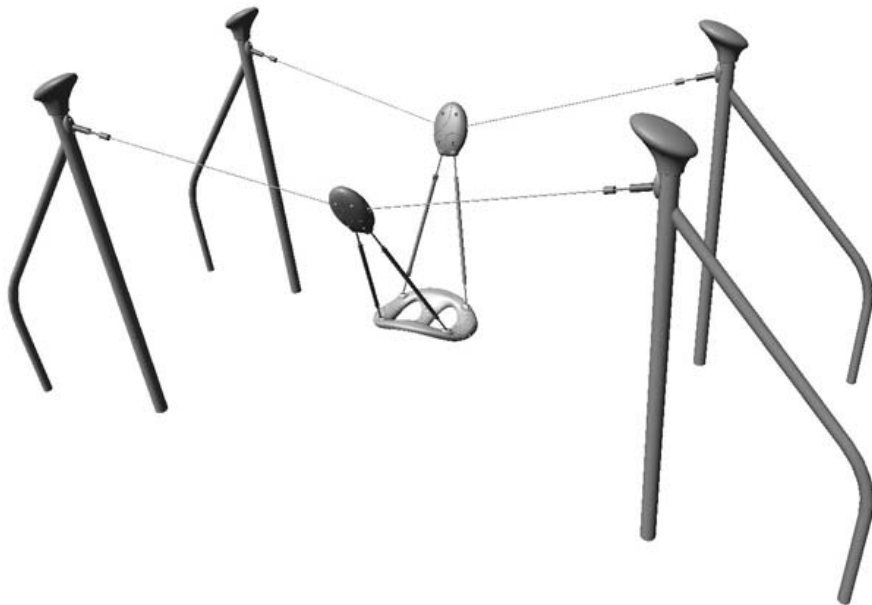


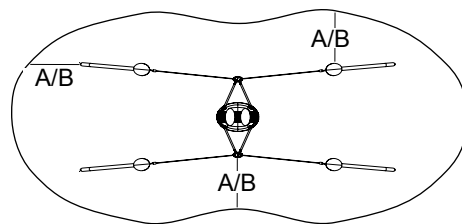
Installation Instructions

Playworld Systems[®] Model XX0355

Cruise Line



Assembly View




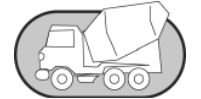


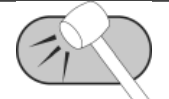
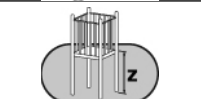


Equipment Use Zone
 A - (ASTM) 72 in. (1830 mm)
 (EN) 1500 mm
 B - (CSA) 1800 mm

Installation Preparation

- Recommended Crew: Four (4) adults
- Installation Time: 18 man-hours
- Concrete Required: 6.65 cubic yards (5,06 cubic meters)
- Use Zone: Refer to the information below
- User Group Age (years): ASTM/CSA: 5-12, EN: 6-14

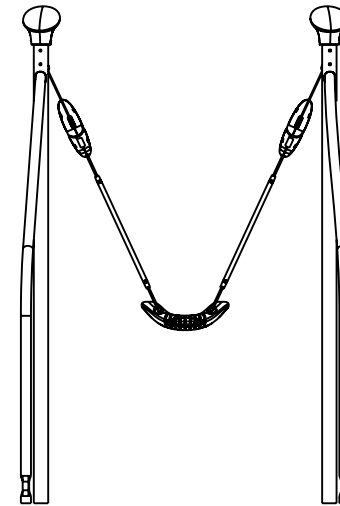
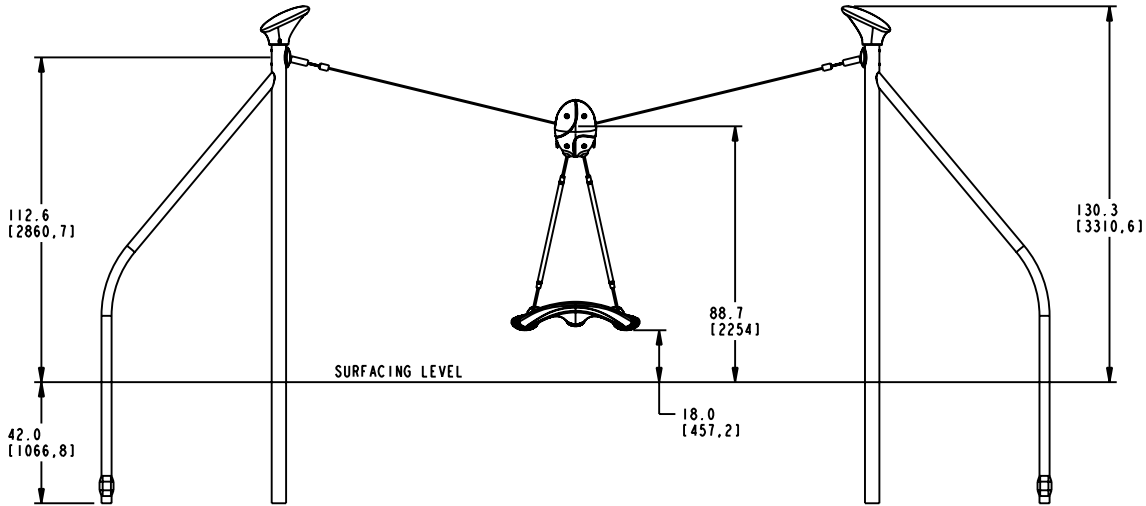
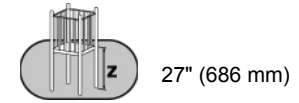
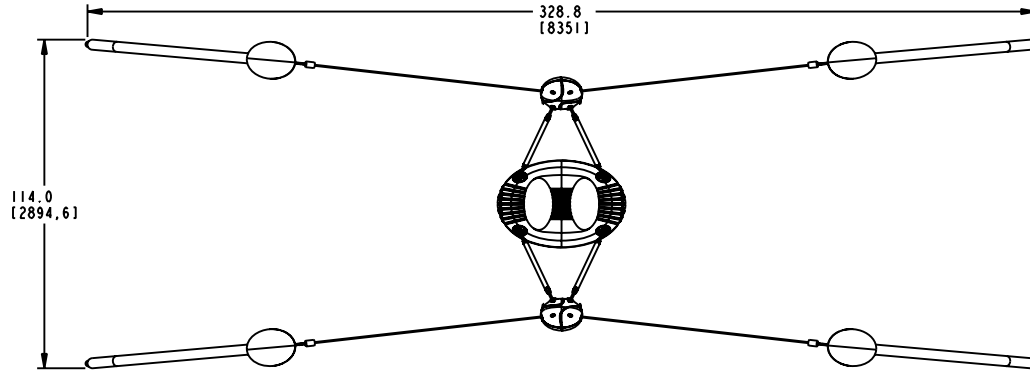
ICON KEY

	Fully Tighten Hardware		Add 1 Drop of Thread Locking Adhesive
	Do Not Fully Tighten Hardware		Pour Concrete
	Drill		Dig Footing Holes
	Hammer		Critical Fall Height

