

**General Information:**

Open the pack list on the crate's exterior. Locate the shop drawings and installation instructions inside the box. Review contents and make sure all parts are present and verify:

- Model of grid and frame
- Size of grid and frame
- Product color
- That there are no visual defects or damage from shipment

If you discover that material is missing or defective, contact our customer service department immediately: 877.242.8821

**Important Notes – Do Not Overlook:**

Prior to installation, ensure that the material is stored indoors and has acclimated to the environment's temperature for 24 hours.

If applicable, assess the site condition prior to installation ensuring the recess is:

- Free of debris and moisture
- The correct depth throughout
- Smooth and flat

High spots should be ground down. Low spots should be filled with a self-leveling grout. The side walls of the recess should also be checked for plumb and defects as this could affect the frame installation (if applicable). If these conditions have been met, you can begin the installation.

**FAILURE TO FOLLOW THESE INSTALLATION INSTRUCTIONS MAY VOID  
YOUR WARRANTY.**

**Tools Required:**

- A Level
- Tape Measure
- Rubber Mallet
- Carpenter's Pencil or Marker
- Utility Knife
- Handsaw
- 5/32" Masonry Drill Bit
- Flathead Screwdriver
- #2 Phillips-Head Screwdriver
- Trowel
- Shop Vacuum
- PPE (gloves, glasses, ear protection, etc.)

### Connecting Sections:

1. Lay both sections next to each other with the tread side down with the filler on opposite ends onto a clean surface to prevent scratching or staining. Extra rubber hinge should overlap in the middle.
2. Square up the two sections to guarantee flush edges.
3. With a rubber mallet; pound detached hinge into open groove, starting from one end and working your way to the other end.

### Trimming Vinyl Filler:

1. Lay mat in recessed flooring with the tread side up and push on both ends of the traffic direction to compact mat as much as possible.
2. Center the mat inside the recessed portion to ensure equal amounts of filler on either side.
3. Trim filler using one of two methods:
  - a. Using a small shallow handsaw- Set blade so it will cut 5/16" deep and set up a guide bar to ensure a straight cut.
  - b. Using a utility knife- set guide to ensure a straight cut then score filler multiple times until you have cut through the entire piece of filler.
4. Make sure the mat fits (compacted) in the recess portion of the floor.

### Replacing Vinyl Filler:

1. Lay mat with the tread side down onto a clean surface to prevent scratching or staining.
2. Use a screwdriver to pop the rubber filler out of the aluminum groove then pull up along the length of the rail.
3. Place replacement filler flush with aluminum rail.
4. Use a rubber mallet to pound fin into groove, starting from one end and working your way to the other end.

### Replacing or Adding Rail(s):

1. Lay mat on a flat surface with tread side down onto a clean surface to prevent scratching and staining.
2. Locate aluminum rail or rails that need to be replaced and use a screwdriver to pop rubber hinge or filler from aluminum groove from one side and add both sides to replace.

3. Lay new rails in place where they need to be added then put filler or hinge, so they are in line with aluminum groove.
4. Make sure the new rails are flush with both sides of the existing mat.
5. Use a rubber mallet to pound fins from the hinge or filler into the groove, starting from one end and working your way to the other end.

### Installation Guide #450 Roll-Grate Frames:

#### **Recessed Block Frame**

Frame 450: is designed for recess mounting

#### **1. Prepare the floor recess**

Prepare a recess in the concrete flooring where the mat will be located.

The recess should be at least:

- 7/8" (22 mm) deep
- 4" (100 mm) wider than the outside dimensions of the frame- this allows 2" (50 mm) on all sides to maneuver the frame into position.

#### **2. Drill anchor holes**

The mat frames should be secured to the concrete floor using anchor bolts into lead anchors that are set into the floor.

- Drill holes in the frames at 2-ft (6 m) intervals for the bolts. Countersink the holes.
- Set the frames into the recess at the appropriate locations to position the mat(s). Mark the hole locations on the concrete.
- Remove the frames and drill holes in the floor for the anchors.
- Install the anchors using an anchor setting tool.

#### **3. Secure frames in the recess**

Reinstall the frames. Secure them to the floor with 1/8" x 1 1/2" anchor bolts into the lead anchors.

