AdaptiGuard® Site Gates

Operations, Maintenance & Installation Manual

Double Leaf Dig In Site Gates 2.0m and 2.4m Height by 4.0m, 5.0m and 6.0m Width

Pedestrian Single Leaf Dig In Site Gates 2.0m and 2.4m Height by 1.2m Width

Proudly Compliant to:

Contents

1.0 Copyright and Disclaimer

Disclaimer

While every attempt has been made to verify the accuracy of the content in this manual 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.

Copyright

Contact

For inquiries regarding the installation, operation or contents of the manual in relation to the AdaptiGuard® Site Gate range, please direct your questions to:

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First Fence Ltd
Off Kiln Way
Swadlincote
Derbyshire
DE11 8EA

Or

The Product and Drawing Office Manager
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+44 1283 380054

Manufacturer and/or Reseller

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2.0 Preface

O&M Guide

The AdaptiGuard® Site Gate O&M manual will detail the requirements, safety, site assessment, installation, bill of materials and maintenance best practice.

Compliance to Temporary Works Design

The AdaptiGuard® range has been develop for use in both temporary and permanent access requirements for sites, including and not limited to, construction, temporary works, developments and utility access.

If being considered for a temporary installation, it is the role and responsibility of the Temporary Works Coordinator to specify the most suitable product and installation method. The suitability of the AdaptiGuard® range must be considered based on technical material specification found on the latest revision drawings, available through https://firstfence.co.uk or by contacting First Fence directly as per page 3.

Suitability

In specifying a site gate, the following considerations must be taken into account:

Consideration	Risk	Outcome	Plan
The substrate must be firm and solid enough to support a 700mm foundation for a dig in hinge post.	A loose foundation will result in gate failure in either the open or closed position.	Potentially a fallen leaf(s) with a result in unauthorised access, injury or death.	Dig a test foundation hole to ensure no loose, sandy or granular substrate.
Increased wind loading due to signage installation.	Any visual signage, branding or infill will substantially increase forces on the steel, specifically applying an increased load on (and near) two points of contact including sliders, drop bolts, foundations and hinges.	- Potential deformation beyond the product's designed elastic state - Permanent deformation to the steel or groundwork. - Increased risk of user injury from greater force resistance required	Ensure calculations are carried out by a structural engineer before loading any additional infill onto the AdaptiGuard® range.
Swing direction.	Ensure all site gates swing visually into a clearing visible from both sides of the gate.	A site gate that swings in or out into a blind spot can potentially cause injury or death for any passing personnel.	Ensure the site plan specifies a suitable location for the designated swing of the gate.

Component Register

As part of the companies ISO 9001 Quality Management System, all components in the Bill of Materials (BOM) are itemised and listed on the company's internal SAP system and supplied with the gate set unless otherwise specified by either First Fence or its customers.

3.0 Safety

Competence

The AdaptiGuard® Site Gate range 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

The installation guide should be understood and followed in section 5.0 before any installation activities commence. If any area of the installation is unclear, the installer must contact the manufacturer, outlined in section 1.0 'Contact'. First Fence Limited take no responsibility for incorrectly installed systems, product, material or components.

Personal Protective Equipment

Site specific installation methods should always be followed, in addition to using the following PPE equipment:

Risk Assessment

It is the responsibility of the installer to adhere to local risk assessments before installation, including and not limited to the following examples:

Activity	Risk Assessment Requirements and Not Limited to:
Breaking ground for post hole excavations	Noise Vibration Manual Handling
Post installation	Hazardous Substances (COSHH) Manual Handling
Installation of Hinges	Working at Height Noise Vibration

