

**IMPORTANT NOTES: Read First**

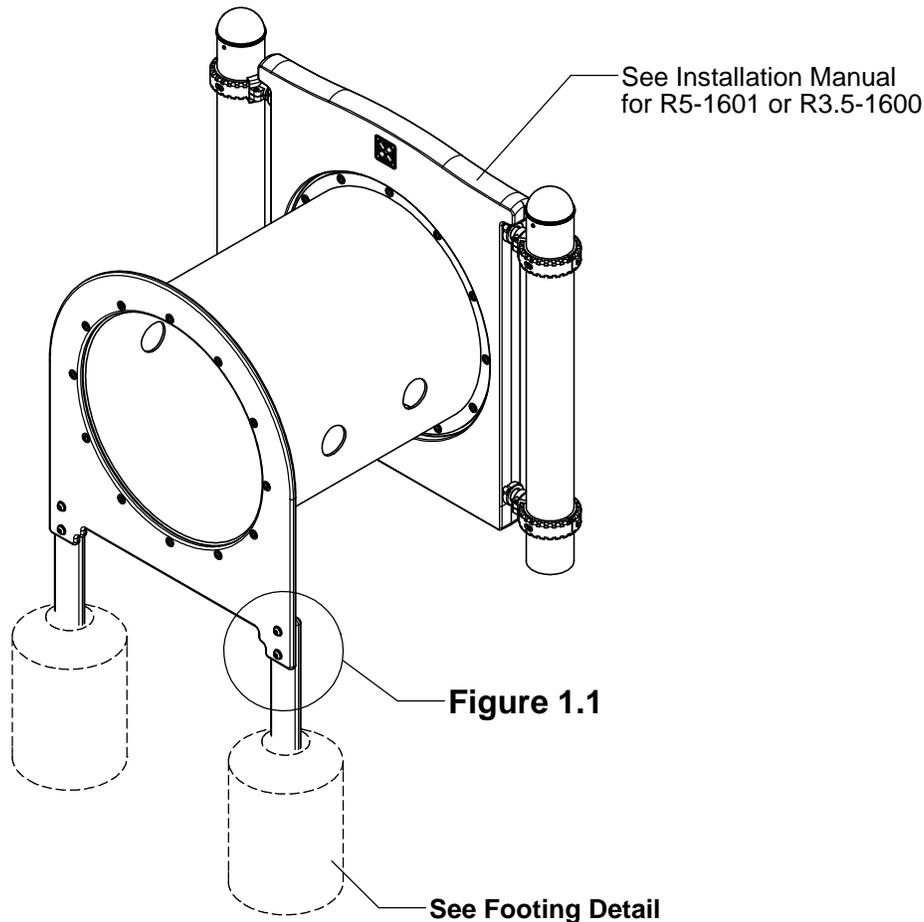
(A) Use liquid thread lock (such as Loctite®) with all threaded hardware. **Important:** Liquid thread lock (prior to curing) helps to eliminate the common problem of "thread seizure" in stainless steel hardware by serving as a lubricant during assembly.

(B) Do not pour concrete until the equipment is completely assembled, leveled and plumbed. Concrete must be allowed to cure completely before using the equipment (at least 72 hours).

(C) Refer to Installation Manual R5-1601 Panel Type 1 Instructions for R5 installation and R3.5-1600 Panel for R3.5 installation.

(D) An appropriate energy absorbing safety surface is required under and around all playground equipment. Loose fill protective surfacing is shown only as an example for the purpose of this assembly instruction. Other surfacing material may vary in thickness and/or compression depths. See free publication - The Handbook for Public Playground Safety, Publication #325 at [www.cpsc.gov](http://www.cpsc.gov) for the surfacing appropriate for the fall height of the equipment or consult your surfacing supply representative.

