

# Signmaster Ultra<sup>™</sup>

#### **INSTALLATION AND MAINTENANCE INSTRUCTIONS**

IMPORTANT NOTE: ENSURE THAT ALL RELEVANT PERSONNEL READ THESE INSTRUCTIONS PRIOR TO USE

Please also refer to the 'Manual Handling Operations Regulations 1992' during the handling of the product and materials used for installation. Glasdon recommends that a full Health and Safety analysis and site survey is carried out prior to installation.

#### **BASE CONFIGURATIONS**

#### **FIXING INSTRUCTIONS:**

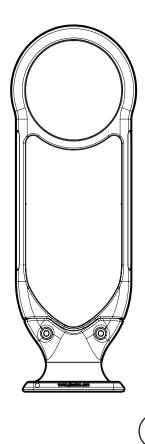
TYPE 1 - Standard Signmaster Base

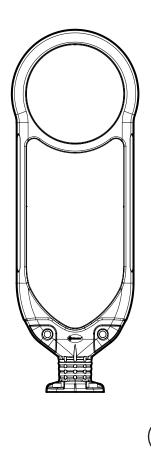
TYPE 2 - Compact Signmaster Base

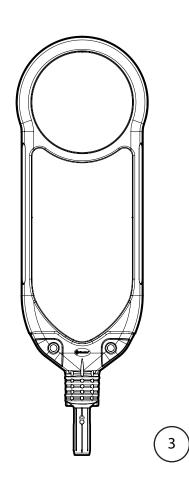
See Page 2

TYPE 3 - 50 x 50 Retention Socket Compatible Signmaster Base

See Page 6







#### STANDARD SIGNMASTER BASE

TYPE 1

#### **BOLT DOWN FIXING INSTRUCTIONS**

#### **KIT CONTENTS:**

ITEM 1 - Bollard (Body and Base)	x 1
ITEM 2 - Anchor Rawl Plug	x 4
ITEM 3 - Washer - M10 x 30mm	x 4
ITEM 4 - Spacer - M10 x 28mm	x 4
ITEM 5 - Washer - M10 x 50mm	x 4
ITEM 6 - Cover Cap Washer Plate	x 4
ITEM 7 - Screw - M10 x 100mm	x 4
ITEM 8 - Cover Cap - Black or White	x 4

Position the Bollard (Item 1) centrally on the intended site and orientate it correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels).

Using the Bollard, mark out the  $4\,\mathrm{x}$  hole positions, ensuring they are a minimum of 100mm from the edge of the concrete foundation.

Drill the 4 x Ø16mm holes no less than 80mm deep ensuring they match the hole centres of the Bollard base.

Insert an Anchor Rawl Plug (Item 2) into each of the 4 x drilled holes, then using a hammer (if required), tap flush with the ground level.

#### **Bollard Installation:**

Place Washer (Item 3) on top of the Anchor and align the centres.

Spray a suitable Lubricant/Grease (e.g. WD40) generously into the threads of the 4 x Anchors (to aid assembly and future removal).

Orientate the Bollard correctly aligning all  $4\,x$  holes to the Anchors.

Insert Spacer (Item 4) into each of the 4 x fixing holes in the Bollard base.

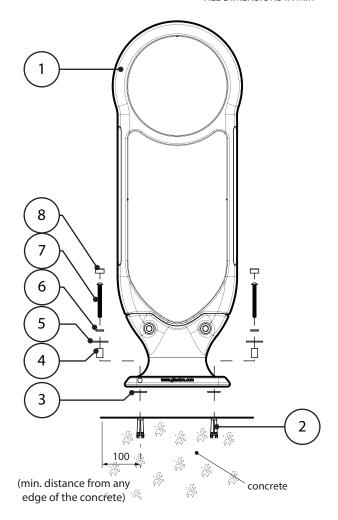
Orientate correctly and place Cover-Cap Washer Plate (Item 6), followed by Washer (Item 5) onto each of the 4 x Screws (Item 7), then secure the Bollard to the Anchors using a 6mm Allen Key.