4.0 Installation

Tools Legend

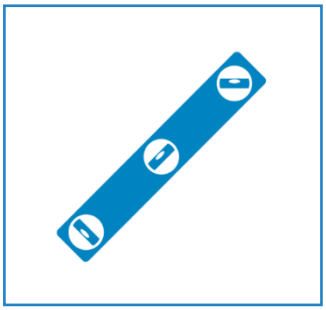
Safety Gloves

Required for all material handling

Required for any COSHH tasks including post mix

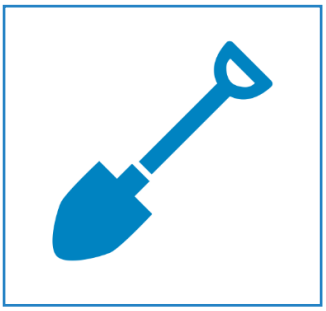
Required for any installation tasks

Spirit Level



Required for plumb installation of posts and hanging of gates

Shovel / Excavation



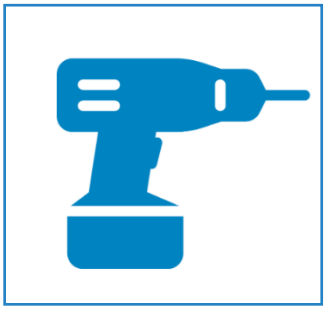
Required for excavation of holes to suit post foundations

Time

Required for post mix curing time

Required for patched fixing curing time

Drill / Buzz Gun



Required for shear nut installation on pales and rails

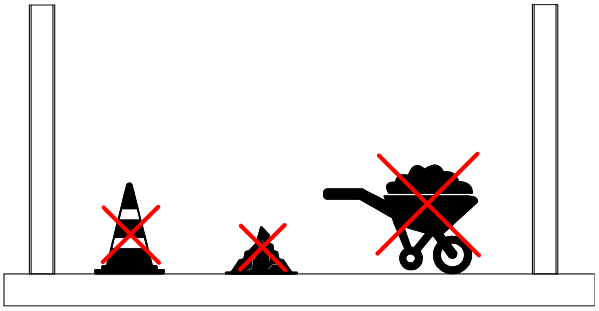
Attack Face

Defines the outside / attack side / face of the AdaptiGuard® Gates

Site Preparation

Note: Gate Clearing

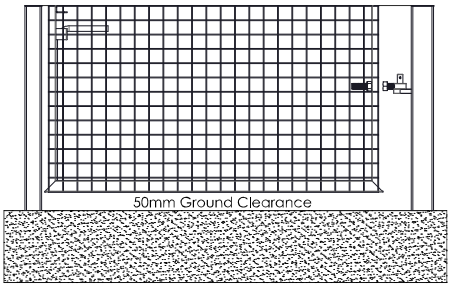
Before proceeding with gate installation, it's crucial to physically mark out the intended area for the gate installation, remove any obstructions and gauge any changes in gradients:



1

Note: Clearance Gap

It's recommended that 50mm of ground clearance is maintained from the ground level to the bottom of the gate, preventing a crawl space but also allowing the gate to clear any uneven terrain, typically found on construction sites.



2

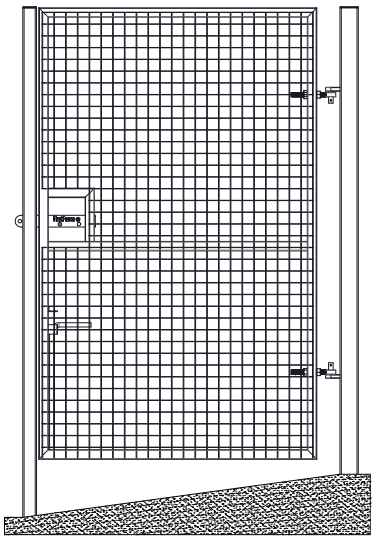
Note: Not adhering to the 50mm ground rule may prevent your drop bolts from being used to their full capacity!

Note: Ground Level

It's important to note that the designated location for your site gate must be as flat as possible between both posts and in the designated swing direction. Any installations contradicting this may result in a crawl gap, non-effective drop bolts or the gate hitting the ground in the open position (damaging the paint and steel).

