



# Profence 2X<sup>®</sup> Fencing & Gate Systems

2.0m x 3.0m High - 1.0m x 5.0m Wide Single Gate

2.0m x 3.0m High - 2.0m x 10.0m Wide Double Gate

2.0m x 3.0m High - 2.5m Wide Fencing Kit

Operations, Maintenance & Installation Manual

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This manual provides a comprehensive overview for the installation, operation, and maintenance of the First Fence PROFENCE 2X® Fencing and Gate Systems. This system is designed to establish a robust and secure barrier for various applications ensuring compliance with relevant British Standards and security ratings where applicable.

**Disclaimer:** This guide is for informational purposes only. The installer is responsible for ensuring the installation complies with all relevant British Standards, including but not limited to BS 1722 (Fences), local building regulations, codes of practice, and site-specific risk assessments. While every attempt has been made to verify the accuracy of the content in this guide upon its release, we cannot accept liability for any losses or damages resulting from inaccuracies. All tasks outlined must be carried out by certified professionals. Any deviation from these instructions nullifies any guaranteed entitlement or liability from the manufacturer.

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**Contact:** For enquiries regarding the installation, operation or contents of the guide in relation to this product please direct your questions to : The Product and Drawing Office Manager, First Fence Ltd, Off Kiln Way, Swadlincote, South Derbyshire DE11 8EA. Or The Product and Drawing Office Manager sales@firstfence.co.uk +44 1283 380054.

**Manufacturer and/or Reseller:** First Fence Ltd, Off Kiln Way, Swadlincote, South Derbyshire DE11 8EA. www.firstfence.co.uk +44 1283 380054.

**Competence:** This product must be installed by a person of competence, defined as an individual who possesses the necessary knowledge, skill and experience in the installation of fences and gates.

**Liability:** This installation guide should be understood and followed before any installation activities commence. If any area of the installation is unclear, the installer must contact the manufacturer, outlined in 'Contact.' First Fence Ltd takes no responsibility for incorrectly installed systems, product, material or components.

# 1.0 Safety & Tools


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## Personal Protective Equipment (PPE)

The following minimum PPE is required for installation:


Hard Hat

Must be worn




Eye Protection

Must be worn




Safety Gloves

For all material handling



Foot Protection

Must be worn



## Risk Assessment

Installers are responsible for completing a site-specific risk assessment and complying with all local risk assessments before starting work. This responsibility includes, but isn't limited to, the following:

| Activity                                  | Risk Assessment Requirements and Not Limited to                        |
|---|--|
| Breaking ground for post hole excavations | Noise<br>Vibration<br>Manual Handling                                  |
| Post Installation/Concrete Mixing         | Hazardous Substances (COSHH)<br>Manual Handling                        |
| Installation of Fixings                   | Noise<br>Vibration<br>Working at Height                                |
| Handling Panels & Gates                   | Manual Handling<br>Crush Injuries<br>Working at Height (if applicable) |

## Tools & Equipment

### Safety Gloves

Required for all material handling.  
Required for any COSHH tasks  
including post mix. Required for any  
installation tasks.



### Spanner/Torque Wrench/Drill

Required for nuts and bolts  
(drill for bolt-down system)



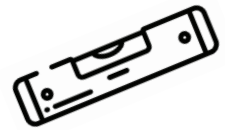
### Time

Required for post  
mix curing.



### Spirit Level

For plumb (vertical) and  
level installation



### Shovel/Excavation

For excavation of holes to  
suit post foundations



### Cable Avoidance Tool

To identify hidden services  
embedded in the wall



## 2.0 Pre-Installation

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### Site Survey & Ground Condition

Thoroughly inspect the proposed fence line. Assess the ground's condition and structural integrity. Soft soil, waterlogged areas, or very rocky ground may require different installation methods for the posts. Ensure the entire path where the fence will run is clean and clear of obstructions like vegetation, roots,

### Underground Services

Before any digging or excavation for the post holes, it is critical to establish and mark the locations of all underground services. Use a Cable Avoidance Tool (CAT) and consult utility plans to locate any buried electrical cables, water pipes, gas lines, or drainage systems to prevent dangerous and costly damage.