Installation Instructions

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

Top View

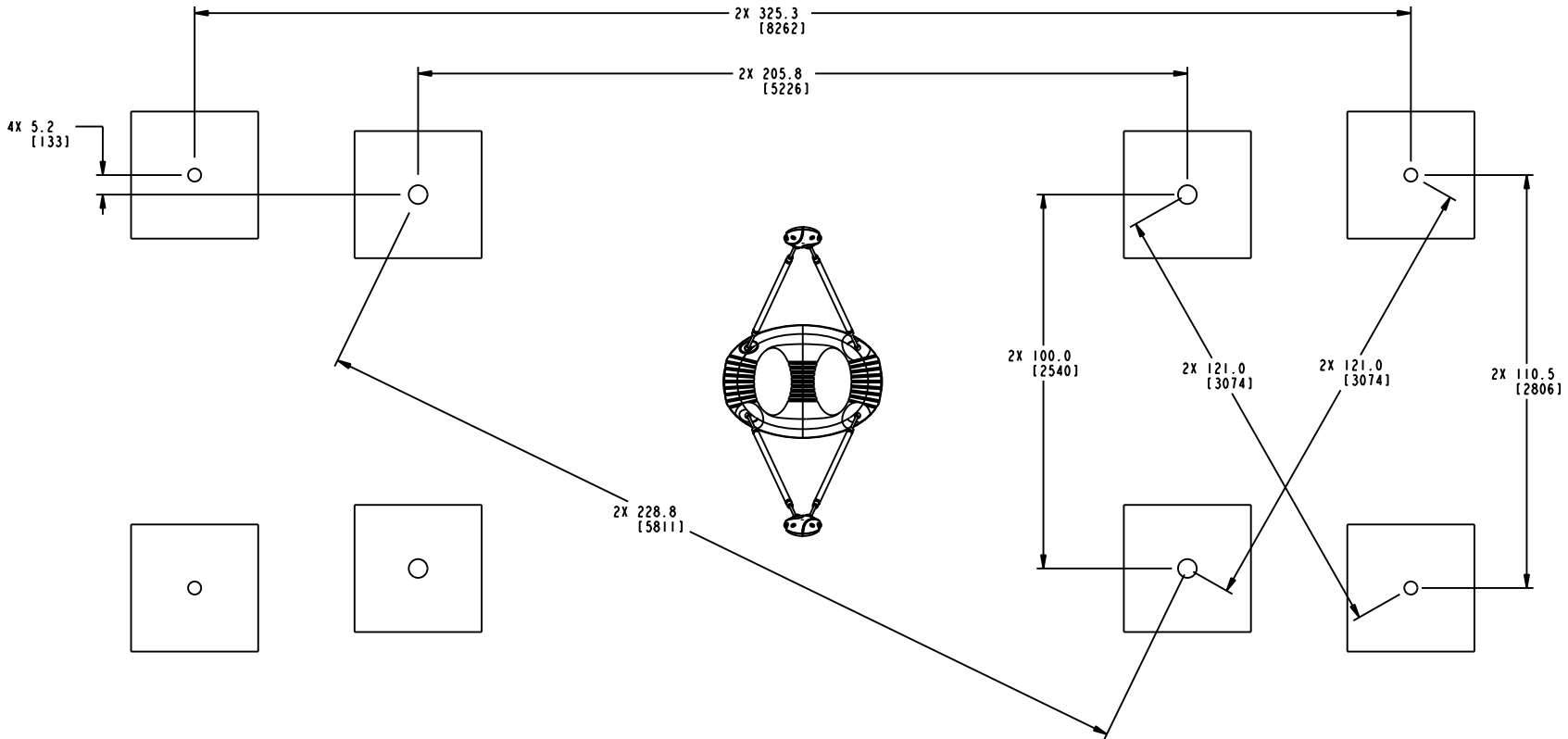


Elevation Views

Installation Instructions

Important Note: Make sure the footings are laid out and spaced as shown in this **Footing Diagram**.

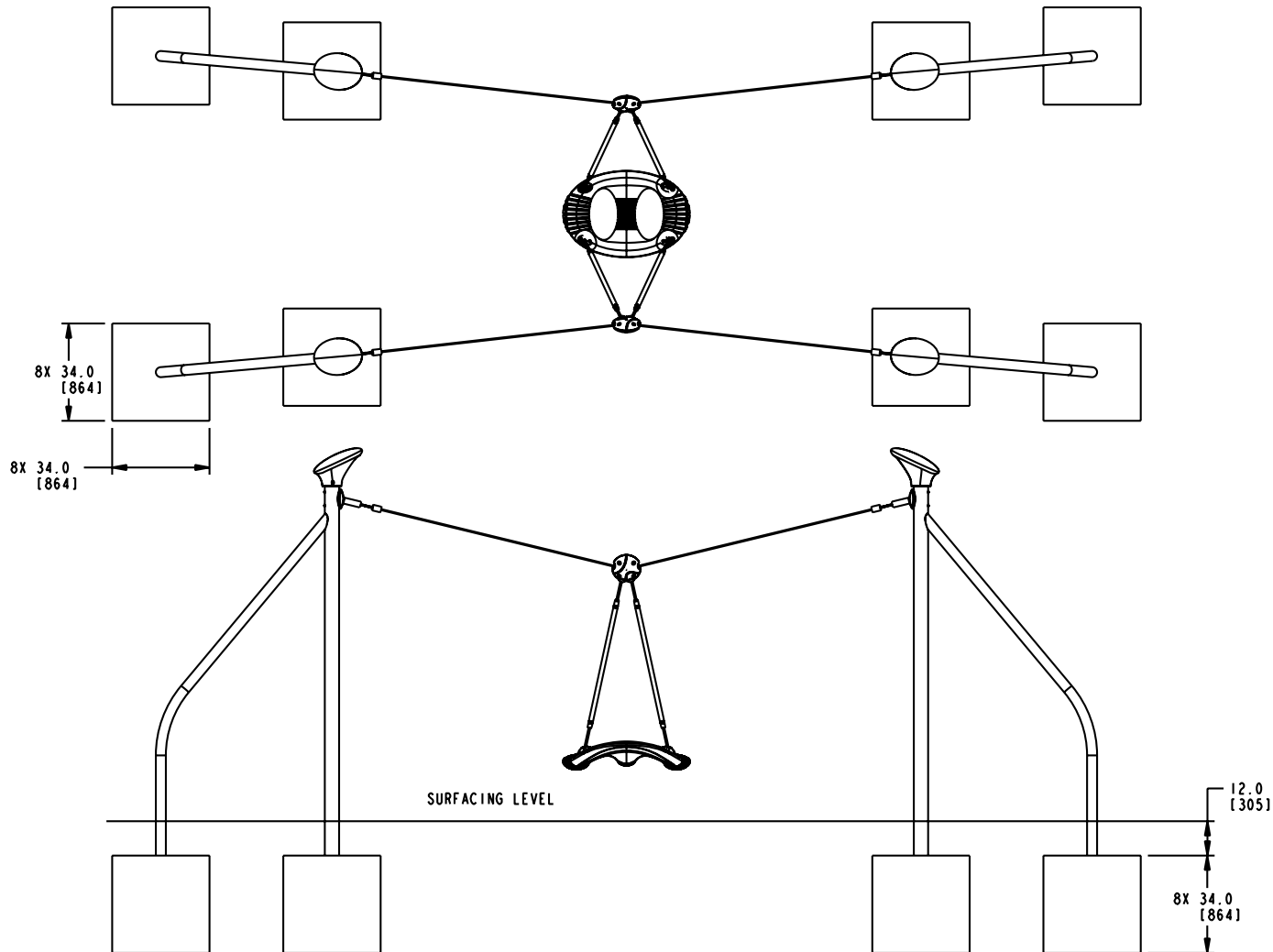
KEY	
Position	Unit of Measurement
Top #	Inches
Bottom #	[Millimeters]



