

OPERATION & MAINTENANCE MANUAL



Two Tier Bike Rack Lift Assisted Parking System



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Introduction

Speedy Street Solutions shelters, canopies, cycle parking structures, and covered walkways are manufactured using designs that have been refined through many years of development and installation.

Our **Two Tier Bike Rack Lift Assisted parking units** are manufactured primarily from **mild steel**, with carefully selected sections and material grades to ensure they are **robust, reliable, and suitable for long-term use** in a wide range of environments.

To help maximise the service life of the product and reduce the need for major refurbishment, this manual has been developed to provide guidance on **inspection, maintenance, and key operational considerations**. Following the recommendations outlined within this document will help ensure the system continues to operate safely and efficiently over time.

Speedy Street Solutions is committed to delivering products that meet high standards of **quality, environmental responsibility, and health and safety** throughout the manufacturing process and the product lifecycle.

The design, manufacture, processing, and delivery of our products are aligned with recognised industry standards, including:

- **ISO 9001** – Quality Management Systems
- **ISO 14001** – Environmental Management Systems
- **ISO 45001** – Occupational Health and Safety Management Systems

Additional relevant standards may also be considered during the **design and manufacturing stages**, depending on the specific requirements of the product and installation environment.

Health & Safety Information

Speedy Street Solutions **Two Tier Bike Rack Lift Assisted cycle parking units** are supplied with detailed **installation and operating instructions**, which must be followed at all times to ensure safe and correct use of the product.

Users and installers should refer to the following documentation:

- **Two-Tier Bike Rack Lift-Assisted Cycle Parking – Operating Instructions**
- **Two-Tier Bike Rack Lift-Assisted Cycle Parking – Installation Instructions**

These documents provide important guidance on the **correct operation, installation procedures, and safe handling of the lift-assisted cycle parking system**.

Important Safety Notes

In addition to the product-specific instructions, the following points should always be observed:

- Speedy Street Solutions cannot accept responsibility for **damage to property or injury to individuals** resulting from the incorrect use, misuse, or unsafe operation of the product.
- If there are any **concerns regarding structural integrity, product performance, product quality, or maintenance requirements**, Speedy Street Solutions should be **contacted in the first instance** for technical advice and support.



Materials & Processes

Speedy Street Solutions **Two Tier Bike Rack Lift Assisted parking units** are designed to meet a variety of **site requirements and customer specifications**. Depending on the specific configuration and installation environment, a range of materials and manufacturing processes may be used during production.

Materials

The following materials may be used in the manufacture of the system:

- **Mild steel** – Grades S235, S275, or S355
- **Extruded aluminium** components
- **High-strength fixings** – Grade 8.8 or 10.9 steel, or stainless steel where appropriate
- **Rivets and Tek screws** for component fixing
- **Ground anchors** – sleeve anchors or resin anchors depending on installation requirements

These materials are selected to ensure the system delivers **structural strength, durability, and reliable long-term performance** in outdoor environments.

Processes Used

A number of fabrication and finishing processes may be used during manufacture, including:

- **Bending, forming, fabrication, and welding** of structural components
- **Hot dip galvanising** to provide long-term corrosion protection for steel elements

These processes help ensure that Speedy Street Solutions two-tier cycle parking systems maintain **structural integrity and resistance to environmental exposure** throughout their service life.



Cleaning, Maintenance & Repair

This section provides a general overview of the **inspection and cleaning procedures** recommended to maintain the appearance and longevity of Speedy Street Solutions Easi-Riser two-tier cycle parking units.

Inspection & Cleaning: To maximise the service life of the product, it should be **visually inspected on a regular basis**. Inspections should check for:

- Signs of damage or vandalism
- Deterioration or breakdown of protective surface finishes
- Build-up of salt, dirt, or atmospheric residue
- Loose fixings or components

If any issues are identified during these inspections, the appropriate **maintenance or repair procedures for the relevant materials** should be followed.

If **serious damage occurs to any main or structural component**, Speedy Street Solutions should be contacted immediately for technical advice before any repairs are attempted.

In addition to visual inspections, a **regular cleaning programme** should also be implemented.

Recommended Inspection & Cleaning Frequency

The required frequency of inspection and cleaning will depend on the **environmental conditions in which the product is installed**.

Rural and Urban Environments (C1 – C3)

- Visual inspection: **Monthly**
- Cleaning: **Every 3 months**

Harsh Industrial or Coastal Environments (C4, C5-I, C5-M)

Where products may be exposed to **higher concentrations of atmospheric pollutants such as chemicals, industrial emissions, or marine salt**:

- Visual inspection: **Weekly**
- Cleaning: **Monthly**, or more frequently if required

This guidance is intended to provide **general maintenance recommendations** and may not cover every possible situation. If cleaning or repair requirements fall outside the scope of this document, please contact **Speedy Street Solutions** for further advice.

