INFOMASTER™ INSTALLATION INSTRUCTIONS
Adjustable Depth Concrete-in Fixing System

NOTE: Ensure that all relevant personnel read the points listed below and that a copy is passed on to staff involved with the installation. Please also refer to the 'Manual Handling Operations Regulations 1992' during the handling of the product and materials used for installation.

KIT CONTENTS:

ITEM 1. Bollard	x 1
ITEM 2. Tamper Proof Cover Cap	x 3
ITEM 3. Fixing Screw (M10 x 100)	x 3
ITEM 4. Tamper Proof Cover Cap Snap Fit	x 3
ITEM 5. Washer-Black (M10 x 30mm)	x 3
ITEM 6. Spacer (M10 x 28mm)	x 3
ITEM 7. Washer (M10 x 30mm)	x 6
ITEM 8. Adjustable Concrete-in Fixing	x 3
ITEM 9. Wing Nut	x 6

TOOLS REQUIRED FOR INSTALLATION:

- 6mm Allen Key (included within kit)
- Equipment to Excavate Hole
- Concrete Mix (Fast Setting)
- Spirit Level

INSTALLATION

1. Check for buried services before starting installation.
2. Prepare a hole 480mm x 250mm x 400mm deep.
3. Fully assemble and tighten all three Concrete-in Fixings to the base of the bollard as shown in Diagram A.
   If the depth is restricted to less than 400mm the fixing can be adjusted by moving the bottom washer (Item 7) up the Concrete-in Fixings and cutting the bar to the desired length. We would recommend using the same volume of concrete by increasing the width of the hole accordingly.
4. Place aggregate and support blocks in the base of the prepared hole.
5. Place the Concrete-in Fixing Assembly into the hole ensuring that the fixings rest on the support bocks and that the bollard is vertically level.
6. Remove the bollard and fixing assembly and pour the concrete mix into the prepared hole to the desired level. Ensure the bollard is orientated correctly with regard to the site requirements. (i.e. sign is facing the correct way).
7. Fully insert the Concrete-in Fixing Assembly into the concrete until the base of the bollard is flush with the top surface of the concrete.
   The top of the bollard foot detail should be flush with the concrete/block paving to give a neat finish. DO NOT concrete over the fixing screw heads as this will prevent the bollard being replaced.

REPLACING YOUR BOLLARD

1. Remove the four Fixing Screws with the 6mm Allen Key provided (discard the Fixing Screws).
2. Remove the existing bollard and replace with your new bollard in the correct orientation aligning the holes in the bollard base with the existing fixings.
3. Insert Spacer (item 6) into the three holes in the base of the bollard from underneath. Place the washer (Item 7) on top of the fixings.
4. Position Items 4 and 5 onto the Fixing Screw (item 3) and insert one into each of the three holes.
5. Using the 6mm Allen Key provided, loosely tighten each of the Fixing Screws, and then fully tighten to complete the installation.