Footings Diagram #1 - Top View

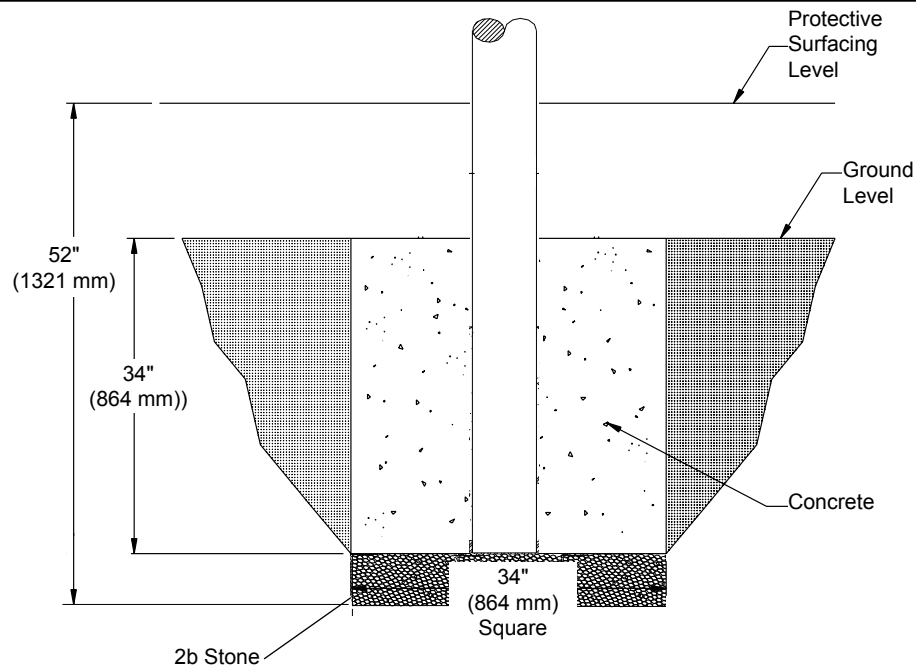
Installation Instructions

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



Footings Diagram #2 - Side View and Top View

Installation Instructions



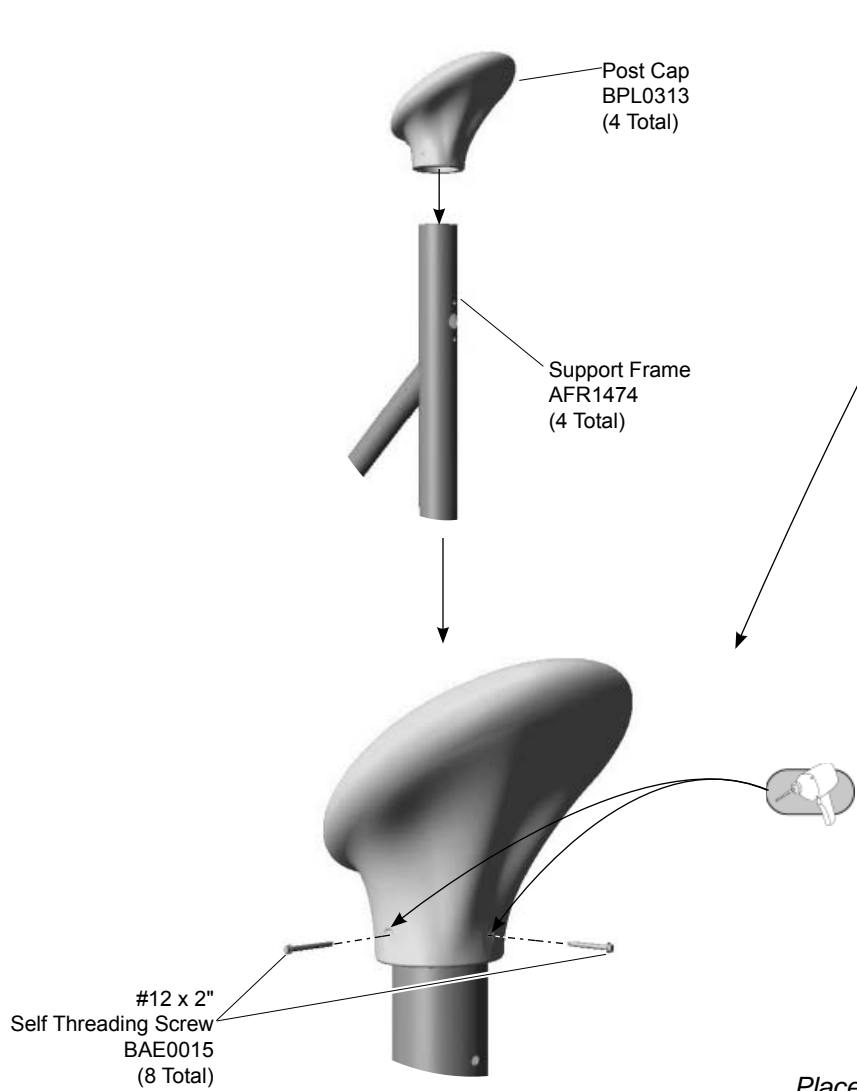
Support Post Footing Detail

FOOTING NOTES

- Support post footing depth equals 52 in. (1321 mm) less the depth of the protective surfacing material. The post is designed to have 34" (864 mm) in concrete.
- 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.

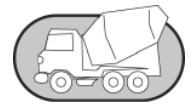
Installation Instructions

Follow the details in alphabetical order. For clarification, each detail references the step description. The step descriptions start on page 13.



