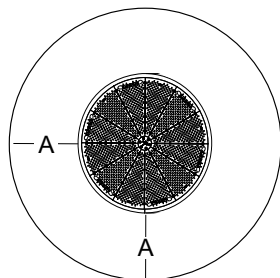




Assembly View (representative structure)



Equipment Use Zone
 A - (ASTM) 72 in. (1830 mm)
 (CSA) 1800 mm
 (EN) 1500 mm

Refer to the Elevation View for the specific Critical Fall Height for the component.


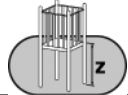

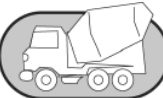


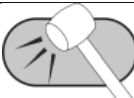
Installation Instructions

Playworld Systems® Models XX0193 and XX0193S
 Unity Rocker

Installation Preparation

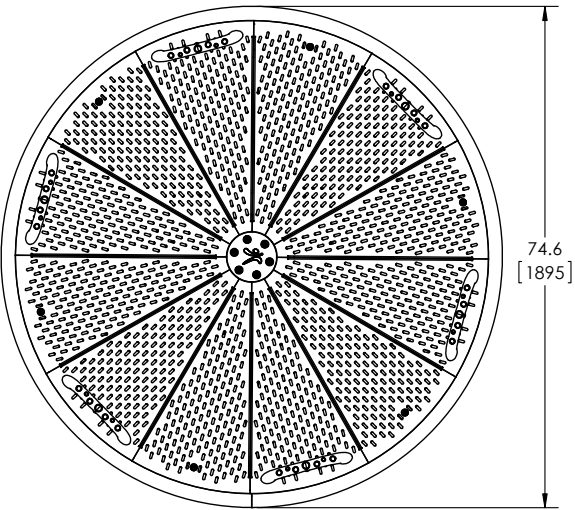
Recommended Crew: Two (2) adults
 Installation Time (In-Ground): 4 man-hours
 Installation Time (Surface Mount): 2.5 man-hours
 Concrete Required: 0.39 cubic yard (0,30 cubic meters)
 Use Zone: Refer to the information below
 User Group Age (years): ASTM/CSA: 2-12, EN: 2-14

ICON KEY

	Fully Tighten Hardware		Critical Fall Height
	Do Not Fully Tighten Hardware		Pour Concrete
	Drill		Dig Footing Holes
	Hammer		

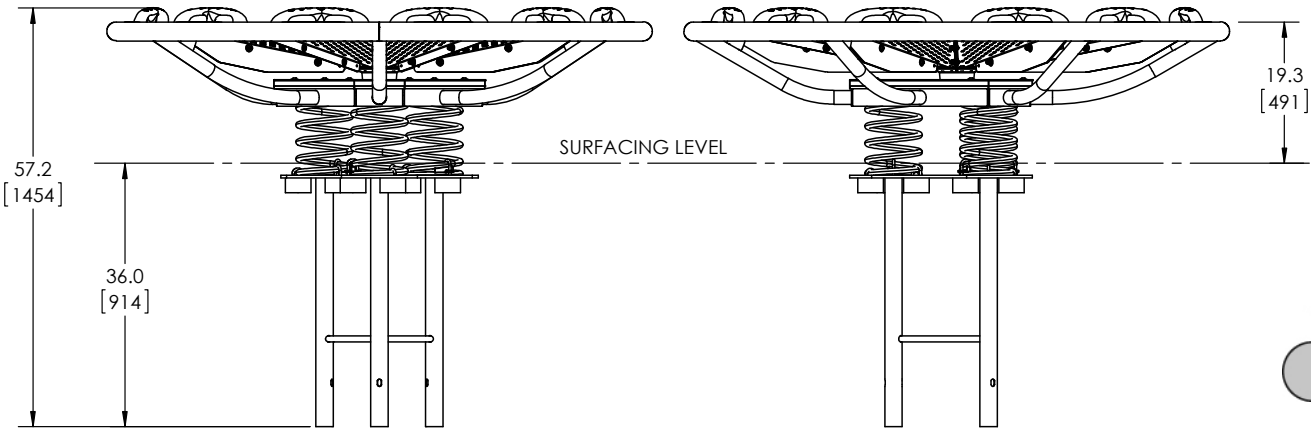
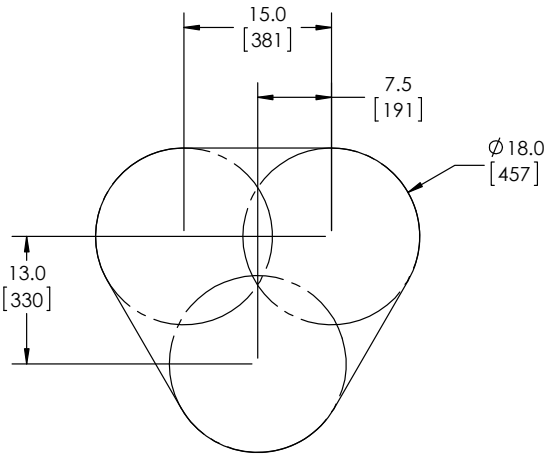
Installation Instructions

Top View

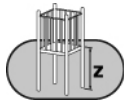


KEY	
Position	Unit of Measurement
Top #	Inches
Bottom #	[Millimeters]