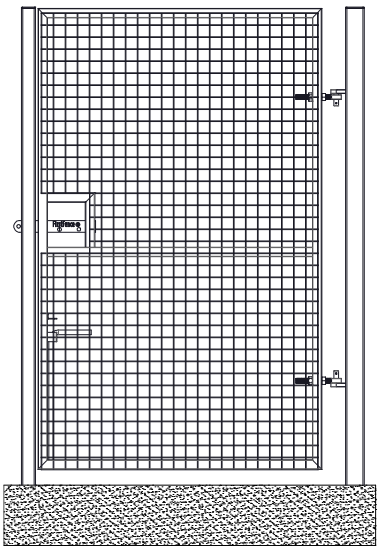
3a

Bad Practice



3a

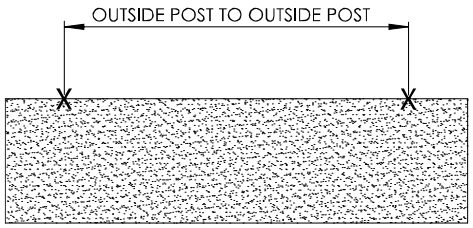
Good Practice



3b

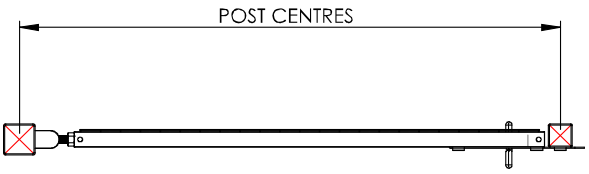
5.0 Post Installation

The total width of an AdaptiGuard® Site Gate will be on the kit drawing (from outside to outside of post. It's important to ensure you have sufficient space between your hoarding or temporary fencing for this dimension!



1

Subtract 50% of each post dimension from both ends to find the centre point for the centre of the foundation hole.



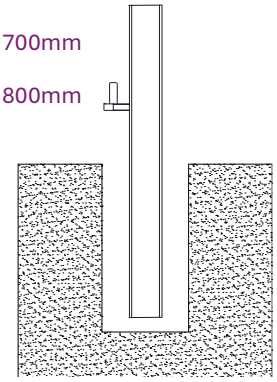
Note: the default drawing will show the gates hung at 50% along the eyebolt. This will allow for any adjustment if the posts are not exact.

2

Dig two foundation holes as marked in instruction 2. These must be at least 700mm or 800mm deep by 300mm x 300mm.

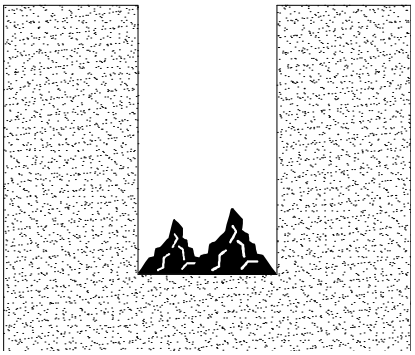
If 2.0m high = 700mm

If 2.4m high = 800mm



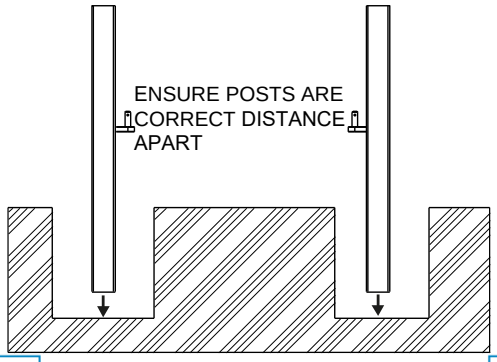
3

If your foundations are too deep, compact subbase into the hole to ensure compliance to foundation depth in Appendix A, table one.



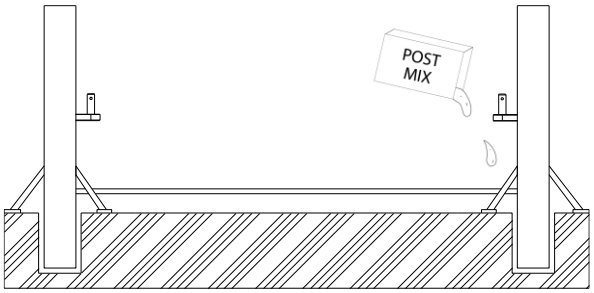
4

Once the foundation depth has been met, place each gate post in the foundation hole. It's essential that the weld on gate hooks face in-line towards the other post.



5

Pour the concrete or post mix, ensuring a minimum grade of C20/C25, following the recommended quantity in appendix B. Once concrete has been poured, assemble a timber jig to support both posts and ensure both axis are kept in the plumb position during curation.

