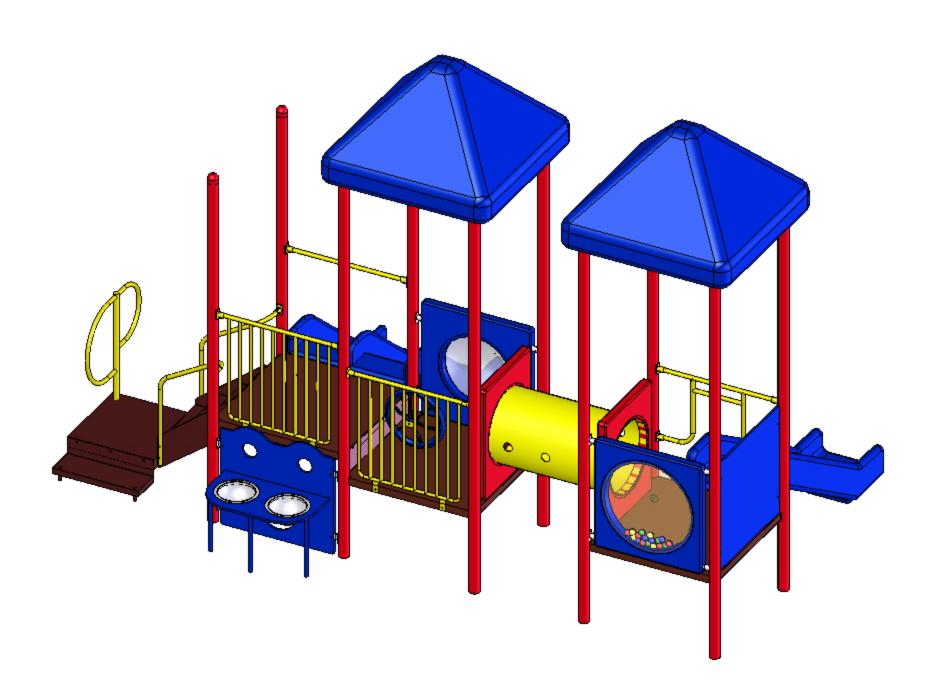
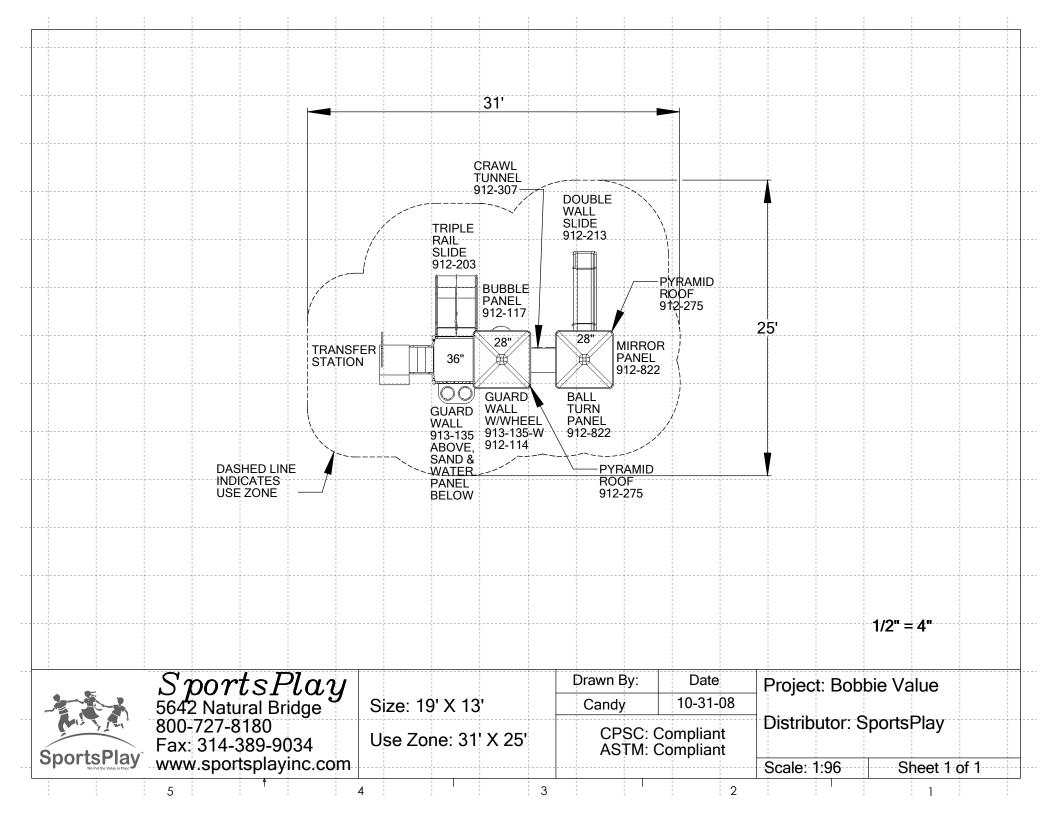
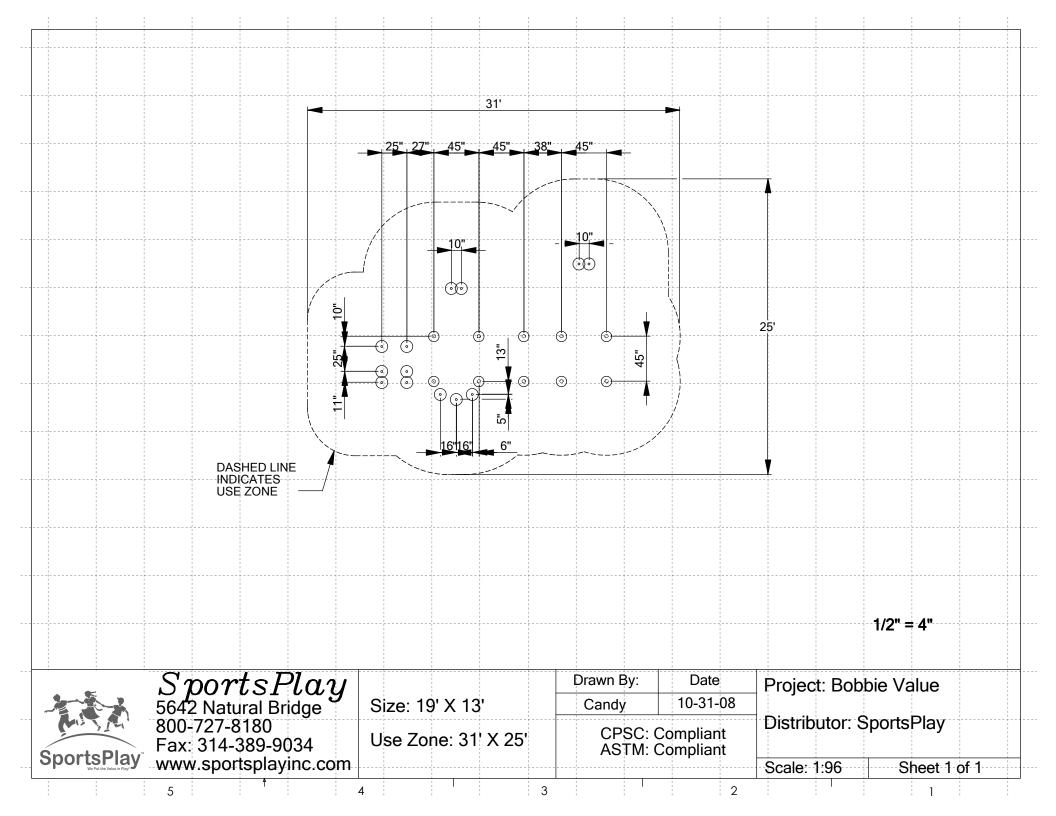


Bobbie (Value) Modular Structure Installation Booklet

Project: Bobbie Value Distributor: SportsPlay







Tool and Material Checklist

- To dig holes, the best method is a tractor with an auger. Use a 12" auger bit. No matter what you use, there will be a considerable amount of hand digging as well
- Shovels, long handled spades
- Post hole diggers
- Wheelbarrows
- Large construction bar (generally 5' long).
- Spray paint, to mark ground holes
- Pry bar
- Claw hammers
- Large dead-blow rubber hammers
- Small (3lb) Sledgehammer, to use in blocking the posts
- 7/32", 3/6", 1/8" Allen wrenches: These are very important. Several different types are helpful (socket style, small "L" arm, wrench styles etc.)
- Vise grips, large, regular and needle-nose
- 3/4" and 1/2" and 9/16" sockets, both 1/2" and 3/8" drives
- 6' and 8' stepladders, strong ones
- Extension cords (also duplexes to run more than one cord)
- 1/2" drill and 3/8" drill
- 1/2" and 1/2" drill bits and 1/2" spade bits
- Levels: magnetic torpedo, 4' long etc. (as many as possible)
- Shims and blocks from scrap lumber and a saw to cut sizes on site
- Small, skinny, flat shims are helpful in raising posts etc. 2" by 4" and 2" by 6" and Plywood are also helpful

- Pencils and markers
- String line
- Bar clamp 4'
- Sometimes bracing material is helpful (2" x 4" x 6' studs with sturdy lag bolt/nut combinations)
- Files, sandpaper, wood scraps
- Stones
- Cement
- Surfacing
- One brick per post

Introduction

BEFORE STARTING INSTALLATION OF YOUR PLAYGROUND, PLEASE READ INSTRUCTIONS THOROUGHLY.

