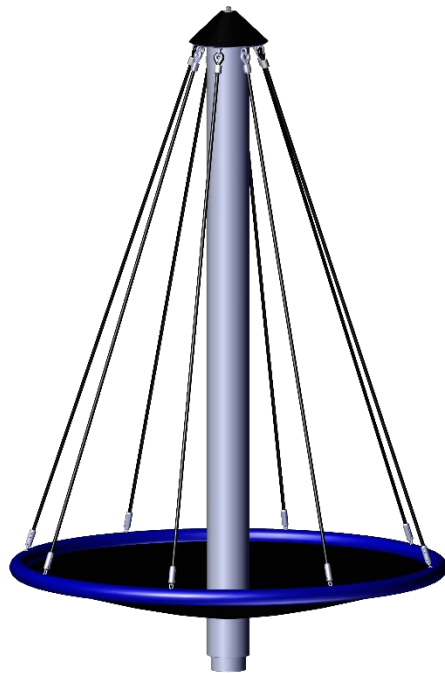


# Installation Instructions



## Bird's Nest Carousel

Model No. 20.01.080

Bird's Nest Carousel 20.01.080

Rev. B - 4/17/2024

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**Please read through the entire installation instructions upon receipt to ensure that all parts have been received and that all customer-supplied materials are procured prior to the start of installation.**

# Introduction

Thank you for purchasing the Bird's Nest Carousel! Before we begin, please take some time to familiarize yourself with the components, tools, and installation steps to ensure adequate preparation for a smooth installation.

## General Information

This equipment should be installed, inspected, maintained, and operated in accordance with ASTM F1487 or CSA-Z614 guidelines.

The installation site shall have a flat and level surface with a maximum slope of 3%.

For product support, including questions regarding installation, or to obtain replacement parts, please contact your equipment dealer.



Following installation, the complete assembly instructions, maintenance instructions, and maintenance records must be sent to the operator who must confirm receipt in writing. See the last page of this document.

**We hereby confirm that this play equipment has been tested and certified in accordance with the play equipment standards ASTM F1487 and CSA-Z614 when properly installed.**

## Drawings/Views

The manufacturer reserves the right to make reasonable changes to technical details of our products for enhanced safety and assurance for users and operators.

## Measurement Tolerances

Due to the properties and characteristics of the components above surfacing level, actual measurements may vary from those indicated in the diagrams. The manufacturer has established safe tolerances for these components.

# Specifications

Assembly Time..... 2 hours  
(after completion of foundations)

Personnel Required ..... 2-3

## Equipment

Height..... 118.5 in (3000 mm)  
Footprint..... Ø 78.75 in  
(Ø 2000 mm)  
Use Zone..... Ø 295 in (Ø 7,493 mm)  
Ø 223 (Ø 5,665 mm) No Overlap  
Fall Height ..... 20 in (500 mm)  
Age Group ..... 5 to 12 years  
Capacity ..... 7  
Largest Component: Post..... 149.63 in x Ø 6.25 in  
(3,800 mm x Ø 159 mm)  
Heaviest Component: Post ..... 213 lb (96.6 kg)