To complete, snap-fit a Cover-Cap (Item 8) over each of the 4 x Screws.

#### TOOLS/EQUIPMENT REQUIRED:

- 6mm Allen Key (supplied within kit)
- Ø16mm Masonry Drill Bit
- Appropriate Power Drill
- Hammer
- Appropriate Lubricant / Grease Spray

ALL DIMENSIONS IN MM



#### **CONCRETE-IN FIXING INSTRUCTIONS**

#### KIT CONTENTS:

ITEM 1 - Bollard (Body and Base)	x 1
ITEM 2A - Adjustable Depth Concrete-in Fixing	x 4
ITEM 2B - Fixed Depth Concrete-in Fixing	x 2
ITEM 3 - Washer - M10 x 30mm	x 4
ITEM 4 - Spacer - M10 x 28mm	x 4
ITEM 5 - Washer - M10 x 50mm	x 4
ITEM 6 - Cover Cap Washer Plate	x 4
ITEM 7 - Screw - M10 x 100mm	x 4
ITEM 8 - Cover Cap - Black or White	x 4

For speed we recommend installing with quick setting concrete (e.g. Grade QC10) but exact installation requirements should be assessed from a site survey.

Position the Bollard (Item 1) centrally on the intended site and orientate it correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels).

Check for buried Services before starting excavations.

Mark out and prepare a hole 430mm x 430mm x 400mm deep (Option A), or 500mm x 500mm x 300mm deep (Option B).

Spray a suitable Lubricant/Grease (e.g. WD40) generously into the threads of either the 4 x Adjustable Depth Fixings (Item 2A) or the 2 x Fixed Depth Fixings (Item 2B). Then assemble these to the base of the Bollard (Item 1) as per the diagram.

If the depth of hole is restricted to less than 400mm, the Adj-Depth Fixings (Item 2A) can be altered by moving the bottom washer up, then cutting the bars to the desired length with a Hacksaw. We would recommend using the same amount of concrete by increasing the width of the hole accordingly.

Place gravel and support blocks in the base of the prepared hole to act as a levelling foundation for the bollard. Try the Bollard with fixings in the hole and adjust foundation accordingly until the Bollard sits level to surrounding ground and sits vertical. Use a Spirit Level to confirm.

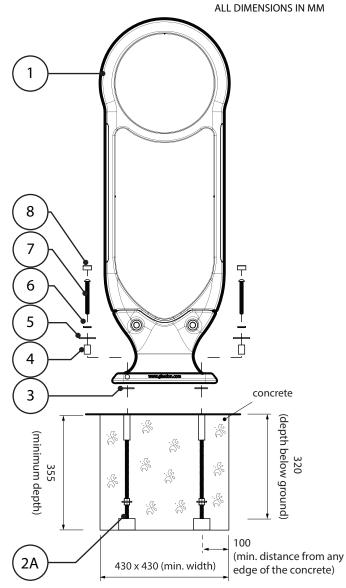
Remove the Bollard from the hole and pour in the fast setting Concrete mix to the desired level.

Orientate Bollard correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels), then place into the hole ensuring the base is flush with the top surface of the Concrete.

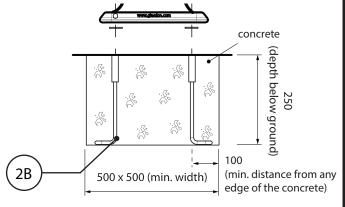
Ensure the Bollard remains vertically level during the concrete setting period. The use of a spirit level is highly recommended. Leave to set.

