

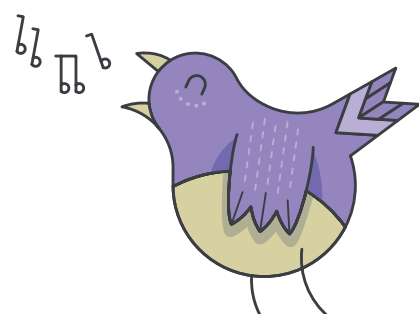


**Hand  
Made Places**

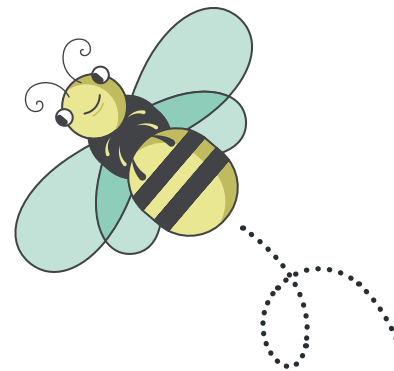
## OPERATION & MAINTENANCE MANUAL

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# INTRODUCTION



**Thank you for choosing our play equipment for your play area. As you would expect, all children's playground equipment should be subject to regular inspections and maintenance works. This applies in particular to equipment installed outdoors and especially those which incorporate moving parts or parts that are subject to wear and tear.**

The durability of our products can be maximised only if you carry out regular inspections and maintenance – this is the best way to preserve the play value and safety of those using the products. You should make sure that adequately qualified individuals carry out all maintenance and service works as poor inspections or repairs may endanger the safety of any user.

So as to aid in ensuring the maximum life can be realised with the product, along with minimising the costs for major refurbishment, this manual has been created to assist in the ongoing maintenance requirements along with identifying critical points that should be followed at all times ensuring continuance in adhering with the definitions given in EN1176-7 Chapters 7 & 8, an extract of which is:

EN1176-7

## Section 7 – Inspection Schedule

**7.1.** To avoid accidents, the owner has to make sure that an adequate inspection schedule is developed and adhered to for each playground. In such schedule, all local conditions and manufacturer's indications that may have an influence on the necessary maintenance frequency, have to be taken into consideration. The inspection schedule should list all parts, which have to be checked during the different inspections, and the inspection procedure according to 6.2. [We describe the execution of the inspection according to the procedures explained in 6.2. on the following pages].

**7.2.** If severe and safety-endangering defects are discovered during an inspection, they should be eliminated immediately. If they cannot be repaired or replaced at once, the respective equipment has to be excluded from use, e.g. by dismantling or closing it down.

If an equipment component has to be removed, e.g. for maintenance works, all anchoring or foundations that remain in the ground have to be removed also or be made inaccessible by means of cover. The construction site should then be secured.

As stated in the standards, we recommend weekly 'Routine Visual Inspections' of your playground. In cases of heavily used or high-risk (e.g. vandalism) playgrounds or if the age of the equipment enquires more frequent checks, you may want to increase the frequency of these inspections to daily.



An 'Operational Inspection' should be carried out every month and after 12 months you are required to carry out an 'Annual Inspection' (for best effect this should be completed after the winter months).

Records should be kept alongside these instructions of all actions taken as part of safety management. On the last pages of these maintenance instructions you are offered a maintenance report sheet for the entry of your maintenance report results.

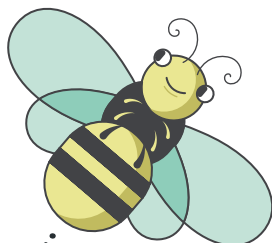
Our parent company Broxap Ltd, are ISO9001 (Quality), ISO14001 (Environmental) and OHSAS 18001(Health and Safety) certified through the BSI. These 3 standards and controlling processes are utilised throughout the business and demonstrate our commitment to providing a service of quality that takes into consideration the effects of the environment during its manufacture and life plus the health and safety of the customers has been fully considered.

