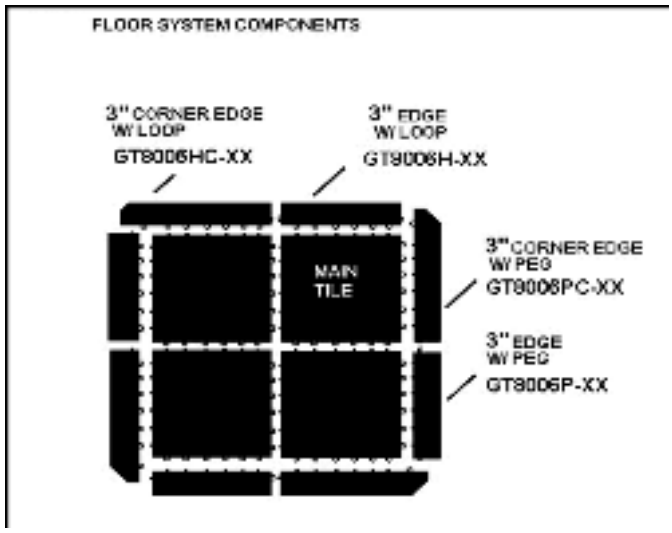
GARAGETEK MODULAR FLOOR SYSTEM

Elements Of Design ◄

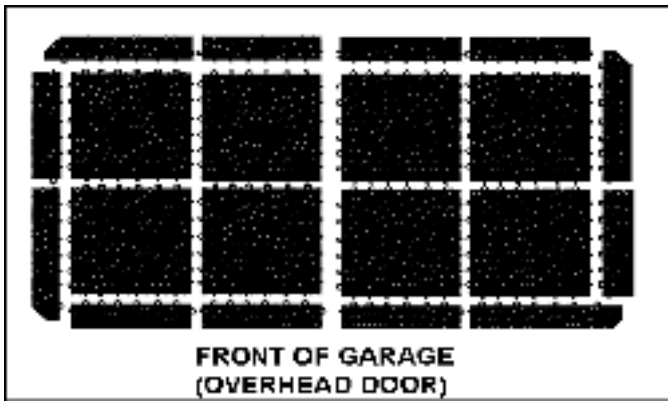
The Floor tile system consists of the main tile measuring 12" x 12" and edging trim pieces, both straight pieces and corner pieces. The pieces assemble together with interconnecting loops and pegs.



Material	Molded with 100% virgin polypropylene for strength and stability. Un-like PVC, vinyl and rubber, polypropylene is a naturally non-porous material resists the infiltration outside materials.
Claims of being imperious to automotive petroleum based products or battery acid	Polypropylene, although non-porous and resistant to staining, must be maintained. Customers should be aware that petroleum based chemicals and products, OVER TIME, will discolor and damage the floor tiles. The success of this flooring is dependent on "expectation management". The key is to treat the floor like any other floor - if you spill, clean it up. This information is true for any polypropylene or PVC floor. If a competitor is saying anything different, he/ she is not being truthful.
Load Bearing Capacity/ Weight	The tile top surface stands securely on 793-½" support legs making this tile one of the most durable on the market. This design is rated at a maximum 250 psi (an average car is about 35 psi). In additional to its strength, this design allows the concrete to breathe decreasing the possibility of mold or mildew growth. The weight of each 12 X 12 tile is approx. 500 GRAMS.
UV Stabilization	The material resin is UV stabilized against discoloration from sunlight.
Antibacterial Agent	The material resin package includes a component to protect against fungus and bacterial growth.
10-Year Limited Manufacturers Warranty	Leave With The Customer A Half Dozen Of Each Color Tile And Show The Customer How To Replace Any Future Damaged Tiles.

1. Lay the tile oriented with the pegs facing outside and the hooks facing left starting at the garage door. Continue to lay the tile to the back of the garage. By doing this you are pushing the pegs into the hooks. (If orientated to where you are putting the hooks into the pegs, the installed row of tile has to be raised and is very time consuming)

Having a "logo" in the center of the tile makes it much easier to identify the orientation.