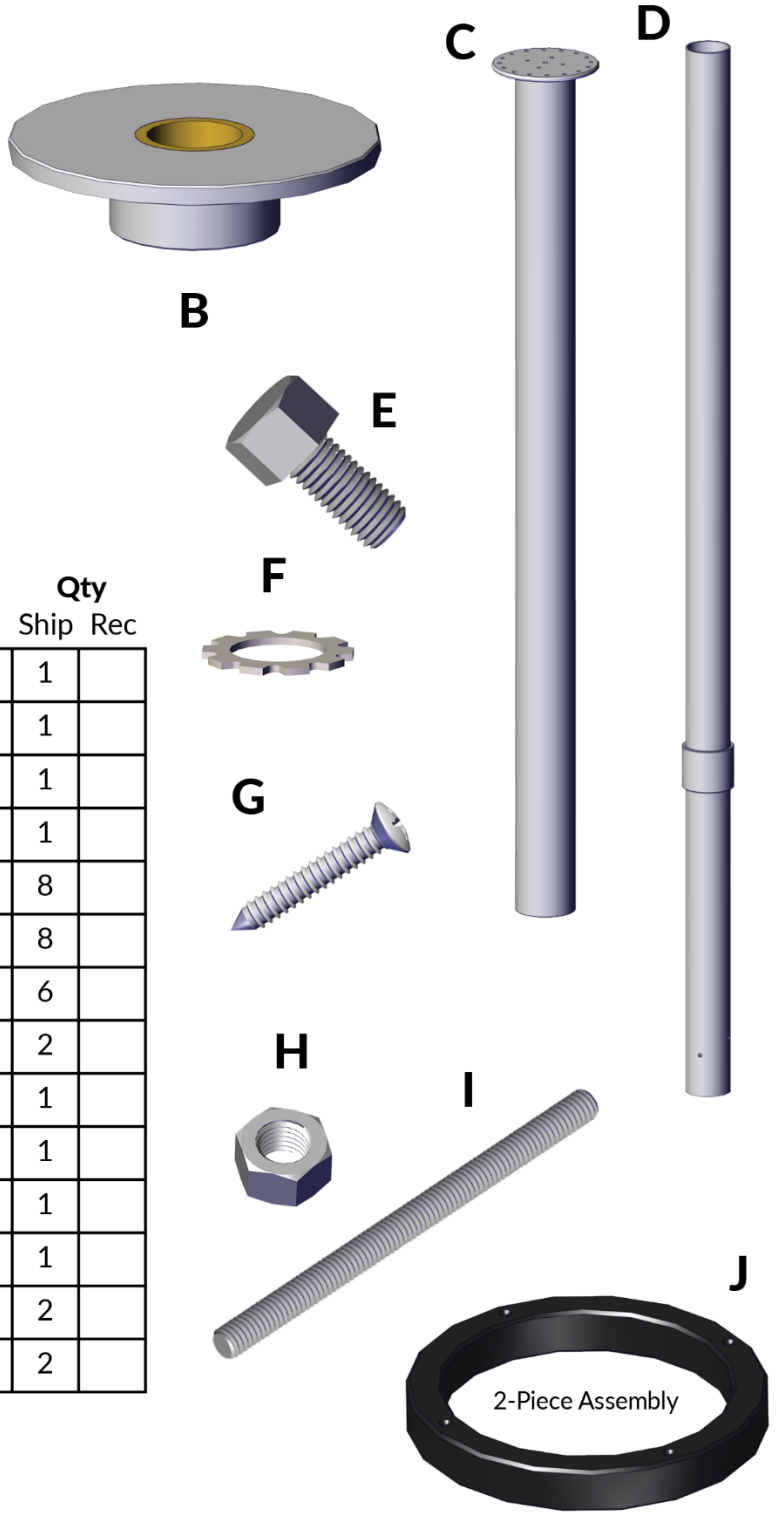
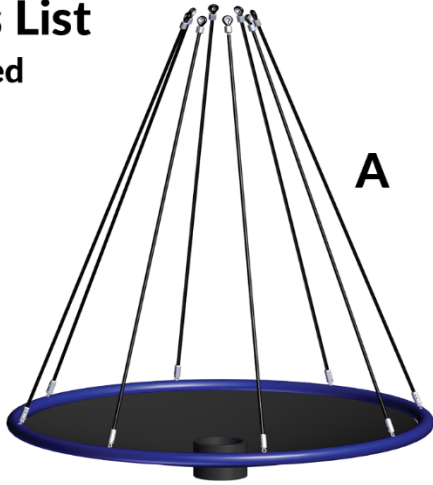
## Foundation

Concrete Mix ..... C25/C30  
Required Concrete:..... 36.5 ft<sup>3</sup> (1.04 m<sup>3</sup>) foundation  
0.3 ft<sup>3</sup> (0.009 m<sup>3</sup>) pipe fill  
Foundation Dimensions..... 51.2 x 51.2 x 23.5 inches  
(1,300 x 1,300 x 600 mm)  
Drainage Stone..... 6.1 ft<sup>3</sup> (0.18 m<sup>3</sup>)  
(4 inches of stone required beneath the foundation)



In the case of sandy and soft soils, the size of the foundation must be enlarged by 50%.

**Parts List  
Included**



Part	Description	Qty	
		Ship	Rec
A	Component Assembly	1	
B	Bearing Plate	1	
C	Outer Post	1	
D	Inner Post	1	
E	M12 Bolts	8	
F	M12 Toothed Washers	8	
G	Torx Screw	6	
H	M12 Hex Nut	2	
I	M12 Threaded Rod	1	
J	Gap Ring	1	
K	Post Cap Bolt Assembly	1	
L	Post Cap	1	
M	Thread Locking Adhesive	2	
N	Compliance Stickers	2	

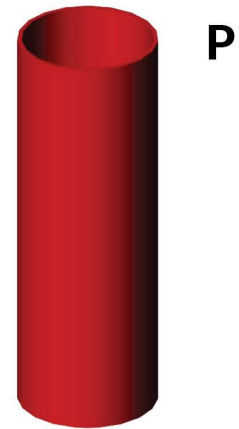
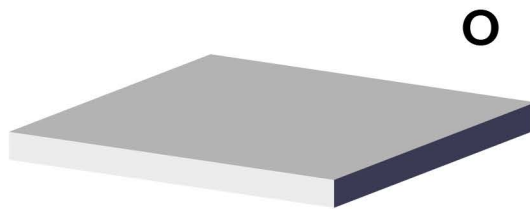


# Parts List

## Customer-Supplied

These components must be procured prior to installation.