**FIGURE 1  
Tube End Panel**



**NOTE:** R5 Tube End Panel shown.  
Other configurations will vary slightly,  
but does not affect assembly.

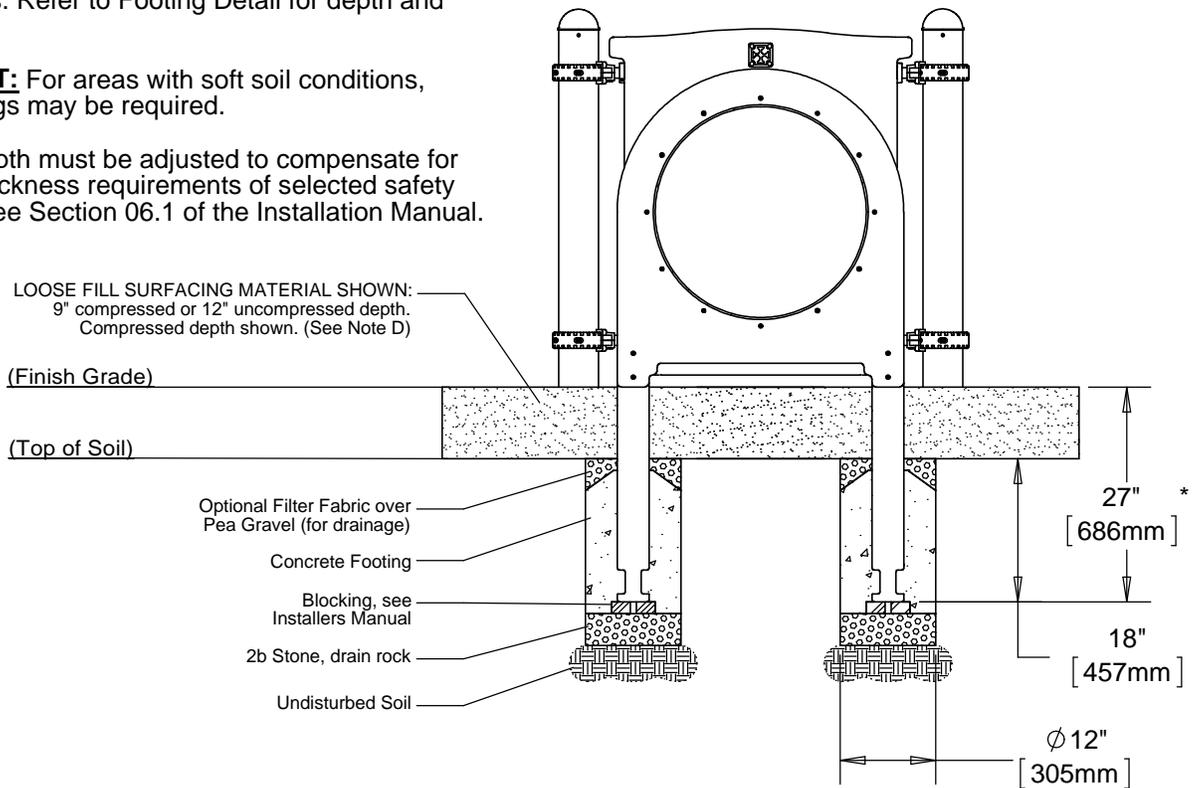
# Step 1

## Footing Detail

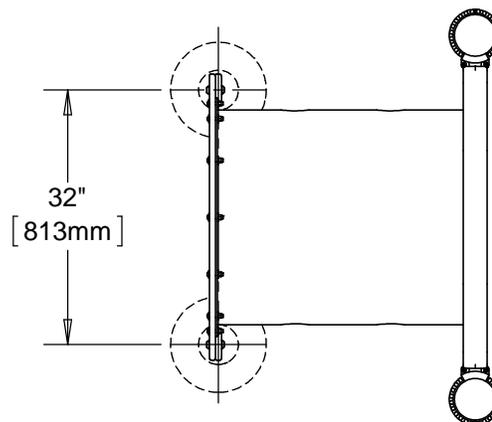
Refer to Footing Layout and use Crawl Tube and End Panel to mark footing hole locations. Dig (2)  $\text{\O} 12''$  footing holes. Refer to Footing Detail for depth and details.

**IMPORTANT:** For areas with soft soil conditions, larger footings may be required.

\* Footing depth must be adjusted to compensate for the depth/thickness requirements of selected safety surfacing. See Section 06.1 of the Installation Manual.