SITE REQUIREMENTS:

The Playground system is designed to suit a level site. Should there be any falls or slopes on the site; care should be taken to accommodate the entry and exit points and to maintain the correct height. There should not be more than 3" of drop in grade per every 10'.

The site must be inspected for adverse conditions: All sites must be checked for existing utilities such as electricity, gas, water or any other underground hazards. 1-800-DIG-RITE is the number to call to have the services located.

- 1. Roots, rocks, or other natural obstacles that may pose as a trip hazard.
- 2. Poor drainage areas.
- 3. Broken glass or foreign objects around building site.

MAINTENANCE:

As an owner, it is most important that you are aware of your responsibility to insure safe use of your new equipment. It is necessary to install equipment correctly according to the installation instructions provided and inspect the equipment at regular intervals. During inspection, if any part is found damaged or excessively worn, equipment should immediately

be put out of service while the part is replaced. Lack of maintenance will result in premature wear, reduced life expectancy, and possible failure that might result in injury.

All SportsPlay Equipment play events have been engineered to meet all applicable safety guidelines, but if installed improperly, these problems may occur:

- Entrapment gaps (between 3 1/2" and 9")
- String Entanglements
- Protrusions

Make sure that any bolt end that protrudes more than 2 threads past the face of the nut is trimmed and deburred smoothly. Always double-check your work.

Installation must adhere to the manufacturers assembly manual and all other applicable safety guidelines.

PLAY AREA:

The area immediately above and around the play structure must be free of any obstructions such as:

- Trees
- Other Play Equipment
- Buildings
- Overhead Power lines

Make sure the play area has all the required safety surfacing and the minimum fall zones as required by the safety guidelines. These guidelines can be found at www.cpsc.gov.

CHILDREN MUST BE SUPERVISED AT ALL TIMES. No playground is safe without adult supervision!

Quick Guide

SITE – Make sure the area of installation is relatively level, free of obstacles and underground utilities. If a slope exists, care must be taken to accommodate entry and exit areas to insure they maintain the correct heights. Call 1-800-DIG-RITE to have a technician check the area for underground utilities. This service is free.

MATERIAL INVENTORY – Locate your Component Checklist and the 2d top down drawing included in the instructions. Use both to identify, inventory and best position the parts around the perimeter of the area. If you find damaged or parts missing, contact your SportsPlay Distributor immediately.

INSTRUCTIONS – Thoroughly read the instruction booklet BEFORE beginning the installation. Pay special attention to the pages describing post and deck installation. These are the 'bones' of your playground. If they are not properly installed, the remaining events will not install correctly. KEEP THESE INSTRUCTIONS ON FILE.

TOOLS – Locate the Tools Checklist in the instructions. Make sure all necessary tools are available at installation time. If you are using volunteers, send a note to them that includes the tool list. You may be able to borrow most items instead of renting.

SUPPLIES – Set your installation date and order supplies from your local building center. You will need some flat

concrete stones for blocking holes, some scrap lumber for bracing and cement. You can figure about 2 80# concrete bags per hole.

DECK LAYOUT – Find the grid drawing in the instruction booklet. Decide which way to orient the structure. ALL fall zone measurements MUST be accommodated. Locate the lowest deck on the drawing. You can start laying out the structure by placing the lowest deck on the ground and then double check your measurements. Measure twice, install once! Consult the instruction booklet for post and deck installation instructions.

BRACING – As the decks and kick plates are installed, be sure to level the posts and place braces in the holes to keep them from shifting. Periodically, plumb and level all posts as you work your way around the playground.

COMPONENT INSTALLATION – Consult the instruction booklet for separate installation instructions for each component on your playground. Begin installing from the lowest deck in a clockwise rotation around the structure back around to the starting deck. Tighten panels as you go, making sure to plumb and level posts.

VISUAL INSPECTION – After all components are installed and tight, do a visual inspection to ensure the panels and posts are level, in the proper place, and look good with respect to one another. Once satisfied, you are ready for concrete.

CONCRETE – Mix the concrete according to the directions. DO NOT mix directly in the hole. Fill each hole to within 2 inches of the original surface. Crown for drainage, and cure 48 hours.

SECURE AREA – Fence off or lock area to insure that NO ONE can play on the playground until it is completely finished. You may consider contacting local law enforcement to inform them of the new installation and ask them to check the area frequently during the night.

BACKFILL AND CLEANUP – 48 hours after pouring cement, backfill all of the holes with dirt to the original ground level and make sure the area is free of any tools, hardware, or sharp objects.

SURFACING – Use the chart on page 8 to decide how much safety surfacing is required. Before spreading loose fill surfacing, be sure to install a weed barrier outside the fall zone dimension, then spread the safety surfacing.

LAST THING – Make one more tour around the playground and physically make sure all hardware is tight.

OPEN FOR PLAY – After the safety surfacing is installed and the hardware has been checked for tightness, your playground is ready for play.

MAINTENANCE - Consult your instruction booklet for the maintenance checklist. Schedule and complete periodic maintenance checks of the entire playground. If any hardware is worn, or any item missing or broken, close the playground and contact your SportsPlay distributor for replacement parts.

Check resilient surfacing depths, move or add additional surfacing if necessary. Make sure the playground area remains free of obstacles, broken glass or other sharp objects.

Safety Surfacing/Fall Heights

You must consider the type of safety surfacing you will use before beginning the installation process. There are two general types, organic/loose fill or synthetic unitary. Both materials have advantages and disadvantages and it is likely that your client's budget will dictate the material of choice. Always have all options available as product quality and long-term performance may cause your client to reevaluate their original budget.

When installing a unitary safety surfacing material such as rubber mats or poured-in-place, you will need to pour a concrete slab so that the rubber material can be secured. This type of product cannot be placed on dirt.

If a loose fill surface such as wood chips is selected, you will need to consider containment borders. There are many products to choose from including hard plastic and natural products such as wood. Creosoted railroad ties are NOT recommended. Loose fill materials like wood chips are easily displaced, so 12" deep is generally satisfactory. Also remember that loose fill will compress with repeated use.

Weed mat: Some use a landscaping fabric material that allows drainage but prevents weed growth. Weed mats are installed after the structure is installed but before the resilient surfacing is installed.

Borders: Building borders above ground, below grade, or on grade depends upon the area in which you live. Assuming you must use 12" of resilient surfacing, there are three basic types of installation:

- 1. 12" below existing grade
- 2. 6" below and 6" above existing grade
- 3. 12" above existing grade

The tallest deck on the unit generally defines the maximum fall height of a structure. If upper body equipment (horizontal ladder) is attached, the fall height is then the distance from the highest part of the equipment to the protective surfacing. Refer to the Top Down View to determine the maximum fall height.

Since the structure will be installed at dirt grade, the height of the resilient surfacing must be determined and factored into the height of installation of decks. For example, if the resilient surfacing will be 12" deep, a 3' deck height will actually install at 4'. When the structure is completed and the surfacing is installed, the deck then will be 3' above the level of the resilient surfacing.

Safety Surfacing Chart

Table – Critical heights (in feet) of Tested Materials

Chart taken from The Handbook for Public Playground Safety written by the U.S. Consumer Product Safety Commission (CPSC) page 5 (www.cpsc.gov).

Material		Uncompressed		Compressed
		Depths		Depths
	6"	9"	12"	9 "
Wood	4	10	11	10
Chips				
Double	6	10	11	7
Shredded				
Bark Mulch				
Engineered	6	7	>12	6
Wood				
Fibers				
Fine Sand	5	5	9	5
Course	5	5	6	4
Sand				
Fine Gravel	6	7	10	6
Medium	5	5	6	5
Gravel				
Shredded	10-	N/A	N/A	N/A
Tires	12			

These directions are written based upon a depth of 12" of resilient surfacing.

Do not forget to calculate the compressed resilient surfacing depth needed and adjust your "dirt grade height" accordingly.

Punch List

Step 1: Layout

- 1. Lay decks on ground in the desired location based on topview layout and measure from all corners to insure there is adequate room. (Refer to Grid Drawing pg. 11)
- 2. Most installers usually like to orientate the playground so that the entry point of the playground is facing either the sidewalk or the direction from which the children are coming.