Part	Description	Qty
O	Concrete Slab About 16 x 16 in (400 x 400 mm)	1
P	Middle Foundation Pipe* ø 8 in x 26 in Schedule 40 (ø 200 mm x 550 mm)	1



**\*Notes on Foundation Pipe (P):** The foundation pipe is intended to provide easier and safer installation by allowing the majority of concrete to be poured prior to installation so that the post can be erected into the pipe in the cured foundation. At a point during installation, specified in the instructions when the post is erected and level, concrete fill inside the foundation pipe around the post will complete the foundation and secure the structure.

The pipe can be made of any non-deteriorating material with enough integrity to hold back the concrete when poured around it. The pipe diameter specified is the minimum. If using a larger diameter pipe, the ratio of foundation concrete to pipe fill listed in the specifications will be different. Pipe length must be as specified; the pipe will protrude from the top of the finished foundation about two inches. For concrete and stone requirements, please see the foundation specifications on page 3.

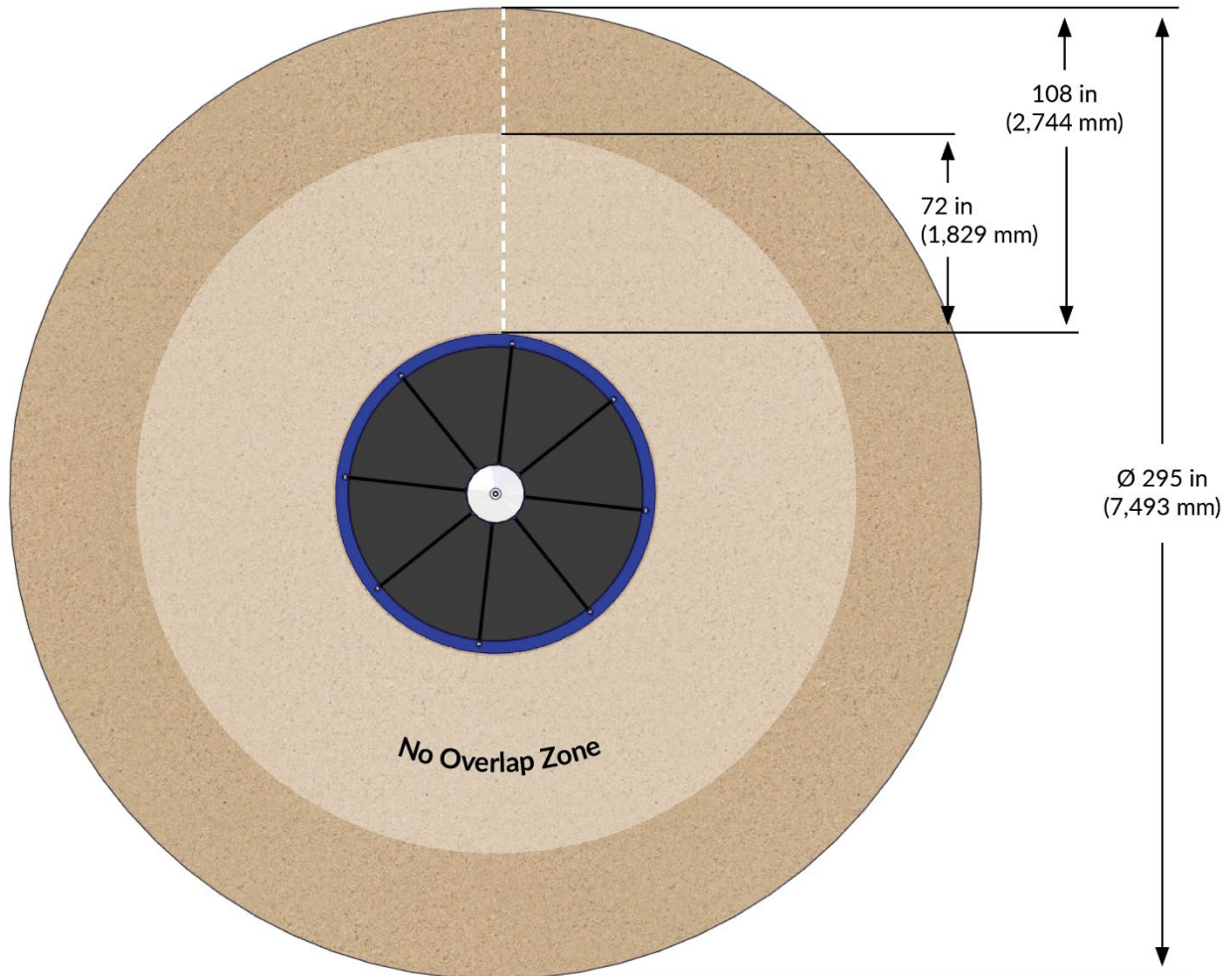
# Installation

## Part A: Site Prep and Use Zone

Be sure that the chosen site is well drained and level, with a 3% maximum slope.

A clear path and adequate protective surfacing are required 108 inches (2744 mm) from the outer edge of the rotating platform as shown below.

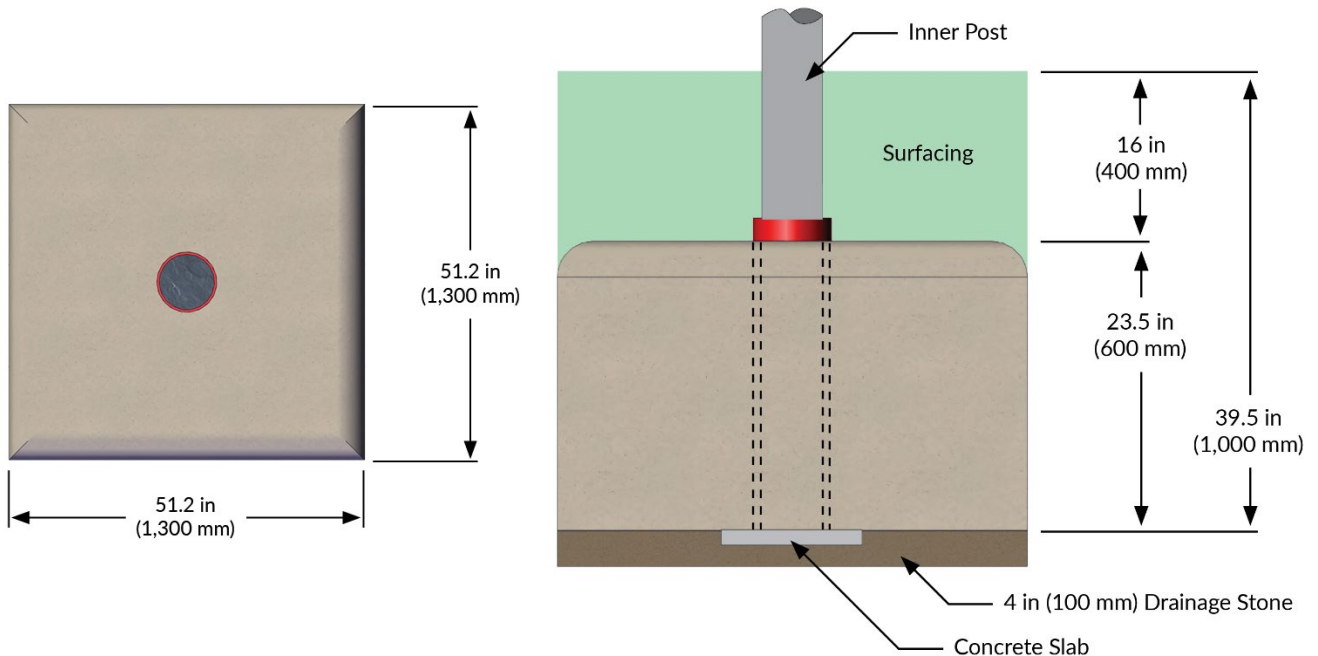
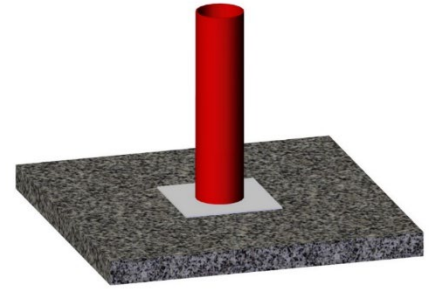
The use zone 72 inches (1829 mm) out from the perimeter of the Bird's Nest Carousel may not overlap any other use zone.