#### TOOLS/EQUIPMENT REQUIRED:

- 6mm Allen Key (Supplied within kit)
- Equipment to Excavate Hole
- Concrete-Mix (Fast Setting)
- Spirit Level
- Appropriate Lubricant / Grease Spray
- Hacksaw (Optional)



#### A - ADJUSTABLE DEPTH



**B - FIXED DEPTH** 

#### COMPACT SIGNMASTER BASE

#### TYPE 2

#### **BOLT DOWN FIXING INSTRUCTIONS**

#### KIT CONTENTS:

ITEM 1 - Bollard (Body and Base)	x 1
ITEM 2 - Anchor Rawl Plug	x 4
ITEM 3 - Washer - M10 x 30mm	x 4
ITEM 4 - Spacer - M10 x 28mm	x 4
ITEM 5 - Washer - M10 x 40mm	x 4
ITEM 6 - Cover Cap Washer Plate	x 4
ITEM 7 - Screw - M10 x 100mm	x 4
ITEM 8 - Cover Cap - Black or White	x 4

## If installing into pre-existing fixings please skip to the Bollard Installation.

Position the Bollard (Item 1) centrally on the intended site and orientate it correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels).

Using the Bollard, mark out the 4 x hole positions to the required dimensions, ensuring they are a minimum of 100mm from the edge of the concrete foundation.

If installing into new concrete it is advised to mark the drill hole in the centre of each ground fixing slot, see below ITEM 2.

Drill the 4 x Ø16mm holes no less than 80mm deep ensuring they match the hole centres.

Insert an Anchor Rawl Plug (Item 2) into each of the 4 x drilled holes, then using a hammer (if required), tap flush with the ground level.

#### **Bollard Installation:**

Where installing onto pre-installed fixings from a previously installed bollard, please utilise the existing fixings where possible.

Place Washer (Item 3) on top of the Anchor and align the centres.

Spray a suitable Lubricant/Grease (e.g. WD40) generously into the threads of the 4 x Anchors (to aid assembly and future removal).

Orientate the Bollard correctly aligning all  $4 \times 10^{-2}$  holes to the Anchors.

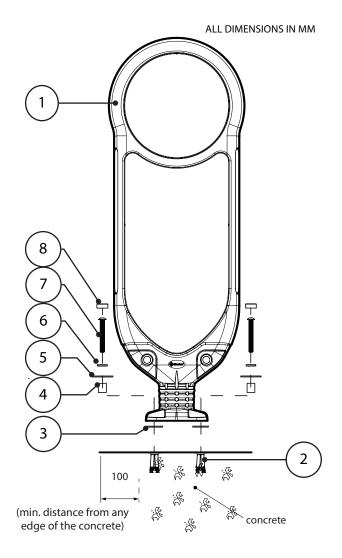
Insert Spacer (Item 4) into each of the 4 x fixing holes in the Bollard base.

Orientate correctly and place Cover-Cap Washer Plate (Item 6), followed by Washer (Item 5) onto each of the 4 x Screws (Item 7), then secure the Bollard to the Anchors using a 6mm Allen Key.

To complete, snap-fit a Cover-Cap (Item 8) over each of the 4 x Screws.

#### TOOLS/EQUIPMENT REQUIRED:

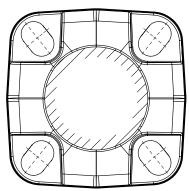
- 6mm Allen Key (Supplied within kit)
- Ø16mm Masonry Drill Bit
- Appropriate Power Drill
- Hammer
- Appropriate Lubricant / Grease Spray



#### DIAGRAM NOT TO SCALE

#### ITEM 2 - DRILL HOLE CENTRES

We would recommend for new installations to mark at 110mm hole centres (i.e. mark in the middle of the oval shaped hole in the base).



#### **CONCRETE-IN FIXING INSTRUCTIONS**

#### KIT CONTENTS:

ITEM 1 - Bollard (Body and Base)	x 1
ITEM 2A - Adjustable Depth Concrete-in Fixing	x 4
ITEM 3 - Washer - M10 x 30mm	x 4
ITEM 4 - Spacer - M10 x 28mm	x 4
ITEM 5 - Washer - M10 x 40mm	x 4
ITEM 6 - Cover Cap Washer Plate	x 4
ITEM 7 - Screw - M10 x 100mm	x 4
ITEM 8 - Cover Cap - Black or White	x 4

For speed we recommend installing with quick setting concrete (e.g. Grade QC10) but exact installation requirements should be assessed from a site survey.