Step 2: Holes

- Mark the locations of all post holes by laying out all the decks in the correct orientation. Make sure all the decks are touching each other and flush on the edges. Then use the center point of each deck corner and marking them with paint or a wooden stake.
- 2. After the holes are marked, move the decks out of the digging area and dig the first four holes per the footing drawing on page 12.
- 3. Fill or dig the depth of 1 main hole to what is required; this hole will be used to get the other three holes the same depth in reference to each other. Make sure the hole is flat and tamped solid, then place a small piece of plywood or brick in the bottom. You must take this in account when determining the hole depth.
- 4. Now, if possible, use a transit to maintain the same hole depth on the remaining three holes, if you don't have access to a transit, then park a line on the first post about two inches above the dirt level. Then measure up from the bottom of the post to this mark and mark a line

on the other three posts at the same distance. Now use a four-foot level across to each line, raising or lowering as necessary to make the lines level. Repeat this for the remaining two posts.

Step 3: Deck and Post Installation

- 1. Begin by installing the lowest deck and go up from this one. Measure deck height plus the amount of safety surfacing and make a mark on the post, this is the height of the deck clamps, for example if the deck is to be 36" high and you are planning on adding 12" of safety surfacing then the height from the dirt would be 48". All other decks heights will also be the labeled height plus the amount of surfacing.
- 2. Install a deck clamp per instruction page 15. Tighten all hardware.
- 3. Now make sure that you have two other helpers and the required deck clamp hardware.
- 4. Stand the correct posts into the holes and lift the deck on top of the clamps and install hardware. Be sure to brace the posts to keep them from moving.
- 5. Continue building the main structure by adding the overhead climber, kickplates and other decks and posts per the illustration until all the decks, kickplates, and posts are installed. Make sure the posts are level as you tighten the hardware, this will make the component installation much easier.
- **6.** It may be necessary to brace the deck and posts with lumber to make sure they stay in place and level. Also make sure the deck was installed level.

Step 4 – Component Installation

1. Begin installing the components by working from the lowest deck around to the highest deck. Install the components in either a clockwise or counter clockwise rotation.

2.

Step 5: Concrete

- 1. Once all components and posts are tight and level, you may concrete. A good rule of thumb is two 80 lb. bags of concrete per hole. Do not "dry bag" the concrete, always mix per instructions on concrete bag. Be sure to leave concrete about 2" from the top of the ground to allow backfill.
- 2. Be sure that all splattered concrete is washed off of the posts and components while it is still wet.
- 3. Block off installation area for at least 48 hours.

Step 6: Final after 48 hours

- 1. Return in 2 days to backfill concrete, drill and install drive (roll) pins per instructions, and install safety surfacing.
- 2. Inspect all components to insure the hardware is tight and all panels are level.
- 3. Make sure all tools and dropped hardware are removed from play area.
- 4. Open the playground.



3-1/2" Post Footing

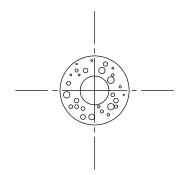
Post Installation:

Footing size may vary due to local soil and weather conditions. Base of fooing MUST be below the frost line.

- Dig holes straight down, with a flat bottom and 12" wide making sure to dig holes wide and not cone shaped.
- Hole depths are 22" deep (this depth changes slightly with grade).
- Place a brick or block in the bottom of the hole. Post Depth in concrete varies based upon surfacing used. The posts are designed such that only 24" is allotted for use with surfacing and concrete. Ex: Post installed in 12" of surfacing are 12" into the concrete, not 22". Post installed 2" of Rubber surfacing are 22" deep in concrete.
- Post is placed on top of the brick.
- If the bottom is not flat and roomy, there will be no room to adjust. It is much easier to have too much room rather than not enough.
- You can dig by hand using a posthole digger but a tractor with a 12" auger will make the task much easier.
- Post tops should be level with one another.
- USE A LONG, HEAVY CONSTRUCTION BAR to adjust levels of posts, legs, etc. DO NOT try to level by pushing posts at shoulder or waist length. Carefully bump the posts at the bottom IN THE DIRECTION YOU WANT THE POST TO GO.
- Mark holes and dig by laying the deck on ground and using it as "jig". Place (4) deck clamps, one per corner, spray paint though middle of clamp onto ground. This marks where the centers of the postholes should be.

- Remove the deck and clamps from the area.
- Dig the (4) holes 22" deep and 12" wide. Holes are straight down and flat-bottomed. Install 10" diameter plywood in hole bottoms and place a brick in the bottom of the hole.
- Use a marker to mark 22" from bottom of posts. Use these marks so you can run a 4' level across marks to make sure the tops of the posts are equal to each other. If line marks are on bubble, then post tops should be on bubble to each other.
- Install the red plastic ends caps on post bottoms.
- Since your holes are 12" diameter and post are centered in holes you have approx. 4-1/2" all around the post.
- Block the posts into center of holes when posts are on bubble. Use scrap lumber and wedge to solidify the posts in their holes as you level the posts. Re-blocking may be necessary at times in order to acheive level. You may also have to widen your holes if they are not dug on center.

Top down view of post set into hole.

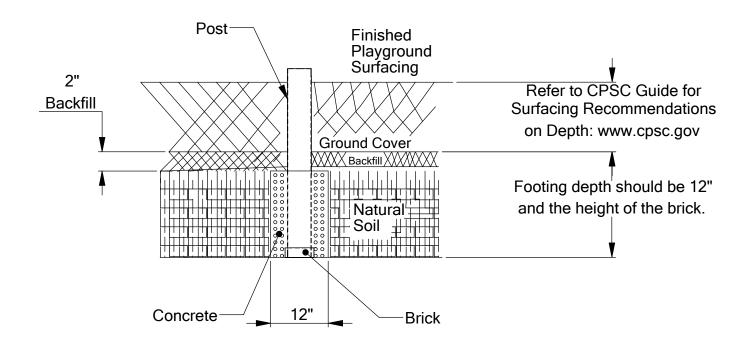


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Sheet 2 of 2

3-1/2" Post Footing

Side View of installed Post



Sheet 1 of 2

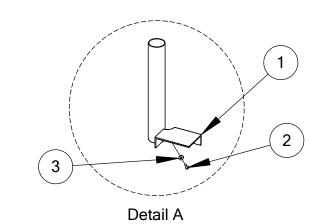
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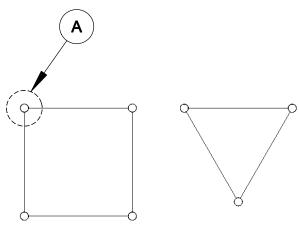
SQUARE DECK 912-334

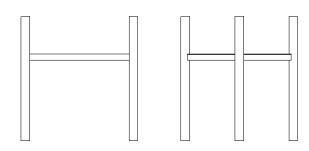
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	905-903	Square Deck	1
2	126-703	3/8" x 1" Button Head Bolt	8
3	316-601	3/8" Flat Washer	8

TRIANGLE DECK 912-333

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	905-904	Triangle Deck	7
2	126-703	3/8" x 1" Button Head Bolt	1
3	316-601	3/8" Flat Washer	1







Sheet 1 of 2

5

Deck Plan:

The deck(s) connect to the main upright posts using nuts factory installed in the post according to the specifications found on the Top Down View.

INSTRUCTION:

These are two methods:

The BEST method is to make a table or stand to place your deck on at the required deck height. The table will stabilize the deck so you can level it. You can make a table from sawhorses. Deck stand or table holds deck while you build around it.

Block stabilize the posts while table stabilizes the deck.

The second method is to use two people to hold the deck at the required height and attach the bolts through the deck to the post. The decks bolts directly to the post through the factory installed riv-nuts. Use the 3/8" x 1" button pinned stainless steel bolts with a washer through the holes in the corners of the decks. There are two holes in each corner to bolt through. The deck and posts will stabilize more as you add components.

SPECIFICATIONS:

Event: Steel Decks are constructed of 12 ga. perforated steel.

Paint: Oven cured plastisol.

Hardware: Stainless steel tamper resistant.

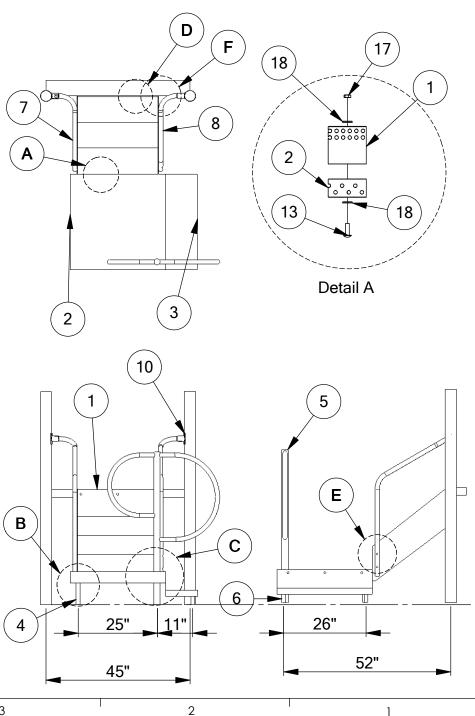
MAINTENANCE:

Touch up any marred paint surfaces. Periodically check hardware for integrity and tightness.