2. Keep the orientation of the pegs/ loops the same on each tile, connect and tap with a "no-bounce" mallet lightly to join the tiles together. Connect the edge pieces with the same method.

3. Use a jig saw to cut around obstructions or edge trim around (poles, door rails, etc) leaving a thermal expansion clearance.

4. Use the tile shear named, the Magnum Shear (details below) for straight cuts. A table saw, jig saw or miter saw can also be used for straight cuts, but not recommended. The cuts from these tools are not as clean as obtained from the Mini Magnum or Magnum Shear.

5. Always leave a minimum of 3/4 inch clearance from the wall for each 10 feet of garage width. ie. a minimum of 1 1/2 inches total for a single car garage, a minimum of 2 1/4 inches total for a double garage. Clearance has to be included for all obstructions such as steps, garage door rails or columns.

THE CLEARANCES ARE IMPORTANT BECAUSE THEY ALLOW FOR EXPANSION/ CONTRACTION FROM DAILY/ SEASONAL TEMPERATURE SWINGS.

DARK COLORS WILL RETAIN HEAT AND EXPAND MORE THAN LIGHT COLORS WHEN EXPOSED TO DIRECT SUNLIGHT.

6. Installation does not require any surface preparation. Stains, cracks and old paint can be covered with the tiles. However, painting the exposed floor edging not covered by the floor tile is recommended.

SPECIFIC ASSEMBLY METHODS

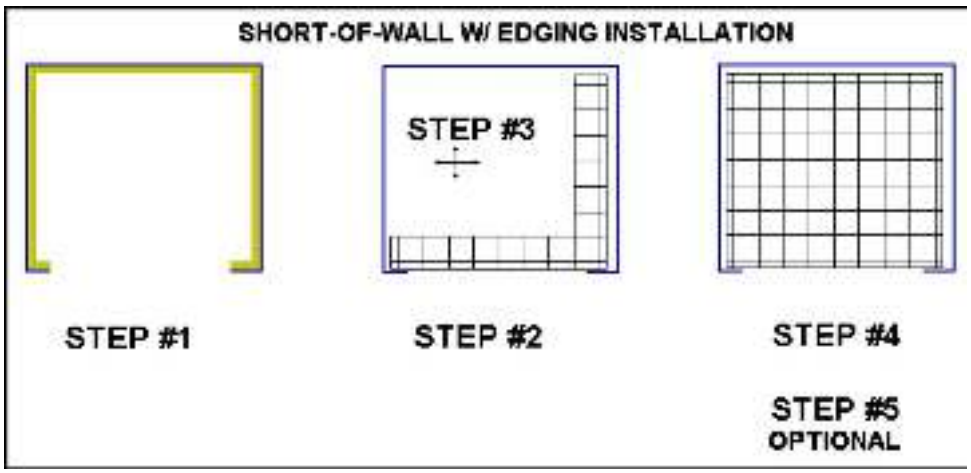
There are two methods of installing the floor. The wall-to-wall with edging method and the wall-to-wall without edging method. This second method, wall-to-wall without edging, is not recommended because it is more time consuming to install and it is difficult to judge needed thermal expansion clearances.

WALL-TO-WALL WITH EDGING

This is the recommended of the two methods, there is no cutting and fitting of the tiles close to the garage walls.

This method is the only alternative in garages where the floor severely slopes upward 3-4 inches to the wall for drainage and at locations where there are stairs.

The steps are outlined below.