Footing Diagram



Elevation Views
XX0193 In-Ground

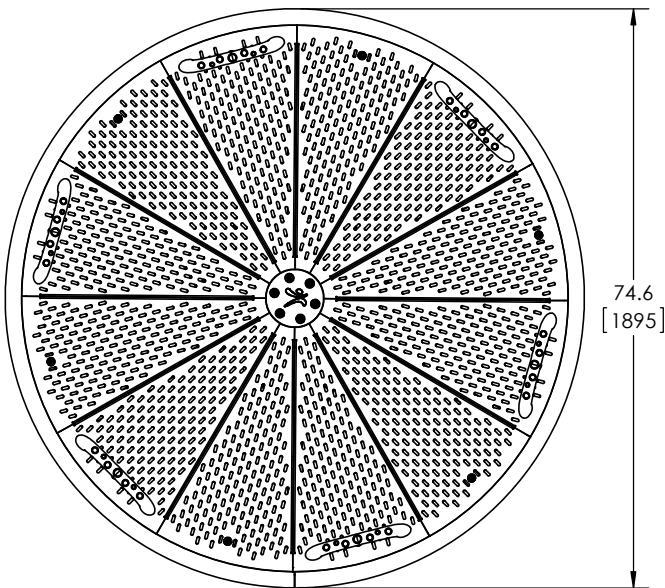


Critical Fall Height:
ASTM F1487: 19.3" (491 mm)
CSA-Z614: 491 mm
EN1176: 491 mm



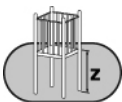
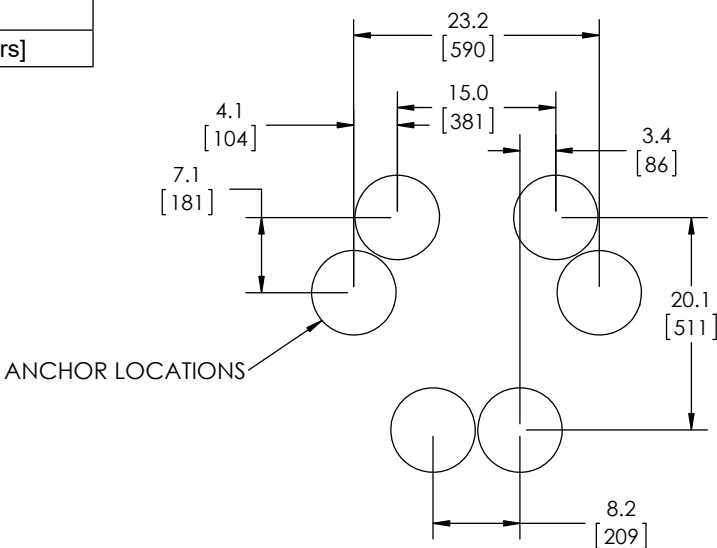
Installation Instructions

Top View

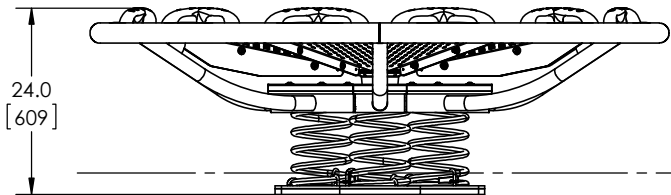


KEY	
Position	Unit of Measurement
Top #	Inches
Bottom #	[Millimeters]

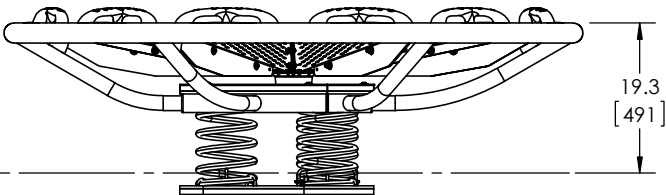
Footing Diagram



Critical Fall Height:
 ASTM F1487: 19.3" (491 mm)
 CSA-Z614: 491 mm
 EN1176: 491 mm



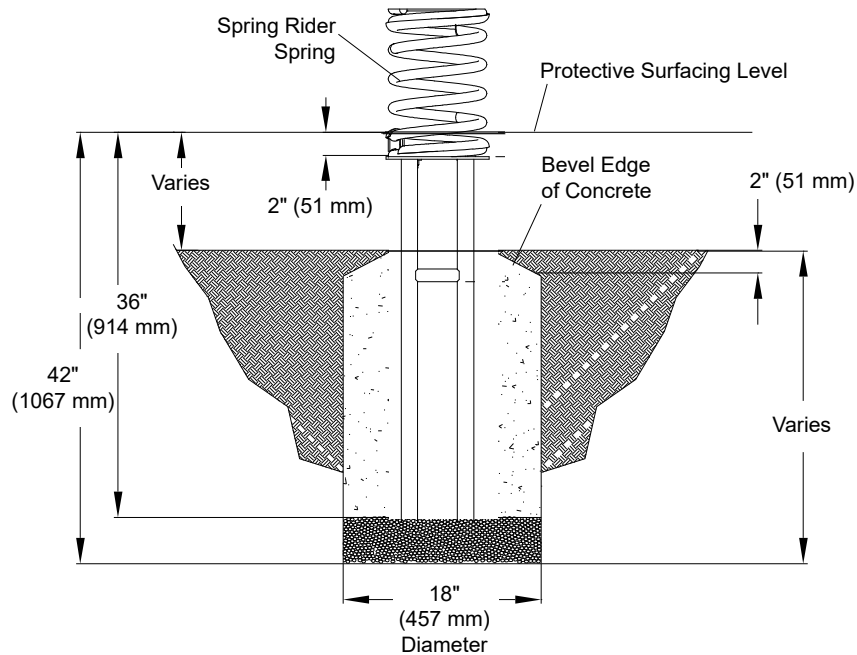
SURFACING LEVEL



Elevation Views
 XX0193S Surface Mount



Installation Instructions

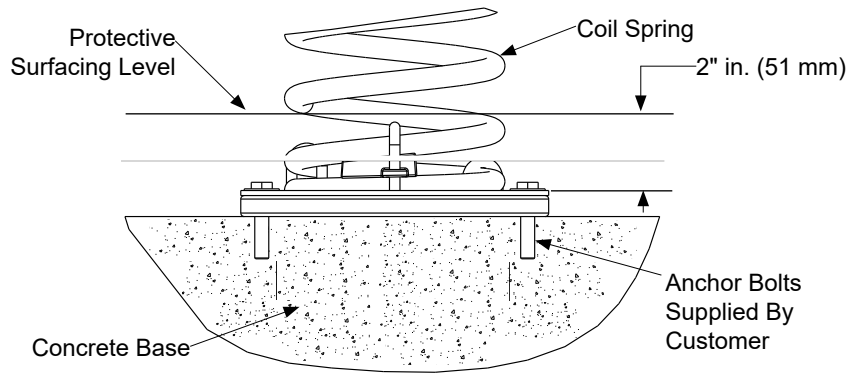


Coil Spring Footing Detail

FOOTING NOTES

- Coil Spring Footing post footing depth equals 42 in. (1067 mm) less the depth of the protective surfacing material. The post is designed to have 24" (610 mm) in concrete. *Example:* If 12 in. (305 mm) of wood mulch is used for surfacing, the footing depth would be 30 in. (762 mm).
- Some support posts and component support legs may have either a factory-applied sticker with line, or factory-applied mark designating protective surfacing level on a clear and level installation site.
- If play structure is installed on uneven terrain, maintain support post mark at protective surfacing level at lowest grade. Adjust other footings accordingly. Support posts and all attaching decks and play components must be plumb and level.
- Do not encase bottom of support post in concrete. Place post directly on packed stone or porous block.
- The footings shown on Playworld Systems' documentation are recommendations based on historical performance in average soil conditions. Footing dimensions may be modified by the owner based on actual soil conditions.
For example:
 - If local soil is loose or unstable, a larger footing may be required.
 - If local soil is considered stable, such as bedrock, clay or hard packed earth, a smaller footing may be used. Before changing footing dimensions, we strongly recommend that the footings be reviewed and approved by a registered engineer.
- Base of footing must be below frost line.
- Assemble the entire structure before pouring concrete unless specifically instructed to do so in the individual component installation instructions.

