

Flood Protect USA Flood Barrier Installation Manual

Created for Approved Flood Barrier Contactors of Customer Installations

Check Inventory and System Components

Inspect Caulking

Visually examine the caulking around the mounting posts:

Check caulk / seal between the posts and wall.

Check the caulk / seal between the base of the posts and the ground.

Look for signs of cracking, drying, or gaps where the caulk might have pulled away from the surfaces.

Check the depth of the caulk to ensure there's a sufficient amount for a watertight seal. A good rule of thumb is for the bead of caulk to be slightly wider than the gap it's filling.

Re-caulk if you find any cracks, gaps, or insufficient seal coverage by removing the old caulk with a utility knife or caulk removal tool. Clean and dry area before re-applying.

Inspect Planks

Tension bottom plank down so its fully compressed to ensure a seamless seal across the ground and bottom plank.

Before installing each plank, check that the rubber seals are intact.

When installing each plank into the posts, secure the tension plate and bolts to pressure planks down to create a tight seal.

Use the top tensioning plate to pressure planks downward, enhancing the seal between them.

Choose Inside or Outside Mounting Of Posts

Depending on your specific scenario, choose in advance between inside mounting of posts and outside mounting of posts. We typically recommend inside mounting, if possible, however note that this mounting method will narrow the opening slightly (about 3 inches on either side).

Choose the best option for your opening or email us at joelester@floodprotectusa.com with an image of your opening and we can offer our suggestions.

Measuring Your Opening

Measurement for Inside Mount

When measuring your opening for inside mounting of posts, measure the exact opening size, to the nearest 1/8". Remember that you need enough room on either side of the opening to accommodate the posts both depth-wise and widthwise on your threshold or adjacent brick. For outward swing doors, you need to allow enough room for the door to clear the permanently installed posts. You are measuring MASONRY TO MASONRY and posts must be installed to concrete, cinderblock, or a support beam that can handle the expected hydrostatic pressure.

Note: We will calculate the necessary plank size for each opening, considering insertion of planks in the posts, so we just need measurement of the ACTUAL opening size.

Measurement for Outside Mount

When measuring the opening for outside mounted posts, measure the ACTUAL opening size. Posts will be positioned outside of the opening.

Note: We typically add a few inches of plank span on either side of the opening, but if this is not desired due to space constraints and you wish posts to be mounted just on either side of the opening (no extra space), please let us know.

Measuring For Mounting Posts Outside of a Door Frame

When door frames are not large enough to support Posts, consider mounting posts using the outside mounting method.

If the door frame is protruding beyond the wall surface, it is important that the planks can clear the doorframe. You need just over 19mm of clearance for the planks to be able to be slotted into the posts and tightened down. The planks will span post-to-post over the protruding door frame.

Note: For outward swing doors, consider mounting the posts on the inside of your door, if the side walls adjacent to the door are concrete, cinderblock or brick. This will allow you to both have protection and be able to swing open your door from the inside.

Support Post Installation

Installing Inside Mount Posts

Align posts, so that the outside neoprene seal is positioned between the aluminum post and the opening frame. The posts should be positioned such that the plank tightening bolts are facing outwards, towards the water. It is also possible to install the posts with the tightening bolts facing towards the inside of the opening (dry side), as long as you ensure that there is enough clearance to screw down the plank tightening bolts from the inside.

Drilling Mounting Holes

Use a hammer drill to drill holes through the pre-drilled guide hole in the post and into the wall or frame to which it will be mounted. The expansion bolts provided are M12 bolt size (0.472"), so we recommend using a 12mm drill bit for hole drilling.

Post should be anchored to cinderblock, masonry or concrete. If your wall is of questionable quality, such as cinderblock or old bricks, you may want to purchase double expansion anchors to use in place of the included expansion bolts. You may also wish to initially drill a smaller receiver hole, into which you place the bolt, to ensure a snug fit. When installing posts on hollow walls, you will need to purchase butterfly bolts that will expand in the opening and provide a more secure hold.

Expansion Bolts

We supply expansion bolts with every order and if you decide to use the included bolts, you will need a 12mm drill bit to drill the hole for the expansion bolt. Insert the masonry expansion sleeve and mounting bolts into newly drilled receiver holes and tighten down the bolts using a ratchet to secure in place.

Urethane Silicone

For added leak protection, we recommend adding urethane silicone on the water side, at

the base of the post and along the seam lines between the flood barrier post and the wall.

Add silicone along the neoprene on the post in advance of placement on the wall, then pressing the post onto the wall to help ensure a good seal. Be sure to carefully seal all sides of the bottom of the post, so that a good seal is created with the ground below. You can also insert silicone to fill any holes or gaps in the brick, mortar or concrete.

Mark the screw hole locations

Drill Holes

Insert Expansion Bolts

Fasten the Side Post with screws

Installing Outside Mount Post

When mounting posts on the outside of your doorway, position posts so that the neoprene seal is between the post and the wall and the mounting tabs are up against the wall. Tabs should be positioned on the side of the post away from the opening, such that when looking from the water side, the left post has mounting tabs on the left and the right post has tabs on the right.

Drilling Mounting Holes

Use a hammer drill to drill holes through the pre-drilled guide hole in the post and into the wall or frame to which it will be mounted. The expansion bolts provided are M12 bolt size (0.472"), so we recommend using a 12mm drill bit for hole drilling.

Expansion Bolts / Wall Anchors

We supply expansion bolts with every order and if you decide to use the included bolts, you will need a 12mm drill bit to drill the hole for the expansion bolt. Insert the masonry expansion sleeve and mounting bolts into newly drilled receiver holes and tighten down the bolts using a ratchet to secure in place.