### Materials Check

Unpack all the fencing and gate components and verify that everything has been delivered and is undamaged. Check all parts against the Bill of Materials. Ensure all components are free from significant cracks, corrosion, or deformation.

## 3.0 Installation

### Disclaimer

This guide is based on the provided technical drawings for the Profence 2X® system. It is intended for informational purposes only. The installer must consult the official manufacturer's installation manual and conduct a site-specific Risk Assessment and Method Statement (RAMS) before commencing any work. Always adhere to all relevant health and safety regulations.

### 1. Pre-Installation and Safety

Before you begin the installation, it's crucial to prepare the site and ensure you have all the necessary components and safety measures in place.

**Component Check:** Unpack your fencing and/or gate kit and check all components against the parts list provided in your specific drawing or the website description (e.g., posts, panels, clamp bars, bolts, nuts, etc.).

**Site Survey:** Mark out the intended fence line. Check for any underground services (like pipes or cables) before any excavation.

**Tools and Equipment:** Ensure you have all the necessary tools, including digging equipment, a spirit level, a tape measure, spanners, and appropriate Personal Protective Equipment (PPE) such as gloves, safety glasses, and steel-toed boots.

**Safety Standards:** Be aware that all materials are specified to conform to relevant British Standards. The installation must be carried out in accordance with the provided RAMS.

# ProFence® Fence Post Installation Guide (Intermediate, Corner & End Posts)

This guide covers the correct procedure for installing both Dig-In and Bolt-Down fencing systems. Always refer to your specific ProFence technical drawings for exact dimensions and product-specific requirements.

## Post Types and Configurations

Intermediate posts are installed between two fence panels. They use both M12 and M8 Cup Head bolts and require clamp bars that accommodate both sizes. M12 bolts are placed at the top, middle, and bottom of the post using designated M12 slots, while M8 bolts fill the remaining fixings along the post length. Clamp bars for intermediate posts are straight, with slot patterns matching the post's pre-cut holes.

Corner and End posts are used at panel termination points or where the fence changes direction (typically 90°). These posts only use M8 Cup Head bolts to allow alignment with the mesh aperture size. The slot pattern on these posts is offset to prevent bolt clashes. Matching clamp bars, designed specifically for corner/end posts, are required and must also use only M8 bolts.

## Installing Dig-In Posts & Bolt Down Posts

For Dig-In posts, dig holes at 2520mm ±10mm centres, with a minimum foundation size of 700 - 800mm long, 300mm wide, and 300mm deep. Posts should be embedded between 700mm and 800mm, depending on the system height, and secured using C20/25 grade concrete. Posts must be installed vertically with the aid of a spirit level. In SR2-rated systems, a minimum of 300mm of mesh should be buried below ground to prevent intrusion by digging and to maintain compliance. However, for Dig-In systems, it is not mandatory to bury the mesh; if the mesh is not buried, a horizontal clamp bar must be installed at the bottom of the panel. This provides equivalent resistance to intrusion, as the leading edge of the mesh panel becomes vulnerable when not secured below ground.

For Bolt-Down posts, no excavation is required. Instead, posts are fixed onto a level, solid concrete base using four M16 x 125mm ground anchors, installed according to the manufacturer's instructions. Since the mesh cannot be buried in bolt-down systems, additional reinforcement is required at any exposed or free vertical mesh edges. In such cases, cross-member clamp bars must be installed at both the top and bottom of the mesh panel to maintain system integrity and ensure SR2 compliance. These clamp bars provide enhanced resistance to prying, flexing and cutting at unsecured panel edges, compensating for the absence of buried mesh.

## Attaching Mesh Panels

To attach mesh panels, align the panel between two posts and place the correct clamp bar over the mesh edge. For intermediate posts, use a bar with M12 and M8 slot sizes, and insert M12 bolts at the top, middle, and bottom, and M8 bolts in the remaining slots. For corner and end posts, use clamp bars with M8 slots only, securing each with M8 bolts aligned to the post's slots. Use matching washers and snap-off nuts to complete each fixing — tighten until the hex head shears off to create a tamper-resistant finish. Ensure the vertical distance between any two fixings does not exceed 350mm.