Installation Instructions



Coil Spring Surface Mount Footing Detail

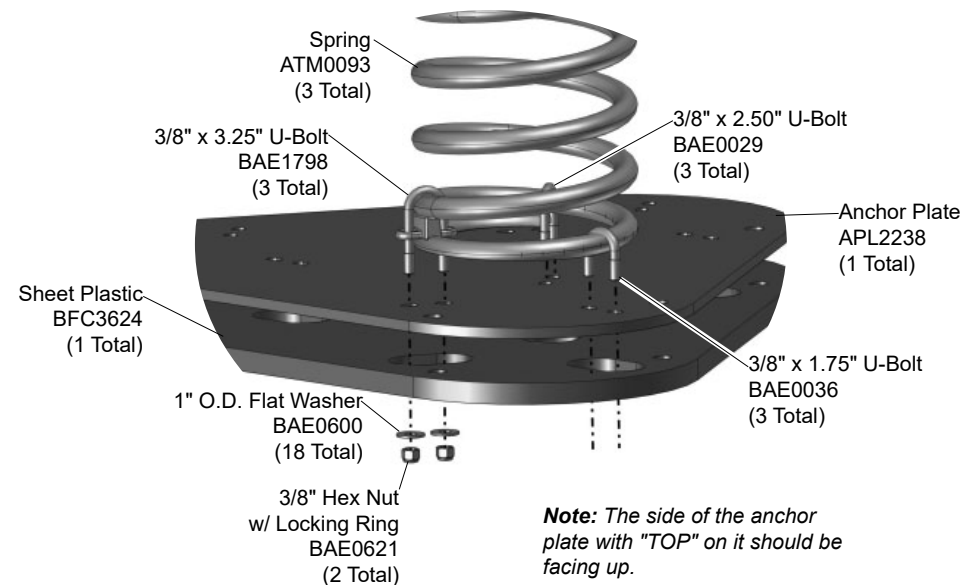
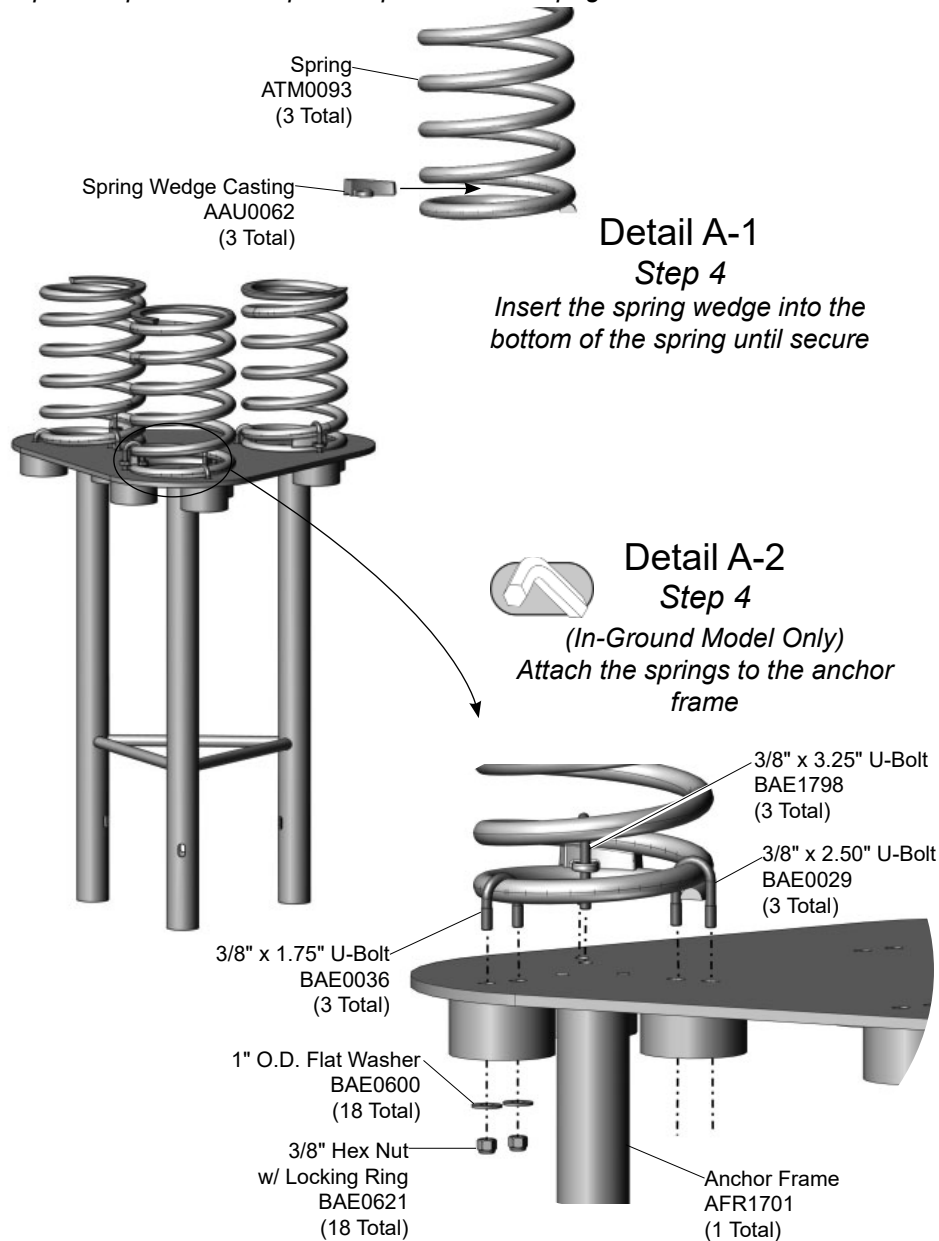
FOOTING NOTES

- All support posts and component support legs may have either a factory-applied sticker with line, or factory-applied mark designating protective surfacing level on a clear and level installation site.
- If play structure is installed on uneven terrain, maintain support post mark at protective surfacing level at lowest grade. Adjust other footings accordingly. Support posts and all attaching decks and play components must be plumb and level.
- Footing size may vary due to local soil and weather conditions.
- Base of footing must be below frost line.
- Comparison of protective surfacing materials is available in [Handbook for Public Playground Safety](#) published by U. S. Consumer Product Safety Commission.