# Installation

## Part B: Foundation

- A concrete foundation is required for the Bird's Nest Carousel.
- Dig a foundation hole 51.2 x 51.2 inches wide and 43.5 inches deep, measured from the top of the intended surfacing level.
- Add 4 inches of drainage stone to the bottom of the foundation hole.
- In the center of the foundation hole, nestle the concrete slab (O) into the drainage stone so that the top of the slab is flush with the top of the stone. Check that the depth from the top of the concrete slab to the intended top level of surfacing is 39.5 inches. Adjust as needed.
- Place the foundation pipe (P) on-end onto the concrete slab as shown. Check that the slab is level and the pipe is perfectly straight.
- Measure 23.5 inches (600 mm) above the top of the drainage stone and slab. Mark this point on the inside wall of the foundation. Pour concrete into the foundation hole, around the pipe, until the concrete level reaches the 23.5 inch mark.
- Round the top edges of the foundation to a 4 inch radius and allow to set for the concrete manufacturer's recommended time.



The required material depth (subgrade + surfacing) of 16 inches (400 mm) is critical to meet the manufacturer's specifications for safe use and compliance.





Apply at least 5 drops of thread locking adhesive to the threads of all nuts and bolts when installing.

# Installation

## Part C: Structure

- Slide the M12 threaded rod (I) through the holes at the base of the inner post (D) and secure on each end with M12 hex nuts (H) tightened against the post as shown below. Be sure the rod is centered in the post.
- Insert the base of the inner post into the foundation pipe so the end of the post is flat on the slab. Use a level to ensure that the pipe is straight.

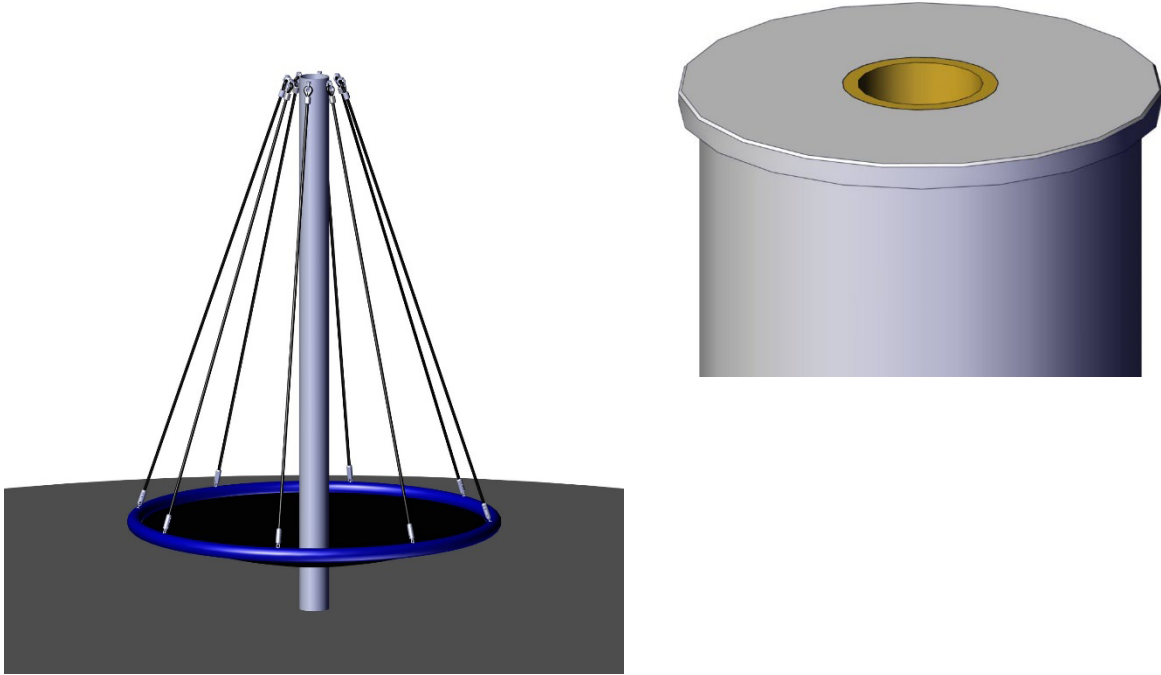


*Note: Your post may have two sets of holes. Please install the one threaded rod into one of either sets of holes.*