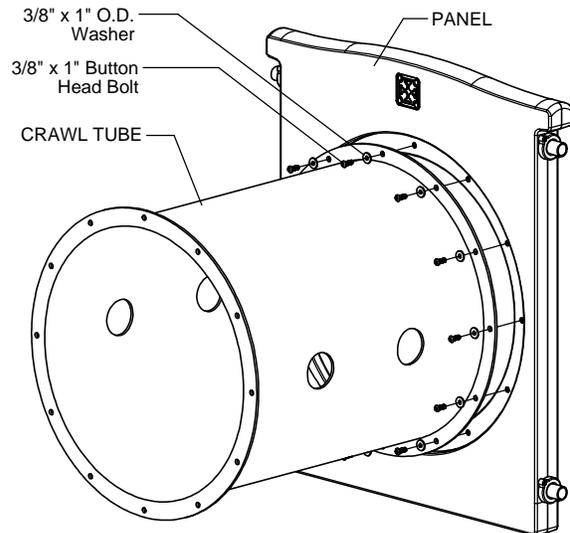
## Top View - Footing Layout



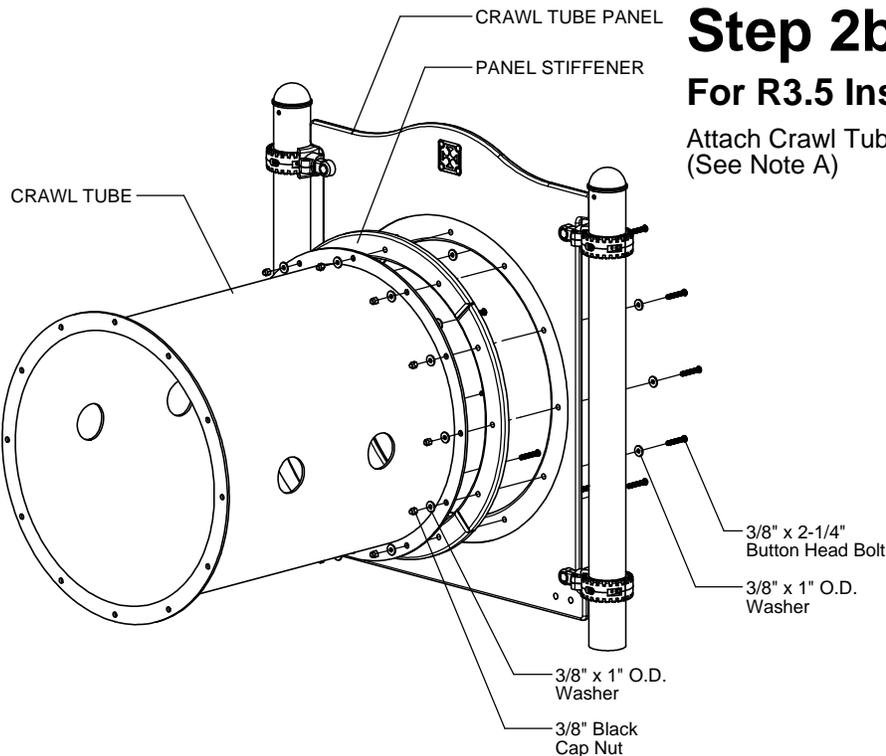
## Step 2a (Factory Assembled)

### For R5 Installation Only

Attach Crawl Tube to panel as shown in Figure 2.  
(See Note A)



**FIGURE 2**



**FIGURE 3**

## Step 2b

### For R3.5 Installation Only

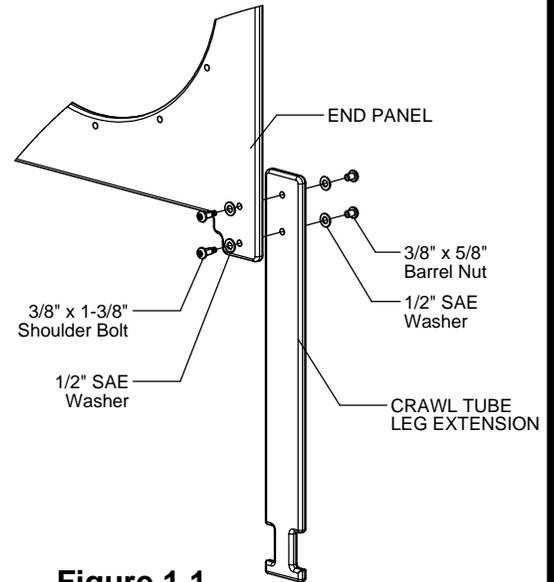
Attach Crawl Tube to panel as shown in Figure 3.  
(See Note A)

