

Installation Instructions

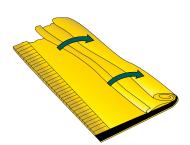


Before Deployment

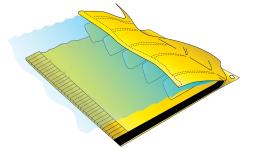
- 1) Prepare The Deployment Area: Clear the deployment area where the barrier will be placed of any debris or obstacles, such as large rocks or branches.
- **2) Prepare Additional Ballast, Stakes Or Ties If Needed:** While not essential for deployment, additional sandbags or weights can be used for extra stability. Stakes may be used to fasten the integrated Stingray loops/straps to the ground for additional stability. Ties can be used to connect the Stingray to fixed walls or structures.

Deployment Steps

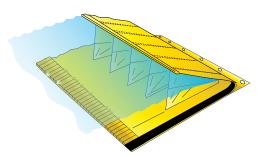
- **1) Position The Barrier:** Place the rolled Stingray at the desired location, ensuring the side with the integrated weights is facing the oncoming water.
- **2) Unroll The Barrier:** Unroll the barrier along the length or area to be protected. If a full perimeter is being deployed, unroll sections and position corner pieces at turns. We recommend going well beyond the area to be protected, to ensure that water doesn't migrate around the barrier into the protected area. For example, if blocking water in a roadway or stream, we recommend extending the Stingray up either curb or riverbank and continuing several feet beyond the area being blocked off.
- **3) Unfold The Flap:** Open any folded flaps of the Stingray so the unit is completely unfolded, with the skirting extended towards the direction of the expected water.
- **4) Attach Multiple Units:** The Stingray unit can be connected to additional units to achieve your desired length of protection. There is a heavy duty, industrial strength velcro on both ends of the Stingray unit to connect sections to each other temporarily or permanently. For additional durability, you can use the integrated tensioning straps and buckles to affix sections to each other. Sections may be left assembled and rolled or folded as a single run for future deployment.
- **5) Water Activation:** The oncoming water will automatically activate the water dam as it fills the ballast compartment and opens the Stingray. As the upper layer rises due to the embedded foam flotation top and water flow, Stingray will begin to hold back water. Incoming water pressure will ballast the Stingray to the ground below, allowing it to hold its position without drifting, even with a significant current.



Unfold Stingray in Desired Location



Water Enters Barrier Pockets and Begins to Open Into a V-Shape



Stingray is Open and Holding Back Water

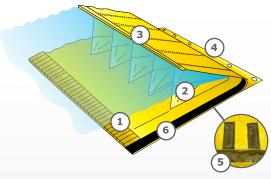


Adding Corner Sections

- **1) Making Turns:** There may be areas where corners are needed to go around a structure or property. Stingray has specialized corner pieces that allow for a 90 degree turn.
- **2) Set Up:** Stingray Corner units should be positioned in where a turn is required. Deploy straight Stingray sections at a 90 degree angle to each other, with the corner piece in the corner between them. Make sure that the weighted edges of the corner piece are facing outwards towards the expected rising water.
- **3) Connecting Corners:** Similar to the connection of straight Stingray units, corner units connect using the heavy duty, industrial strength velcro on both ends. Additional straps and buckles can be fastened for greater strength.

Optional Steps for Added Stability and Security:

- 1) Sandbags: Strategically place sandbags or other weights on top of the Stingray for additional stability, especially on uneven surfaces. We recommend positioning any added sandbags at low points, ensuring a good seal between the front weighted skirting and the ground below. The key is to minimize any leakage below the Stingray.
- **2) Stakes And Ties:** There are a number of heavy duty loops and straps at the back and sides of each Stingray unit. These straps can be used to both move and position the Stingray and to stake or otherwise fasten or tie the unit to the ground or to side walls and fixed objects.
- **3) Pumps:** In the event there is water collecting behind the barrier from rain or runoff, it is recommended to deploy a sump pump in low lying areas behind the barrier. Water can be pumped and redirected back over the water dam. When a sump pump is used to pump water back over the barrier, consider utilizing an easel or stand to raise the hose over the top of the deployed Stingray barrier, preventing the weight from closing the Stingray.



Stingray Water Dam Features

- 1) Weighted Front Strip Sewn in weights keep the unit ballasted when deployed
- **2) Partitions** Reinforced ribbing provides additional strength when water enters the water dam
- **3) Foam Flotation Strap** Allows Stingray to self deploy when water enters the pocket
- **4) Back Flap With Grommet Holes** Built in grommets allow you to stake down unit to keep it in place in advance of flood waters
- **5) Anti-Slip Mesh** Underside traction mesh prevents slippage and provides additional stability
- **6) Velcro Closure** Easily connect multiple units together with our industrial strength velcro

Break Down and Storage:

- 1) After A Flood Event: Once the flood water recedes, allow the Stingray to drain completely.
- **2) Clean And Dry:** Wash the Stingray with clean water and allow it to air dry completely before storage. You may also use blocks or other objects to prop up the Stingray ballast compartments to allow for increased airflow so it can fully dry.
- 3) Store Properly: Store the Stingray in a cool, dry place, away from direct sunlight, for future use.

Important Notes:

- For specific deployment recommendations based on your situation (water depth, ground conditions, etc.), consult Garrison to discuss your needs.
- Do not place Stingray sections directly against a building as you should leave about 2ft between the structure and the back of the unit.
- The Stingray is constructed with a 2:1 length to height ratio, so the available ground clearance should be 2x the height of protection needed.
- When surveying your property, take into account any obstructions that may be in the way of laying down the unit properly (trees, shrubs, sheds, etc). Some work may be required to provide a suitable installation environment.



For Additional Help or Support - Contact sales@garrisonflood.com

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