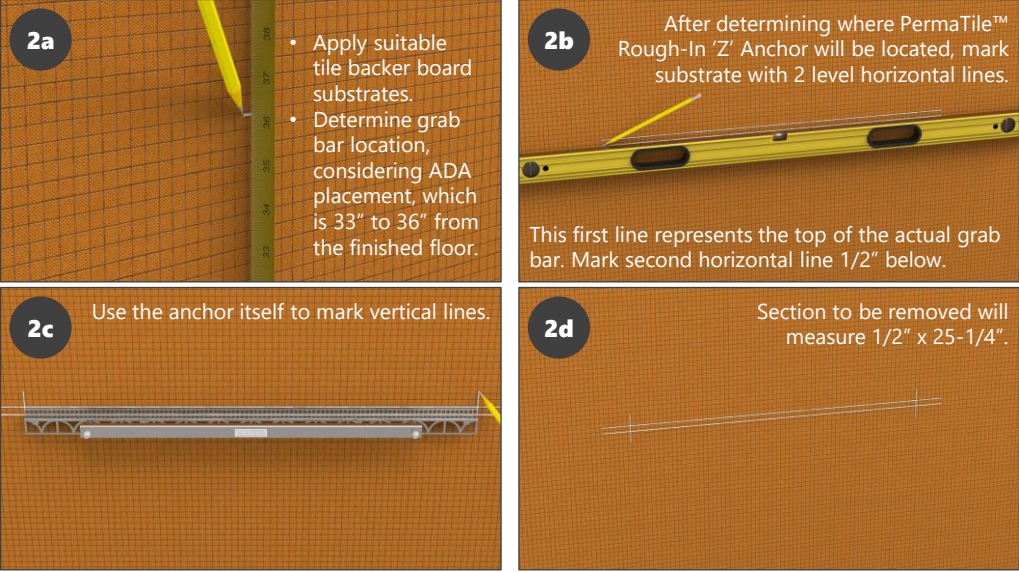
WARNING

- DO NOT INSTALL WITHOUT THE STABILIZER. Only remove stabilizer after thinset has met minimum cure times specified by manufacturer.
- Do not remove plastic thumb screws until after grouting - they protect threaded anchor projections from being corrupted with thinset.

Technical Fact

Each PermaTile™ Rough-In 'Z' Anchor is constructed from high-quality stainless steel. Each welded anchor projection is equipped with 10-24 internal threads (only one illustrated).