## Step 3

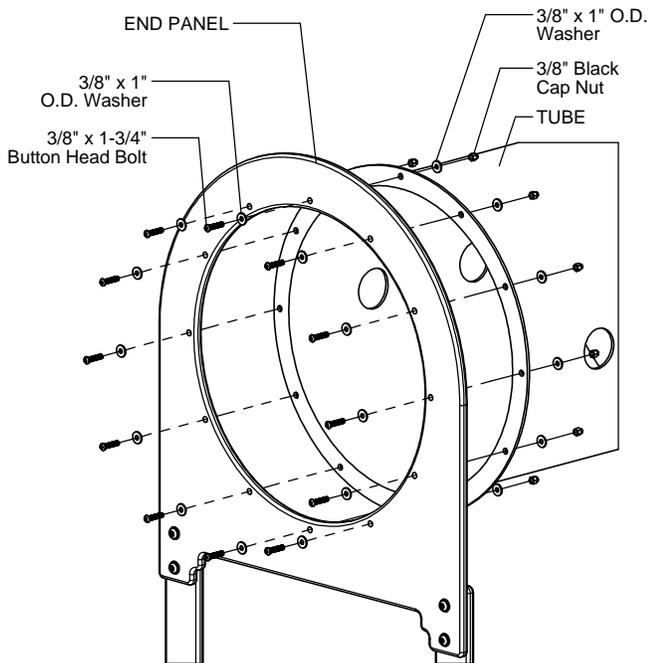
Attach panel to posts. (See Notes A & C)

## Step 4

Attach Crawl Tube Leg Extensions to End Panel as shown in Figure 1.1. (See Note A)



**Figure 1.1**



**FIGURE 4**

## Step 5

Place Leg Extensions into footing holes and attach to Tube as shown in Figure 4. (See Note A)

## Step 6

Fully tighten all fasteners according to the "TIGHTENING TORQUE FOR HARDWARE" section of the Installation Manual.

## Step 7

Plumb and level entire component. Pour concrete into footing holes. Allow at least 72 hours to cure before using this equipment. (See Note B)

## Step 8

Place required protective surfacing under and around Tube End Panel. (See Note D)

# TUBE END PANEL INSTALLATION INSTRUCTIONS

**16801**  
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## Parts List

R5-16801		
Part #	DESCRIPTION	QTY.
EE-4447	Crawl Tube End Panel	1
EE-4455	Crawl Tube Leg Extension	2
9103082-TR	Bolt Button Head 3/8" x 1-3/4"	12
9143062-TR	Bolt Shoulder 3/8" x 1-3/8" BH	4
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	24
9345002	Washer Flat SAE 1/2"	8
9413162-BLK	Nut Lock 3/8" w/ Black Cap	12
9443022-TR	Nut Barrel 3/8" x 5/8" BH	4

R3.5-16801		
Part #	DESCRIPTION	QTY.
Varies	Crawl Tube	1
EE-4447	Crawl Tube End Panel	1
EE-4455	Crawl Tube Leg Extension	2
S-1600-R35T	Panel Round R3.5	1
9103082-TR	Bolt Button Head 3/8" x 1-3/4"	12
9103102-TR	Bolt Button Head 3/8" x 2-1/4"	12
9143062-TR	Bolt Shoulder 3/8" x 1-3/8" BH	4
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	48
9345002	Washer Flat SAE 1/2"	8
9413162-BLK	Nut Lock 3/8" w/ Black Cap	24
9443022-TR	Nut Barrel 3/8" x 5/8" BH	4

## Assembled Parts List

R5-16801		
Part #	DESCRIPTION	QTY.
Varies	Crawl Tube	1
S-1600-R5	Panel Round R5	1
9103052-TR	Bolt Button Head 3/8" x 1"	12
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	12

## Specifications

### CRAWL TUBE END PANEL, STIFFENERS AND EXTENSION LEGS:

Shall be made from high density 3/4" sheet plastic specially formulated for optimum UV stability and color retention.

### TUBE SECTION:

Shall be constructed of UV-stabilized rotationally molded, linear, low density polyethylene with an average wall thickness of .250".

### HARDWARE:

Shall be stainless steel, zinc/nickel plated or galvanized as required to resist rust and corrosion.

## Maintenance

Periodically tighten all screws, bolts and nuts. A periodic inspection of all parts is necessary. If a part is broken or worn, replace immediately. For general maintenance please refer to our Playground Maintenance Manual.



Manufactured by Krauss Craft, Inc.  
www.playcraftsystems.com

For Customer Service Call  
800.333.8519 (U.S.A.) or  
541.955.9199 (International)

**Rev A**  
9/10/2011