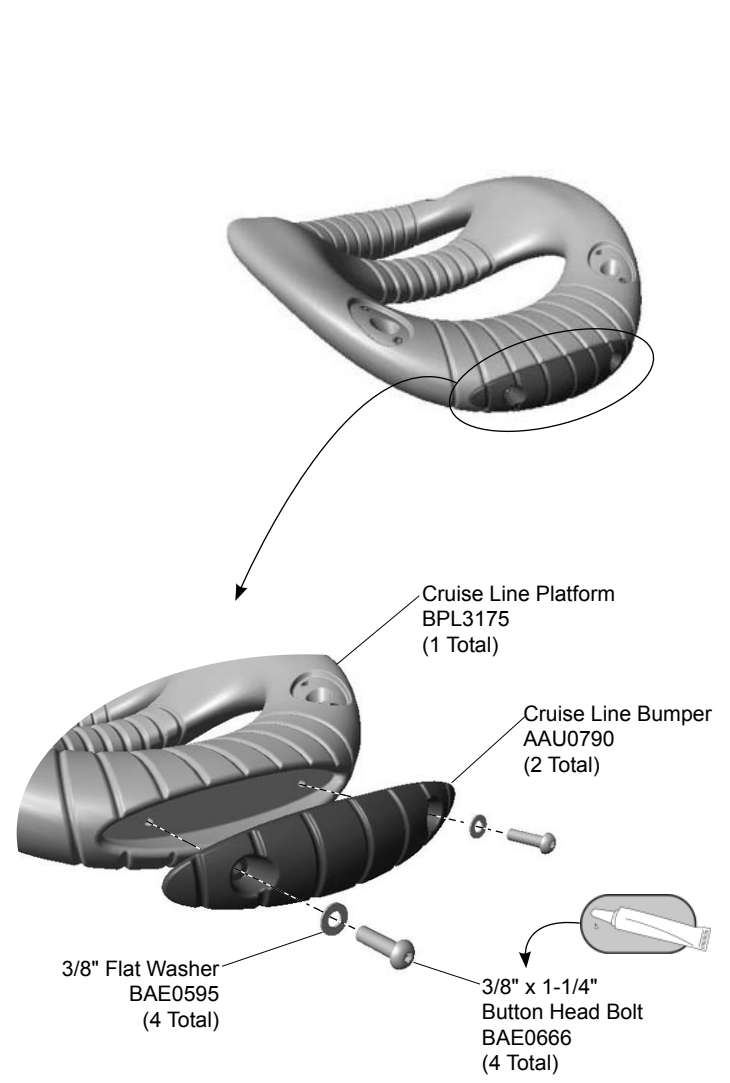
Detail A
Step 4

Attach the post caps to the support frames.



Step 5

Place the support frames in their footings. Block and brace for concrete. **Pour concrete and allow 72 hours for concrete to completely cure.**



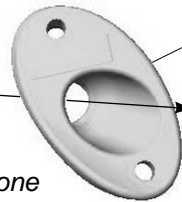
Detail B
Step 6

Attach the bumpers to the platform.



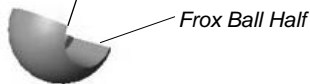
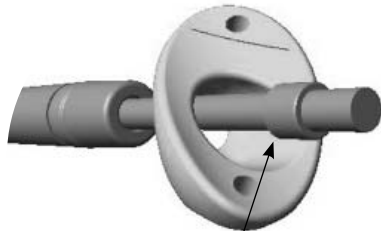
Installation Instructions

Cruise Line Rope
AMC0662
(4 Total)

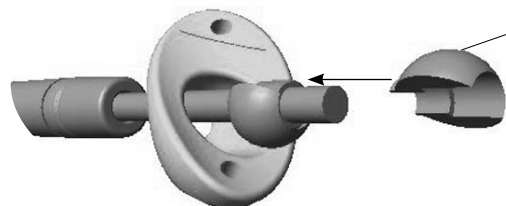


Right Casting
AAU0791
(2 Total)
&
Left Casting
AAU0792
(2 Total)

Remove the frox ball halves from one end of each rope and insert the rope through a platform casting.



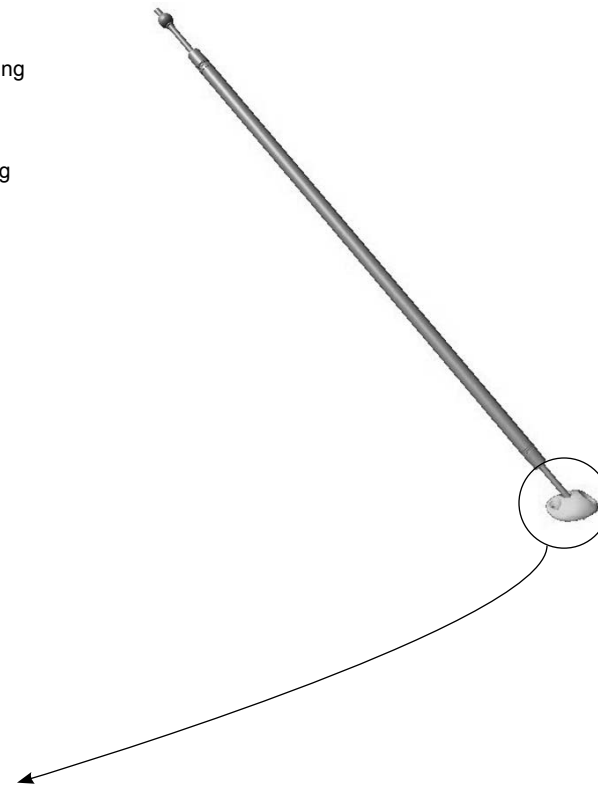
Place one frox ball half over the ferrule on the end of the rope.



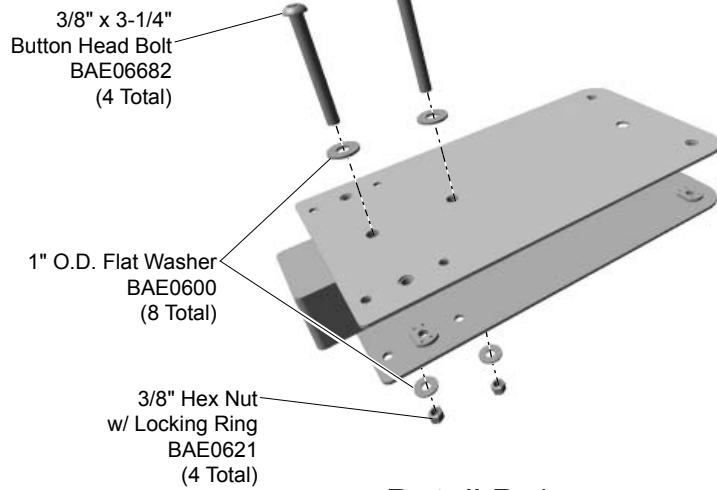
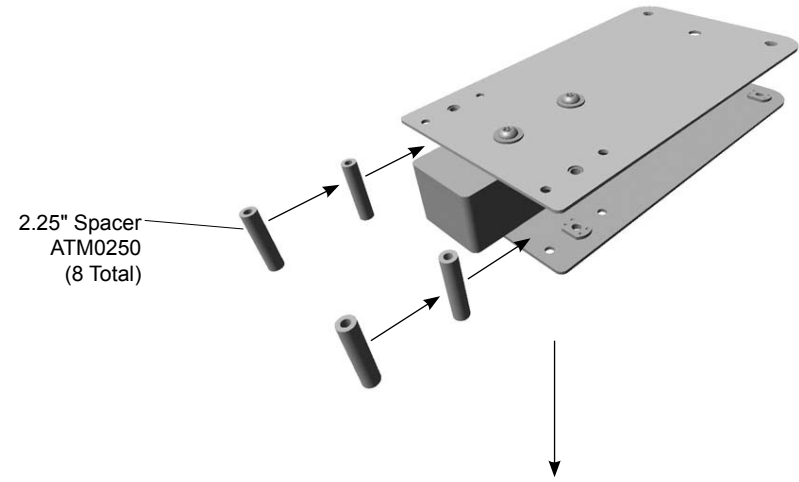
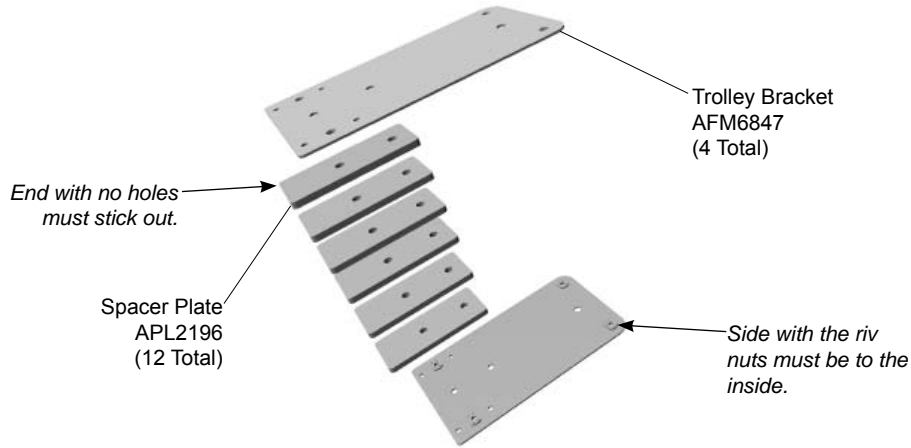
Slide the other frox ball half onto the first. Balls are grooved and will slide together.