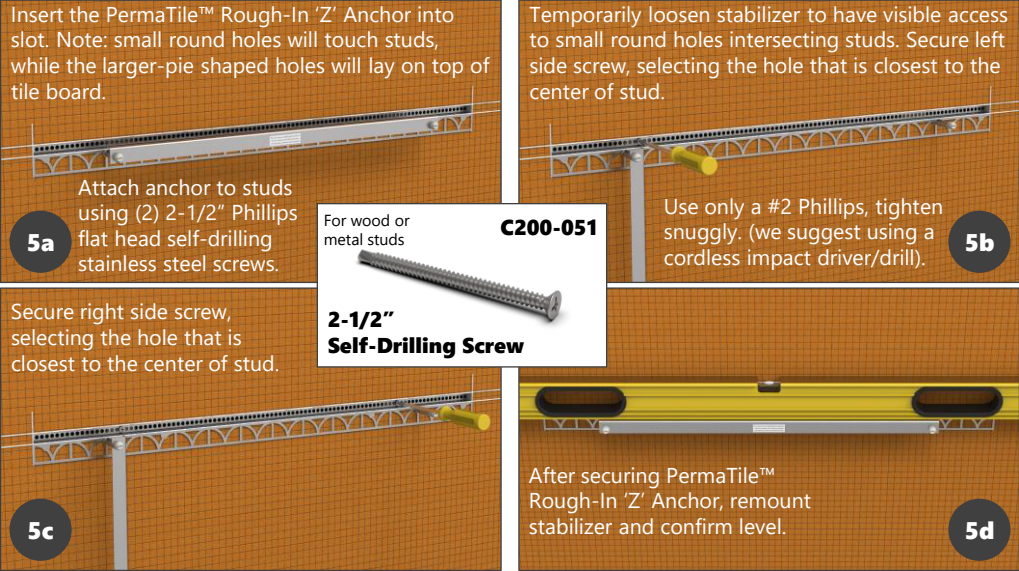
STEP 2 – Anchor Layout



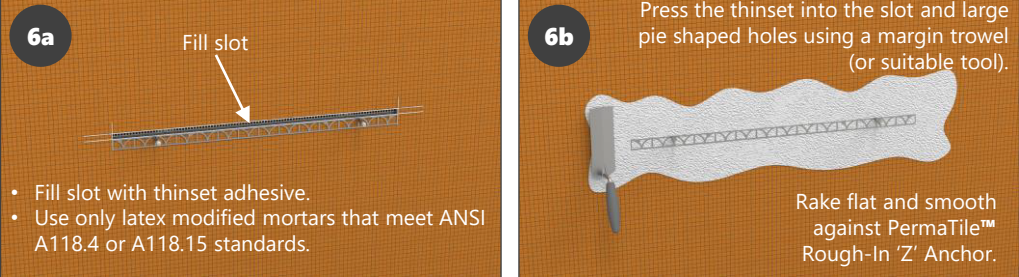
Technical Fact

PermaTile™ Rough-In 'Z' Anchor will work with all 1/2" thick tile board substrates, including cement, fiber and foam-core materials. (only use materials that meet ANSI standards for tile applications).

STEP 5 – Securing Anchor in Slot



STEP 6 – Filling Slot with Thinset



WARNING

Do not fill slot with caulking adhesives or sealants.

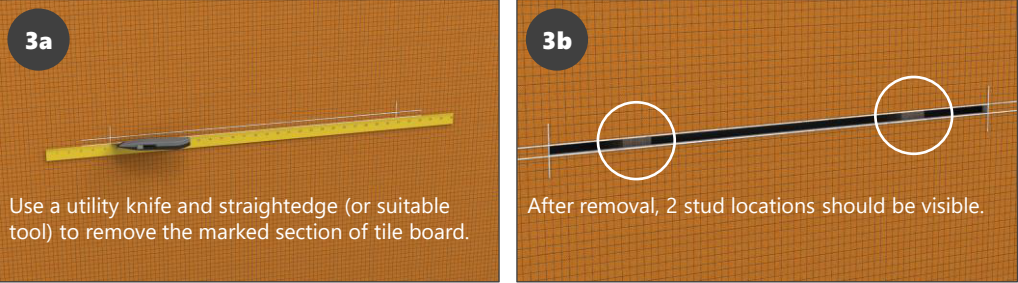
Pro Tip

Before filling slot, cover anchor projections with painter's tape to keep clean.

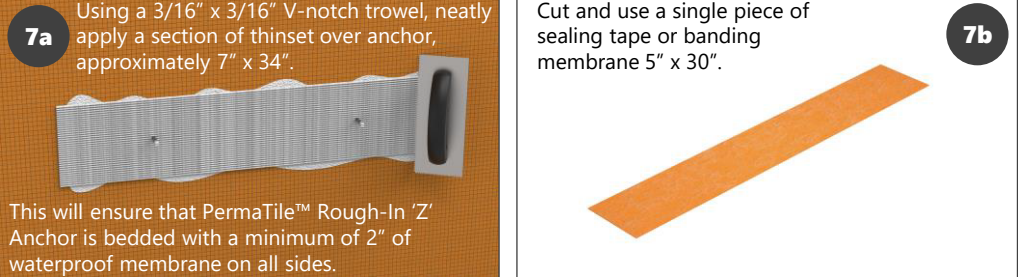
Technical Fact

When thinset is pressed into the slot, it expands through the small round holes, creating mechanical bonding points. When cured, this method provides a very strong and dense structural surface for waterproofing and tile.