Standards that have been considered during the products manufacture are:

- **EN1176** – Playground equipment and surfacing. Guidance on installation, inspection, maintenance and operation
- **EN1177** - Impact attenuating playground surfacing. Determination of critical fall height
- **BS 8417** – Preservation of Timber.
- **BS EN ISO1461** – Galvanizing (minor bracketry / posts)
- **BS EN ISO 13920** - Welding Tolerances Shapes, Dims and Lengths (minor bracketry / posts)

Timber used in the manufacture of our product comes from managed sustainable forests, and as such we only purchase from companies that hold FSC / PEFC certification.

The species of timber we use are carefully seasoned in a controlled environment to minimise defects, however, due to its nature any wood will surface check or split. This is a feature of a natural timber and does not look out of place in the informal environments in which these products are used. Structural integrity will not be compromised as a result of this type of minor splitting and surface checks occurring.



# HEALTH & SAFETY



**The vast majority of products supplied / installed have no specific operating instructions once they have been installed. However, there is a need for certain health and safety notes to be followed at all times during use and ongoing maintenance.**

These being:

1. Play equipment should pose valuable challenges to the user and provide a safe outlet for natural energy and sense of adventure. However, the owner of any such equipment should undertake a risk assessment prior to its use and ensure all reasonable precautions to prevent injury to the user have been taken.
2. Supervision arrangements should take into account factors such as number of users, age range and abilities and the specific features of the equipment and the activities it provides. **It is the customer's responsibility to ensure that full care, responsibility, correct operation / use, and any training are adhered to at all times.**
3. We cannot accept any responsibility for any damage or injury to persons or property as a result of not using the product in the proper, correct and intended manner.

# MATERIALS & PROCESSES



As the product is designed to utilise various customer requirements, the following is a list of materials and processes that could have been used during its processing:

## MATERIALS

- Mild Steel
- Stainless Steel
- Wood
- Steel Cored Nylon rope
- Rubber
- Aluminium
- Fixings on base plates
- HDPE Plastic

## PROCESSES USED

- Wood turning, cutting, planing, routing and sanding
- Pressure treatment of wood
- Zinc dip galvanizing
- Polishing of stainless steel
- Electro zinc plating of fasteners and fixings
- Staining of wood

# CLEANING, MAINTENANCE & REPAIR



The installed product and all its materials, coatings and fixings should be subject to regular visual inspections as identified below:

## DAILY/WEEKLY INSPECTION

The routine maintenance of your product and surface consists of preventative measures to maintain their level of safety and performance, therefore, on a daily / weekly basis you should be checking:

- If there any visible damage or loose item.
- If the play, fall, swing and slide areas are clean and clear.
- If there any hard or pointed objects sticking out the ground i.e. Broken glass or other contaminants.
- If any foundations have become exposed.
- If there are sharp edges, broken or missing parts.
- If any components or parts are overly worn or torn (Please pay particular attention to any moving parts or swing joints).
- If any worn areas on the ground surface need to be repaired.
- That the free fall area of the equipment has been left clear and unobstructed.

We strongly advise that high usage or older equipment is subject to a daily inspection. Any damage or defects must be eliminated immediately and the product taken from service until repaired. This will ensure that you can guarantee the safety and functional reliability of the product.

Please record your findings, and any actions taken, in a retained maintenance report. This will assist us should you request any modifications or alterations at a later date.

## MONTHLY OPERATIONAL INSPECTION

In addition to the 'Daily / Weekly' visual checks, the following should also be undertaken at a monthly frequency:

- Are all wooden components in an acceptable condition? i.e. fastenings, splinters, ladder rungs etc



- Are all metal parts well connected and not worn down or loose? Pay particular attention to any swing joints and chain connections.
- Are all screwed connections and bolted joints tight? If not then tighten them.
- Some moving parts may require greasing and oiling.
- Are all slide surfaces satisfactory and have no sharp edges?
- Are all plastic and rubber components in a satisfactory condition?