Sheet 2 of 2

TRANSFER STATION 3'

SportsPlay			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	905-900	Transfer Stairs	1
2	905-902	Transfer Deck	1
3	905-901	Transfer Step	1
4	913-424	Transfer Deck Leg	3
5	913-426	Transfer Point Handhold Post	1
6	913-425	Transfer Step Leg	2
7	913-422	Hand Rail Left	1
8	913-423	Hand Rail Right	1
9	105-016	1-7/8" Aluminum Pipe Plug	1
10	913-423	4 Hole Attachment Bracket	2
11	905-208	Gasket for Attachment Bracket	1
12	905-526	1/4" Self Tapping Pin Screw	8
13	126-701	3/8" x 1-1/4" Button Head Bolt	20
14	126-703	3/8" x 1" Button Head Bolt	3
15	126-705	3/8" x 2" Button Head Bolt	4
16	217-104	3/8" Rebar	6
17	226-602	3/8" Nylon Lock Nut	27
18	316-601	3/8" Flat Washer	54
19	385-901	1-3/8" Black Plug Flat	2
20	196-807	3/8" x 3/8" Set Screw	2



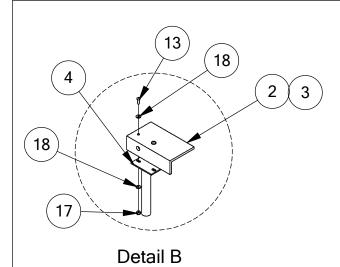
Sheet 1 of 3

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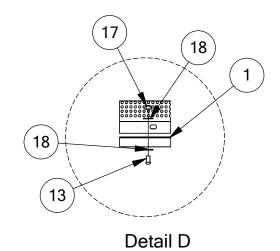


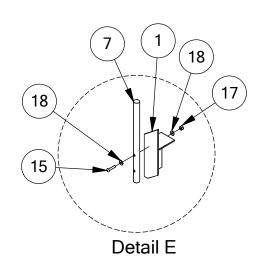
TRANSFER STATION 3'

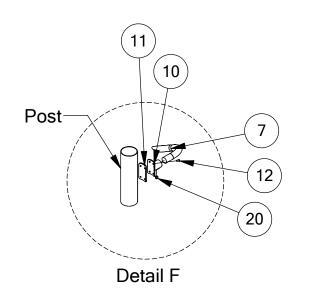
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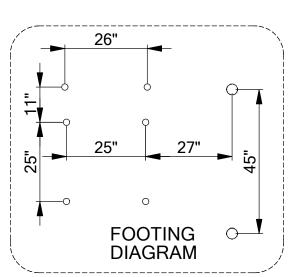


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Sheet 2 of 3

5 4

3

2

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Transfer Station Plan:

The transfer station connects to a deck side. Consult the Top Down View for proper placement of the event.

INSTRUCTIONS:

- 1. First connect the bottom platform to the two-step assembly using (3) 3/8" x 1-1/4" button head bolts, (6) 3/8" washers, (3) 3/8" lock nuts.
- Connect the top of the transfer step to deck with (3) 3/8" x 1" button bolts, washer on both sides, and lock nuts under deck.
- 3. Connect the (3) transfer deck legs with (2) 3/8" x 1/4" button head bolt, washer both sides, and lock nut under the transfer deck.
- Connect the transfer step legs to the step with (2) 3/8" x 1-1/4" button bolts, washer on both sides, and lock nuts under deck.
- 5. The handhold post will connect through the hole inside the deck using (4) 3/8" x 1-1/4" button head bolts, (8) 3/8" washers, (4) 3/8" lock nuts.
- 6. Lay out and mark (6) ground holes for posts # by physically setting the transfer steps up to the deck, and use spray paint to mark the (6) holes.
- 7. Dig them 24" deep and 8"" in diameter.

5

- With the help of another pick up and set the transfer station assembly into the ground holes with re-bars in the bottom.
- 9. Connect the assembly to the deck with (3) 3/8" x 1-1/4" button bolts, no washer on the outside and 3/8" washer and lock nuts on the underside of deck.
- 10. The bottom end of transfer step is blocked up vertically and horizontally on bubble.
- 11. Connect the left and right handrails to each side between the left and right deck posts to the vertical

- holes located on the corner of second step.
- 12. Line up and bolt the bottom end handrails to outside of steps with (4) 3/8" x 2" button head bolts, washers and lock nuts under steps.
- 13. (2) 4 hole attachment brackets, one per post, will be installed on the "deck side" of posts by sliding the bracket onto the handrails and setting them level to the posts. Then using the self-tapping screws attach the brackets to the post with gasket between bracket and post, and then tighten set screws.
- 14. Re-check levels of all (6) posts and the bottom plank and the entire transfer step. Make sure it is all level and blocked.

SPECIFICATION:

Event: Transfer Station shall be constructed of #9 ga. by 3/4" flattened, expanded metal, including offset kickplates to fully gaps between decks and steps.

Paint: Shall be oven-cured plastisol.

Hardware: Stainless Steel tamper resistant.

MAINTENANCE:

3

Touch up any marred paint surfaces.

Periodically check hardware for integrity and tightness.

2

Sheet 3 of 3

TRIPLE RAIL SLIDE

SportsPlay		• • • • • • • • • • • • • • • • • • • •	
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	912-203 912-204	Triple Rail Slide 3' Triple Rail Slide 4'	2
2	905-204	Connector Plate	1
3		Triple Rail Slide Guard	1
4	913-417	Panel Attachment Bracket	2
5	905-208	Gasket For Attachment Bracket	1
6	905-526	1/4" Self Tapping Pinned Screw	4
7	196-807	3/8" x 3/8" Socket Set Screw	2
8	903-214	Slide Leg	2
9	126-702	3/8" x 3/4" Buttonhead Bolt	4
10	316-601	3/8" Flat Washer	16
11	126-701	3/8" x 1-1/4" Buttonhead Bolt	4
12	126-704	3/8" x 3" Buttonhead Bolt	2
13	226-602	3/8" Nylon Lock Nut	6
1	·	· · · · · · · · · · · · · · · · · · ·	

1 10 10 10 10 Post il P
Detail A Detail B
(C) (3) (6)
Detail C
A
B 1 6 See TABLE
16" See TABLE

2

Table			
Deck Height	Post/Footing Height		
36"	48"		
48"	88.5"		

Sheet 1 of 2

5

Triple Rail Slide Plan:

The Triple Rail Slide connects to the deck via a plastisol coated connector plate. The connector plate attaches to the top of the deck holes which are 15" apart on center. The slide legs are attached to the underneath of the exit end of the slide.

INSTRUCTIONS:

- Mark (2) grounds holes for the slide legs by placing the slide onto the deck, spray paint the ground to mark leg positions, and then remove the slide. (the legs are not attached to the slide yet).
- Install the slide leg on the bottom of the slide with (4) 3/8" x 3/4" button head bolts.
- Install the slide with legs attached into the ground holes first, then to the deck.
- Re-bar goes through the holes in the bottom of the legs.
- The connector plate attaches to the deck when it is 90 degrees to the deck and any adjustments have been made to the ground holes.
- It may be necessary to field drill the connector plate to the slide.
- Connect the addaptor plate with (4) 3/8" x 1-1/4" button head bolts, no washer on top, and 3/8" washer and lock nut on bottom to the deck, and (2) 3/8" x 3" button head bolts to connect slide to adaptor.
- Position the ducking bar so that it is approximately 38" off the top of the deck.
- Install using the two attachments brackets with gaskets between the post and bracket.

SPECIFICATIONS:

Event: Triple Rail Slide shall be constructed of 3/8" double wall construction has plastisol coated connector plate to deck with double slide legs and re-bar to ground. Has 2 slide beds with 4" high sideways. Comes with slide guard brackets and hardware.

Hardware: Stainless Steel tamper resistant.

MAINTENANCE:

Touch up any marred paint surfaces. Periodically check harware for integrity and tightness. Superifcial scarring of the plastic can be 'healed' by gentle use of a heat gun or torch.