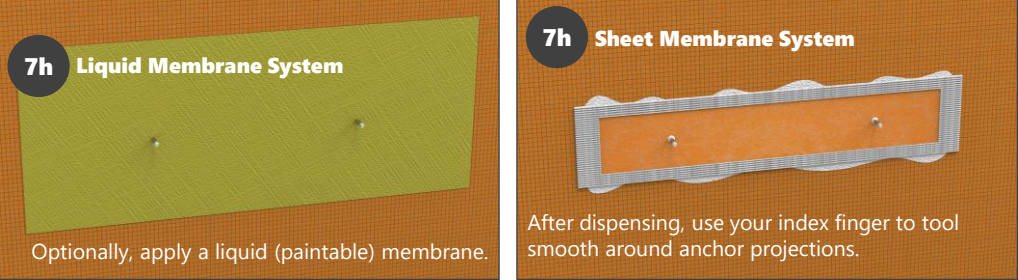
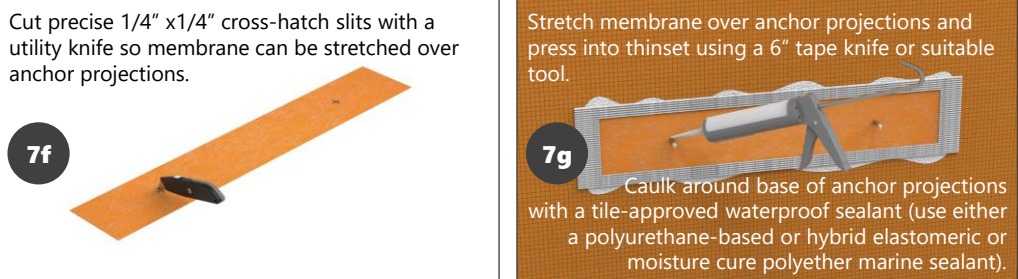
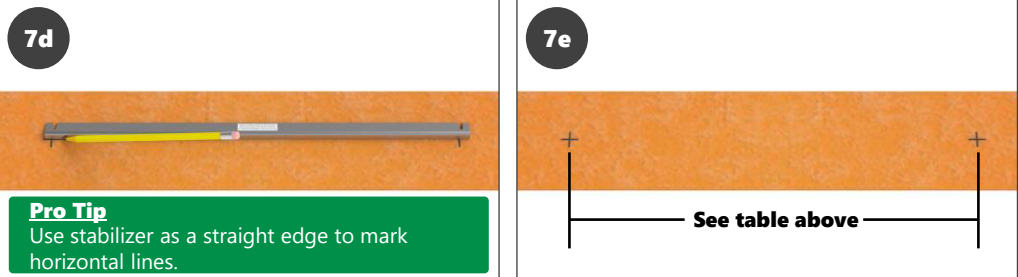
STEP 3 – Slotting Tile Board



STEP 7 – Waterproofing Over Anchor



Grab Bar Length	Anchor to Anchor Center Dimensions	Anchor Length	Membrane Size
18"	12"	25-1/4"	5" x 30"
24"	18"	25-1/4"	5" x 30"
36"	24"	25-1/4"	5" x 30"
42"	24"	25-1/4"	5" x 30"



Pro Tip

Before applying liquid membrane, wrap painter's tape around base of anchor projections. Keep the tape about 1/8" from wall.

To Install Trim Only See Reverse Side



Installation Instructions



Victoria™ Series ADA GRAB BARS

STEP 8 – Drilling / Notching Requirements

8a At this point, installation instructions will proceed with paintable waterproofing.

8b Measure against installed tiles to determine drill locations (subtract for grout joint thickness).

8c Precisely transfer measurements to tile using a square.

8d Using stabilizer, confirm drill locations as illustrated. Refer to table in Step 7c.

8e Use the table to the right to determine the best diamond drill bit size.

Drill Bit Size	Tile Format / Size	Cover Washer
1/2"	Small format tiles – less than 12"	Optional See Technical Fact 1 & 2 below
3/4"	Large format tiles – with one dimension longer than 15"	Required See Technical Fact 3 below
3/4"	Thin or panel tile – tiles 5'x10'	Required See Technical Fact 3 below

Technical Fact - When should I use cover washers?

- Always use when center of anchor projections land within 1" of a tile edge.
- Cover washers are not required when installing with small format tiles, but can be used if there is a drilling error or to achieve a desired look.
- Use when setting large format tiles. This allows for lateral movement around anchor projections so thinset ridges will collapse properly.

STEP 9 – Applying Thinset

9a Apply thinset to drilled tile. We suggest keying thinset onto the backside then troweling in one direction with no less than a 1/4" x 3/8" notch trowel.