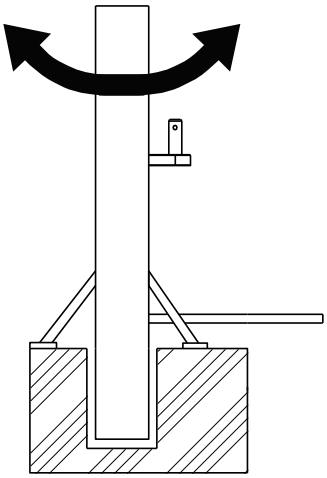


6

NOTE: Any readjustments or micromovements during the curation process may result in wobbly or unstable posts!

Post Installation (Continued)

Halfway through the curing time, check the levels are still true.



7

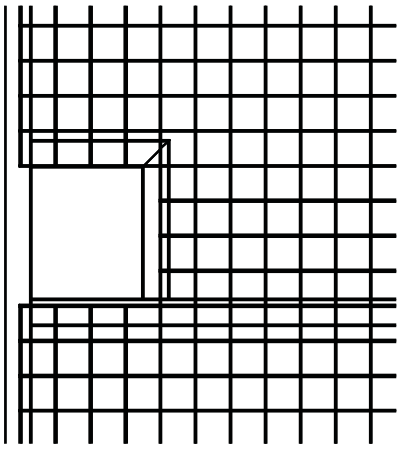
Once cured, remove the timber supports.

8

NOTE: Always wear Personal Protective Equipment when handling chemicals including post mix. All COSHH information should be followed and adhered to.

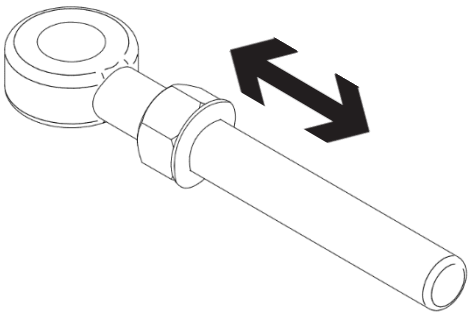
6.0 Hanging Installation

The attack side of the gates are indicated by the side where the mesh is most flush to the gate frame.



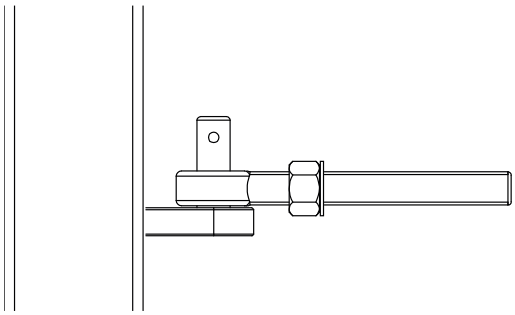
1

Remove the outer washer and nut from each of the eyebolts, and then wind the inner nut and washer all the way to the eyebolt.



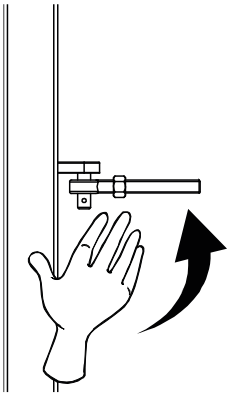
2

Place one eyebolt onto the bottom pin (which will be facing upward)



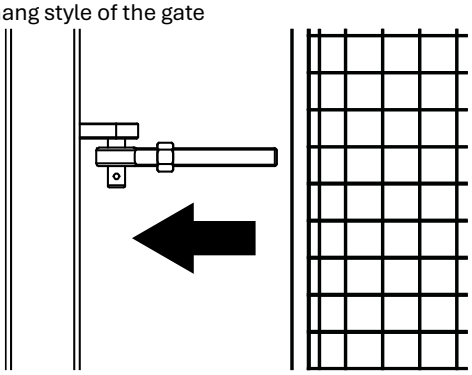
3

Whilst following step 3, have a second person hold the top eyebolt onto the inverted top pin