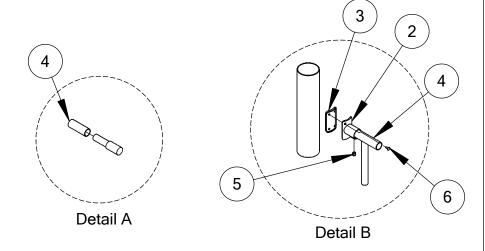
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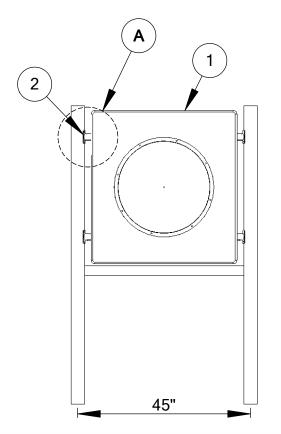
Sheet 2 of 2



BUBBLE PANEL

SportsPlay			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	435-665	Bubble Panel	1
2	913-402	2 Hole Attachment Bracket	4
3	905-208	Gasket for Attachment Bracket	4
4	913-429	Spacer Bar Set	1
5	196-807	3/8" x 3/8" Socket Set Screw	4
6	905-526	Torx Self Tapping Screw	8
7	105-020	1-3/8" Aluminum Collar	4





2

Sheet 1 of 2

5 4 3

BUBBLE PANEL

Bubble Panel Plan:

The Bubble Panel attaches above or below the deck to the center of the post using Tamper Resistant Screws.

INSTUCTIONS:

- To install the panel first sleeve the spacer bar set together in the panel. The aluminum collars should be set so that once the spacers are sleeved all the way together, there is no gap between the collar and the panel.
- Now install the panel to the post using the 2 hole attachment brackets with gaskets between the brackets and the post to prevent moisture buildup. It is easiest to use a block to set the panel so there is no more than 3-1/2" between the panel and the nearest edge of the deck. Installation above or below deck requires the same distance between the panel and deck. This measurement is CRITICAL for the safety of the users.
- The spacers should be set so that there is no more than 3-1/2" between the spacer and the post as well.
- It is helpful to install with a couple of equal size shims under the panel to help hold the wall in position, and to tightne the set screws in the brackets to keep them from spinning when setting the brackets to the post.

SPECIFICATIONS:

Event: Bubble is constructed of clear lexan and is bolted to the panel with stainless steel hardware. Metal brackets are powdercoated.

Paint shall be electrostatically applied oven cured powdercoat.

Hardware: Stainless steel tamper resistant.

MAINTENANCE:

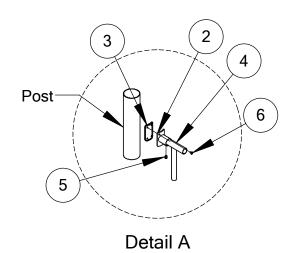
Touch up any marred paint surfaces. Periodically check hardware for integrity and tightness.

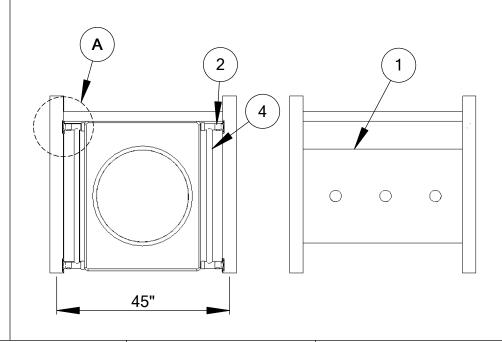
Sheet 2 of 2



CRAWL TUNNEL

SportsFlay	1 60-19-20 (Fig. 2017)			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	
1	435-638	Crawl Tunnel	1	
2	913-401	4 Hole Attachment Bracket	8	
3	905-208	Gasket for Attachment Bracket	8	
4	913-429	Spacer Bar Set	2	
5	196-807	3/8" x 3/8" Socket Set Screw	8	
6	905-526	Torx Self Tapping Screw	32	
7	105-020	1-3/8" Aluminum Collar	8	





Sheet 1 of 2

5

3

2

CRAWL TUNNEL

Crawl Tunnel Plan:

The Crawl Tunnel connects to the playground above, or below the deck to the center of the post using Tamper Resistant Screws. Consult your 2d drawing for proper placement.

INSTRUCTIONS:

- To install the panel first sleeve the spacer bar set
- together in the panel. The aluminum collars should
- be set so that once the spacers are sleeved all the
- way together, there is no gap between the collar and
- the panel.
- Now install the panel to the post using the 4 hole
- attachment brackets with gaskets between the
- brackets and the post to prevent moisture buildup.
- It is easiest to use blocks to set the tunnel so there
- is **no more** than 3-1/2" between the panel and the
- nearest edge of the deck. Installation above or
- below deck requires the same distance between
- the panel and deck. This measurement is <u>CRITICAL</u>
- for the safety of the users.
- The spacers should be set so that there is no more
- than 3-1/2" between the spacer and the posts as
- well.
- Bottom of panel should be at least 12" off dirt grade
- when installed below deck level.
- It is helpful to install with a couple of equal size
- shims under the panel to help hold the wall in
- position, and to tighten the set screws in the brackets
- to keep them from spinning when the setting bracket
- to the post.

SPECIFICATIONS:

Event: Crawl Tunnel shall be constructed of 4' plastic linear low density 3/8" wall tunnel has 2 rotationally molded, high density, U.V. stabilized end panels that are toggle bolt connnected. Metal brackets are powdercoated.

Paint shall be electrostatically applied oven cured powdercoat.

Hardware: Stainless steel tamper resistant.

MAINTENANCE:

Touch up any marred paint surfaces. Periodically check hardware for integrity and tightness.

Sheet 2 of 2



3', 4', & 5' DOUBLE WALL STRAIGHT SLIDE

912-213, 912-214 912-215

SportsPlay	rtsPlay		
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	912-213 912-214 912-215	Double Wall Slide	1
2	913-415	DW Slide Guard 3.5" System	1
3	903-214	T-Leg	2
4	913-401	2 Hole Attachment Bracket	4
5	905-208	Gasket for Attachment Bracket	4
6	905-526	1/4" Self-Tapping Pinned Screw	8
7	126-706- BPS	3/8" x 1-3/4" Button Pinned SS Bolt	2
8	316-601	3/8" Washer	6
9	126-702	3/8" x 3/4" Button head Bolt	4
10	196-807	3/8" x 3/8" Socket Set Screw	4

Deck The state of
Post 6
Detail C A 38" 17.5" 10" 45" See Table

2

Table		
Deck Height	Post/Footing Distance	
36"	72.5"	
48"	94"	
60"	105"	

Sheet 1 of 2

5 4 3

Double Wall Straight Slide Plan:

The Double Wall Slide attaches to the deck by bolting through the back of the slide and the deck sidewall. See the Assembly View for placement.

INSTRUCTIONS:

- Underneath the 'foot' of the slide there are two sets of threaded inserts into which the slide legs attach.
- Using your slide as a template, mark the ground holes for the slide legs making sure that the holes in the back of the slide are aligned with the holes in the deck. Prop the 'foot' of the slide up and mark hole locations.
- Dig one hole for both legs 12" wide by 20" long and 24" deep.
- Connect the slide legs to the theaded inserts with four 3/4" x 3/8" button head bolts.
- Place the bottom end of the slide with installed legs and re-bars through the hole in the bottom of the slide legs into the ground.
- Carefully tip the top of the slide back onto the deck.
- Connect the slide to the deck with two 3/8" x 1-3/4" button head bolts, with a washer on top, through the deck sidewall to the back of the slide. Place a level over the bottom to be sure it is on bubble, block and level.
- Install the slide guard with for attachment brackets over the deck entry on the "deck side" so that the top of the guard is approximately 38" above the deck.

SPECIFICTATIONS:

Event: Double Wall Straight Slide is 3/8" wall, rotationally molded, 24" wide slide bed with 6" high side rails. Metal brackets are powdercoated.

Paint shall be electrostatically applied oven cured powdercoat.

Hardware: Stainless tamper resistant.

MAINTENANCE:

Touch up any marred paint surfaces.

Periodically check hardware for integrity and tightness.

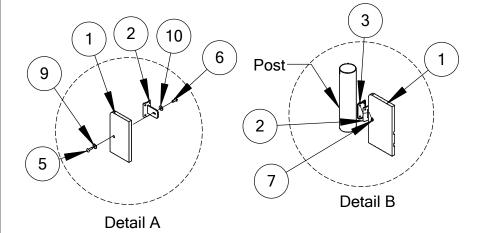
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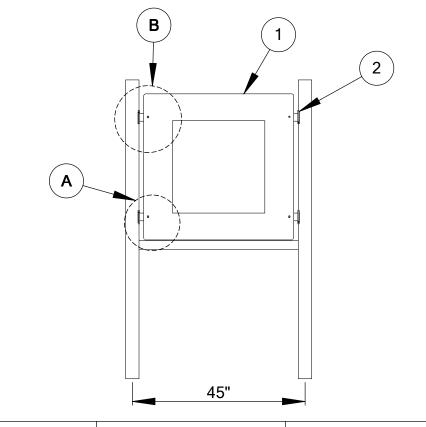
Sheet 2 of 2



MIRROR PANEL

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	
1	913-505	Mirror Panel	1	
2	913-417	Panel Attachment Bracket	4	
3	905-208	Gasket for Attachment Bracket	4	
4	316-501	5/16" Flat Washer	6	
5	116-529	5/16" x 3/4" Button Head Bolt	4	
6	216-512	5/16" x 1" Button Head Nut	4	
7	905-526	Torx Self Tapping Screw	16	
8	196-807	3/8" x 3/8" Socket Set Screw	4	
9	316-601	3/8" Flat Washer	4	
10	316-501	5/16" Flat Washer	4	





Sheet 1 of 2

Mirror Panel Plan:

The MIrror Panel attaches above or below the deck to the center of the posts with 4 panel attacment brackets. See the Top Down View for placement.