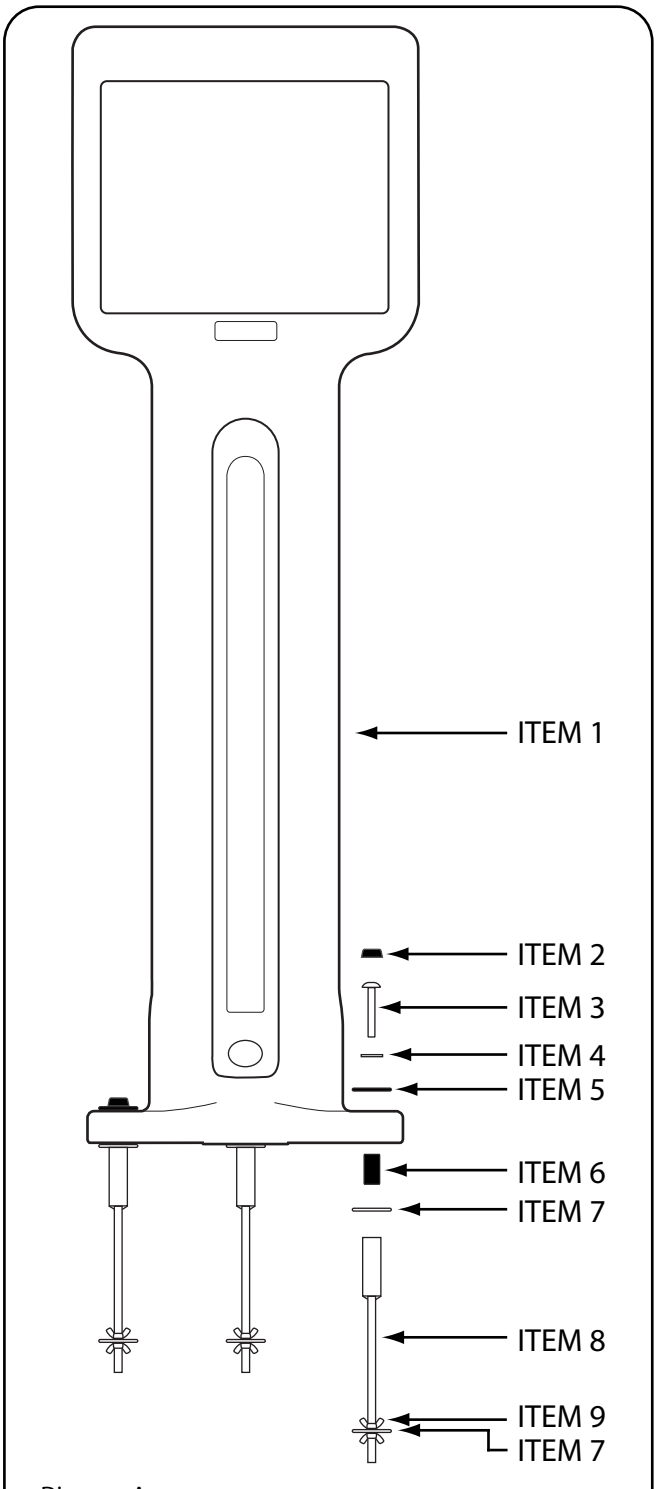


Diagram A

INFOMASTER™ INSTALLATION INSTRUCTIONS

Surface Mounting onto an Existing Concrete Foundation

NOTE: Ensure that all relevant personnel read the points listed below and that a copy is passed on to staff involved with the installation. Please also refer to the 'Manual Handling Operations Regulations 1992' during the handling of the product and materials used for installation.

KIT CONTENTS:

ITEM 1. Bollard	x 1
ITEM 2. Tamper Proof Cover Cap	x 3
ITEM 3. Fixing Screw (M10 x 100)	x 3
ITEM 4. Tamper Proof Cover Cap Snap Fit	x 3
ITEM 5. Washer (M10 x 30mm)	x 3
ITEM 6. Spacer (M10 x 28mm)	x 3
ITEM 7. Anchor Rawl Plug	x 3

TOOLS REQUIRED FOR INSTALLATION:

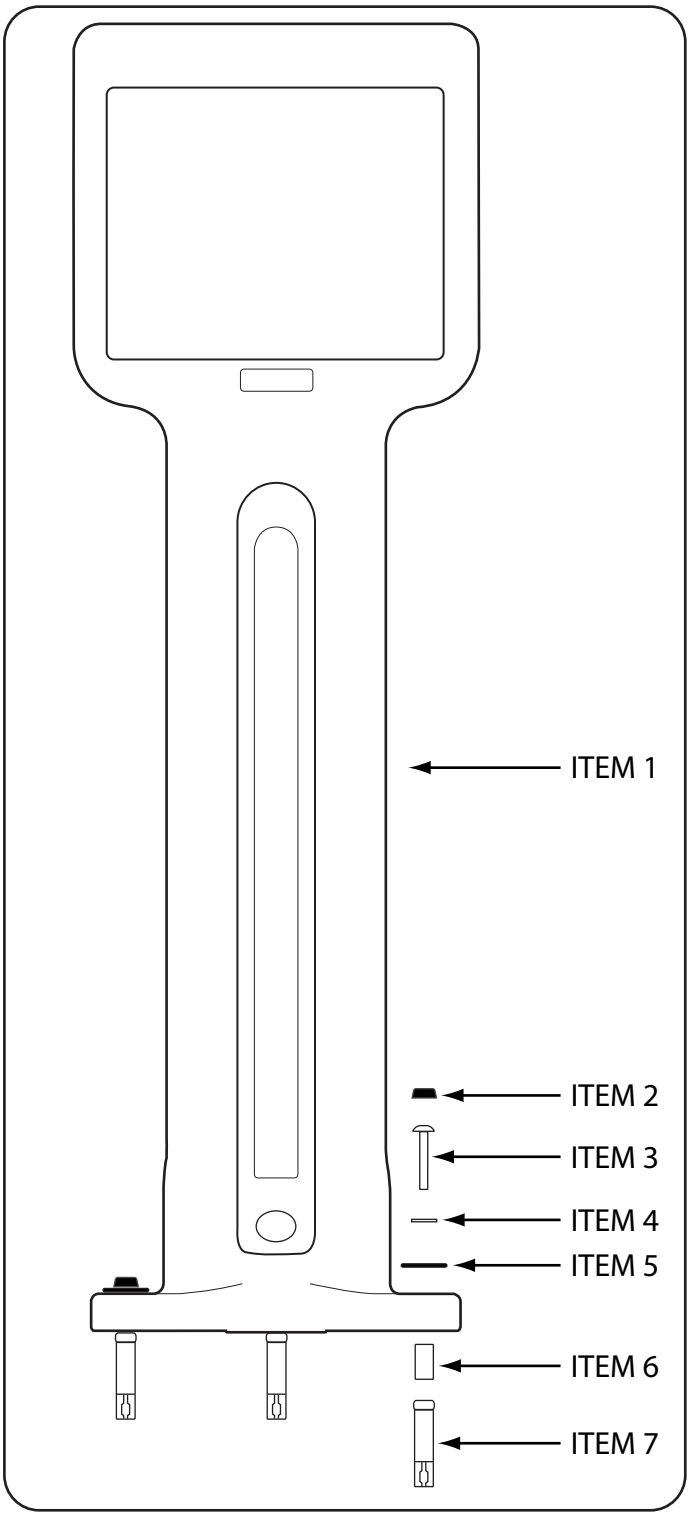
- 6mm Allen Key (included within kit)
- 16mm Diameter Drill Bit
- Appropriate Electric Drill
- Hammer

INSTALLATION:

1. Position the bollard (Item 1) centrally on the intended site and orientate it correctly with regard to the site requirements. (i.e. sign facing the correct way).
2. Using the bollard, mark out the three hole positions.
3. Before drilling, ensure that the hole centres are a minimum of 100mm from the edge of the concrete foundation.
4. Drill the holes with a 16mm diameter drill bit no less than 80mm deep (ensure holes are in the correct position by aligning the bollard and drilled hole centres).
5. Insert an Anchor Rawl Plug (item 7) into each of the three drilled holes, a hammer may be required to tap them flush to ground level.
6. Locate the bollard in position aligning the holes in the bollard with the Anchor Rawl Plugs ensuring the bollard is orientated correctly.
7. Tilt the bollard back to insert from beneath the Spacers (Item 6) into the three holes in the base of the bollard.
8. Position Items 4 and 5 onto the Fixing Screw (Item 3) and insert one into each of the holes.
9. Using the 6mm Allen Key provided, loosely tighten each of the Fixing Screws, and then fully tighten to complete the installation.

REPLACING YOUR BOLLARD

1. Remove the three Fixing Screws with the 6mm Allen Key provided (discard the Fixing Screws).
2. Remove the existing bollard and replace with your new bollard in the correct orientation aligning the holes in the bollard base with the existing Anchor Rawl Plugs.
3. Continue the installation from note 7 above.



INFOMASTER™ INSTALLATION TEMPLATE INSTRUCTIONS

NOTE: Ensure that all relevant personnel read the points listed below and that a copy is passed on to staff involved with the installation. Please also refer to the 'Manual Handling Operations Regulations 1992' during the handling of the product and materials used for installation.