Post should be anchored to cinderblock, masonry or concrete. If your wall is of questionable

quality, such as cinderblock or old bricks, you may want to purchase double expansion anchors to use in place of the included expansion bolts. You may also wish to initially drill a smaller receiver hole, into which you place the bolt, to ensure a snug fit.

When installing posts on hollow walls, you will need to purchase butterfly bolts that will expand in the opening and provide a more secure hold.

Urethane Silicone

For added security, we recommend applying some silicone on both sides of the post, at the base of the post and along the seam line between the post and the wall. During installation, it is recommended to place silicone on the neoprene seal on the back of the post and then pressing the post on to the wall, allowing the silicone to enhance the seal with your wall.

Additional silicone should be added to the base of the post, where it connects with the ground below, making sure that a good leakproof seal is created.

Additionally, be sure to fill any openings or spaces in the brickwork, mortar, or concrete lines with silicone to further strengthen the seal.

Installing Center or Corner Posts

1. Dig a hole in the ground (the same size as the embedded part)
2. Fill with cement
3. Put in the embedded part (the surface of the embedded part needs to be flush with the ground) and wait for the cement to solidify. Installation completed

Adding Wall Spacer Columns

If you need to move the posts out further than the wall, say to clear door hardware or a door frame, then you can use spacers to move the posts further away from the wall.

These can be recycled wood lumber, treated lumber, or steel extrusions. Recycled wood spacers come in various sizes and can be purchased at most home improvement stores.

To install post spacers, simply bolt the spacers to your wall using standard anchors. Caulk around the edges to seal the connection point and ensure that it is waterproof.

Once spacers are installed, mount posts onto the spacer, as you would to a standard wall.

Simply bolt these into position using the same methodology indicated in our instructions.

Making Posts Removable / Demountable

It is possible to make posts removable, using **drop-in anchor bolts**. The threaded sleeves are left in the wall and the flood barrier posts are able to be removed and reinstalled in advance of a flood event. It is important to confirm a good seal between the post, neoprene, and wall during each installation.

To make post removable there are two method you may use:

Method 1

Use standard **drop in** masonry anchors. Insert the drop in anchor into the drilled holes with the open side facing up. Use a setting tool to lock the drop-in anchor into place. Place the setting tool into the anchor and strike the top of the setting tool with a hammer, until the lip of the tool touches the rim of the anchor. This will lock the threaded receiver sleeve in place permanently.

Remove the tool and the anchor should remain firmly in place, ready to receive a bolt. Place machine threaded bolts through each hole in the post base and into the anchor bolt.

Tighten down to secure the post to the floor below.

Method 2

Utilize our in-ground base plate, which is poured into the concrete.

To place the baseplate, cut into existing concrete to a depth and size sufficient to accommodate the baseplate, the bolt receivers welded to the bottom of the baseplate, and the additional bolt protrusions which screw into the underside of the receivers (designed to give greater support depth into the concrete).

Pour concrete around the baseplate, fully enclosing the plate, bolt receivers and bolt protrusions.

Determine the connection hole position between Plank Support Buttress and the ground

Fix the Plank Support Buttress to the top of the center column with screws

Installation of the floor trough

If the ground material is sand, soil, or other soft materials, and the ground is uneven, you will need to use the floor trough accessories

Similar to the installation of Plank Support Buttress,

1. First, you need to dig a pit of the same size as the floor trough
2. Fill with cement and put in the floor trough accessories (the surface of the floor trough should be flush with the ground)
3. Wait for the cement to solidify and the installation is completed

Adding a Concrete Footer to Enhance The Watertight Seal

To improve the seal between the and the ground below, it is important to have a level and smooth surface.

In situations where there are pavers in sand, gravel, or dirt as a subsurface, it is important to add a concrete footer underneath the Eudore bottom rail to ensure a good seal.

This footer should extend across the entire width of the barrier, including the U-Channel Posts.

The footer should be positioned right up against your structure, to ensure a good connection and seal off. If the footer is being placed between two property walls, make sure that it is positioned to abut these walls to create a secure seal.

Installation of the Footer:

Cut into the existing ground to a depth and size that can accommodate the Posts (and Baseplates in some instances) prior to installation. Frame out the area to receive concrete.

Pouring and Smoothing:

Once leveled, pour concrete into the hole and smooth out the top to create a level surface.

This enhances the watertight seal against the Bottom Plank's thick neoprene gasket.

Deploying Your Flood Barrier

Slotting in Planks

Aluminum planks are slotted into post channels when a flood event is expected. To begin inserting planks make sure that all plank tightening bolts (in posts) are loosened, so that the planks can be inserted freely.

Slide out the post top tightening plate to gain access to the post's U-channel.

Identify the bottom plank, which has a larger seal off than the other planks. This thicker seal allows it to get a good seal on slightly varying ground below. Slide the bottom plank into the channel in the posts, until the plank reaches the floor below. Add successive planks until all planks are stacked in the channel.

Tightening Down Planks

Once all planks are slotted into the post channels use your foot to nudge the stack of planks against the back seal inside the post. This is important to begin the sealing process in advance of tightening down the planks.

Insert the post top locking plate into the notch at the top of the post. Use the included Allen wrench to tighten down the planks, enhancing the seal between them and the floor below. It is important to get a good seal with the ground below. A level and smooth surface, free of debris, is critical to ensure a proper seal with the ground below.

Stay aware of local weather conditions and evacuate if local authorities are advising of such evacuation