INSTRUCTIONS:

- Attach the panel attachment brackets to either side
- of the panel. Use the panel brackets as a template
- to mark, then drill 2 holes throught each side of the
- panel.
- Using two people, hold the panel up and attach the
- brackets to the post with gaskets between the post
- and brackets, using the self-tapping screws. The
- brackets can be installed without the panel attached
- if you mark on the post where the brackets should
- be. This can make installation a bit easier.
- Install with **no more** than 3-1/2" between the wall
- and the nearest edge of the deck. This measurement
- is <u>CRITICAL</u> for the safety of the users.
- It is helpful to install with a couple of equal size shims
- to help hold the wall in position.

SPECIFICATIONS:

Event: Mirror is constructed of 1/8" thick poly carbonate with silver backing attached to a 3/4" polyethylene panel. Metal brackets are powdercoated.

Paint shall be electrostatically applied oven cured powdercoat.

Hardware: Stainless steel tamper resistant.

MAINTENANCE:

Touch up any marred paint surfaces. Periodically check hardware for integrity and tightness.

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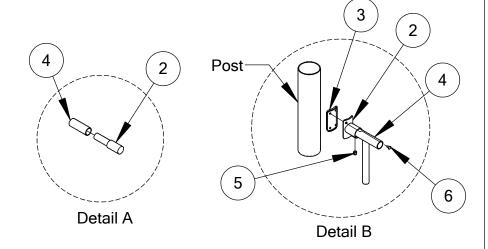
Sheet 2 of 2

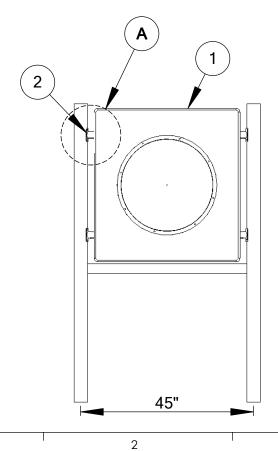
5 4 3



BALL TURN PANEL

SportsFlay			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	912-232	Ball Turn Panel	1
2	913-402	2 Hole Attachment Bracket	4
3	905-208	Gasket for Attachment Bracket	4
4	913-429	Spacer Bar Set	1
5	196-807	3/8" x 3/8" Socket Set Screw	4
6	905-526	Torx Self Tapping Screw	8
7	105-020	1-3/8" Aluminum Collar	4



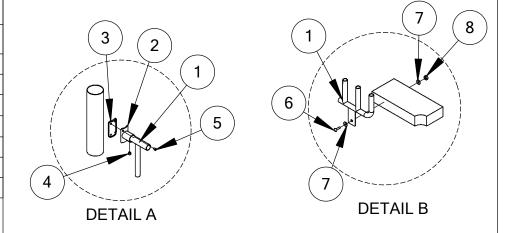


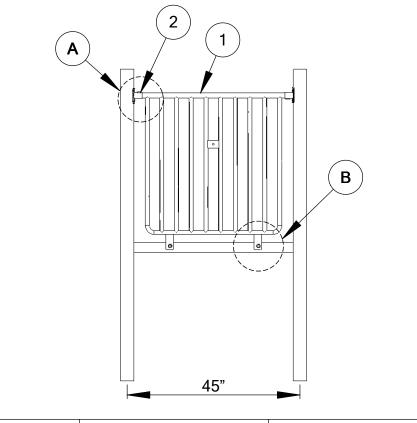
Sheet 1 of 2



GUARD WALL W/ATTACHMENT

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.		
1	913-420w	Guard Wall with Wheel Attachment	1		
2	913-401	2 Hole Attachment Bracket	2		
3	905-208	Gasket for Attachment Bracket	2		
4	196-807	3/8" x 3/8" Socket Set Screw	2		
5	905-526	1/4" Self Tapping Pinned Screw	4		
6	126-701BPS	3/8" x 1-1/4" Button Pin SS	2		
7	316-601	3/8" Flat Washer	4		
8	226-602	3/8" Nylon Lock Nut	2		





Sheet 1of 2



GUARD WALL W/ATTACHMENT

Guard Wall Plan:

The Guard Wall attaches above the deck directly to the deck on bottom and to the post on top.

INSTRUCTIONS:

- Install the wall to the front of the deck using the two 3/8" x 1-1/4" Button Pin stainless steel bolts, with a 3/8" washer on the bolt and one with the 3/8" nylon lock nut.
- Lift the wall to where there is approximately 38" from the top of the deck to the top of the wall. The attachment brackets should be placed on the wall before lifting it into position. There should be no gaps greater than 3-1/2" to prevent entrapments.
- It is helpful to install with a couple of equal size shims under the wall to help hold the wall in position.
- Once the wall is in position, place the gaskets on the attachment brackets to prevent moisture from building between the bracket and the post.
- Use a drill with the self-tapping screws to screw the attachment bracket into the post; the bracket should have the weld nut facing downward.
- Once the brackets are installed make sure post are leveled and tighten the brackets on the wall using the 3/8"x 3/8" set screws.

SPECIFICATIONS:

Event: The Rung Guard Wall is 41-1/2" wide and acts as a barrier to prevent falls from decks. Horizontal pipes that fits into the attachment brackets is 1-3/8" OD. Vetical pipes are 1" OD.

Paint shal be electrostatically applied oven cured powdercoat.

Hardware: Stainless steel tampere resistant.

MAINTENANCE:

Touch up any marred paint surfaces. Periodically check hardware for integrity and tightness.

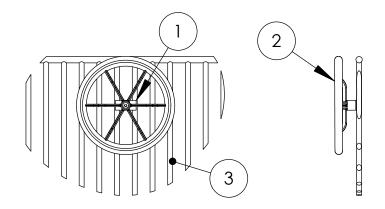
Sheet 2 of 2

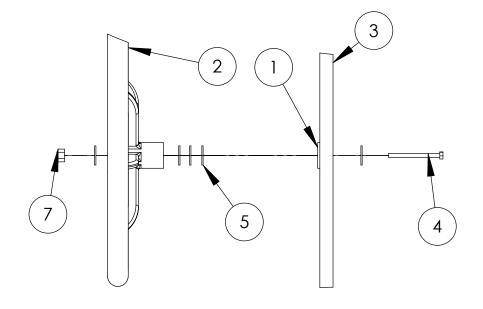
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SportsPlay

10 Rung Wall W/ Steering Wheel

902-	-1	3	5
902-	.1	1	4

ITEM NO.	PART NUMBER	PART DESCRIPTION	QTY.
1	-	Welded Wheel Fitting	-
2	902-114	Steering Wheel	1
3	902-135W	10 Rung Wall	1
4	116-600	1/2" x 2-1/2" Button Head Bolt	1
5	326-801	1/2" Washers	5
6	226-802	1/2 " Nylon Lock Nut	1





Sheet 1 of 2

Steering Wheel Plan:

The Steering Wheel attaches to the Guard Wall onto the welded bracket.

INSTRUCTIONS:

- Place the 1/2" lock nut INSIDE the wheel so as not to create a protrusion.
- Place one washer between the bolt head and the plate.
- Place three washers between the wheel and plate.
- Place one washer inside the wheel under the lock nut.
- Tighten the nut.
- The Wheel should be tight, but yet still able to turn.

SPECIFICATION:

Event: Steering Wheel shall be constructed of a polycarbonate 12" diameter wheel, countersunk wheel hub connects to wall with non-slip double plate, center 1/2" bolt and lock nut.

Hardware: Stainless Steel tamper resistant.

MAINTENANCE:

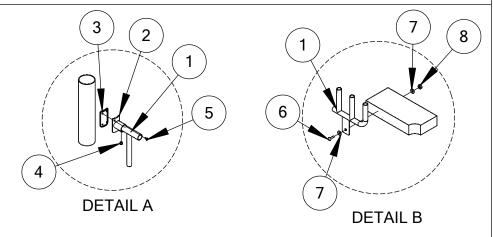
Periodically check hardware for integrity and tightness.

