

General Installation Instructions

Introduction

ATG Access has made every effort to provide a product which can be easily installed and maintained, close attention to these instructions will ensure reliability in service.

The instructions given assume that the installer has a general understanding of DIY procedures and for the operation of mechanical equipment. Commonsense will avoid most hazardous situations but where the installation site is a commercial facility or property the instructions must be applied in conjunction with the on-site safety rules and regulations, paying particular attention to requirements for operation of other equipment or the potential presence of hazardous materials or situations at that site. Where proprietary equipment is used attention must be paid to the operating instructions of that equipment.

Before attempting installation it is essential that all personnel involved in the installation read and understand the Health and Safety section. No work should be carried out until this section has been read and understood.

Health and Safety

When undertaking any task you must ensure you have adequate protection from potential hazards that may arise from your actions, ATG Access recommends **as a minimum** that you employ:

- Protective Eyewear
- Protective Footwear
- Protective Gloves

When using proprietary installation equipment, pay close attention to Health and Safety recommendations of the manufacturer/hirer.

***BEFORE BEGINNING, THE AREA OF INSTALLATION MUST
BE CAT SCANNED FOR UNDERGROUND SERVICES.***

Before commencing with the installation, great care must be taken to ensure the proposed location hole does not come into contact with any underground services. A cable avoidance tool must be employed and ATG Access advises that service drawings are obtained and referred to prior to digging.

All excavations must be protected by a safety barrier.

Special Tools

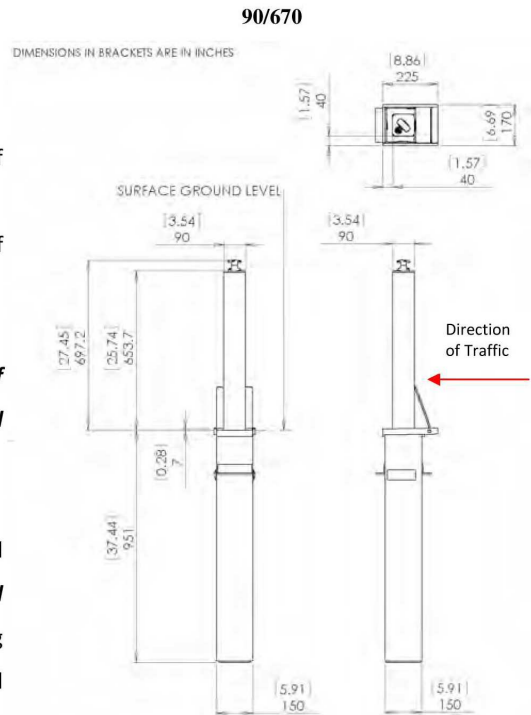
A well stocked tool box will see you through this installation. Some special tools may however aid or speed up this installation and some equipment may need to be hired or borrowed. These may include but are not limited to:

- Cat Scan equipment
- Cutting Disc
- Clipper Spades
- Hammer Drill (Kango)

ATG 90/670, 101/670, & 114/670 Manual Bollards:

Ground Installation

1. At the chosen location, mark a 350mm square on the ground.
2. Slot cut the surface to a depth of 75mm with a cutting disc.
3. Cut out the centre of the square with a hammer drill, (Kango).
4. Excavate a centrally placed 300mm square to a depth of 1050mm.
5. Open out the top of the hole to 350mm square to a depth of 300mm. This must be central with the 300mm square hole.
6. Pour pea shingle into the excavation to a depth of 100mm.
7. Set the bollard assembly in the hole and **ensure that the top of the lid box on the outer casing is 6mm above the finished road surface.**
8. Adjust the depth of pea shingle as necessary to achieve this.
9. Add more pea shingle into the hole down the sides of the bollard assembly. **It is vital at this stage to ensure that the bollard assembly is vertical in all planes.** This must be checked by lifting the inner post to the raised position and using a vertical level against the sides of the post. **Do not measure vertical alignment by placing a level across the lid frame.**
10. Continue to fill the hole until the pea shingle reaches 300mm from the top of the excavation.
11. Recheck the bollard assembly, as described above, to ensure it is vertical in all planes and that the lid box top is 6mm proud of the finished road level.
12. Fill the remainder of the hole with a concrete mix using 3 parts gravel to 2 parts sand and 1 part cement.
13. Smooth the concrete off level with the finished road surface. If the surrounding area is of block or set stone construction the concrete can be dyed the same colour and imprinted to blend in with the pattern.
14. Check that, with the inner post fully retracted, the lid folds back flat into the lid box and does not sit proud.
15. Allow at least 24 hours with the inner post in the down position for the concrete to cure.

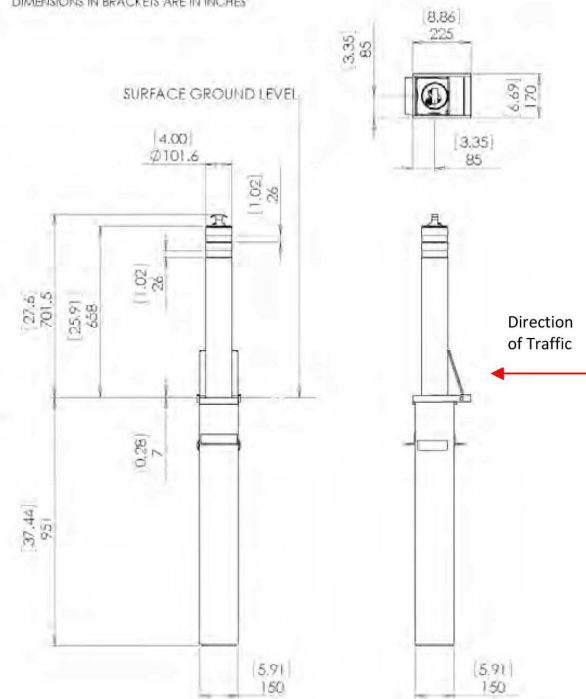


ATG Access Ltd accepts no liability what-so-ever for any physical or personal damage which arises due to the aforementioned. If installation is not carried out exactly as instructed in this and the following pages we accept no liability and any visit to site will be charged for.

If in doubt, ask!

101/670

DIMENSIONS IN BRACKETS ARE IN INCHES



114/670

DIMENSIONS IN BRACKETS ARE IN INCHES