STEP #1: It is suggested to paint the edge area not to be covered with the tiles. This width will be less than the width of the tile, 12 inches. **A floor can be laid very quickly; taking the extra time to paint the exposed floor where clearance space is allowed (plus maybe any concrete riser or sill) gives the appearance of a clean, professional job and is worth the extra effort.**

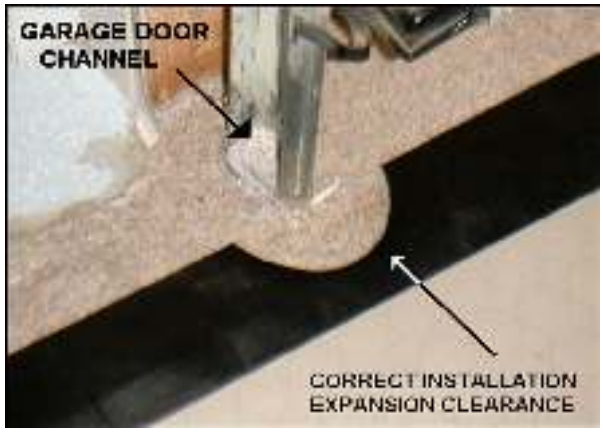
Use exterior masonry paint such as Behr Plus 10, Masonry-Stucco-Brick Paint. It is a mildew resistant, water repellent, self priming, alkali resistant flat acrylic, latex paint. This paint is not for high traffic areas, but these areas are going to be covered are next to the wall, such as cement offsets, etc. and are not high traffic areas.

Other choices could be Behr's Premium Plus Porch & Floor paint or Behr's Plus 10 Concrete Stain. The "Plus" and "Plus 10" paints recommend using chemical cleaners, etchers and priming.

Use a color complimentary to the tiles and agreed to by the customer. It would be worthwhile to have the colors premixed and in the truck at all times.

STEP #2: Assemble the front row and one or two side wall rows of main tiles and edging tiles. The "front" row is defined across the outside overhead door. See the above image.

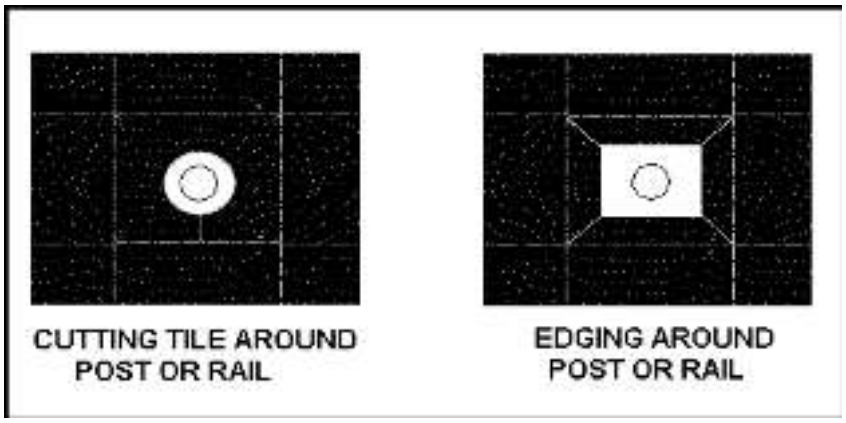
STEP #3: Slide the assembly left/ right to get an equal spacing next to the side walls and front-to-back. Also position correctly just inside the garage door rails. Leave or cut a space around the garage door rails. See images below. The edging tiles at the garage door rails can also be removed if needed. They can be cut later for a final fit up.