4

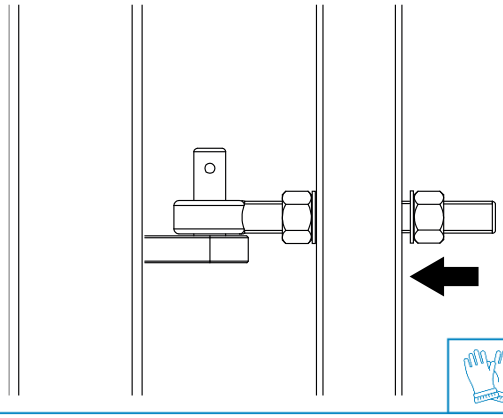
Move the gate leaf towards the hinge post, ensuring both threaded eyebolts feed through the boss holes in the hang style of the gate



5

Note: Remember to consult HSE guidelines on working at height and manual handling

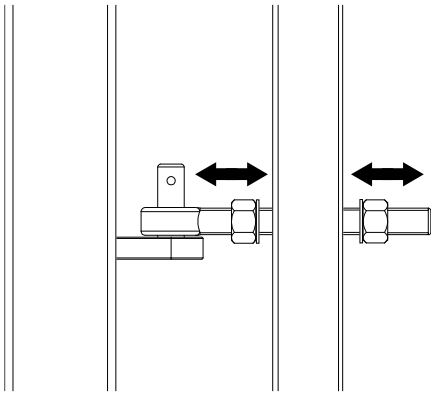
Once the threaded section of the eyebolt has revealed through the gate frame, attach the washer and nuts back onto the thread. Repeat steps 1 to 5 for the second leaf.



6

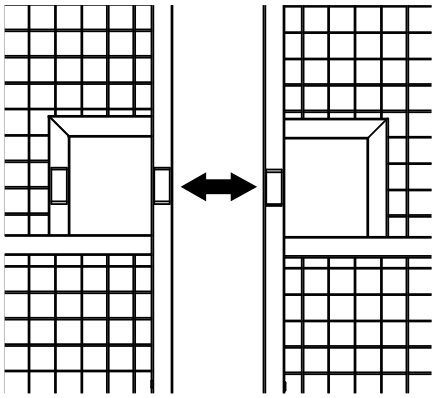
7.0 Gate Adjustment

Once both gate leaves are safely hung, wind the bottom and top nuts in or out to adjust the gate hang and leaf gap between both gates.



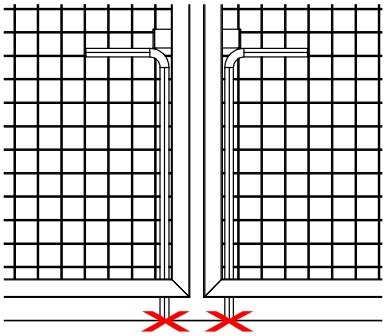
1

It's essential to try and maintain a 30mm gap between the gap leaves (when using the slider mechanism) or a 38mm gap between the leaves (when using a secure keep)



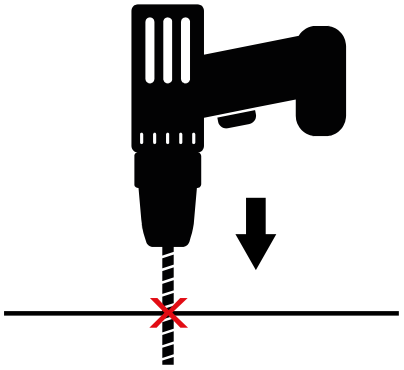
2

Once the leaves are in the ideal situation, next mark the location in the closed position in which the drop bolts meet the ground.



3

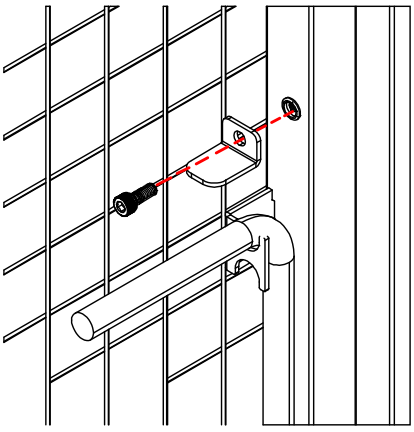
Ensure both locations are marked, and then drill a 24mm hole to receive the 22mm or 19mm diameter drop bolt at a depth of around 200mm.