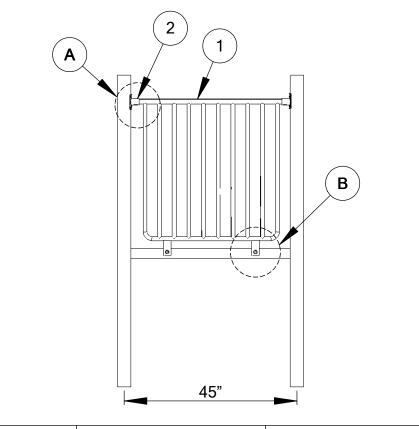
Sheet 2 of 2



GUARD WALL

opol tal lay	· MATERIAL MODIFIES				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.		
1	913-420	Guard Wall	1		
2	913-401	2 Hole Attachment Bracket	2		
3	905-208	Gasket for Attachment Bracket	2		
4	196-807	3/8" x 3/8" Socket Set Screw	2		
5	905-526	1/4" Self Tapping Pinned Screw	4		
6	126-701BPS	3/8" x 1-1/4" Button Pin SS	2		
7	316-601	3/8" Flat Washer	4		
8	226-602	3/8" Nylon Lock Nut	2		





Sheet 1of 2

Guard Wall Plan:

The Guard Wall attaches above the deck directly to the deck on bottom and to the post on top.

INSTRUCTIONS:

- Install the wall to the front of the deck using the two 3/8" x 1-1/4" Button Pin stainless steel bolts, with a 3/8" washer on the bolt and one with the 3/8" nylon lock nut.
- Lift the wall to where there is approximately 38" from the top of the deck to the top of the wall. The attachment brackets should be placed on the wall before lifting it into position. There should be no gaps greater than 3-1/2" to prevent entrapments.
- It is helpful to install with a couple of equal size shims under the wall to help hold the wall in position.
- Once the wall is in position, place the gaskets on the attachment brackets to prevent moisture from building between the bracket and the post.
- Use a drill with the self-tapping screws to screw the attachment bracket into the post; the bracket should have the weld nut facing downward.
- Once the brackets are installed make sure post are leveled and tighten the brackets on the wall using the 3/8"x 3/8" set screws.

SPECIFICATIONS:

Event: The Rung Guard Wall is 41-1/2" wide and acts as a barrier to prevent falls from decks. Horizontal pipes that fits into the attachment brackets is 1-3/8" OD. Vetical pipes are 1" OD.

Paint shal be electrostatically applied oven cured powdercoat.

Hardware: Stainless steel tampere resistant.

MAINTENANCE:

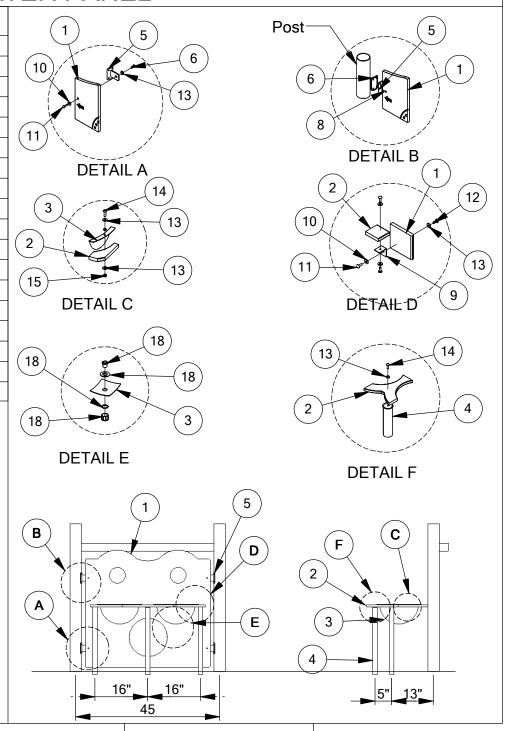
Touch up any marred paint surfaces. Periodically check hardware for integrity and tightness.

Sheet 2 of 2



SAND & WATER PANEL

SportsPlay		OAND	G VV
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1		Backsplash Play Panel	1
2		Bubble Basin	1
3	435-810	Bubble	2
4	903-816	2-3/8" Leg Support	3
5	913-401	2 Hole Attachment Bracket	4
6	905-208	Gasket for Attachment Bracket	4
7	196-807	3/8" x 3/8" Socket Set Screw	4
8	905-526	1/4" Self-Tapping Screw	8
9	905-803	Corner Bracket	4
10	316-501	5/16" Washer	6
11	116-530	5/16" x 1" Button Head Bolt	6
12	216-512	5/16" x 1" Button Head Nut	6
13	316-601	3/8" Flat Washer	21
14	126-701	3/8" x 1-1/4" Button Head Bolt	20
15	236-601	3/8" T Nut	20
16	316-501	5/16" Flat Washer	4
17	116-529	5/16" x 3/4" Button Head Bolt	4
18		Drain Assy	2
1			



Sheet 1 of 2

5

SAND & WATER PANEL

Sand & Water Panel Plan:

The Sand & Water Panel attaches below the deck to the "outside" of the post with 4 Attachment Brackets.

INSTRUCTIONS:

- Install the panel in the center of the post, installing under a deck with the top two brackets touching the bottom of the deck.
- 2. Install with the install with the weld nut downward.
- 3. Install with no more than 3-1/2" between the top of the wall and the bottom of the deck.
- 4. It is helpfull to install the top two brackets first on the panel. Then to screw them into the post to help hold the wall in position, the gaskets go between the brackets and the post to prevent moisture from building up.
- 5. Then pull the bottom of the panel out and slide the other two brackets on.. Then screw them to the post.
- 6. Attach clear plastic basin to frame with bolts.
- 7. Attach support legs.

SPECIFICATIONS:

Event: Sand & Wter Panel is constructed of 3/4" thick polyethylene. Metal brackets are powdercoated.

Paint shall be electrostatically applied oven cured powdercoat.

Hardware: Stainless steel tamper resistant.

MAINTENANCE:

Touch up any marred paint surfaces. Periodically check hardware for integrity and tightness.

2

Sheet 2 of 2



LABEL INSTALLATION

ITEM NO.	PART NUMBER	PART DESCRIPTION	QTY.
1	902-257	Post	1
2	000-000	Top of Surfacing Label	1
3	000-000	Warning Label	1
4	000-000	Manufacturer Label	1
5	000-000	Burn Warning Label	1

Installation Instructions:

As required by safety guidelines, the following labels MUST be applied to our playground.

1) TOP OF SURFACING LABEL:

Install (1) of each upright post at level you have determined will be your "Top of Surfacing" based on fall height and resilient surfacing used.

This label will serve as a warning when/ if your surfacing material falls below the recommended leven. Naturally, this is most applicable when using loose fill surfacing, which can shift.

2) WARNING LABEL

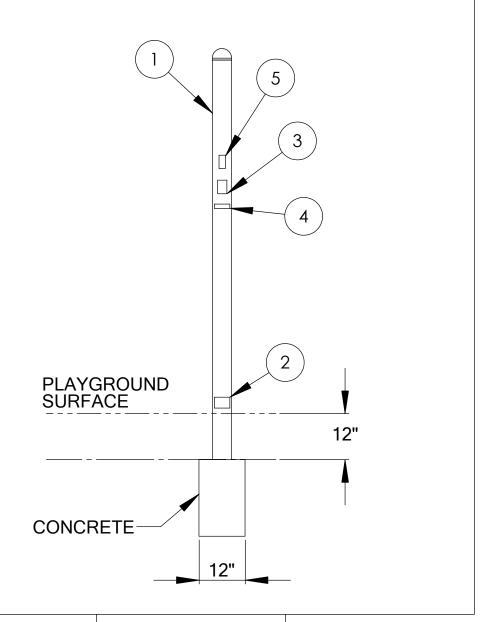
Install (2) labels at eye level to different upright posts at locations most likely to be used to access the play unit. Also Install Equipment & Survacing Exposed to Intense sun Can Burn(5).

3) MANUFACTURER LABEL

Install labels at eye level to posts near the warning labels.

LABEL APPLICATION

Apply to clean, dry, smooth surface. Carefally peel label from paper backing and apply with no wrinkles or tears 3' to 5' from top of protective surfacing. Inspect lablels regularly. If torn, disfigured, or otherwise damaged contact your SportsPlay distributor for replacement labels.



Trouble Shooting

Problem: Incorrect sized hole or no hole where there is supposed to be one.

Solution: Use a 1/4" leader drill bit to drill a hole at the desired location. Next, drill larger size hole with correct bit. Usually, when there is a hole missing, it is an oversight, but if it appears that there are several missing holes, re-check your work.

Problem: Setscrew missing on clamp or setscrew hole is cross-threaded.

Solution: Drill a new hole in the clamp at the correct location with a 5/16" bit, then tap with a 3/8"/16 tap.