9b Key thinset mortar onto the tile board substrate using the flat side of a trowel.

9c Now press the tile onto the wall, moving both left and right and up and down, collapsing thinset ridges.

When thinset is oozing out of the drilled holes, this confirms there is sufficient coverage. Wipe excess thinset clean with a sponge.

Technical Fact

Use only latex modified mortars that meet ANSI A118.4 or A118.15 standards. Before installing tile over anchor, make sure sufficient thinset is around each drilled hole. This creates density and compressive strength when mounting cover washers and rotating bushings with 10-24 screws. Notches or drilled holes should not exceed 1/2" when used without cover washers or 3/4" when used with cover washers.

STEP 10 – Confirming Flatness

10a When PermaTile™ Rough-In 'Z' Anchor is situated behind multiple tiles (verses one tile, as illustrated on the right), make sure those tiles are flat and in plane to one another. Confirm this by using a level.

10b

STEP 11 – Attaching Cover Washers and Bushings

11a Immediately after grouting, begin trim installation.

11b Start by removing protective thumb screws, then slip cover washer over anchor projection.

Understanding the Rotating Bushing PATENT PENDING

11c

C220-021

Cover Washer

Inner Bushing

Hex Hole

6-32 Threaded Hole

Countersunk Hole

Outer Bushing (rotates 360°)

11d Slip rotating bushing over anchor projection.

Notice that the outer bushing has a 6-32 threaded hole that can be rotated 360 degrees. This ensures grab bars can be installed horizontally, diagonally or vertically.

11e Two 10-24 lengths are packaged in each kit. Please refer to 'Bushing Attachment Guidelines' (above Step 12) for proper selection.

C200-015 10-24 x 3/4" For Standard Build-up

C200-027 10-24 x 1-1/4" For Thicker Build-up

Technical Fact

Screws are patched to prevent threads from reversing or loosening.

11f Tighten rotating bushing semi-loosely so outer portion can still be turned with your fingers as further illustrated in 11g

11g Outer bushing contains a 6-32 threaded hole. Position the 6-32 threaded hole downwards toward the floor. Note: this bushing orientation will change when installed diagonally or vertically.

Replacement Parts	Rough-In 'Z' Anchor 1 per kit	2-1/2" Self-Drilling Screw 2 per kit	Rotating Bushing 2 per kit	1-1/4" Cover Washer 2 per kit	10-24 Screws Two lengths - 2 per kit	6-32 Set Screws 2 per kit
	PT100-514 for 18" Grab Bar PT100-509 for 24" Grab Bar PT100-515 for 36" & 42" Grab Bar	C200-051	C220-021	C230-023-FINISH	C200-015 = 10-24 x 3/4"	C200-011 for PC & BN
	Stainless Steel	Stainless Steel	Stainless Steel PATENT PENDING	Stainless Steel	Stainless Steel	Stainless Steel

C230-023 & C220-021		Bushing Attachment Guidelines						
		Cover Washer & Rotating Bushing Tile Thicknesses						
		5/32"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"
Thinset Mortar Thicknesses (when compressed)	1/16"							
	3/16"							
	3/8"							

C220-021		Bushing Attachment Guidelines						
		Rotating Bushing Only Tile Thicknesses						
		5/32"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"
Thinset Mortar Thicknesses (when compressed)	1/16"							
	3/16"							
	3/8"							

STEP 12 – Mounting Grab Bar

12a Slip the grab bar over rotating bushings to test alignment.

Pro Tip

After confirming alignment, take a permanent marker and draw a line across the top length of each rotating bushing (both inner and outer components). Securely torque the 10-24 screws using a #2 Phillips (only use a hand screwdriver). The objective is to keep the lines from separating as you tighten.

12b Confirm that 6-32 threads in bushings are situated in the center of the grab bar sleeve. When this alignment is achieved, remove grab bar and tighten bushings completely with a #2 Phillips.

12c After bushings are aligned and tightened, slip grab bar over bushings.

12d Using a #2 Phillips, secure 6-32 stainless set screws to threaded holes in bushings.

12e Tighten each 6-32 stainless set screw snugly.

Congratulations!

Installation is now complete.

Thank you for using our products!

We would like to invite you to leave an unbiased review or feedback and share your experience with others.

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