Maintenance Records: All **inspection, cleaning, and maintenance activities** should be recorded. Records should include:

- The **method of cleaning** used
- Any **cleaning products or treatments applied**
- Details of any **repairs or maintenance work carried out**

Maintaining accurate records is recommended for effective asset management and may also be required in the event of a **warranty claim**.



Galvanized Coating

Galvanising is a **hot-dip process** in which molten zinc chemically bonds with a steel substrate to create a protective coating. Immediately after galvanising, the surface typically appears **bright silver in colour**, but over time this will naturally weather to a **dull grey finish**, which is the normal appearance of galvanised steel.

Due to the nature of the galvanising process, **minor surface irregularities may occasionally occur**. Where possible these may be lightly finished; however, this is not always carried out if doing so could compromise the protective zinc coating. As a result, some **visual variations may remain**, including on products that are later powder coated. These irregularities **do not affect the durability or protective performance** of the galvanised finish.

Cleaning Galvanised Surfaces

Exposed galvanised surfaces should be cleaned using one of the following methods:

- **Low-pressure water wash**, such as a standard hosepipe
- **Warm soapy water with a soft brush** to remove surface dirt or deposits

After cleaning, the surface should be **thoroughly rinsed with clean water**.

The following should **not be used** when cleaning galvanised steel:

- Wire brushes
- Abrasive scourers
- Abrasive cleaning products

These materials may damage the protective zinc layer and could lead to **premature corrosion**.

Repairing Damaged Galvanised Coatings

Galvanised coatings have the ability to **self-heal minor scratches and abrasions**, as the zinc layer provides sacrificial protection to the underlying steel.

However, where damage exposes the **base steel**, repairs may be necessary. Zinc-rich repair coatings specifically designed for galvanised surfaces can be used to restore corrosion protection.

Typical repair systems include **zinc-rich repair paints applied by brush or aerosol spray**.

Recommended repair procedure:

1. Inspect the damaged area to determine whether **rust has formed**.
2. If rust is present, **clean the area using wire brushing or light sanding** until bright steel is exposed.
3. Apply a **zinc-rich repair coating** according to the manufacturer's instructions.
4. Ensure the coating is applied to a sufficient thickness to provide ongoing protection.

The **recommended coating thickness for repaired areas is typically a minimum of 100 microns** to ensure effective long-term corrosion protection.



Spares & Accessories

Many components used within Speedy Street Solutions products are **shared across multiple product ranges**. This approach improves efficiency in **design, manufacturing, stock management, and parts availability**.

As a result, a number of components used in standard product ranges—such as **cycle shelters, smoking shelters, cycle racks, and cycle stands**—are commonly **held in stock in a galvanised finish**.

This allows damaged or irreparable components to be **replaced quickly**, as the required parts can often be supplied directly from stock. In most cases, replacement components only require **picking and dispatch**, although items can also be **powder coated if a coloured finish is required**.

Because these items are stocked components, many replacement parts can typically be **ordered and delivered within a few days**, helping to minimise downtime and disruption.

Speedy Street Solutions can provide **installation operatives** to carry out the replacement of damaged components where required. However, depending on the component and the nature of the repair, the work may also be **undertaken by qualified local contractors or maintenance personnel**.



Gas Strut

Gas Spring Specification

The **gas spring** used within the system is designed to provide controlled lifting assistance and smooth operation. It is typically used within mechanical assemblies where **assisted lifting and controlled movement** are required, such as lift-assisted cycle parking systems or equipment access panels.

Part Details

Part Name	Gas Spring
Model Number	4020DD-1200N
Place of Origin	China
Type	Compression Gas Spring
Material	Steel
Application	Industrial / Machinery

Key Specifications

Specification	Details
Rod diameter	10mm 0.39"
Cylinder diameter	23mm 0.91"
Stroke	11.81"
Length	25.39"
Force	18.0-281.0 lbs.
Thread	M8 x 1.25
Progression	36.0%
Rod Finish	Black
Seal design	Oil-leak resistant



Operating Characteristics

- **Load Type:** Compression
- **Operating Force Range:** 1200N +/- 5%
- **Operation Speed:** Controlled movement without sudden shocks or vibration
- **End Fittings:** Metal eyelet connectors
- **Standard Colour:** Black (alternative finishes may be available upon request)

Performance Notes

- Designed for **slow, controlled extension and compression**
- Built to operate **smoothly without shaking or sudden movement**
- Engineered to maintain **consistent pressure with minimal leakage**

Gas springs should be inspected periodically for **wear, loss of pressure, or oil leakage** to ensure safe and reliable operation within the system.



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We are specialists in the design and manufacture of street furniture.

Our extensive street furniture range includes **Bollards-barriers- Anti Ram-Removable- Telescopic- Shelters- Cycle Stands-Seating- Benches- Planters-Bins- Speed Bumps** and lots more.