We strongly advise that your play equipment is subject to a monthly inspection as above. Any damage or defects must be eliminated immediately and the product taken from service until repaired. This will ensure that you can guarantee the safety and functional reliability of the product.

Please record your findings and any actions taken in a retained maintenance report. This will assist us should you request any modifications or alterations at a later date.

### ANNUAL INSPECTION

The annual inspection should be completed after the winter period. In addition to the previously identified checks above, the following must be completed:

- Are all foundations stable and the equipment securely anchored?
- Replace joints that show severe corrosion or heavy wear and tear.
- All wooden components that have been exposed to the weather conditions are to be checked with particular attention to the parts installed within the ground along with connection joints to other components which are required for equipment stability i.e. cross bars on swings, bridge supports, cableway struts etc.

We strongly advise that your play equipment is subject to an annual inspection. Any damage or defects must be eliminated immediately and the product taken from service until repaired. This will ensure that you can guarantee the safety and functional reliability of the product.

Please record your findings and any actions taken in a retained maintenance report. This will assist ourselves should you request any modifications or alterations at a later date.

**Note** – this document is not designed to be exhaustive and extensive in the exacting requirements of every case. If you consider your cleaning or repair circumstances to be outside of the scope of this document, then please contact Broxap and we will be happy to help you keep our products looking as new.





## IMPACT ABSORBING PLAY SURFACE

Regular inspection of the impact protection used around the product is important so as to maintain its integrity and safety. Daily or weekly inspections will ensure the speedy removal of any sharp or dangerous objects that have become embedded into the surface.

**If loose particulate material (eg. bark) is used it shall be installed and maintained to a minimum layer thickness of 100mm more than that determined in EN 1176-1 Table 4 below.**

This is to allow for displacement of loose particulate material through use.

TABLE 4

Examples of commonly used impact attenuating materials, depths and corresponding

Material <sup>a</sup>	Description	Minimum Depth <sub>b</sub>	Maximum free heights of fall
Where the installed surfacing is verified (sieve test) as being in accordance with this table or carries a test report according to EN 1177, no additional testing is required	mm	mm	mm
Turf/topsoil	—	—	≤ 1000 <sup>d</sup>
Bark	20 to 80 particle size	200	≤ 2000
		300	≤ 3000
Woodchip	5 to 30 particle size	200	≤ 2000
		300	≤ 3000
Sand or gravel <sup>c</sup>	0.25 to 8 grain size	200	≤ 2000
		300	≤ 3000
Other materials and other depths	As tested according to EN 1177		Critical fall height as tested



## GALVANIZED COATING

The Galvanizing used on the product has been conducted in accordance with the requirements specified in EN ISO1461. Galvanizing has the ability to self-heal any minor knocks or scratches. However, there will be occasions whereby the coating has been damaged to base steel at a size that will not allow for self-healing. Based on this there are several proprietary repair paints on the market. In Broxap's experience we have found 2 that give a satisfactory repair and finish for ongoing use. The 2 methods are either Galvafroid or Zinga with both being available in either a paste / brush application or an aerosol spray.

- Where the surface is scratched or damaged through to base steel, a check should be made to establish if some rusting may have occurred.
- Where rusting is present, then the area should be wire brushed / sanded to bring back to a bright steel surface.
- The system used for repair will state the required precautions that should be taken along with the application method, however, a build-up of coating should be such that the thickness will be capable of giving ongoing protection as required.

The exposed Galvanized surfaces should be subject to a cleaning regime that will maintain their onward appearance and remove any airborne contaminants. The cleaning should be undertaken by either:

1. Use of a soft brush to remove any surface dirt / dust.
2. A low pressure water wash i.e. with a hose pipe.
3. Wipe down with a soft cloth.

Galvanizing is a hot dip chemical reaction of molten zinc onto a steel substrate. At the time of the process taking place the appearance will be one of a shiny silver, however, this will not last and over a period of several weeks this will dull off to a grey colour. This is the natural finish of the Galvanized surface and ensures the expected life is achieved. At no time should any abrasive cleaners or sanding paper be used to bring the shine back onto the Galvanized surface.