## Horizontal Clamp Bars

Horizontal clamp bars are only required for Bolt-Down fencing systems between 2.0m and 2.395m high. These should be installed at both the top and bottom edges of mesh panels to provide additional stability and compliance. They are not used on Dig-In installations where mesh is buried but are used on the top of the mesh on 2.0m and 2.395m high systems but have to be used top and bottom.

## End & Corner Post Compliance

For SR2 compliance, all corner and end posts — regardless of whether they are Bolt-Down or Dig-In — must be installed against a secure wall or structure that meets the same standard. This ensures the termination points of the fence cannot be exploited for unauthorised access or tampering. All posts should be capped with black ribbed plastic inserts as standard.

## Final Checks

Before completing the installation, carry out a thorough inspection of the fence system to ensure all elements meet ProFence® standards and any project-specific compliance requirements, such as SR2. Begin by confirming that all posts are installed vertically and in a straight line using a spirit level and string line. Check that all fixings are secure, with Snap-Off Nuts properly sheared to create a tamper-proof finish. The vertical spacing between each fixing should not exceed 350mm, and all clamp bars must be fitted flush to the mesh and correctly aligned with the post slots. Ensure that intermediate posts use the appropriate M12 and M8 bolts, while corner and end posts are fixed using only M8 bolts to fit through the mesh apertures.

For Dig-In installations, verify that posts are embedded between 700mm and 800mm in properly cured C20/25 concrete foundations, and that at least 300mm of mesh is buried where SR2 compliance is required. For Bolt-Down systems, confirm that all posts are fixed to a level concrete base using four M16 x 125mm ground anchors, and that base plates are appropriately sized. Where mesh is not buried, check that ground clearance is maintained between 0 and 50mm across the entire run. If horizontal clamp bars are required (typically for bolt-down systems between 2.0m and 2.395m high), confirm they are installed at both the top and bottom of the panel with a maximum fixing pitch of 150mm.

# ProFence® Gate Installation Guide

This guide outlines the correct procedure for installing ProFence gate kits, including both Dig-In and Bolt-Down post options. Always refer to your specific ProFence gate drawings for exact dimensions, clearances, and product-specific requirements.

## Gate Post Foundations

Start by installing the hinge and catch posts. For dig-in gates, use a concrete foundation no smaller than 700-1000mm (L) x 300mm (W) x 300mm (D) with Grade C20/25 concrete. Post length should be gate height plus 700mm (for 80–100mm posts) or plus 1000mm (for 120–200mm posts). Bolt-down posts must use base plates (minimum 200x200x5mm, increasing with box size) fixed to a level surface with 4x M16x125mm anchor bolts installed per manufacturer instructions. For single-leaf gates, the total opening width is: post widths + gate leaf width + 110mm hinge gap + 30mm locking clearance. Refer to the technical drawings for exact measurements and post specifications. Use C20/25 concrete and follow the recommended foundation sizes.

## Cladding the Gate Leaf(s)

Clad the gate leaf(s) before hanging using the supplied cut-down mesh panel. Fix the panel with ProFence 2X® clamp bars, M8 cup head bolts, washers, and snap-off shear nuts. Tighten until the hex heads shear off. Vertical fixing pitch must not exceed 350mm. If the mesh span exceeds 2500mm multiple mesh panels will be provided.

## Hanging the Gate

Attach the adjustable eyebolts to the hinge post(s). Lift and hang the cladded gate leaf on the eyebolts, adjusting them to achieve a level, plumb alignment and correct clearances. Once in position, install the Hinge Post Clamp Bar to protect the eyebolts from tampering.

## Drop Bolt Installation

Install drop bolts on the bottom rail using the dedicated 25x35mm slots. Each gate leaf requires a drop bolt with at least 50mm ground embedment. Fix the drop bolts with M8x70 cup head bolts, washers, and shear nuts as specified. Ensure the bolt flag is positioned to allow correct operation. Please refer to the drop bolt installation guide for detailed instructions and safety precautions.

## Final Checks & Compliance

Inspect all fixings to confirm snap-off nuts are correctly sheared and secure. Test gate movement and locking functionality. For SR2 compliance, ensure every element matches the supplied drawings: correct post types, foundation depths, gate spacing, and approved padlock use. End posts must be installed against an SR2-compliant wall or structure.