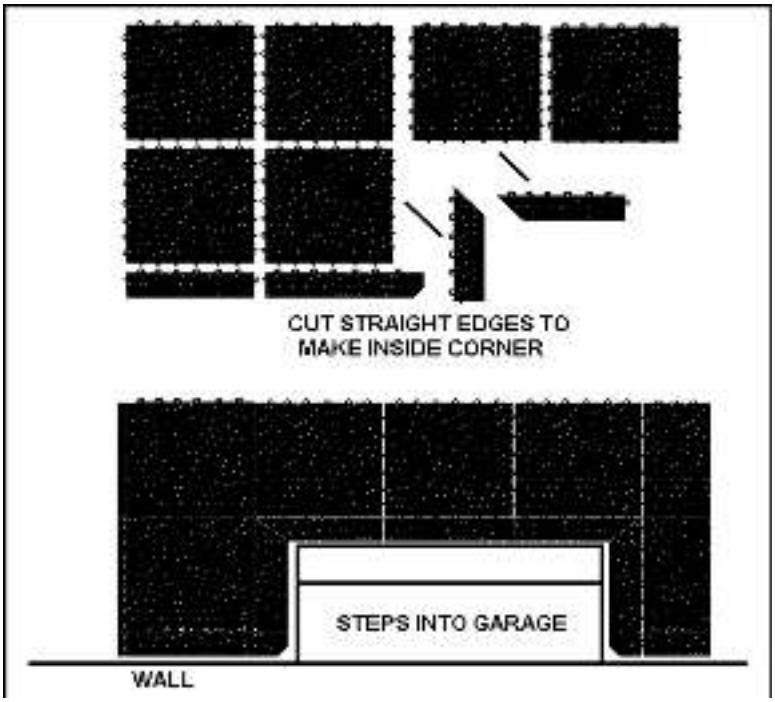
STEP #4: Complete laying the main tiles for the floor, except for any tiles that would hit an obstruction such as steps, support poles, etc.

STEP #5: For obstructions, such as a support pole, mark a tile with a pencil and cut with a jig saw. Leave at least 3/4 - 1 inch space between the edge of the tile and the obstruction to allow for expansion in warmer weather. This is important as the tiles will buckle if there is no room for them to expand.

An alternate to cutting out the tile would be to leave out the main tile where the object is located and trim with inside corners.



For obstructions, such as steps or inside corner walls, edging pieces are recommended. Inside corner edging be cut as shown below.



If a refrigerator or freezer is located in the garage, the choice is to either to tile around it or leave extra expansion space at the nearest other obstruction such as a wall or steps, etc.

An excellent tool for making straight tile cuts is the tile cutter called the Magnum Shear for cutting edge tiles. This cutter has a full width, lever operated shear blade and the cuts are perfectly clean and smooth. The lever arm is effortless to use. It has a 20" tungsten blade which will probably never need sharpening.

The efficient part of using this shear is being able to have it right where you Are measuring and the cutting tiles; instead of marking some tiles, walking out of the garage to saw them and then still needing to deburr the cut edge. Plus there is no clean up of the saw cuttings.

The Magnum Shear does weigh 63lbs and costs $788.00. There is at least one alternative of using the Mini Magnum Shear which has a 13" blade and costs $599.95. Both units are on the websites www.tools4flooring.com or www.bullettools.com

Leave the customer a half dozen tiles of each color used and show how easily replacement is, if a tile becomes damaged. The customer also could redesign / reassemble the floor on their own if they want a different pattern.

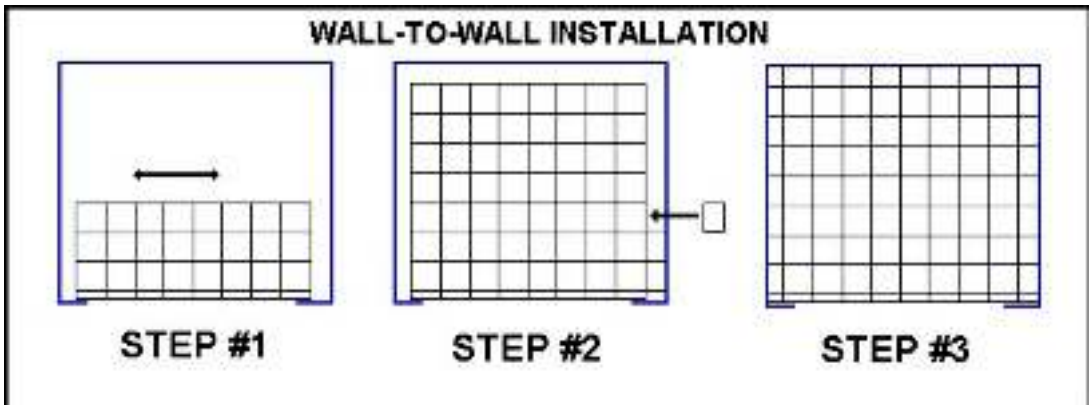
WALL-TO-WALL WITHOUT EDGING METHOD

This method of installation involves cutting tiles to follow the walls around the garage, leaving a necessary expansion clearance. This method is more time consuming than the wall-to-wall method with edging pieces.