The appearance can also vary from mottled, to patchy along with a slightly rough texture to smooth. These are not a cause for complaint and cannot form the basis of any reject as both are acceptable to EN ISO1461.

Prior to its delivery, the Galvanized surface will be visually checked to ensure it complies with the requirements of the Galvanizing standard, EN ISO1461, and where considered unacceptable will be subject to rework. This rework could be by mechanical means or repairing as above. Through the use of EN ISO1461 it specifies that either of these methods of repair will be acceptable.



## STAINLESS STEEL

The name suggests the exact way this material will perform, in that it is Stain “Less” and not Stain “Never”.

Stainless Steel has the ability to rust like any other steel will. This will occur based on the environment it has been installed, contaminants from materials contacting it etc. All Stainless Steel products should be subject to a regular visual inspection and this could be completed at the same time as the powder coating etc maintenance schedule. This inspection should be completed at a frequency based on the environment the product is installed in i.e. Harsh including coastal, waterside, industrial, high usage or General wear such as schools. Recommended minimum frequencies should be:

- Harsh – Every 3 months
- General – Every 6 months

The inspection should take into consideration any visual defects along with damage to the surface.

Stainless Steel requires cleaning with a specialist Stainless Steel cleaner that can be purchased from most DIY stores. However, stains and rusting will only be removed with the use of a Garryflex block. These blocks are flexible and impregnated with a grit that will bring back the original polished finish to the surface. The grit will also remove any ingrained stains or minor surface blemishes. They must always be used in the same direction as the original polishing marks, and must not be used at 90° to that direction.

More information re life expectancy of Stainless Steel or how the surface will perform along with suitable cleaning regimes can be obtained by visiting: <https://bssa.org.uk/>

## TIMBER PROTECTION AND MAINTENANCE

As timber is a natural product it will continue to adapt to atmospheric conditions i.e. in warm weather the timber shrinks and in wet weather the reverse applies. This movement will cause some splitting in the timber, however, these are always allowed for when calculating the required strength of each component within the structure. Splits in wood can have a surface opening of 3% of the required circumference of the piece, whereby this will not affect the structural integrity and strength. Splits greater than 3% should be monitored regularly to ensure continued stability, however, if greater than 5% is found then please contact ourselves immediately.

The wood protection provided by ourselves is a pressure treated application. This ensures that the maximum protection has been given to the wood prior to its installation. Due to the type of treatment used, no further maintenance will be required, however, should an aesthetic appearance be desired, then a regular programme of works will need to be introduced by the client based on the coating they use. We cannot be held responsible for any breakdown or failure of any coating applied by the client.

The effects of weather and direct sunlight can become visible by way of an outside deterioration of the woods surface along with the releasing of certain natural woodtannins. The overall effect of this is that there will be a greying of the surface, however, this affects the surface only and represents no reduction of quality, stability or wood protection.



If the wood surface becomes dirty or has attracted some surface algae, then we recommend cleaning it with a soap based bio-degradable outdoor cleaner such as Armillatox. This can be found at DIY stores or garden centres. Please follow the product instructions and clean the affected area's using a watering can fitted with a rose or a compression sprayer. This type of maintenance is best undertaken during dry spells so as to maximise the effects of the cleaning solution.

## DECKING

The degree of maintenance required on decking depends on its location, amount of sun and general wear and tear. As the decking is pressure treated, no further surface treatment is necessary. It is important that the deck surface is kept clean by regularly brushing with a stiff bristled brush to remove any surface dirt, algae and dead leaves that could make the decking slippery in wet conditions.

At least once per year, recommended to be in Spring, the decking should be given a more thorough clean using a jet wash and proprietary cleaner.

Additionally, the decking should be checked for loose boards and protruding screws, with repairs being carried out as necessary.

All maintenance work should be recorded for future reference.