Detail C Step 7

Place one end of each rope through a left or right platform casting.

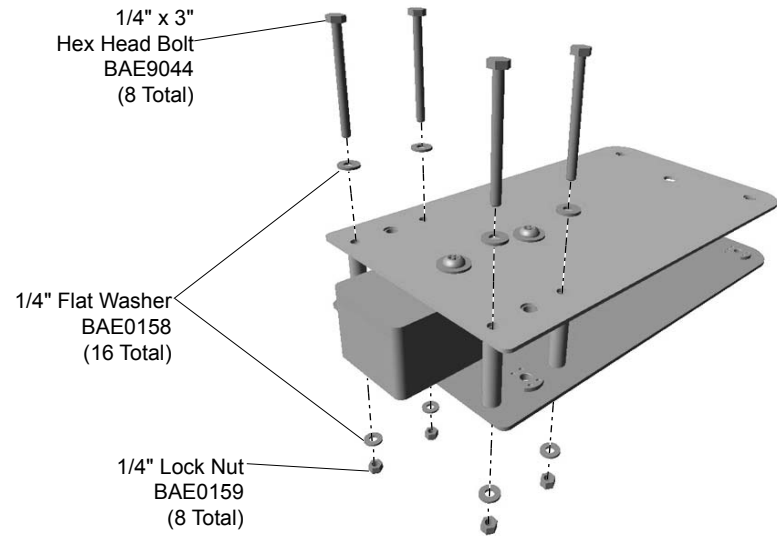


Installation Instructions



Detail D-1

Attach the spacer plates to the trolley brackets.



Detail D-2

Attach the 2.25" spacers to the trolley brackets.

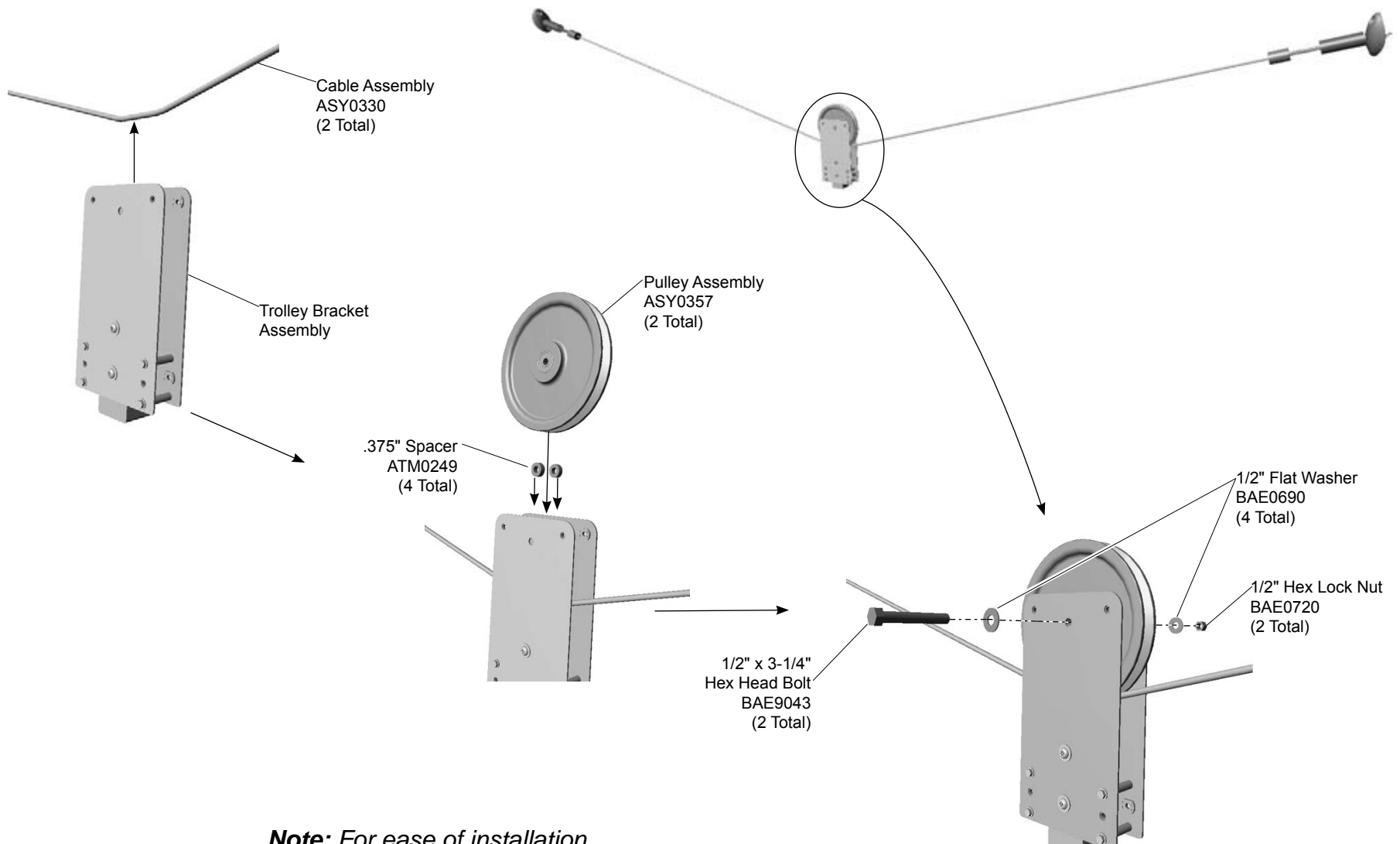
Details D-1 and D-2

Step 8

Attach the spacers to the trolley brackets.