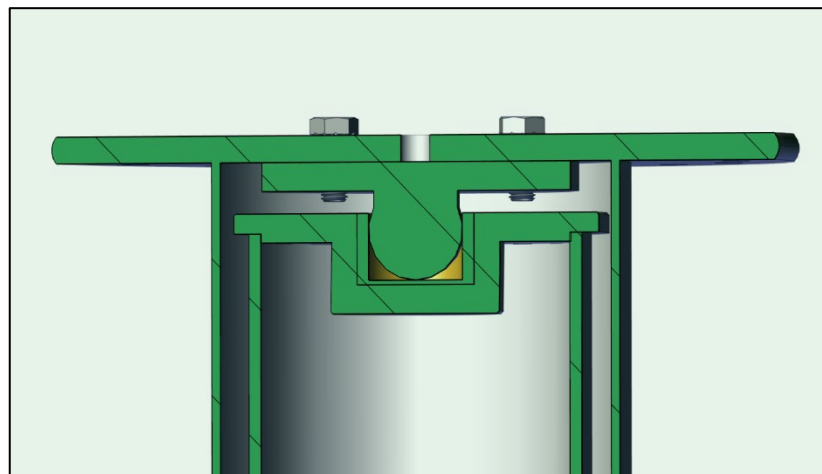


- Pour concrete into the foundation pipe, ensuring the post is straight, and allow to dry for the manufacturer's recommended amount of time.

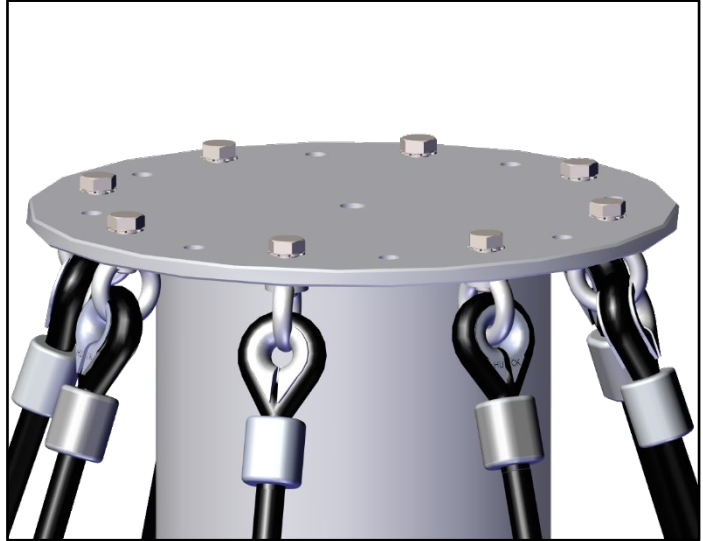
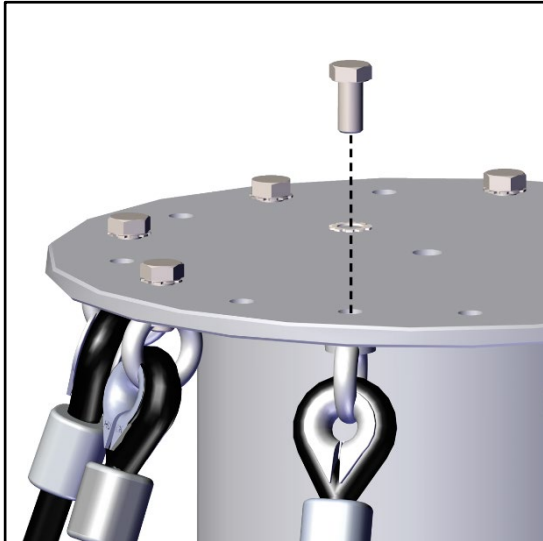
- Once the concrete has completely hardened, slide the component assembly (A) over the inner post through the collar at the center of the Bird's Nest.
- Seat the bearing plate (B) into the top of the post.



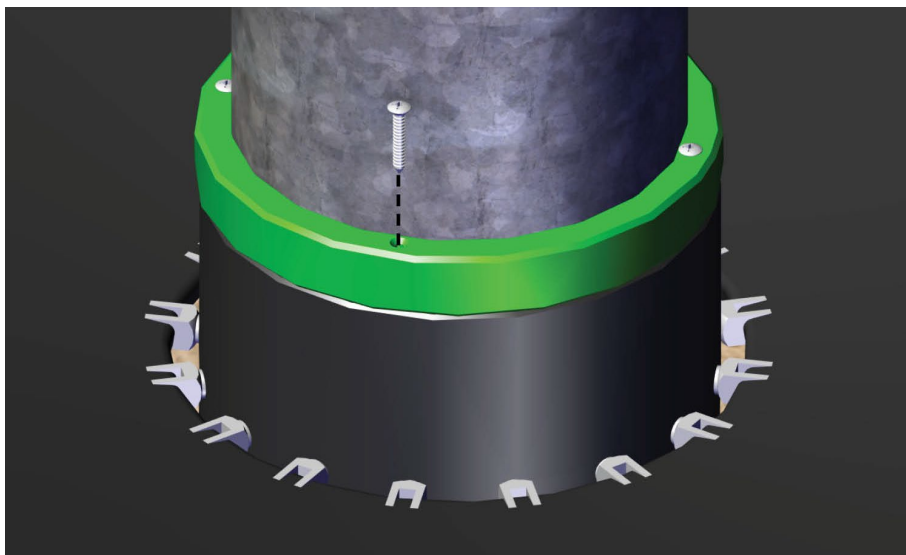
- Slide the outer post (C) down over the inner post until the ball inside the top plate is seated into the bearing plate (you won't be able to see it, but when seated properly the outer post can rotate). The outer post fits over the bottom friction sleeve of the inner post, and inside the collar at the center of the Bird's Nest.