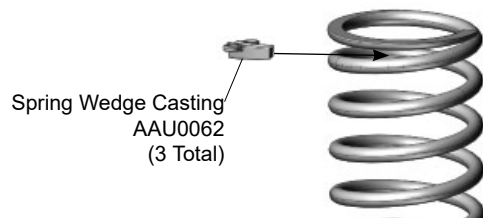
Surface mount hardware is not supplied. Customer is responsible for concrete base and providing surface mount hardware as specified by a registered structural engineer for each specific project application.

Installation Instructions

Follow the details in alphabetical order. For clarification, each detail references the step description. The step descriptions start on page 10.

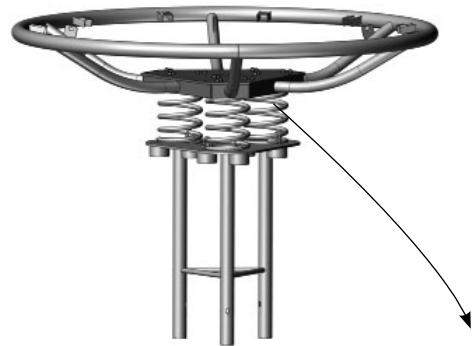


Installation Instructions



Detail B-1 Step 5

Insert the spring wedge into the top of the spring until secure



3/8" Hex Nut
w/ Locking Ring
BAE0621
(18 Total)

1" O.D. Flat Washer
BAE0600
(18 Total)

Unity Rocker Frame
AFR1702
(1 Total)

Note: The frame is shown transparent for ease of viewing the connection.

3/8" x 3.25" U-Bolt
BAE1798
(3 Total)

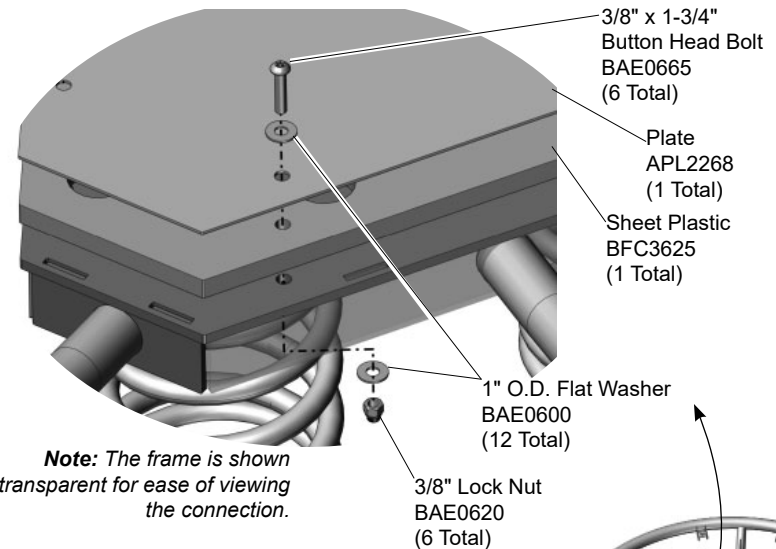
3/8" x 1.75" U-Bolt
BAE0036
(3 Total)

3/8" x 2.50" U-Bolt
BAE0029
(3 Total)



Detail B-2 Step 5

Attach the springs to the Unity Rocker frame

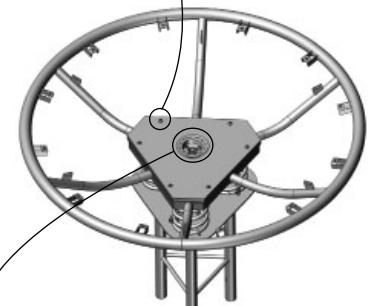


Note: The frame is shown transparent for ease of viewing the connection.



