Electra Motorsports

Installation Manual Energy Absorption System



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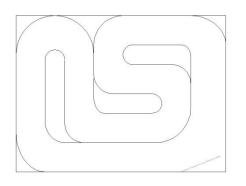
Inventory List

Parts Supplied

- Posts (Floor-mount & wall-mount available)
- Impact Buffers (5.5" and 10" available)
- Track Flex Guard (.75" x 12" x 10')
- Pitlane Flex Guard (.5" x 4.75" x 8')
- Hardware to bolt Impact Buffers to Posts
- Hardware to bolt Flex Guard to Impact Buffers
- Hand Dispenser for Acrylic Anchor
- Mixing Nozzles
- Acrylic Anchor (Sold in 28 oz tubes)
- 1/2" x 5" Threaded Rod (Available in different lengths if needed)
- ½" 13 Nuts
- ½" Flat Washers

Tools Needed

- Electric Drill
- Concrete Drill
- 9/16 Concrete Drill Bit
- 5/16 Drill Bit with Countersink
- Socket Set
- Allen Wrench Set
- Skill Saw
- C-Clamps



Stage 1 Draw Track

Using a marker, draw the track onto the surface. Do this accurately as the barrier system will follow these lines exactly.



Stage 2 Place Sample Posts

Place posts with the front of the impact buffer lining up with the edge of the track marked out. Space the posts 30" apart center to center. In high impact areas, reduce the spacing to disperse the load over a few posts. When placing posts bear in mind the 10 ft flex guard joint sections need to be between posts.



Stage 3 Sort Hardware and Impact Buffers

Lay out the needed hardware to assemble the impact buffers to the posts.

Qty. $2 - 5/16-18 \times 2''$ bolt for each d-rubber

Qty. 2 - 5/16-18 nylock nuts

Qty. 2 - 5/16 flat washer

Qty. 1 - 2 hole track plate

(Qty. per impact buffer)



Stage 4 Mark Post Holes

Using a marker, mark the floor through the holes of the post.



Stage 5 Check Hole Pattern

Remove post and reveal holes to be drilled.



Stage 6 Drill Holes

Using the holes you just marked, use a 9/16" drill bit and drill the holes into the concrete. If desired a steel drill jig can be purchased to help, but it is not necessary.



Stage 7 Clean Holes

Using compressed air and/or a Shop Vac, clean out the holes. Be sure to wear safety goggles any time you use compressed air.

NO PHOTO

Stage 8 Fill Hole with Glue

Using dispenser PN OSTE020, pump epoxy into each hole according to package directions.

NO PHOTO

Stage 9 Place Post and threaded rods

Place post in place and insert the rods into the glue. Be sure to leave enough threads sticking up for the post, washer, and nut to go on top. Leave until set per epoxy instructions.



Stage 10 Bolt Post

Once the epoxy is set and dry, put a ½"washer and ½-13 nut on each rod, and tighten lightly. There is no need to use excessive force, as it could upset the anchor. Simply snug each nut sufficiently, and you can go back and tighten it further after the epoxy has completely set.

NO PHOTO

Stage 11 Layout Flex Guard Hardware

Layout the hardware to bolt flex guard to post.

Qty. $1 - 5/16-18 \times 2.5 \text{ FHCS}$

Qty. 1 - 5/16-18 nylock nut

Qty. 1 - 5/16 flat washer

(Qty. per impact buffer)



Stage 12 Drill Flex Guard

Use a measuring tape to measure the height of each hole on the impact buffers, and mark them on the flex guard. Using a 5/16 drill with countersink drill through the flex guard and countersink deep enough so that the head of the bolts will be below the surface. The barrier can lay on the floor, or you can shim it to sit slightly above.



Stage 13 Bolt Flex Guard to Post

Bolt the flex guard to the impact buffers.



Stage 14 Layout Joint Piece

Layout the joint piece (to be used as a jig) and the hardware to bolt in place.



Stage 15 Clamp Joint Piece

Using the joint piece to join the two sides, Place 2 clamps in place holding the flex guard to the joint piece.



Stage 16 Drill for Joint Piece

Drill through the joint piece with a 5/16 drill From the rear using the piece as a drill jig.



Stage 17 Countersink the front

Drill through the front of the holes just drilled with a 5/16 drill and countersink. Drill deep enough so that the flat head screws do not protrude.



Stage 18 Bolt Joint Piece

Using the nuts and bolts provided bolt the joint piece to the flex guard.

Oty. 6 - 5/16-18 X 1.5 FHCS

Qty. 6 - 5/16-18 nylock nuts

Qty. 6 - 5/16 flat washers

Continue this process until all barriers are bolted securely in place. Note that you may have to cut some barriers to fit certain layouts . You can cut the flex guard using a table saw or circular saw just like you would with plywood. For very tight bends you can heat the plastic slowly by letting it sit in direct sunlight, or you can carefully heat the plastic using a torch while applying pressure in the direction you wish to bend it. Please use extra care when using this method, as it is very dangerous, and excessive heat will damage the plastic. Overheated or damaged plastic is not returnable or repairable. Always wear protective gloves and eyewear when doing any assembly of, or maintenance to the Energy Absorption System.