This method of installation is not recommended for the following reasons:

- Because the tile edge is trimmed, edging pieces can not be attached; this leaves a blunt edge and not a "tapered" surface.

- There is the tendency by the installers to have this cut edge as close to the walls as possible for a nicer appearance, but this can easily create situations where not enough thermal expansion clearance is allowed.



STEP #1: Assemble several rows of tiles across the front. Slide this row side-to-side to get the centering desired from a wall and to the garage door entrance. Don't forget to leave expansion space around the garage door rails

STEP#2: Cut a side row of tiles leaving expansion clearance.

Complete the assembly of the center tiles and repeat cutting the other side and back wall tiles.

STEP #3: Leave the customer a half dozen tiles of each color and show how easily replacement is, If a tile becomes damaged. The customer could also redesign the floor on his/ her own in the future if they would like to change the pattern originally installed.

FLOOR PATTERNS

Different floor patterns are usually selected by the customer from a selection offered by the salesperson or the customer can design their own pattern.

Floor patterns can be a problem when the floor is exposed to direct sunlight. The different color floor tiles will expand at different rates and buckling, cupping or other unusual behavior might occur.

Check during the sales visit if the above is a possible problem and explain to the customer the situation.

CLEANING AND MAINTENANCE RECOMMENDATIONS

All floors require cleaning. Periodic cleaning of your modular flooring will maintain the beauty of your Modular Floor whether located in your garage or on an outside deck.

The following information and instructions will assist in caring for the floor.

- The modular flooring tiles are manufactured with 100% virgin polypropylene. Polypropylene, although naturally non-porous, resistant to staining and corrosion from harsh chemicals, must be maintained as any other floor in or around the home. Petroleum based products **over time**, will discolor and damage the tiles. The key is to treat this floor like any other floor. If you spill, clean it up.

- Routine cleaning with a damp mop and a degreasing cleaner is recommended to remove surface dirt and grime. Any chemical spills, such as paint should be cleaned up immediately. A cleaner degreaser in warm water using a mop and or handled brush does an excellent job.

- The underside of the floor tiles are designed to allow cleaning and flushing with a hose. If using a pressure power washer, maintain a tip-to-surface distance of at least 10". Failure to maintain this minimum distance may dislodge the tile connections, particularly the edge trim pieces.

- A deep cleaning is possible by separating the floor tiles along a continuous seam and removing that section of flooring. Use a hose or power washer to rinse both the removed tile section and the exposed surface where the tiles were installed.

Provide the customer an instruction sheet with the above cleaning information when the installation is complete.

Also give the customer a half dozen tiles of each color used when the installation is complete. If a tile(s) because damaged or stained, these tiles can be used as replacements.

TROUBLESHOOTING / RECOMMENDATIONS

There are four probable causes for customer call backs because of complaints with the flooring.