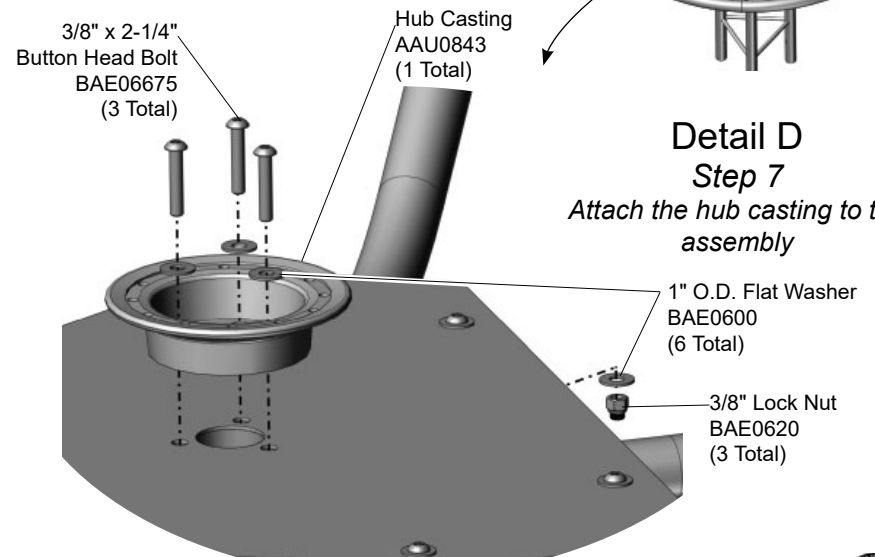
Detail C Step 6

Attach the sheet plastic and plate to the frame

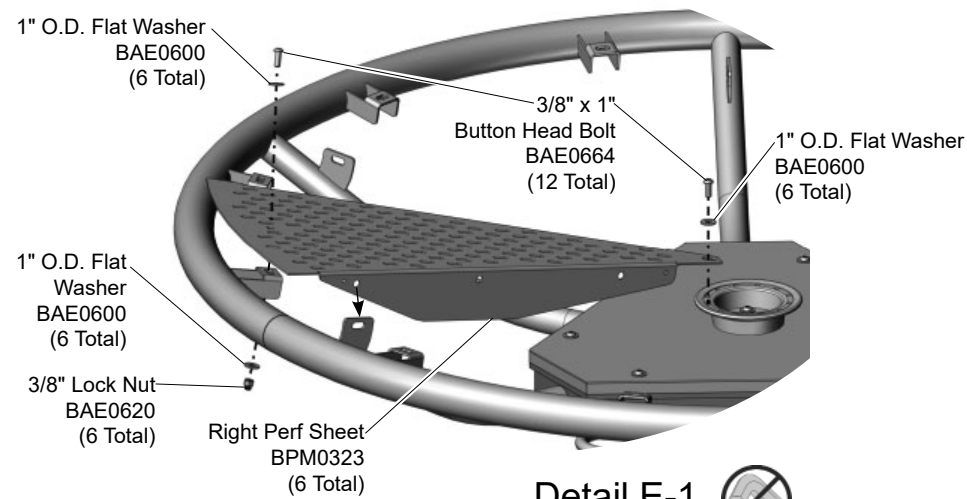


Detail D Step 7

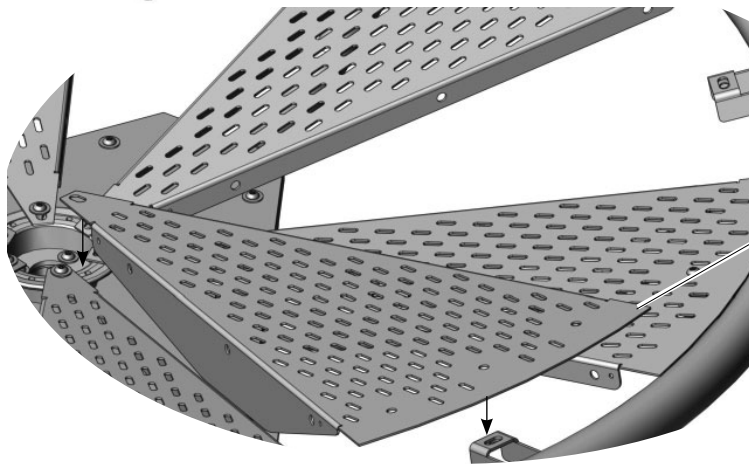
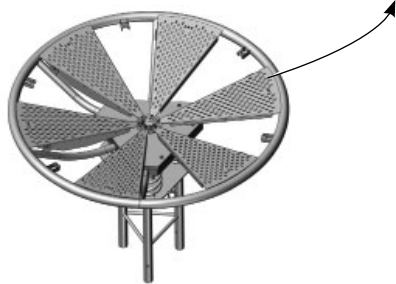
Attach the hub casting to the assembly



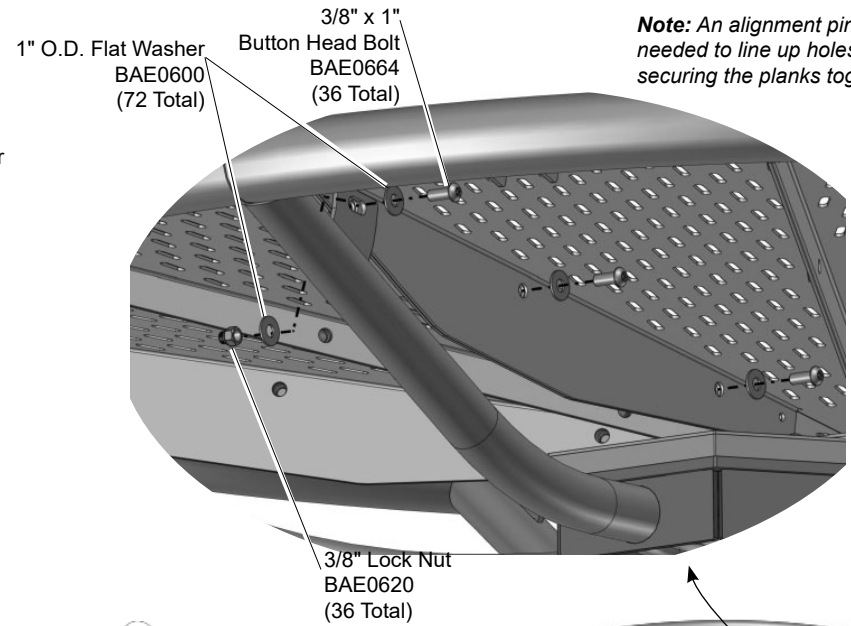
Installation Instructions



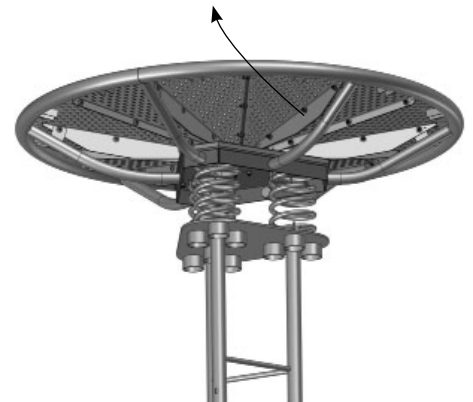
Detail E-1
Step 8
Attach the Right Perf Sheets to the frame on alternating tabs



Detail E-2
Step 8
Place the Left Perf Sheets on the frame on alternating tabs

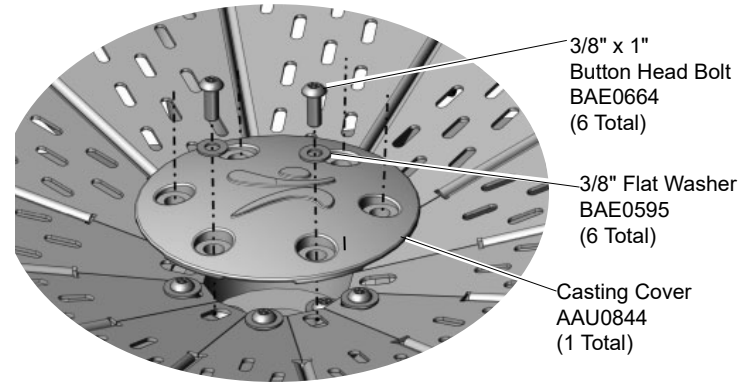


Detail F
Step 9
Attach the perf sheets together



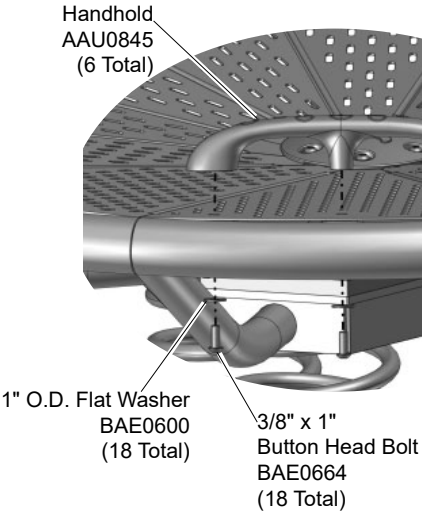
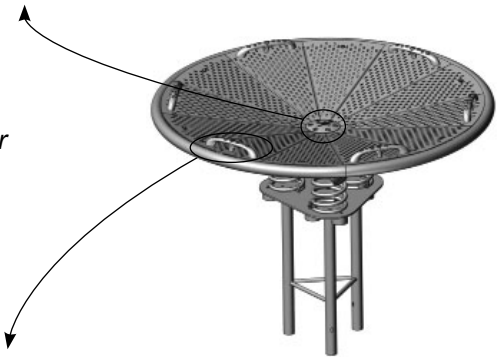
Note: An alignment pin may be needed to line up holes before securing the planks together

Installation Instructions



Detail G Step 10

Attach the casting cover



Detail H Step 11 *Attach the handholds*



Installation Instructions

Notes Before You Begin: Do not over tighten bolts during assembly, only snug tighten them until assembly is complete.