To ensure SR2 compliance, the gate must be secured using an SR2-compatible padlock. We recommend using a high-security padlock from the Henry Squire & Sons range, which meets the required security standards. Only padlocks listed in the ProFence gate drawings should be used, such as the Squire SS50S, SS50CS, SS65S, SS65CS, or SS80S, each tested for appropriate shackle strength and tamper resistance. Using an unapproved or lower-grade lock may compromise the overall security rating of the system.

## Material Standards

All complies with required standards: galvanising to BS EN ISO 1461 and powder coating to BS EN 13438, where applicable.

# 5.0 Installation Sign-Off Checklist

| Action           | Description   | Pass/Fail |
|------------------|---|-----------|
| Wall Condition   | For SR2 fencing, the bolt down end post must be positioned against a wall or structure that complies with SR2 standards. The wall or supporting structure must prevent unauthorized access or tampering   |           |
| Services Check   | Installation must be carried out via R.A.M.S.   |           |
| Fixing Selection | Minimum of 4 M16x125mm anchor bolts are required for the bolt-down system, to be fitted in accordance with manufacturers' instructions. M12 and M8 cup head galvanised bolts are used. Only M8 bolts are used on the corner/end posts and clamp bars to ensure they fit through the mesh apertures. |           |
| Panel Security   | Mesh panels are securely attached to the posts with clamp bars. Horizontal clamp bars are used on systems with a height of 2.0m to 2395m. Panels can be cut to a minimum of 360mm. Post centres can be adjusted to suit modifications while maintaining overall security and stability              |           |
| Fixing Security  | All bolts should be tightened securely. Security bolts include M12 and M8 snap-off nuts   |           |
| Site Clean Up    | Installation area is clear of surplus materials, tools, and debris.   |           |

Sign Off Declaration:

I hereby confirm the this product has been assembled and installed in accordance with the above requirements and any remedial works have been carried out before the final sign off:

Site Supervisor

Sign Off Date

Relationship to the Client

Signature



## 6.0 Maintenance Schedule

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Regular inspection and maintenance are crucial to ensure the system remains safe and effective. The person responsible for site safety should ensure these checks are carried out.

| Check Area           | Recommended Action  | Frequency                       | Reference   |
|----------------------|---|---------------------------------|---|
| General Fence Line   | Visually inspect the entire fence line for signs of damage, post movement, or deterioration of the wall near the fixings. Ensure it has not been moved from its original position and no unauthorised modifications have occurred,  | Monthly & After Adverse Weather | BS 1722-14 (Performance), BS EN 1996-1-1 (Wall Integrity) |
| Structural Integrity | Check all posts for bending, displacement, or damage. Verify that all mesh panels are securely fixed to the posts using the clamps and bolts.   | Monthly                         | BS 1722-14 Manufacturer's Spec                            |
| Fixings & Bolts      | Physically check a sample of M16 wall fixings and M8 mesh security bolts (if panels attached) on each visit to ensure they remain tight. Visually inspect all other accessible fittings for signs of loosening. Clamp bars must align with the hole placement in the fence posts and clamp bars must match the width of the box section. Hinge clamp bars must cover eyebolts to prevent tampering. The clamp bar must be sized to completely cover the eyebolts. | Weekly                          | Manufacturer's Spec                                       |
| Steel Condition      | Inspect steel components for signs of significant corrosion or damage to the protective coating. Clean off any corrosive matter or debris. Ensure that corrosion-resistant hardware is still performing as expected. All materials should be mild steel and conform to relevant British standards.  | Monthly                         | Manufacturer's Spec                                       |
| Ribbed Insert        | Check that the post-top insert is still in place and undamaged to prevent water ingress. All gates and posts are to be fitted with black plastic inserts.   | Monthly                         | Manufacturer's Spec                                       |

### Take the hassle out of your maintenance schedule

First Fence Limited offers an annual inspection programme for your PROFENCE system. Contact our sales team today to include this quote onto your sales order.  
[highsecuritymaintenance@firstfence.co.uk](mailto:highsecuritymaintenance@firstfence.co.uk)