- Connect each carousel support rope to the top plate. Use the 8 M12 bolts (E) and 8 toothed washers (F) to attach the eye nuts at the end of each rope to the underside of the top plate as shown. Attach to every other perimeter hole in the top plate.



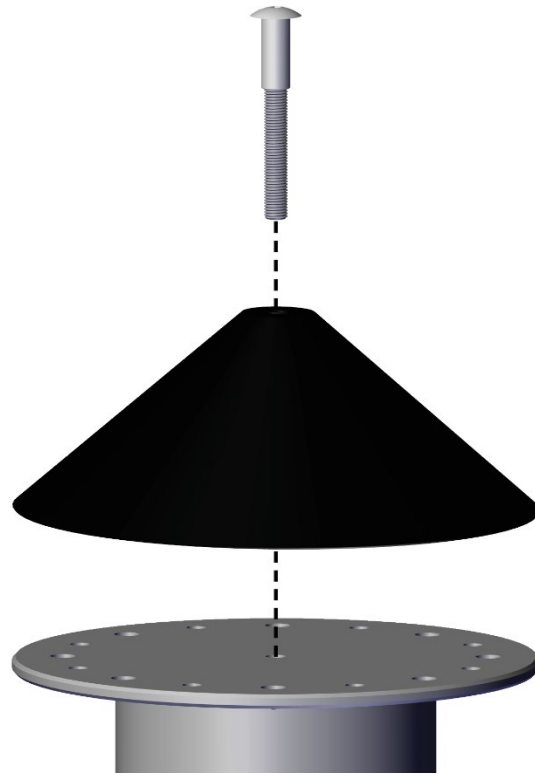
- If necessary, adjust the Bird's Nest so that the support ropes run straight from the top plate to each corresponding connection on the Bird's Nest.
- Fit the two halves of the gap ring (J) (shown in green below) around the post, seated on top of the Bird's Nest collar. Hold the ring close but not tight against the post, then use the six Torx screws (G) to anchor the ring to the collar.



## Post Cap Installation

- Insert the post cap bolt assembly (K) through the top hole of the post cap (L) and thread into the center hole of the connection plate as show.
- With the cap resting against the connection plate, tighten the bolt assembly against the cap. Do not over tighten.

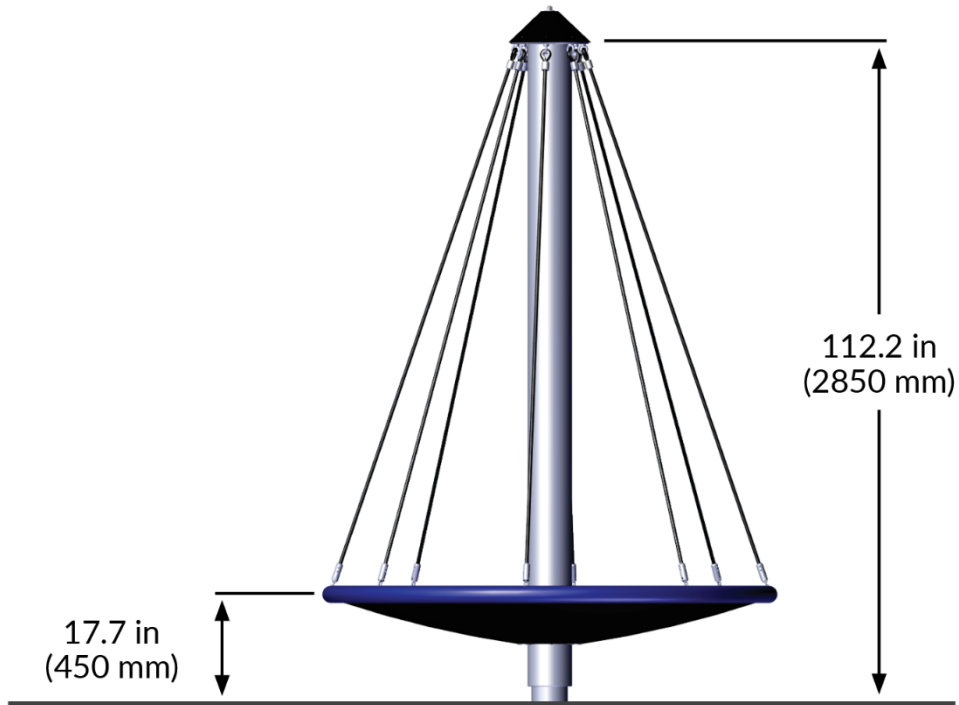
Note: the example is shown with no connections made. At this point in your assembly, all connections to the plate will have been made.