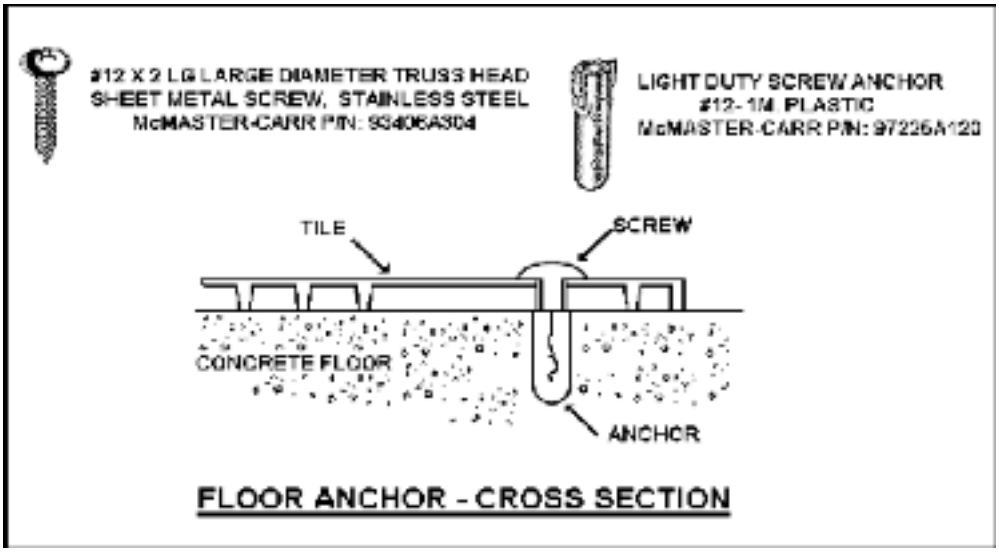
1) The seams can become unfastened if a car is turning on the floor while entering the garage. Ie. such as with a side entrance garage. Nothing can correct this problem. Be very aware of this possible problem at the point of sale.

The three possible problems that can be corrected include:

2) The flooring has moved and is pushing against the back garage wall.

The flooring can be moved by a vehicle when driven aggressively inside the garage. Usually another condition such as it being a small garage or the under flooring is slippery (ie previously painted) contributes to its being able to be done.

A vehicle suddenly stopping can incrementally push the flooring towards to back of the garage until the floor comes in contact with the back, and eventually the tiles begin to buckle.Other than suggesting to the customer a change in driving habits, several tiles can be pinned in the last row along the back wall. Ie. Two places in a 1 or 2 car garage and 3 places in a three car garage. Pinning involves using a plastic plug and stainless steel screw in the concrete per below.



Pinning is done at the back of the garage, not in the front at the garage door area. Pinning at the front of the garage would be exactly like leaving no expansion clearance or placing a heavy object, like a refrigerator, next to the wall, allowing no expansion clearance. It might not become a problem, but in direct sunlight it will cause buckling. See the image below.

3. The installers did not leave enough clearance around objects and thru thermal expansion, the flooring has "grown", is pushing against an object(s) and some tiles are buckling.

Resolution is increase the clearance where needed.

Installers have to be educated on "growth" possibilities. ie. Flooring installed during the colder winter months need more clearance than if installed during the warmer summer months.

Another "growth" possibility not so obvious, is expansion will be greater if the sun is directly shining into a portion of the garage. The additional radiant heat will cause the tiles to expand more than in a shaded area. The darker colors will also absorb more heat than the lighter colors and expand more.

4. Tiles "dome" up in the center like an inverted saucer.

Where a pattern of different color tiles is installed and the pattern is exposed to direct sunlight in the front of the garage during a portion of the day, there is the possibility of experiencing some of the tiles "doming".

A tile will dome when it attempts to thermally expand at a faster rate than tiles surrounding it will allow it to expand.

This will typically occur when different colored tiles are used in a pattern and the pattern is exposed to direct sunlight at the front of the garage.

Imagine a light colored main floor with a dark colored border several tiles in from the edge. Out of the direct sunlight, the both the dark and light colored tiles expand by convection with the heat transferred by the air. In direct sunlight (at the front of the garage) there is the addition of radiant heat and the darker tiles 1) absorb more heat than the lighter colored tiles, 2) want to expand more than the lighter colors, 3) the lighter colors will restrict The darker colors and 4) the darker color tile will expand upward, instead of laterally.

If this condition is objectionable to the customer, the solution is to remove that portion of the tile pattern exposed to direct sunlight (or all of it).

04/17/13 Postnote: To remove sections or the entire floor

1- Wear gloves

2- The technique is to "lift" the peg side of the tile out of the loop side of the tile.

3- Start at an edge and lift/hold down through the area to be removed. (If you damage a few hooks or pegs, don't be concerned.)