

Mounting to Post-Tensioned Concrete

Application Note **AN27** 24 December 2012

Background

Post-tensioned concrete is found in precast parking garages. Post-tensioning is a method of reinforcing concrete with high-strength steel strands. The strands are tensioned during installation.

Designated Parking barriers are usually mounted using expansion anchors. These require drilling a hole in the concrete for each anchor. In the case of the MySpot 200, seven 2.4" holes need to be drilled. At that depth, the drill could hit one of the steel strands and damage it.

The solution is to use special shallow concrete anchors, or to use adhesive.

Shallow Anchors

Designated Parking stocks two shallow drop-in anchors (Metric and Fractional) that will keep the barriers firmly in place, yet require a hole in the concrete that is only 1" (25mm) deep.

Both anchors require a 3/8" x 1" hole. The DA14 anchor has a female thread 1/4"-20. The DAM8 anchor has an M8 thread. Each needs a special tool to set it in concrete.

To mount the MySpot 200 to these anchors, use the appropriate bolt shown in the table below. Note that the height of the



head must be less than 5.8mm due to the restricted gap between the plates and the pods.

The bolts can use the M8x22mm washers provided in the MySpot 200 kit.

Anchor Installation

The anchors **MUST** be installed using the recommended  tool. Unlike regular expansion anchors, these anchors do not expand using the bolts. They can only be expanded against the concrete using the tool and a hammer.

1. Drill a hole 1" deep. Do not drill a deeper hole, to prevent the anchor from dropping below the surface. If that happens you may need a longer bolt than is shown in the table.
2. Clean the hole using compressed air or a vacuum cleaner.
3. Drop the anchor in until its top is flush with the surface.
4. Place the narrow end of the tool inside the anchor and hit it hard until the tool shoulder rests against the anchor's lip.
5. Place the plate, washer and bolt and tighten. Do not exceed 48 in-lb. (If you use a 4" hex wrench, the force at the end should not exceed 12 lb.)

Item	description	P/N	Tool	Bolt	Wrench
Anchor	1/4" x 1"	46-1015	83-0004	41-4027.12	51-6213
Anchor Metric	M8 x 1"	46-1014	83-0005	41-4020	51-6205