Position the Bollard (Item 1) centrally on the intended site and orientate it correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels).

Check for buried Services before starting excavations.

Mark out and prepare a hole 430mm x 430mm x 400mm deep (Option A), or 500mm x 500mm x 300mm deep (Option B).

Spray a suitable Lubricant/Grease (e.g. WD40) generously into the threads of either the 4 x Adjustable Depth Fixings (Item 2A). Then assemble these to the base of the Bollard (Item 1) as per the diagram.

If the depth of hole is restricted to less than 400mm, the Adj-Depth Fixings (Item 2A) can be altered by moving the bottom washer up, then cutting the bars to the desired length with a Hacksaw. We would recommend using the same amount of concrete by increasing the width of the hole accordingly.

Place gravel and support blocks in the base of the prepared hole to act as a levelling foundation for the bollard. Try the Bollard with fixings in the hole and adjust foundation accordingly until the Bollard sits level to surrounding ground and sits vertical. Use a Spirit Level to confirm.

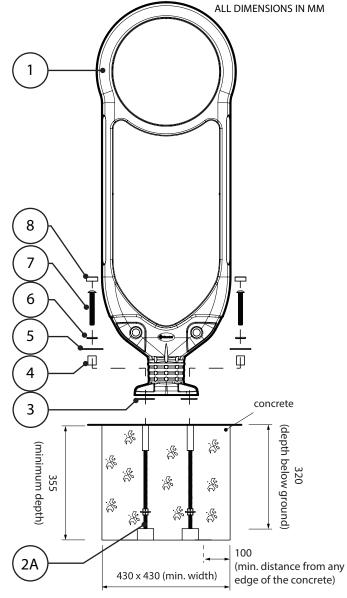
Remove the Bollard from the hole and pour in the fast setting Concrete mix to the desired level.

Orientate Bollard correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels), then place into the hole ensuring the base is flush with the top surface of the Concrete.

Ensure the Bollard remains vertically level during the concrete setting period. The use of a spirit level is highly recommended. Leave to set.

#### TOOLS/EQUIPMENT REQUIRED:

- 6mm Allen Key (Supplied within kit)
- Equipment to Excavate Hole
- Concrete-Mix (Fast Setting)
- Spirit Level
- Appropriate Lubricant / Grease Spray
- Hacksaw (Optional)



A - ADJUSTABLE DEPTH

# 50 x 50 RETENTION SOCKET COMPATIBLE SIGNMASTER BASE

TYPE 3

e.g. NAL RS50x50

#### **FIXING INSTRUCTIONS**

#### KIT CONTENTS:

ITEM 1 - Bollard (Body and Base) x 1
ITEM 2 - Adaptive Spacer x 1

### For new installations, install the socket as per the manufacturer's recommendations.

Position the Bollard (Item 1) centrally on the intended site and orientate it correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels).

Using a 5m allen key, unscrew the hex head bolt to remove the fixing cap from the NAL socket. If the blanking cap is present remove this too.

Identify which socket is installed. For MK1 NAL sockets, position ITEM 2 - Adaptive Spacer as illustrated below (Position A). For MK2 NAL sockets position ITEM 2 as illustrated below (Position B).

Ensure ITEM 2 is orientated correctly to suit the socket the bollard is being fixed in to.

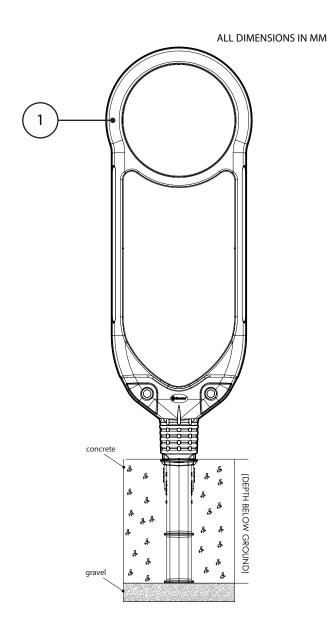
Loosen M10 bolt inside socket, ensuring a gap is left for bollard stem to pass for installation.