Carefully read and understand these installation instructions before you begin.

Step 1: Before attempting to assemble your equipment, please review all installation information carefully. Should you experience any difficulty during the installation process, please call us at the phone number shown on the last page of these instructions.

Step 2: Separate and identify all components and hardware.

Step 3: Excavate or prepare footings as shown in the **Annex** at the end of this document. Use the **Coil Spring Footing Detail (In-Ground)** on page 4.

Step 4: Attach the springs to the anchor frame. See **Details A-1, A-2 and A-3**. Insert the spring wedge into the bottom of the spring and rotate until secure. See **Detail A-1**. Place the U-bolts over the bottom of the spring and attach to the anchor frame as shown. See **Detail A-2**.

For Surface Mount Only: Place the anchor plate over the sheet plastic base with TOP facing up, aligning the holes, and attach as shown. See **Detail A-3**.

Note: The 3.25" U-Bolt attaches through the spring wedge.

Step 5: Attach the springs to the frame. See **Details B-1 and B-2**. Insert the spring wedge into the top of the spring and rotate until secure. See **Detail B-1**. Place the U-bolts over the top of the spring and attach to the frame as shown. See **Detail B-2**. **Note: The 3.25" U-Bolt attaches through the spring wedge.**

Step 6: Attach the sheet plastic and plate to the frame. See **Detail C**. Place the sheet plastic on the frame first, then place the plate on top, aligning the holes. Select the appropriate hardware and attach as shown, there are six connections. Fully tighten these connections as per the Torque Specifications, see **Final Details**.

Step 7: Attach the hub casting to the assembly. See **Detail D**. Align the holes in the casting with the holes on the assembly, and attach as shown. There are three connections.

Step 8: Attach the perf sheets to the frame. See **Details E-1 and E-2**. Select the six Right Perf Sheets (BPM0323), align the holes on the top and bottom of the sheet with the frame and align the right side of the sheets with the left side of the tabs on the frame. See **Detail E-1**. Select the appropriate hardware, and attach as shown, alternating tabs. Do not fully tighten the connection. Select the six Left Perf Sheets (BPM0322), align the holes on the top and bottom of the sheet with the frame, and place on the frame. See **Detail E-2**.

Note: The hardware connections for the left perf pieces will be made in Steps 10 and 11.

Step 9: Attach the perf sheets together. See **Detail F**. Select the appropriate hardware, and attach as shown.

Note: An alignment pin may be needed to keep the perf pieces in line with the holes to make your connections underneath.

Step 10: Attach the casting cover to the assembly. See **Details G**. Align the holes on the casting cover to the open holes on the perf sheets. Select six bolts and washers, and attach the casting as shown. Fully tighten these connections as per the Torque Specifications, see **Final Details**.

Step 11: Attach the handholds. See **Detail H**. Place the handholds over the three holes on the Left Perf Sheet pieces, select the appropriate hardware, and attach as shown.

Final Details.

Step 12: Plumb and level the component. Tighten **all** fasteners. Fully tighten all fasteners according to tightening torque specifications.

Torque Specifications:

Bolts and nuts - Snug tighten and then tighten an additional one half turn.

(In-Ground Only): Block and brace for concrete. Pour concrete after all equipment has been assembled. Allow 72 hours for concrete to completely cure.

(Surface Mount Only): Bolt down all surface mount supports in accordance with specifications provided by your registered structural engineer.

Important Note: Surface mount hardware is not supplied. Customer is responsible for concrete base and for providing surface mount hardware as specified by a registered structural engineer for each specific project application.

Step 13: Apply the Surfacing Warning labels to a visible area on the component.

Bill of Materials

XX0193 - UNITY ROCKER

PART NO.	DESCRIPTION	QTY.
AAU0062	CASTING - 7.09" O.D. SPRING WEDGE	6
AAU0843	HUB - 7.00" O.D. x 1.72" - CAST	1
AAU0844	COVER - 7.50" O.D. x 1.04" - CAST	1
AAU0845	UNITY ROCKR HAND HOLD	6
AFR1701	ANCHOR - 34.38" x 27.00" x 24.99"	1
AFR1702	FRAME - UNITY ROCKR	1
APL2268	PLATE - 28.84" x 24.99" x 12 GA	1
ATM0093	SPRING - 300MM	3
BAE0029	BOLT - .38"-16 x .89" x 2.50" - U	6
BAE0036	BOLT - .38"-16 x .89" x 1.75" - U	6
BAE0595	WASHER - 3/8" SAE FLAT	6
BAE0600	WASHER - 1" O.D. FLAT	162
BAE0620	NUT - 3/8"-16 LOCK w/NYLON CAP	51
BAE0621	NUT - 3/8"-16 ZINC HEX w/LOCKING RING	36
BAE0664	BOLT - 3/8"-16 x 1.00" BUTTON HEAD - SS	72
BAE0665	BOLT - 3/8"-16 x 1.75" BUTTON HEAD - SS	6
BAE0922	TOOL - TT 45 L WRENCH	1
BAE1798	BOLT - 3/8"-16 x .89" x 3.25" - U	6
BAE06675	BOLT - 3/8"-16 x 2.25" BUTTON HEAD - SS	3
BFC3625	SHEET - 28.84" x 24.99" x .75"	1
BPM0322	ROCKR PERF SHEET - LEFT	6
BPM0323	ROCKR PERF SHEET - RIGHT	6
ALB0025	LABEL - AGE APPROPRIATE SHEET	1

XX0193S - UNITY ROCKER SURFACE MOUNT

PART NO.	DESCRIPTION	QTY.
AAU0062	CASTING - 7.09" O.D. SPRING WEDGE	6
AAU0843	HUB - 7.00" O.D. x 1.72" - CAST	1
AAU0844	COVER - 7.50" O.D. x 1.04" - CAST	1
AAU0845	UNITY ROCKR HAND HOLD	6
AFR1702	FRAME - UNITY ROCKR	1
APL2238	PLATE - 27.00" x 24.99" x .38"- ANCHOR	1
APL2268	PLATE - 28.84" x 24.99" x 12 GA	1
ATM0093	SPRING - 300MM	3
BAE0029	BOLT - .38"-16 x .89" x 2.50" - U	6
BAE0036	BOLT - .38"-16 x .89" x 1.75" - U	6
BAE0595	WASHER - 3/8" SAE FLAT	6
BAE0600	WASHER - 1" O.D. FLAT	162
BAE0620	NUT - 3/8"-16 LOCK w/NYLON CAP	51
BAE0621	NUT - 3/8"-16 ZINC HEX w/LOCKING RING	36
BAE0664	BOLT - 3/8"-16 x 1.00" BUTTON HEAD - SS	72
BAE0665	BOLT - 3/8"-16 x 1.75" BUTTON HEAD - SS	6
BAE0922	TOOL - TT 45 L WRENCH	1
BAE1798	BOLT - 3/8"-16 x .89" x 3.25" - U	6
BAE06675	BOLT - 3/8"-16 x 2.25" BUTTON HEAD - SS	3
BFC3624	SHEET - 27.00" x 24.99" x .75"	1
BFC3625	SHEET - 28.84" x 24.99" x .75"	1
BPM0322	ROCKR PERF SHEET - LEFT	6
BPM0323	ROCKR PERF SHEET - RIGHT	6
ALB0025	LABEL - AGE APPROPRIATE SHEET	1