Note: If necessary, shim under the frame sections so that the top edge of the frame is flush with the unfinished floor surface, and the frames are level.

#### **4. Pour the concrete**

Pour concrete (or grout) around the edges and in the center of the frame.

- Ensure that everything is level with frame lip
- Make allowances for finished floor surface

## 5. Level the concrete

Level the concrete so the mat will lie flat when installed.

- Cut a board just slightly **shorter** than the width of the frame.  
Use the board to smooth and level the concrete
- Ensure that the concrete is smooth and level with the inside lip of the frame. This will allow the mat to lie perfectly flat and avoid rocking.

## 6. Recheck all dimensions

Before the concrete sets, recheck that:

- The frame sides are straight
- The frame corners are at correct angles so the mat will fit properly
- All inside dimensions of the frame are accurate according to drawing measurements

If the frame bows inward, use spreaders inside the frame until the concrete is thoroughly set.

**IMPORTANT:** The mat is made to fit securely into the frame according to the drawing. Ronick cannot be responsible for problems that result from improperly installed frames

## 7. Protect the frame edges

When the concrete has hardened, install plywood or other material into the recess to protect the frame edges from damage until the mat is installed and construction is complete.

## Installation Guide #448 Roll-Grate Frames:

### **Recessed Level Base Frame**

Frame 448: is designed for recess mounting

Note: Before installation begins, make sure that the traffic direction is correct & the rails run perpendicular to the traffic flow.

## 1. Prepare the floor recess

Prepare a recess in the concrete flooring where the grate frame will be located.

The recess should be at least:

- 1-1/8" deep (Subtract finished floor depth from the frame depth- this will be your total block out depth)
- 4" wider than the outside dimensions of the frame- this allows 2" on all sides to maneuver the frame into position.

## 2. Assemble frame, drill anchor holes and secure frame in recess.

After the recess has been formed and prepared:

- Assemble frame pieces using the corner locks provided at each corner- the frame has been mitered to allow for quick assembly
- Set assembled frame into the recessed opening- square and plumb the frame to the opening and

finished floor- NOTE: If necessary, shim under the frame sections so that the top edge of the frame is flush with the finished floor

- Once the frame is in place, drill holes in frame every 2' for the screws and secure using hardware provided

### 3. Pour concrete/grout and level

- Pour concrete/grout in the center and around edges flush with the surrounding concrete
- Level the concrete/grout in the center of the frame by using a board slightly shorter than the width of the frame

Note: Ensure that concrete is smooth and level with the frame. This will allow the grate to lay flat and avoid rocking

### 4. Recheck all dimensions

Before concrete sets, recheck that:

- The frame sides are straight
- The frame corners have the correct angles so the grate will fit properly
- All inside dimensions of the frame are accurate according to the drawing measurements

If the frame bows inward, use spreaders inside the frame until the concrete is thoroughly set.

IMPORTANT: The grate is made to fit securely into the frame according to the drawing- Ronick cannot be responsible for problems that result from improperly installed frames.

### 5. Protect the frame edges

When the concrete has hardened, install plywood or other material in the recess to protect the frame edges from damage until the grate is installed and construction is complete.

### 6. Install Position Locator Bars

Install position locator bars on the 448 frame, this will enable the grate to stay flush with the frame.

- To determine where the position bars are located, all sections in the traffic direction must be joined. To attach the sections, simply drop the aluminum rail from one section on to the vinyl hinge of the adjoining section. Make sure to keep the sections aligned.
- After all sections have been properly assembled, trial fit the grate into the frame. Trim vinyl ends as required for proper fit.
- After the grate is assembled and fits properly into the frame, mark the center of each corner rail onto the frame. This mark will be erased after position bars have been secured.
- Using the mark on the frame, align the position bars on to the frame and drill holes using 1/8" drill bit where screw will attach the bars.
- Using screws provided, attach bars.
- Repeat this process for all corners until all the blocks are secure and the grate fits properly into the frame system.

## 7. For Grates Comprised of Many Sections

For large grates comprised of many sections:

- The factory will provide alignment bars. They will be installed at the factory. Those bars will allow the grate rail alignment and still afford the luxury of easy installation and retractability.
- Align and center the rail on sections B, E, and H so they align with the bars on sections A, and C, D and F, and G and I.
- See drawing below