Orientate bollard correctly with regard to the site requirements (i.e. Retroreflective Sign Faces and Fluorescent Yellow Panels), then lower into the hole. Tighten M10 bolt with a 19m spanner to fix bollard in place.

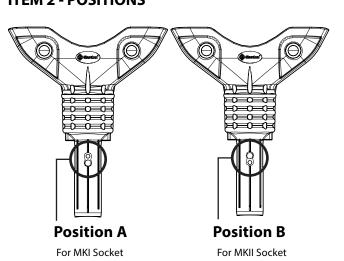
Place NAL fixing cap onto socket and tighten using M8 hex head screw using a 5mm allen key.

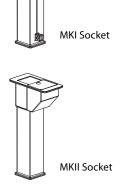
#### TOOLS/EQUIPMENT REQUIRED:

- 6mm Allen Key (Supplied within kit)
- 19mm Spanner
- Appropriate Lubricant / Grease Spray

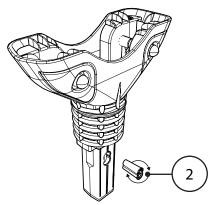








Note: MKII Socket has cast cap plates



ITEM 2 is installed from the rear of the base

#### **BOLLARD BODY REPLACEMENT**

#### **AII TYPES**

#### KIT CONTENTS:

ITEM 1 - Bollard (Body)	x 1
ITEM 2 - Spacer - M10 x 70mm	x 2
ITEM 3 - Washer - M10 x 30mm	x 4
ITEM 4 - Bolt Hex Head - M10 x 90mm	x 2
ITEM 5 - Nut Nyloc M10	x 2
ITEM 6 - Cover Cap - Black or White	x 4

#### To remove the Bollard Body to be replaced:

Remove the 4 x existing Cover Caps (Item 6) using a pair of pliers and/or a flat headed screwdriver to prise them off the fixings.

Use the socket sets to loosen the 2 x Nuts (Item 5) from the connecting Bolts (Item 4). Remove the fixings including the 4 x Washers (Item 3). Remove the Spacers (Item 2). Fixings can be disposed of as replacement fixings are provided in the kit.

Remove the Bollard Body from the Base.

Use a dry soft bristled brush to clean the Base including the fixing recesses to ensure they are free of dirt and grime before fitting the new Body.

#### To fit the new Bollard Body to the Base:

Place the Body (Item 1) into the existing Base. Fit the replacement Bollard Body and Base with 2 x new Spacers (Item 2) into the fixing holes.

Place a Washer (Item 3) over each fixing Bolt (Item 4) and fit the Bolts through the Base to Body fixing holes as illustrated.

Once the fixings have passed through the Base and Bollard, place Washers (Item 3) over the threads of each Bolt and secure using a Nut (Item 5) for each fixing. Use a pair of socket sets or spanners to tighten the Nuts.

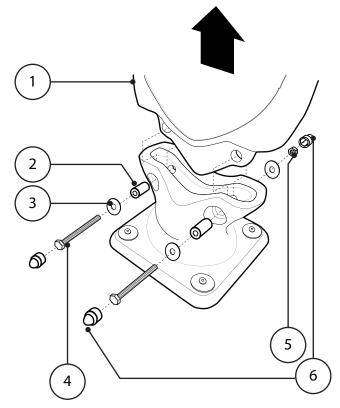
Place Cover Caps (Item 6) over the Bolt Heads and the Nuts, pressing them on firmly by hand.

Please note, bollard body spares are attached this way for all Signmaster Ultra base types.