Installation Instructions



Note: For ease of installation,
attach the trolleys to the cable
wire on the ground.

Detail E
Step 9

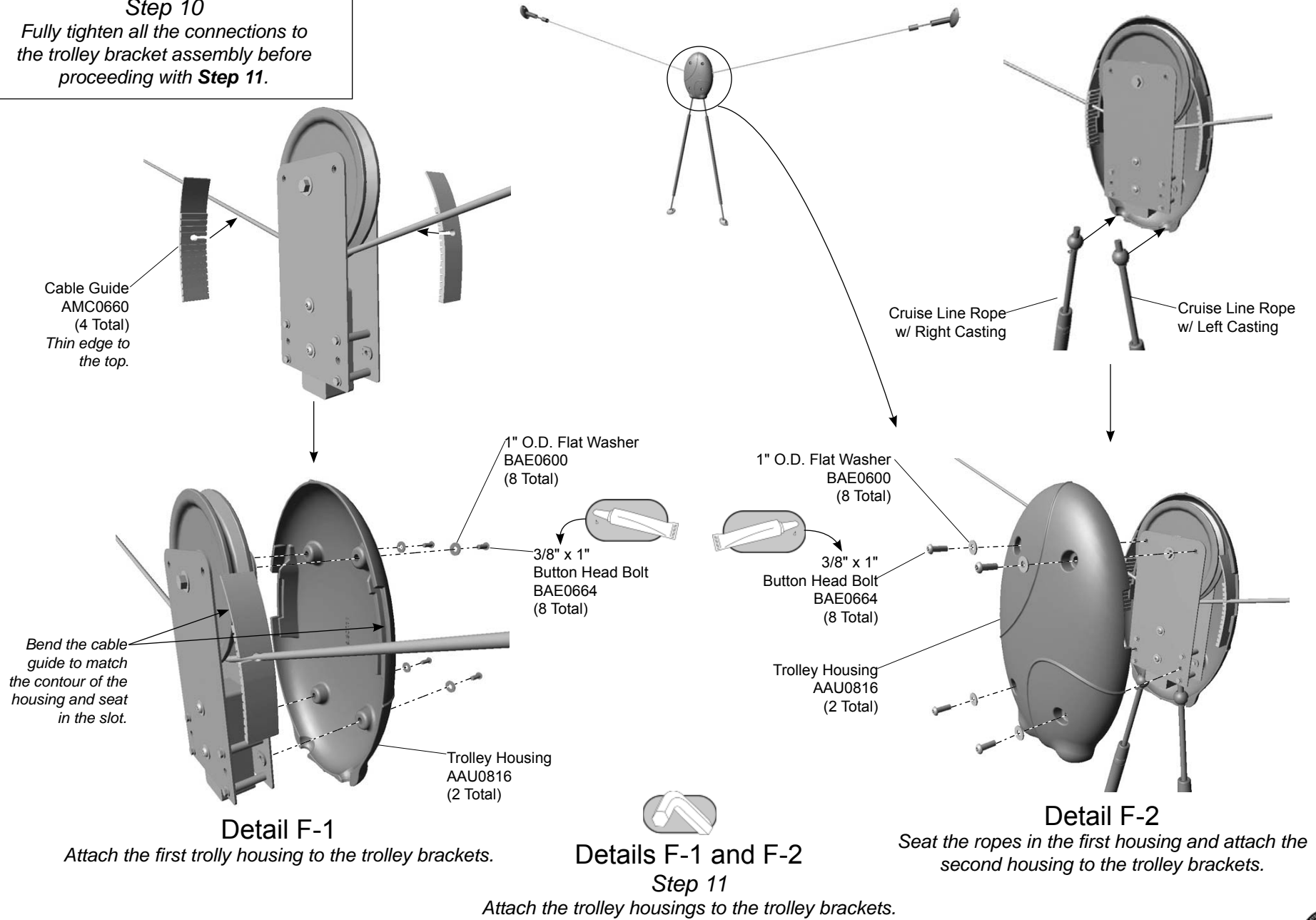


Attach the pulley to the trolley bracket assembly.

Installation Instructions

Step 10

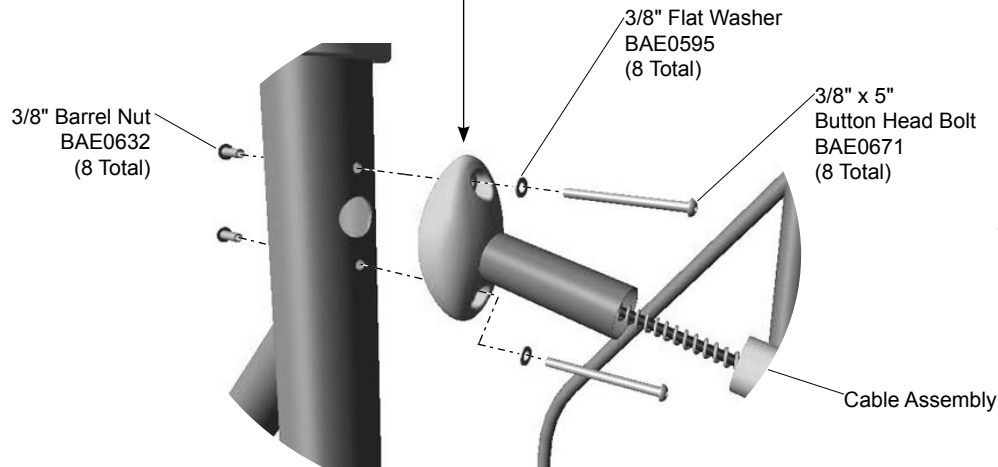
Fully tighten all the connections to the trolley bracket assembly before proceeding with **Step 11**.



Installation Instructions



Very Important Note: Ensure the castings on the cable assembly are oriented with the numbers at the top on the inside and the arrow pointing up on the opposite side!