## WOODEN POLES

The supporting poles used on our equipment are essential for the stability and onward safety. You are therefore required to undertake various checks on a monthly and annual basis. This ensures that any defects can be identified and rectified before the equipment becomes unsafe.

Any signs of instability, excessive weathering, decay, animal / insect attack, excessive damage caused by the use of strimmers or excessive splitting must be reported to ourselves for a replacement to be sourced and installed at the clients cost.

The following is a few basic checks that should be undertaken, that will allow the client to assess the condition of any timber within the equipment.

1. Using a blunt tool such as a hammer, gently knock the wood. The sound should be uniform throughout the full piece being tested. If a non-uniform sound is heard then please check for joints, holes or damp wood, if these are not present then please contact ourselves immediately.
2. Try to penetrate the wood using a sharp object such as a pen knife. Resistance should be felt at all points.
3. Free the poles of all plants, moss or other objects that may hold moisture in close contact with the wood.
4. Check around the ground fixing area for signs of decay.





## METAL POSTS

The posts we use are either zinc-coated steel or stainless steel. These need to be checked regularly for signs of salt pitting, weathering or electrolytic corrosion.

Any of these problems or signs can cause a weakening of the post or, in extreme cases, vandalism may render the equipment unsafe / unstable for use.

In the event of any of these problems being noted and the post has become unstable, then it will require repair or replacement by ourselves or your own appointed tradesperson who has the correct skill levels.

Cleaning, maintenance and repairs to the post, when in a stable condition, should be completed as per the previous sections for the appropriate material.

## PLAYRITE SYSTEM

Under normal use and conditions, the Playrite surface system requires minimal maintenance which will not require specialist training or equipment.

To keep the surface in good condition, and ensure maximum service life, the following maintenance must be carried out:

1. To maximise the durability of the Playrite needle punch surface, it is important to maintain the level of sand to within 2mm of the top pile. This will involve redistributing the sand already in the pile as it gets displaced during normal use. To do this, the use of a stiff brush is required to even out the sand spread. Care and importance should be taken in the areas of high usage and wear.
2. In extreme circumstances, the sand may have reduced to a level whereby new sand is to be added. The sand should be kiln-dried and have a particulate range between 0.25 – 1.00mm, with a rounded or sun rounded shape. If you need assistance in where to purchase sand of this grade then please contact ourselves direct. The sand should only be applied when conditions are dry and the surface has not been wet for a few days. Failure to follow this will result in the sand being difficult to work into the pile. When applied correctly, some sand will probably sit on the surface of the pile, however, with use and weather conditions, this will soon settle in.
3. Remove all debris, leaves and other rubbish from the surface by light brushing using a soft brush. This is particularly important where trees overhang the surface and shed leaves.
4. All grass at the edges should be cut using a strimmer with nylon line or a cylinder mower only.
5. During routine maintenance of any surrounding grass area, clippings or seed may blow on to the needle punch area. It is important that the Playrite is brushed off after such works, as the clippings or seeds can germinate and grow into the surface. In the event of this happening, the affected area should be treated with a proprietary weed killer. The area should be isolated from use until such time as the weed killer has worked and the pack instructions advise the area treated is okay for use. This would be the same for moss on the surface, a proprietary moss killer should be used and the area isolated.

In the unlikely event that the surface becomes damaged, then please contact Hand Made Places on **01420 474111** for advice on the best method to carry out repairs.



## WET POUR SAFETY SURFACE

Wet pour safety surfacing is a porous product and as such is generally self-cleaning. However, there may on occasion be the need for some cleaning to be undertaken. This would be:

1. To remove any moss, dirt or dissolvable items from the wet pour surface, the use of a pressure washer is recommended. Care must be taken to reduce the pressure to a low as possible. If the pressure used is too high, then damage to the surface may occur.
2. For larger or dangerous items such as broken glass, we would recommend the use of an industrial vacuum cleaner. The use of a pressure washer for these items is not recommended as it can drive them deeper into the surface and create problems in use later on.