Problem: A typical 48" long portion of a pipe will not fit correctly, causing the posts to be off level.

Solution: First, check to see that the pre-installed setscrews are not installed too far into the clamp making it impossible for the pipe to enter the clamp. Also, make sure that the clamp is not crooked, preventing the pipe ends to enter the clamp all the way. If this is the case, install clamp sideways onto pipe, then attach to post. The pipes enter the clamp a distance of 1 1/4" deep. If the pipe does not enter all the way, then use a rubber hammer to pound a component to the left or right to ensure the pipe ends have dead-ended into clamps. If the problem remains, contact your distributor.

Problem: A clamp has already been drilled and has had a roll pin installed and you have to move it.

Solution: Using a punch, simply knock the roll pin through the clamp and post then move the clamp.

Problem: There is interference between a vertical portion of one component and another vertical portion of another component going into the opposite direction. (For instance, in the case of a tunnel or bubble window that has a vertical spacer bar).

Solution: Loosen the spacer bar by loosening the setscrew on it, move it over to make room.

Problem: Your posts are out of line.

Solution: Unblock your new posts. Check to see if when the deck was installed the posts were not on the center to the corners of the deck. Loosen the hardware and re-line the posts this way. In most cases, you have to back up, loosen hardware, and physically move each post or component that is connected similarly with 48" end pipes. There is a chance that the component was installed so that it was out of center of the 48" posts, which connect it. Loosen the setscrews on these parts; move them back into line, re-block posts. You must work hard to insure that posts are in line and on bubble.

Problem: You try to level a part or post and it won't budge, it swings or else bounces back.

Solution: Your hardware or blocks are too tight. Loosen the assembly, level and then re-block and re-tighten.

Problem: Bolt size in parts box does not match the instructions for the bolt.

Solution: If we made an error in sending the wrong hardware, use a correct size from the hardware store and we'll reimburse you.

Safety Checklist

Carefully go over each post, deck and component with bare hands very carefully to detect any areas that may be sharp. During installation and handling, there may be areas that were hammered; causing rough areas that may be sharp. Use the following list to check for problem areas:

- Scrapes in metal pieces. Use steel wool, files or sandpaper to smooth.
- Spatter or burrs at all welded locations. Look closely and smooth.
- Scratches on the plastic parts. Look closely and smooth with steel wool.
- Edges and mold lines on plastic and aluminum parts should be smoothed with steel wool or files.
- Slide connection joints, smooth and fill if necessary with outdoor clear caulk sealant. This applies to any small opening that might be a "catch" or entanglement point.
- Sleeve ends, sometimes rough handling will cause rough edges. Sand down rough areas if they exist. Check that screws are seated.
- Vinyl coated parts, check all areas to de-burr.

- Roll pins; make sure they are flush and to not stick out.
- Clamps, when aluminum is hammered, it can cause a rough area. De-burr if necessary.
- Bolt thread protrusions, two threads are maximum protrusion allowed. If more than two threads are visible, cut off and file smooth.
- "T" nuts, should not stick out. Loosen and retighten.
- Black top end caps, smooth down rough areas as necessary.
- If there are any nail or screw heads which are improperly installed (bent or marred) remove and replace.
- Angle irons, check all corners for rough areas sand if necessary.
- Set Screw, all setscrews should be flush with metal surfaces. Check all and tighten.
- Exposed concrete all concrete should be poured below grade. Backfill all of the footings with dirt.
- Never ASSUME that hardware was tightened. Check everything.
- Touch up painted areas as needed.

Label Installation

Apply to clean, dry, smooth surface. Carefully peel label form paper backing and apply with no wrinkles or tears. Install them where they will not be disturbed during play. Inspect labels regularly. If torn, disfigured, damaged or faded, contact your SportsPlay distributor for replacement labels.

Top of Surfacing Label

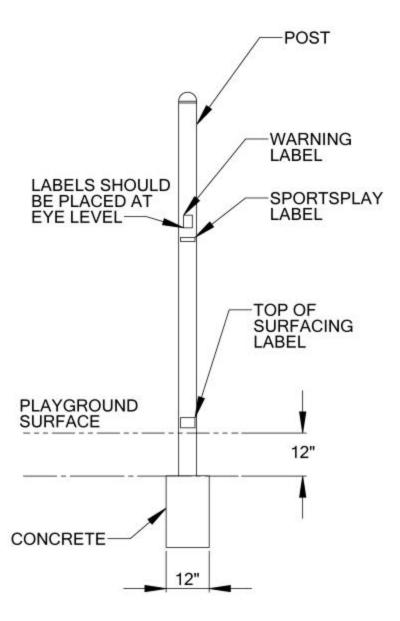
Install one to each upright post at the level you have determined will be your "Top of Surfacing" based on fall height and resilient surfacing used.

Warning Label

Install two labels at eye level to different upright posts at locations most likely to be used to access the play unit.

Manufacturer Label

Install labels at eye level to posts near the Warning Labels.



Trouble Shooting

Problem: Incorrect sized hole or no hole where there is supposed to be one.

Solution: Use a 1/4" leader drill bit to drill a hole at the desired location. Next, drill larger size hole with correct bit. Usually, when there is a hole missing, it is an oversight, but if it appears that there are several missing holes, re-check your work.

Problem: Setscrew missing on clamp or setscrew hole is cross-threaded.

Solution: Drill a new hole in the clamp at the correct location with a 5/16" bit, then tap with a 3/8"/16 tap.

Problem: A typical 48" long portion of a pipe will not fit correctly, causing the posts to be off level.

Solution: First, check to see that the pre-installed setscrews are not installed too far into the clamp making it impossible for the pipe to enter the clamp. Also, make sure that the clamp is not crooked, preventing the pipe ends to enter the clamp all the way. If this is the case, install clamp sideways onto pipe, then attach to post. The pipes enter the clamp a distance of 1 1/4" deep. If the pipe does not enter all the way, then use a rubber hammer to pound a component to the left or right to ensure the pipe ends have dead-ended into clamps. If the problem remains, contact your distributor.

Problem: A clamp has already been drilled and has had a roll pin installed and you have to move it.

Solution: Using a punch, simply knock the roll pin through the clamp and post then move the clamp.

Problem: There is interference between a vertical portion of one component and another vertical portion of another component going into the opposite direction. (For instance, in the case of a tunnel or bubble window that has a vertical spacer bar).

Solution: Loosen the spacer bar by loosening the setscrew on it, move it over to make room.

Problem: Your posts are out of line.

Solution: Unblock your new posts. Check to see if when the deck was installed the posts were not on the center to the corners of the deck. Loosen the hardware and re-line the posts this way. In most cases, you have to back up, loosen hardware, and physically move each post or component that is connected similarly with 48" end pipes. There is a chance that the component was installed so that it was out of center of the 48" posts, which connect it. Loosen the setscrews on these parts; move them back into line, re-block posts. You must work hard to insure that posts are in line and on bubble.

Problem: You try to level a part or post and it won't budge, it swings or else bounces back.

Solution: Your hardware or blocks are too tight. Loosen the assembly, level and then re-block and re-tighten.

Problem: Bolt size in parts box does not match the instructions for the bolt.

Solution: If we made an error in sending the wrong hardware, use a correct size from the hardware store and we'll reimburse you.

Safety Checklist

Carefully go over each post, deck and component with bare hands very carefully to detect any areas that may be sharp. During installation and handling, there may be areas that were hammered; causing rough areas that may be sharp. Use the following list to check for problem areas:

- Scrapes in metal pieces. Use steel wool, files or sandpaper to smooth.
- Spatter or burrs at all welded locations. Look closely and smooth.
- Scratches on the plastic parts. Look closely and smooth with steel wool.
- Edges and mold lines on plastic and aluminum parts should be smoothed with steel wool or files.
- Slide connection joints, smooth and fill if necessary with outdoor clear caulk sealant. This applies to any small opening that might be a "catch" or entanglement point.
- Sleeve ends, sometimes rough handling will cause rough edges. Sand down rough areas if they exist. Check that screws are seated.
- Vinyl coated parts, check all areas to de-burr.

- Roll pins; make sure they are flush and to not stick out.
- Clamps, when aluminum is hammered, it can cause a rough area. De-burr if necessary.
- Bolt thread protrusions, two threads are maximum protrusion allowed. If more than two threads are visible, cut off and file smooth.
- "T" nuts, should not stick out. Loosen and retighten.
- Black top end caps, smooth down rough areas as necessary.
- If there are any nail or screw heads which are improperly installed (bent or marred) remove and replace.
- Angle irons, check all corners for rough areas sand if necessary.
- Set Screw, all setscrews should be flush with metal surfaces. Check all and tighten.
- Exposed concrete all concrete should be poured below grade. Backfill all of the footings with dirt.
- Never ASSUME that hardware was tightened. Check everything.
- Touch up painted areas as needed.