#### TOOLS/EQUIPMENT REQUIRED:

x 2

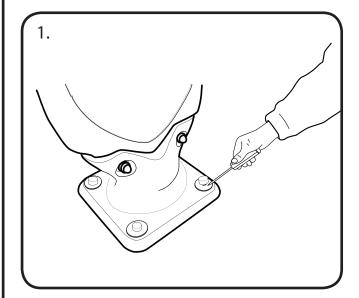
- 17mm Spanner or Socket Set
- Appropriate Lubricant / Grease Spray
- Pliers or flat headed Screwdriver



Bollard to Body attachment

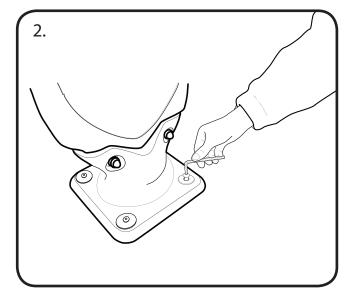
#### **BOLLARD REMOVAL:**

TYPE 1 and 2



Remove the existing Cover Caps (Item 6) using a flat-headed screwdriver to prise them off the fixings.

Please note the compact base is removed in the same manner. Please refer to the *Bollard Installation* instructions on Page 4 of this booklet for the compact Signmaster base.

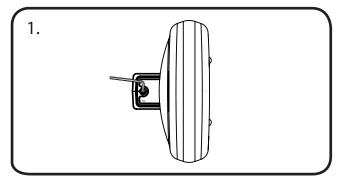


Use a 6mm Allen Key (one is supplied with the Bollard) to untighten the ground fixing Screws. Remove the Bollard and fixings. Retain the fixings if replacement fixings are not required.

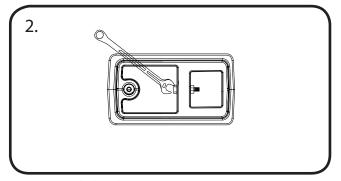
Install the new Bollard referring to the *Bollard Installation* instructions on Page 2 onwards. If installing a spare Base as a replacement - first fit the Bollard Body to the Base as shown in the steps on Page 7.

#### **BOLLARD REMOVAL:**

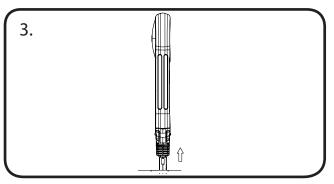
TYPE 3



Unscrew ground socket fixing cap with 5mm allen key and remove.



Unscrew M10 bolt with 19mm spanner



Lift bollard from socket to remove.

If installing a spare Base as a replacement - first fit the Bollard Body to the Base as shown in the steps on Page 7.

#### **CLEANING AND MAINTENANCE**

Hand wash with a 10% solution of mild detergent in warm water using a soft bristle brush followed by a rinse with clean water.

#### CAUTION:

Many graffiti removers can damage stickers.

Use only on the areas of the Impactapol or Durapol affected and do not use on retroreflective panels or sign face.

Felt tip pen or paint may be removed from Impactapol and Durapol using a proprietary graffiti remover. Carefully follow the manufacturers instructions, particularly the guidelines covering safety and protective equipment during use. Ensure that all traces of chemicals are removed once the graffiti has been erased, then clean as detailed above.

Regular inspection is recommended and components replaced when necessary.

IMPORTANT NOTE: PLEASE ENSURE THAT ALL RELEVANT PERSONNEL READ THE POINTS LISTED WITHIN THIS LEAFLET AND THAT A COPY IS GIVEN TO STAFF INVOLVED WITH THE INSTALLATION AND MAINTENANCE OF THIS PRODUCT. SAFETY NOTE: PLEASE REFER TO 'THE MANUAL HANDLING OPERATIONS REGULATIONS 1992' DURING HANDLING.



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- A planned maintenance schedule or regular inspection is recommended, replacing components as necessary.
- 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.

Stock No. C000/1033 - DWG No. 02B-088-23 Issue 2 - June 2021

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