4

Note:to prevent the ingress of material, dirt or debris, a sleeve can be concreted in, which is not supplied in the kit.

Install the drop bolt Stopper Plate onto the tapped M8 hole using the M8 x 20 Hex Socket Bolt.



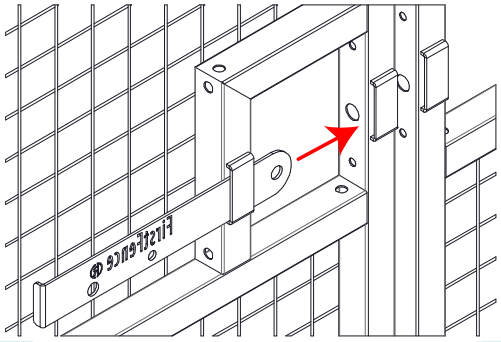
5

Note:this is located just above the drop bolt hook assembly

NOTE: Always ensure the ground has been surveyed and clear of any obstacles or utilities before breaking ground.

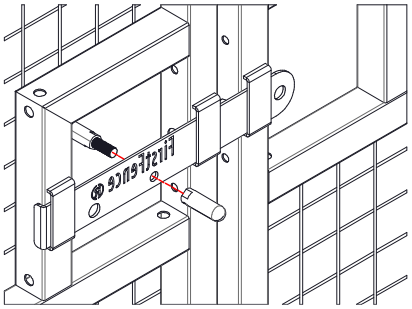
8.0 Slider Installation

Feed the slider bolt through the left-hand leaf outer guide cleat until the 90° end has met the cleat



1

Secure the male handle (identified by the thread) and feed from the outside of the gate through the 10.5mm diameter hole and secure the female handle from the reverse side. Tighten the grub screws until secure.

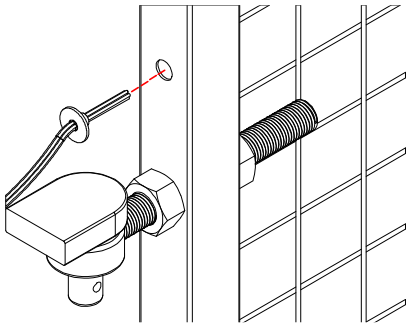


2

9.0 Gate Restrainer Installation

NOTE: your AdaptiGuard® gates have been manufactured with a 12.5mm dia hole above the hinge boss hole and hinge pin to allow for the installation of a gate safety tether, helping your gates comply to BS12604.

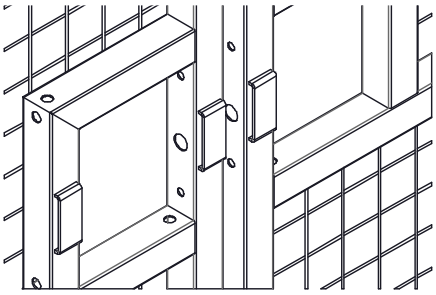
Feed the toggle of the gate safety tether through the hole on the gate hinge post (50mm above the top pin) and then insert the plastic cap into the 12.5mm hole. Then repeat for the gate leaf side.



1

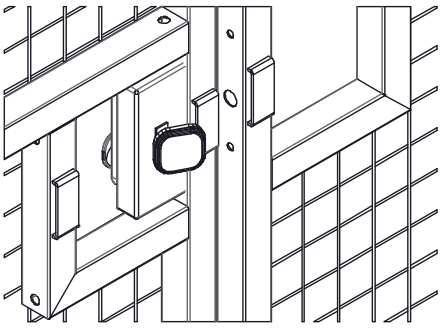
10.0 Lock Installation

Identify which leaf you would like to make the primary locking leaf



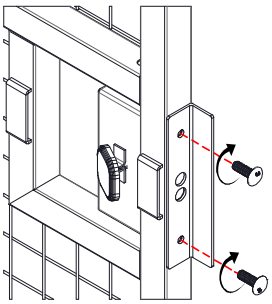
1

Hold the lock against the inside of the gate frame, ensuring the fixing location holes and latch hole line up with the holes pre-drilled in the gate frame



2

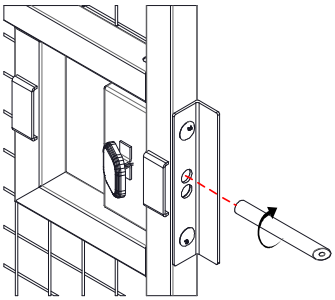
Feed the two M8 fixing bolts (supplied with the lock) through the L shape keep plate, gate frame and into the lock and tighten clockwise until secure. Always ensure the brass insert is installed on the latch hole being used.