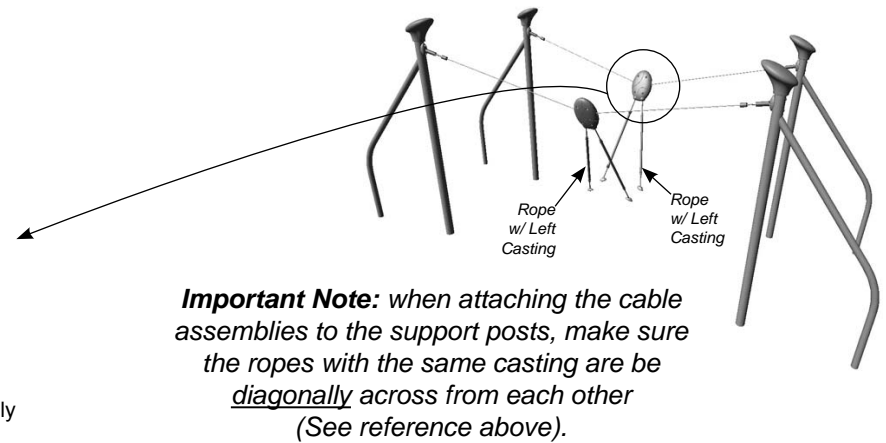


Detail G
Step 12

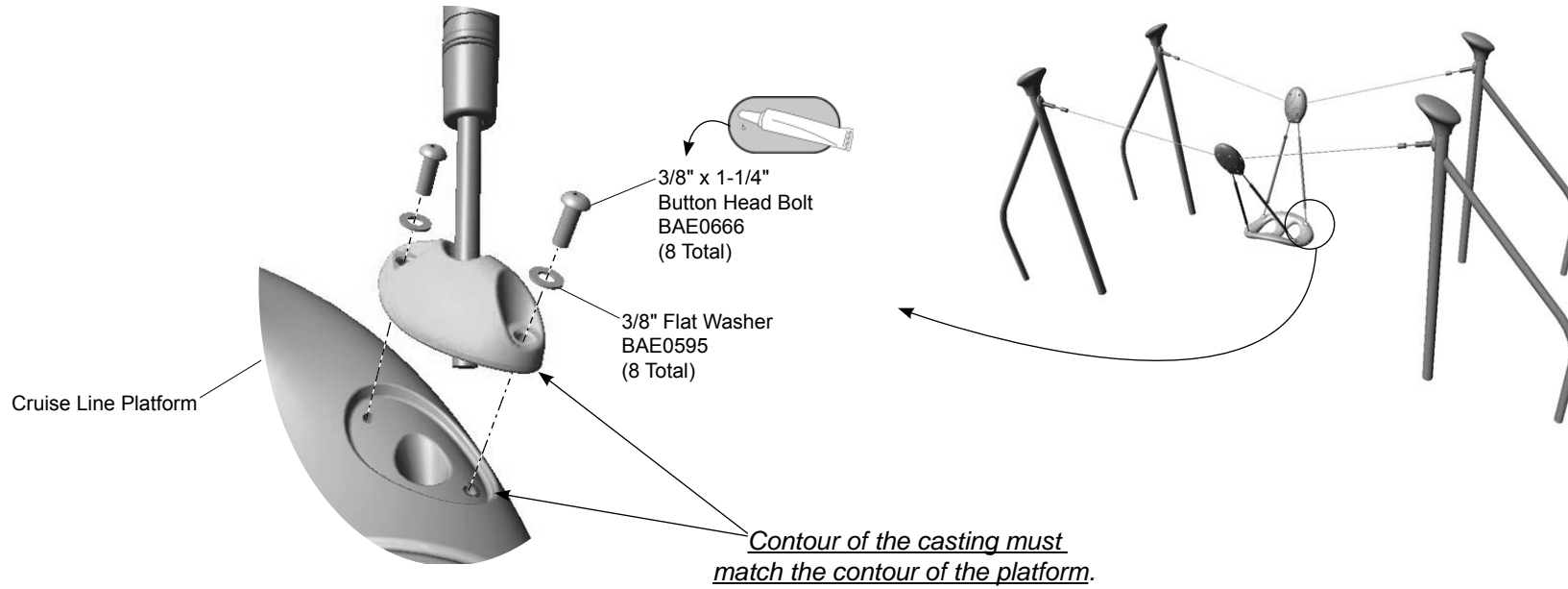


Note: Use of a 7 ft. or 8 ft. step ladder will be needed to perform this step.

Attach the cable assemblies to the support frames.
Important Note: Ensure the support frames are properly footed before beginning this step!



Installation Instructions



Detail H
Step 13
Attach the platform to the ropes.

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 the footings as shown in the **Support Post Footing Detail** on the page 5 of this document. Make sure the footings are laid out and spaced as shown in this **Footing Diagram**.

Step 4: Attach the post caps to the support frames. See **Detail A**. Place each cap on top of a support frame so they point inward when the frames are placed in their footings. Ensure the caps are fully seated on the frames. Use the supplied 3/16" drill bit to drill through the cap and support frame using the indents in the cap as a guide. Thread each screw through the cap and into the support frame. Fully tighten all fasteners according to tightening torque specifications.

Torque Specifications:

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

Step 5: Place the footing frames in their footings. Block and brace for concrete. **Pour concrete and allow 72 hours for concrete to completely cure.**

Step 6: Attach the bumpers to the platform. See **Detail B**. Position a bumper against each end of the platform, apply a drop of thread locking adhesive to the bolt threads, and attach as shown. Fully tighten all fasteners according to tightening torque specifications.

Step 7: Place one end of each rope through a left or right platform casting. See **Detail C**. Remove the frox ball halves from one end of each rope and insert the rope through a platform casting. Place one frox ball half over the ferrule on the end of the rope. Slide the other frox ball half onto the first. Balls are grooved and will slide together.

Step 8: Attach the spacers to the trolley brackets. See **Details D-1 and D-2**. Sandwich the spacer plates between the trolley brackets and attach as shown. Insert the 2.25 in. spacers between the brackets and attach as shown.

Note: For ease of installation, attach the trolleys to the cable wire on the ground.

Step 9: Attach the pulley to the trolley bracket assembly. See **Detail E**. Place a cable into the open end of each bracket assembly and then insert the spacers and a pulley. Spacers will seat in the middle of the pulley. Align the holes and attach as shown.

Step 10: Fully tighten the trolley mounting bracket connections before attaching the pulley housings beginning in the next step.

Step 11: Attach the trolley housings to the trolley brackets. See **Detail F-1 and F-2**. Place a cable guide on the cable on each side of the trolley brackets making sure the smooth end of the guide is to the top. Place the housing against one side of the bracket assembly, bend the cable guide to the contour of the housing and seat in the designated slot of the housing. Apply a drop of thread locking adhesive to the bolt threads and attach the housing to the bracket assembly as shown. Seat the open ends of the cruise line ropes in the trolley housing. Each housing should have one rope with a right casting and one rope with a left casting. Position the remaining trolley housing to the other side of each trolley bracket assembly, apply a drop of thread locking adhesive to the bolt threads, and attach as shown. Fully tighten all fasteners according to tightening torque specifications.

Step 12: Attach the cable assemblies to the support frames. See **Detail G**. Position the cable assemblies between the support posts making sure the ropes with the same casting are be diagonally across from each other when the cable assemblies are hung between the posts (see the reference next to the detail). Position the casting on the end of each cable over the holes in the top of the support frames and attach as shown. **Ensure the castings on the cable are oriented with the numbers at the top before making the connection!** Fully tighten all fasteners according to tightening torque specifications.

Note: Use of a 7 ft. or 8 ft. step ladder will be needed to perform this step.