If for any reason you may have any doubts over how to clean the wet pour surface, then please contact Hand Made Places on **01420 474111** for advice.

## RUBBER FILLED ARTIFICIAL GRASS SURFACE

Rubber filled artificial grass surfaces will perform to a satisfactory standard with only the minimum amount of maintenance being required. However, for a greater level of use and consistent playing characteristics, a higher degree of maintenance would be beneficial.

The following notes are intended as a guide to the maintenance regime for your rubber filled artificial surface.

### Rubber compaction and consolidation

Full penetration of the rubber infill and its subsequent compaction, occurs naturally through weathering and play. This is more prevalent in periods of continuous rainfall.

### Even distribution of rubber

During installation of the rubber filled surface, every effort will be made to ensure an even distribution of the rubber infill takes place. Experience has shown that increasing the surface brushing frequency for the first few weeks after installation, will be beneficial in maintaining the level.

### Brushing

Brushing in two directions at right angles to each other will be sufficient to maintain an even rubber distribution over the area required. The frequency of brushing will depend upon the amount of use that the surface will receive. However, you should look to brush the artificial lawn at least once per 2 weeks.

During the first few months after installation, this should be increased to weekly.

For smaller areas, or when working around permanent fixtures, a 1 metre wide medium bristle brush used by hand will be adequate.

### General Housekeeping

It is imperative that leaves, twigs and other debris are removed on a regular basis.



## Weeds

Although weed treatment is applied as part of the initial installation, airborne seeds, moss and algae can start to germinate and grow as per a normal grown lawn. An annual weed treatment is recommended with a herbicide such as Round Up or similar.

The regular sweeping of the surface along with the use of this treatment should be sufficient to ensure the surface remains weed-free.

## SHADE SAILS

Our shade sails are designed and sold as a **semi-permanent** structure. They are intended to survive the moderate wind and weather conditions of the summer season. During certain months and the winter period, the shade sail could be subject to rough weather and possible snow covering. The design is not suitable for this type of weather and as such they are hinged in such way that they can easily be removed from the structure during the winter months, or when high winds have been forecast.

## ALTERATIONS

We cannot be held responsible for any changes or alterations made to any of its equipment without prior authorisation. The alterations to any piece of the equipment or structure could affect the essential safety when used.

Any need for alterations should be forwarded to ourselves, whereby a full design consultation can take place and approved personnel can be assigned to complete the works. This work will be chargeable.

## REPLACEMENT PARTS AND MAINTENANCE CONTRACTS

All our equipment is designed to require the minimal maintenance. However as parts and equipment age, some replacements maybe required. If you contact ourselves direct, we can quote for this work easily over the phone.

We also have a dedicated team of experienced installers who can act as our inspection and maintenance staff. These people can be utilised to offer a response service to our customers, should more detailed and extensive work be required.

## LABELLING

All our products are identified with a nameplate. This plate contains:

- The contract number
- Name of the product
- Year of manufacture
- Any applicable standard reference number

It is important that this plate remains in place through the life of the product and any loss be reported immediately.

## ADDITIONAL INFORMATION

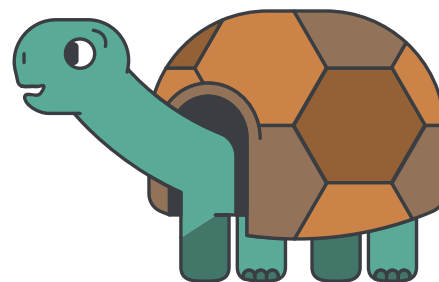
Additional information can be found on the Broxap website:  
[www.broxap.com/operations-maintenance](http://www.broxap.com/operations-maintenance)



SCAN ME



# INSPECTION & MAINTENANCE REPORT FORM



DATE OF INSPECTION	NAME OF INSPECTOR	DETAILS OF DEFECTS FOUND	ACTION TAKEN	DATE RESOLVED