3

Note: the L shape bracket with four holes is required for the lock leaf.

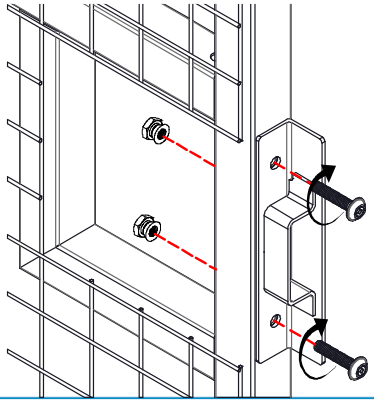
Insert the latch through the middle keep hole until it engages with the thread inside the lock case, and then rotate clockwise until around 15mm of latch is left sticking out of the keep



4

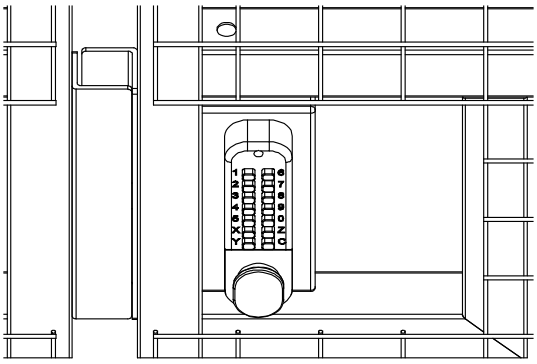
Note: the taper of the latch must face the direction of gate travel to smooth self-latching motion.

Attach the catch L shape keep to the outside of the second leaf with 2 x M8 x 50mm Cup Head Bolts and shear nuts. Ensure that the catch keep is hung the opposite direction to the primary leaf keep.



5

Once both keep plates have been installed, your gates should look like this:



6

11.0 Installation Sign Off Checklist

NOTE: below is an advisory best practice installation check list to ensure your AdaptiGuard® site gate remain operational, effective and safe.

Action	Description	Consequence	Pass or Fail?	Remedial Action	Initial	Date
Ground Clearance	Ensure 50mm is maintained between the ground and bottom of the gate leaf	If too high or too low, this could result in damage to the leaf as it may hit the ground when being opened		Reset the posts or re-grade the ground (if applicable)		
Gap between leaves	Maintain a 30mm gap between leaves (for slider) or a 38mm gap (for locks)	A gap less than this will result in potential gate clash or secure keep clash, resulting in a non-operational gate. A gap greater than this may result in padlock alignment issues.		Adjust the gate eyes to ensure correct gap is maintained		
Drop bolt stopper plate	Ensure the stopper plate is secured in place with the M8 x 20 hex socket bolt	Non installation may result in the removal of the drop bolt		Install the stopper plate		
Slider handle installation	Ensure both handles are installed as per instructions, ensuring the male handle is fed from the outside	Potential risk of handle removal if the female handle is installed on the outside (as grub screws will be on the street side)		Undo the handle set and reinstall in the correct orientation		

Sign off declaration:

I hereby confirm that AdaptiGuard® has been assembled and installed in accordance with the above requirements, and any remedial works have been carried out before the final signoff:

Site Supervisor _____

Sign off Date _____

Relationship to the Client _____

Signature _____

12.0 Maintenance Schedule

First Fence Limited recommends the following actions, to be built into a periodic check of the AdaptiGuard® Site Gates:

Check Area	Result	Action
Lock maintenance schedule	Ensure the manufacturers guidelines are followed for periodic maintenance and lubrication	Follow the maintenance advice supplied with the lock
Hinge condition	In the very unlikely event of hinge failure, high use application gates are more likely to encounter wear	Visually inspect the condition of the eyebolt and the weld on pin. If any deformities appear, replace immediately
Drop bolt operation	Ensure both drop bolts have not encountered any deformation, which may prevent good operation	Lift each drop bolt up and down, ensuring no resistance or bind. Contact First Fence for a replacement drop bolt if this occurs.
Paint and rust	If any painted area shows signs of damage, flake or chip, this may potential oxidise and rust	Ensure any patches are Zinc sprayed and re painted with a colour match aerosol, available through First Fence.