Step 13: Attach the platform to the ropes. See **Detail H**. Lift the platform up to accept the castings on the end of the ropes, apply a drop of thread locking adhesive to the bolt threads, and attach as shown. Ensure that the contour of the casting matches the contour of the indentation in the platform. Fully tighten all fasteners according to tightening torque specifications.

Step 14: For areas complying with ASTM standard F1487 or the CSA Z-614, apply the age appropriate label to the side panel at eye level.

XX0355 - CRUISE LINE

PART NO.	DESCRIPTION	QTY.
AAU0790	BUMPER - CRUISE LINE	2
AAU0791	CASTING - 5.04" x 3.36" x 2.06" (RIGHT)	2
AAU0792	CASTING - 5.04" x 3.36" x 2.06" (LEFT)	2
AAU0816	CASTING - CRUISE LINE TROLLEY COVER	4
AFM6874	FAB METAL - 14.25" x 8.00" x .28"	4
AFR1474	CRUISE LINE FRAME	4
AMC0660	GUIDE - 10.00" x 1.70" x .375" - UHMW	4
AMC0662	ROPE - CRUISE LINE	4
APL2196	PLATE - 2.88" x 7.00" x .38"	12
ASY0330	CRUISE LINE CABLE ASSEMBLY	2
ASY0357	ASSEMBLY - CRUISE LINE WHEEL	2
ATM0249	SPACER - 1.00" O.D. x .375"	4
ATM0250	SPACER - .50" O.D. x 2.25"	8
BAD0085	THREAD LOCKING ADHESIVE	1
BAE0015	SCREW - SELF THREADING #12-14 x 2.00"	8
BAE0158	WASHER - 1/4" SAE FLAT	16
BAE0159	NUT - 1/4"-20 HEX LOCK w/o NYLON CAP	8
BAE0595	WASHER - 3/8" SAE FLAT	20
BAE0600	WASHER - 1" O.D. FLAT	24
BAE0621	NUT - 3/8"-16 ZINC HEX w/LOCKING RING	4
BAE0632	NUT - 3/8"-16 x 1.25 BARREL w/PATCH	8
BAE0664	BOLT - 3/8"-16 x 1" BUTTON HEAD - S.S.	16
BAE0666	BOLT - 3/8"-16 x 1-1/4" BUTTON HEAD - S.S.	12
BAE06682	BOLT - 3/8"-16 x 3-1/4" BUTTON HEAD - S.S.	4
BAE0671	BOLT - 3/8"-16 x 5" BUTTON HEAD - S.S.	8
BAE0690	WASHER - .531" I.D. x 1.250" O.D. x .060" THICK	4
BAE0720	NUT - 1/2"-13 LOCK	2
BAE0900	WRENCH - 5/32" SHORT HEX KEY	1
BAE0906	TOOL - 5/16 SHORT HEX KEY WRENCH	1
BAE0915	BIT - 3/8 TAMPER RESISTANT	1
BAE0922	TOOL - TT 45 L WRENCH	1
BAE9043	BOLT - 1/2"-13 x 3.25" HEX HEAD	2
BAE9044	BOLT - 1/4"-20 x 3.00" HEX HEAD	8
BPL0313	CAP - PM - ADVENTURE	4
BPL3175	PLATFORM - CRUISE LINE	1
ALB0025	LABEL - AGE APPROPRIATE SHEET	1



The world needs play.[®]

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800-233-8404 o

001-570-522-9800 ESTADOS UNIDOS EXTERIORES
 1000 Buffalo Road • Lewisburg, PA 17837 USA

playworld.com



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 / loctite 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.

Footings

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

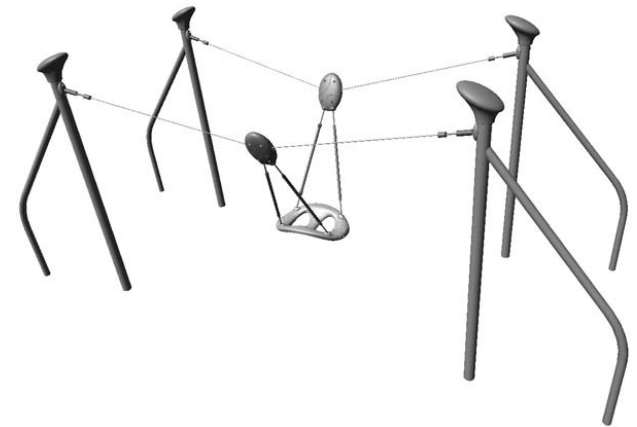
Surfacing

- 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® Model XX0355 Cruise Line





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Inspection Form

Preventive Maintenance

... for Safety's Sake!

- 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.

INSPECTION CHECKLIST

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

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:** The overall use zone measurements for Cruise Line should extend a minimum of 72 inches (1829 mm) from its perimeter.
 - The use zone on either end of the Cruise Line (72 inches [1829 mm]) may be overlapped by the use zone on either end of other equipment (72 inches [1829 mm]).
- **CSA compliance:** The overall use zone measurements for stationary play equipment should extend a minimum of 1800 mm from its perimeter; dimensions and configuration of the use zone are dependent upon the types of included play equipment. The use zone of stationary play equipment may be overlapped by the use zone of adjacent stationary play equipment if the adjacent designated play surfaces are no greater than 700 mm above the protective surfacing level. They should be a minimum of 1800 mm apart.
- **EN compliance:** The overall use zone measurements for stationary play equipment are dependent upon the fall height of the equipment. For a fall height exceeding 1500 mm a formula is applied to determine the use zone (impact zone) of the equipment. There is a minimum of 1500 mm from its perimeter; dimensions and configuration of the use zone are dependent upon the types of included play equipment. Refer to the Use Zone diagram or master structure drawing.

- **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 required** for this equipment.
- 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 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.**

Guidelines

- 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. Critical fall heights for Europe and Canadian compliance shall be listed on the elevation page or master structure drawing if they differ from the ASTM standard. 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.

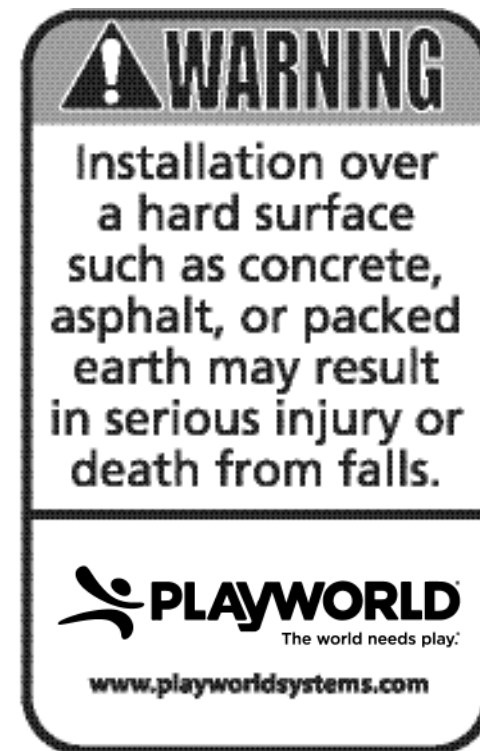
Supervision Guidelines

- 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