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570-522-9800 OUTSIDE U.S.
1000 Buffalo Road • Lewisburg, PA 17837
www.playworldsystems.com



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Fasteners

- Inspect for loose fasteners. Tightening torque specifications are:
Bolts and Nuts: Snug tighten and tighten an additional one-half turn.
- If during the maintenance process a bolt needs to be removed from a part or parts, it will be necessary to apply a drop of liquid thread lock to the bolt before reinstallation.
- Inspect for missing, worn or broken fasteners. If any missing, worn or broken fasteners are found, refer to the installation instructions for proper replacement fastener. If any damage is detected, barricade equipment to prevent use until repair is completed. Contact your sales representative immediately for a replacement part.

Plastic Parts

- Inspect all plastic surfaces for sharp points, cracks or jagged edges. If any damage is detected and is determined to be unsafe, barricade equipment to prevent use until repair is completed. Minor burrs or sharp edges may be removed by using a sharp utility knife or block plane to remove sharp burr.

Castings

- Inspect the aluminum castings to insure they are properly secured to the component.
- Visually inspect the castings for cracks or breakage. If any damage is detected, barricade the equipment to prevent use until repair is completed. Contact your sales representative immediately for a replacement part.

Welds

- Inspect all welded joints. If any broken welds are detected, barricade equipment to prevent use until repair is completed. Contact your sales representative immediately for a replacement part.

Finish

- Inspect metal parts for finish damage.
To repair painted surfaces, sand damaged area with sandpaper and wipe clean. Mask area and paint with primer and allow to dry. Paint primed area with color-matching paint and allow to dry. Recoat area with color-matching paint if required. Drying time is approximately 8 hours between coats.
To repair the perf sheet coating, contact the Playworld Systems' Customer Service Department for a coating repair touch-up kit.

Springs

- Inspect the springs to insure they are properly secured to the anchor and frames. Check spring U-bolts to ensure secure connections. If any damage is detected, barricade equipment to prevent use until repair is completed. Contact your sales representative immediately for a replacement part.

Footings

- Inspect component to be solid in footing and secure. If any damage is detected, barricade equipment to prevent use until repair is completed.

Surfacing

- Refer to the specific surfacing maintenance detail sheet for additional information.

Replacement Parts

- Refer to your installation instructions to obtain replacement part number.
- Contact your sales representative or call Playworld Systems' Customer Service for a replacement part.

Equipment Maintenance

Playworld Systems®

Models XX0193 and XX0193S

Unity Rocker



Inspection Form

- Be sure that you are using a copy of this Inspection Form and not your original.
- Use the Inspection Codes listed below and record condition of equipment at time of examination on the Inspection Checklist.
- Document any item from the Inspection Checklist that will require maintenance along with any corrective action on the Maintenance Schedule.
- Be sure to include appropriate dates and signatures on each section to properly document maintenance procedure.

Preventive Maintenance ... for Safety's Sake!

INSPECTION CHECKLIST

	Frequency	Inspection Code	Date	Date Repairs Completed
Inspect plastic parts for damage.	Medium			
Inspect spring connections for tightness.	High			
Inspect metal parts for structural and finish damage.	Medium			
Inspect for loose, missing, worn, or broken fasteners.	High			
Inspect footing to insure support is secure and footing is not damaged.	Low			
Inspect surfacing to insure proper depth and distribution.	High			

Inspection Codes
P = Pass F = Fail
NA = Not Applicable

Inspector: Name (Please Print) _____ Signature: _____ Date: ___ / ___ / ___

MAINTENANCE SCHEDULE

Item in Question	Description of Problem	Corrective Action	Date

Repairer: Name (Please Print) _____ Signature: _____ Date: ___ / ___ / ___



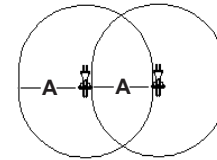
Important ! Please Read Completely Before Beginning Installation. According to a report published by the U. S. Consumer Product Safety Commission (C.P.S.C.) 72% of all playground injuries result from accidental falls. With this in mind, this equipment is designed to fill the need for safe yet challenging play. In conjunction with design efforts to reduce the possibilities of injuries, this equipment **must** be installed "Step by Step" per our installation instructions. As a new owner you are responsible for the correct installation, safe use, and maintenance of your equipment.

Installation Guidelines

- Identify all parts and thoroughly read the assembly instructions before beginning construction.
- Refer to your playground equipment plan and footing diagram to assure the equipment purchased will fit into your selected site area. The use and no-encroachment zones around the play equipment shall be obstacle-free areas designated for unrestricted circulation.
- **ASTM compliance:** For rocking/springing equipment intended for sitting, the use zone should extend on all sides a minimum distance of 72 inches (1829 mm). This use zone may be overlapped by the use zone of other rocking/springing intended for sitting or stationary equipment when the seat or designated play surface is 30 inches (762 mm) or less from the protective surfacing level. See diagram.
- **CSA compliance:** For rocking/springing equipment intended for sitting, the use zone should extend on all sides a minimum distance of 1800 mm. The designated play surface, or seating surface must be 700 mm or less from the level of the protective surfacing. This use zone may be overlapped by the use zones of adjacent play equipment. See diagram.
- **EN Compliance:** For rocking/springing equipment intended for sitting, the use zone should extend on all sides a minimum distance of 1000 mm. This use zone may be overlapped by the use zone of other rocking/springing equipment.
- Site layout is a critical part of the overall installation. Footings must be measured and marked accurately according to the footing diagram. A level and clear installation site is ideal.