KIT CONTENTS:

ITEM 1. Installation Template	x 1
INCLUDED WITH INFOMASTER BOLLARD:	
ITEM 2. Fixing Screw (M10 x 100)	x 3
ITEM 3. Spacer (M10 x 28mm)	x 3
ITEM 4. Coated Washer (M10 x 30mm)	x 3
ITEM 5. Adjustable Concrete-in Fixing	x 3
ITEM 6. Wing Nut	x 6
ITEM 7. Washer (M10 x 30mm)	x 6

TOOLS REQUIRED FOR INSTALLATION:

- 6mm Allen Key (included within Signmaster Bollard kit)
- Equipment to Excavate Hole
- Concrete Mix (Fast Setting)
- Spirit Level

1. Check for buried services before starting installation.
2. Prepare a hole 430mm x 430mm x 400mm deep. If the depth is restricted to less than 400mm the fixing can be adjusted by moving the bottom washer (Item 7) up the fixings and cutting the bar to the desired length. We would recommend using the same volume of concrete by increasing the width of the hole accordingly.
3. Fully assemble and tighten all three Concrete-in Fixings to the Installation Template as shown in **Fig. 1**.
4. Place support blocks in the base of the prepared hole and locate the assembled Template in to the hole, ensuring that the fixings rest on the support blocks and that the Template is level and in the correct orientation for the bollard (**Fig.2**).
5. Pour the concrete mix into the excavated hole until the concrete is flush with the base of the template (**Fig. 3**).
6. Allow concrete to set.
7. When dry, remove the Template and top fixings (Items 1,2&3).
8. When required insert the spacers into the holes in the bollard from underneath and align the bollard in the correct orientation, insert the Washer and Fixing Screw (Items 2,3&7) in each of the 3 holes and tighten using the Allen Key supplied.

Fig. 1.

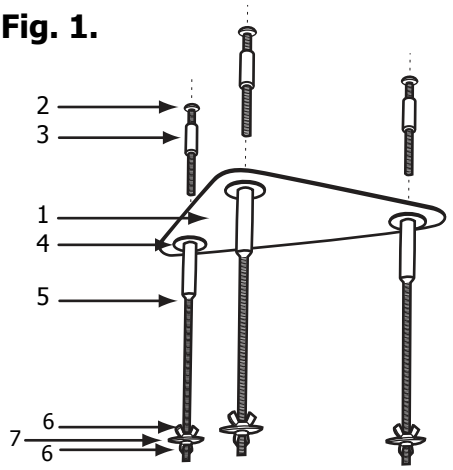


Fig. 2.

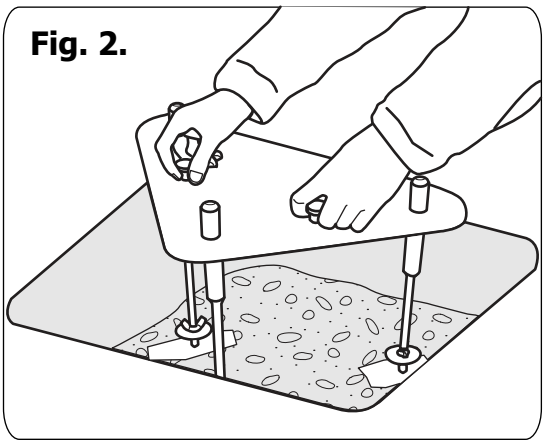
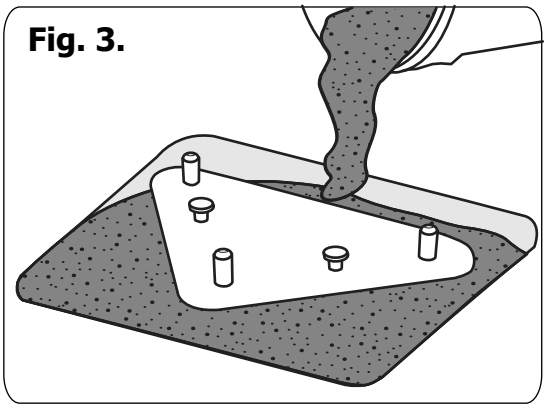


Fig. 3.



Replacement components are available direct from GLASDON.

GLASDON cannot be held responsible for claims arising from incorrect installation, unauthorised modifications or misuse of the product.

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Glasdon U.K. Limited
Preston New Road
BLACKPOOL
Lancashire FY4 4UL
Tel: 01253 600410
Fax: 01253 792558
E-mail: sales@glasdon-uk.co.uk
Web: www.glasdon.com