## Finishing

- Add and grade 16 in (400 mm) subgrade plus surfacing per ASTM F1292 to the use zone. With surfacing, the final height of the carousel should be about 118.5 inches (3000 mm).
- If using loose fill surfacing material, mark the post at the final level of the surfacing so that the proper level can be maintained.
- Place the compliance stickers (N) on the carousel outer post in an accessible location.
- Clean up the area and remove all tools, extra materials, or other assembly aids before opening the equipment for use.

## Critical Dimensions



## Final Checklist

- The Bird's Nest Carousel was installed according to the instructions without modification, except if instructed by the equipment supplier.
- Check foundation stability.
- Proper surfacing has been added and fall heights checked.
- Compliance stickers have been adhered and are visible.
- Recheck all measurements for ASTM F1487 or CSA-Z614 conformity.

# Maintenance

To maintain safety, the operator must ensure that proper inspection and maintenance is carried out by a competent person in accordance with ASTM F1487 or CSA-Z614, and the following manufacturer recommendations.



Damage which may compromise safety must be repaired immediately. If repairs cannot be immediately carried out, the operator must close the equipment to prevent use.

## Replacement Parts

Replacement parts may be obtained through your equipment dealer. Parts not obtained through a dealer must conform to the manufacturer's specifications.

## Break-in Period

Between 1-2 weeks after installation (equipment break-in period), check all threaded connections and tighten if necessary.

## Inspection Frequency

We strongly advise you to carry out inspections and maintenance work within the specified periods as use of the equipment, the weather and malicious vandalism cause wear and tear that compromises the safety and function of the equipment.

With average use and environmental conditions, check the following at or before the recommended frequency. If the equipment is exposed to high-use or harsh environments, the inspections should be performed at a shorter frequency. Inspections should also be completed per ASTM F1487 or CSA-Z614 guidelines.

### Monthly

- Check all connections and fittings for wear and tear and tighten if necessary. Repair or replace damaged or missing parts.
- Check ropes for excessive wear. If ropes are worn through to the steel wire core, the equipment should be closed to prevent use until the rope is repaired or replaced.
- Check surfacing for adequate depth and fill in as necessary.
- Check the ground surface of fall protection for hard objects.
- Check that moving metal parts (bearing, post assembly) move smoothly and are not worn. Do not lubricate the bearing.

### Quarterly

- Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.
- Check the stability of the foundation and post.
- Tighten all forms of attachment.

### Yearly

- Check for corrosion on metal components. Apply zinc paint to any corroded or scratched areas.

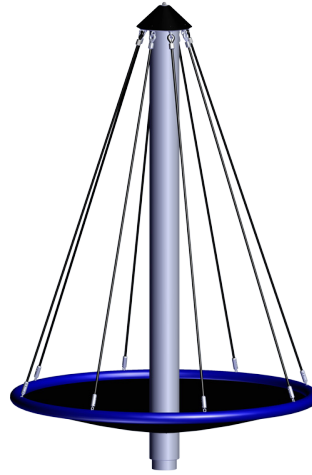




# New Product Handover



**Model Name:** Bird's Nest Carousel  
**Model Number:** 20.01.080S  
**Serial Number:** \_\_\_\_\_



## Operator

---

Name of operator (town, school, business, etc.): \_\_\_\_\_

Street: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Representative in charge: \_\_\_\_\_

## Installer

---

Name of installation company: \_\_\_\_\_

Street: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Representative in charge: \_\_\_\_\_

### Installer Checklist:

- Adequate concrete foundation poured per instructions.
- Structure assembled per the instructions without modification (unless approved by the manufacturer.)
- Final inspection conducted and passed per instructions.

Operator received the complete assembly instructions, inspection & maintenance instructions, and maintenance log. Installer completed work to the manufacturer's specifications.

Operator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Installer Signature: \_\_\_\_\_ Date: \_\_\_\_\_