Rocking/Springing Equipment
Intended for Sitting Use Zones

A = ASTM: 72 in. (1829 mm)
CSA: 1800 mm
EN: 1000 mm



Placement of multiple Spring Riders

- Good drainage around the structure and its supports is important. Inquire with local contractors for appropriate recommendations.
- After laying out all footings and before digging holes, be sure to inquire about underground utilities that may exist.
- Do not leave the job site unattended without making sure that all fastening hardware on all components are tightened according to tightening torque specifications listed on every installation guide. We also recommend roping off construction area and covering all holes that do not contain a piece of equipment with plywood or other suitable material.
- Excavate holes as shown in the footing detail. If a level and clear site cannot be obtained, adjust the depth of footing to maintain a level footing base. If soil conditions are loose or unstable, a larger diameter footing may be required. Inquire with local contractors for appropriate recommendations. Be sure concrete that might have splashed onto the unit is washed off before it dries. Allow concrete to harden 72 hours before allowing your structure to be used. **Assemble the entire structure before pouring concrete unless specifically instructed to do so in the installation instructions.**

- Insure that Age Appropriate and Hard Surface Warning/Playworld Systems identification labels are properly affixed to the play equipment. Labels are to be plainly visible according to current playground equipment guidelines.

- **IMPORTANT!** Because accidental falls around your playground equipment can occur, Playworld Systems recommends that the area under and around the structure be covered with a resilient material such as sand, bark mulch, or wood chips. If loose fill surfacing materials are used, Playworld Systems recommends a depth of 12 in. (305 mm). An approved rubber safety matting can also be used. **Many protective surfacing materials can become compacted due to weather and use, which reduces their shock absorbency. It is strongly recommended that the surfacing be checked weekly and material added or replaced as necessary. Hard surfaces, such as asphalt, concrete and packed earth are not acceptable for use under playground equipment.**

- The entire area, under and around the playground equipment, must be covered with protective surfacing material. The impact attenuation of the protective surfacing under and around playground equipment should be rated to have a critical height value of at least the height of the highest accessible part of the equipment. The critical height for surfacing is to be rated in accordance with A.S.T.M. standard, designated F1292, A Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment. Contact the manufacturer of unitary surfacing materials (rubber matting) for the critical height rating for their products.

Tools Required: Playworld Systems supplies a service kit that contains commonly used hex key wrenches required to assemble your equipment. You may also need: shovel, digging iron, post hole digger, steel rake, wheelbarrow, garden hoe, water hose, tape measure, level, alignment tool, 3/8" ratchet with 9/16" socket, and 9/16" combination wrench.

Maintenance

- Inadequate maintenance of equipment has resulted in injuries on the playground. Because the safety of playground equipment and its stability depends on good inspection and maintenance, **a comprehensive maintenance program must be developed for each playground and strictly followed.** All equipment must be inspected frequently for any potential hazards. Special attention must be given to moving parts and other components that can be expected to wear. Inspections must be carried out in a systematic manner by trained personnel. Any damaged or worn parts, or any other hazards identified during inspections must be repaired or replaced immediately. Complete documentation of all maintenance inspections and repairs must be retained.

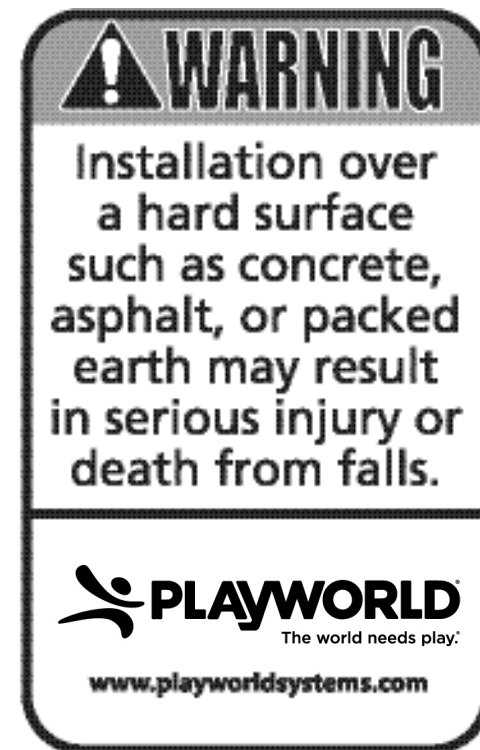
Supervision Guidelines

- Playworld Systems strongly recommends close supervision of the children as they play as well as intensive classroom and home instruction about safe behavior on playground equipment.
- Playground supervisors should be aware that not all playground equipment is appropriate for all children who may use the playground. Signs should be posted near the equipment indicating the recommended age of the users. Supervisors should direct children to equipment appropriate for their age.
- It is important that playground supervisors recognize that preschool-age children require more attentive supervision on playgrounds than older children.
- Do not permit the use of wet playground equipment. Wet equipment will inhibit necessary traction and gripping capabilities. Slips or falls could occur.
- Do not permit too many children on the same piece of equipment at the same time. It is suggested that children take turns.
- Constantly observe play patterns to discover possible hazardous play and suggest changes in equipment use or play patterns.

FINAL INSPECTION

- Playworld Systems® insists on the installation of protective surfacing within the use zone of each play structure in accordance with the applicable standard or specifications appropriate for the fall height of each structure.
- Playworld Systems® strongly recommends close supervision of children as they play. The owners of playground equipment and the parents or guardians of children are responsible for this proper supervision.
- As the owner of playground equipment, you are responsible for the maintenance of the equipment and surrounding play area. A comprehensive maintenance and inspection schedule must be developed and all equipment inspected frequently. Refer to the inspection and maintenance schedule in the back of this booklet.
- Perform a thorough final check on the installed equipment to insure all equipment is installed as specified by manufacturer's installation instructions.
 - Review all Installation Instructions for specified dimensions. Make sure dimensions called for in instructions agree with actual installation.
 - Double check height dimensions. Height measurements are taken from the top of the protective surfacing material.
 - Insure all fasteners are tightened according to tightening torque specifications listed on your installation instructions.
 - Insure all exposed pipe ends have properly installed end caps. Insure that drive rivets are secure.
 - Clean dried concrete off of components and any other affected surface.
 - Touch-up any scratches or installation damage to powder coated finish with color-matched spray paint.
 - Allow adequate time for proper curing, both for concrete and urethane cement if rubber safety surfacing tiles have been installed.
 - Insure that protective surfacing is properly installed according to C.P.S.C. (or other appropriate body) recommendations. Footings must not be exposed.

- Insure that hard surface warning/Playworld Systems® identification labels are properly affixed to the play equipment. Labels are to be plainly visible according to current playground equipment guidelines. For locations complying with ASTM F1487 or CSA Z-614, Age Appropriate labels must also be applied in a visible location.
- Dispose of all packaging material properly. These materials which include large plastic bags and sheets can be a suffocation hazard. Dispose of these materials out of reach or contact of small children.



Surfacing Warning Label