Take the hassle out of your maintenance schedule:

First Fence Limited offer an annual inspection programme for your AdaptiGuard® site gates.

Included in Maintenance Schedule	Result	Actions
Annual check	Checking for and against - Deformities - Deflection - Damage - Forced entry	A personalised quote to remedy any corrective works, if required
Annual gate service	As per above, and checking for: - Increased friction - Operational changes - Changes in operation since sign off	A personalised quote to remedy any corrective works, if required

Contact our team today to include this quote onto your sales order.

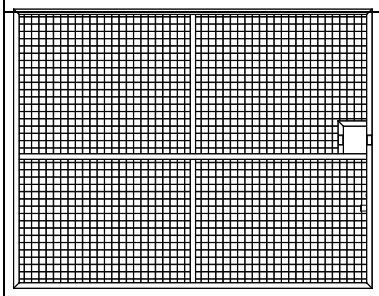
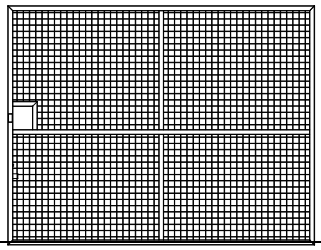
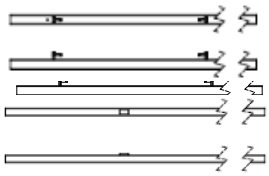
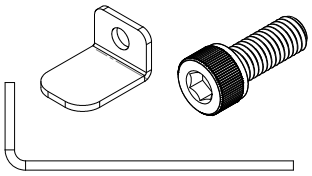
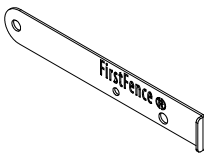
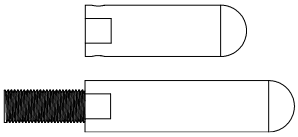
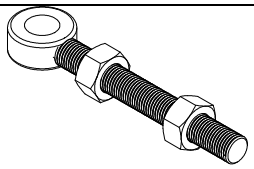
highsecuritymaintenance@firstfence.co.uk

13.0 Operational Notes

The AdaptiGuard® Site Gate range slider has a 15mm diameter hole for padlocking. Any padlock with a 15mm diameter shackle or less should work. Any issued with padlock compatibility should be directed to the contact in section 1.0.

First Fence recognises the demands and volatility of construction sites and advises that any serious deformations to the steel may and should require a replacement rather than a repair.

14.0 Bill of Materials

Image	Component	Qty (Per Kit)
	AdaptiGuard® Slider Leaf - Double Leaf Gate (2.0m High x 2.0m, 2.5m or 3.0m Wide / or 2.4m High x 2.0m, 2.5m or 3.0 Wide) AdaptiGuard® Slider Leaf - Single Leaf Gate (2.0m High x 1.2m or 2.4m High x 1.2m)	1 1
	AdaptiGuard® Catch Leaf - Double Leaf Gate (2.0m High x 2.0m, 2.5m or 3.0m Wide / or 2.4m High x 2.0m, 2.5m or 3.0m Wide)	1
	AdaptiGuard ® Dig in Hinge Posts - Double Leaf Gate *(70x70x3mm)* *AdaptiGuard® Dig In Hinge Post - Single Leaf Gate (70x70x3mm)* *AdaptiGuard® Dig In Catch Post - Single Leaf Gate (70x70x3mm)*	2 1 1
	Drop bolts c/w stopper plate and fixings	2
	Slider bolt	1
	Handle set (Male handle, Female handle and two grub screws)	1
	M19 x 150mm Eyebolts	4