



Ball Safety System with 4" Diameter, Straight Poles with Vertical Cable Installation Instructions

**BSS412 (TFBSS412P-SG), BSS415 (TFBSS415P-SG), BSS420 (TFBSS420P-SG)
(12' – 20' Ball Safety Systems)**

A Ball Safety Netting System (BSS) consists of one or more nets held up by hardware at various pole locations such that the net is at a desired height. A BSS run is considered to be a run of a single net; thus the length of a run is the length of net provided.

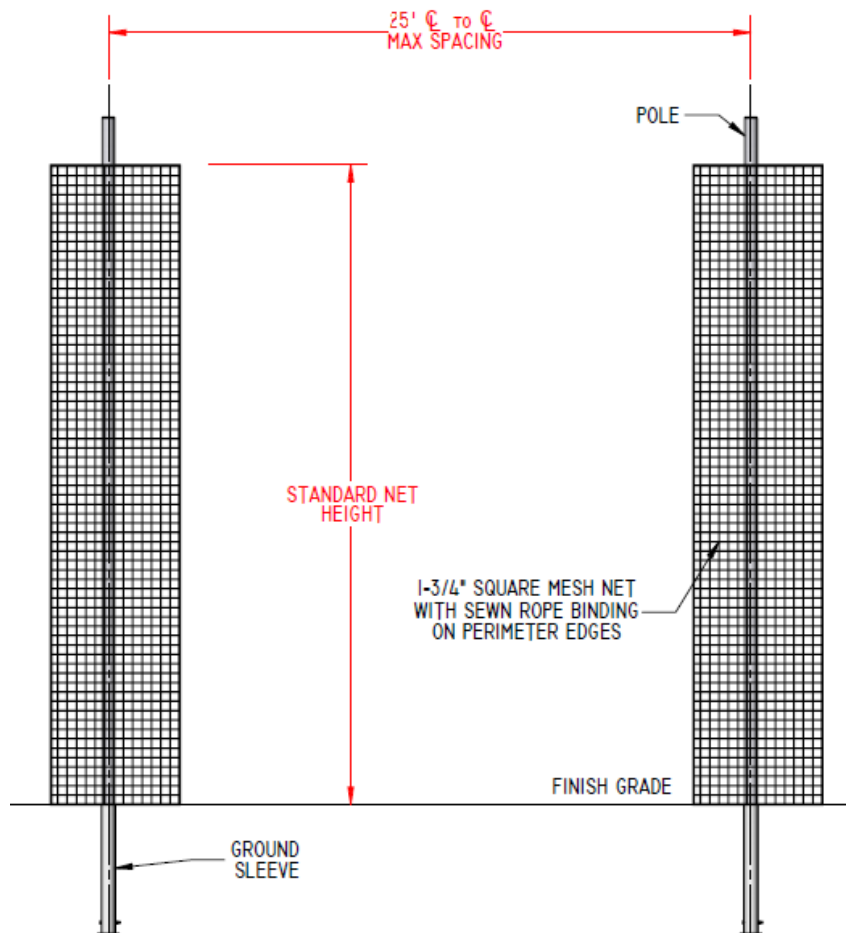


Figure 1 – Single Run of a Ball Safety System

GROUND SLEEVE INSTALL

The 4" diameter BSS poles are inserted into a ground sleeve. The height of the ground sleeves varies with the height of the ball safety system. Each ground sleeve comes with a pre-installed hex bolt and nyloc nut as shown in *Figure 2*.

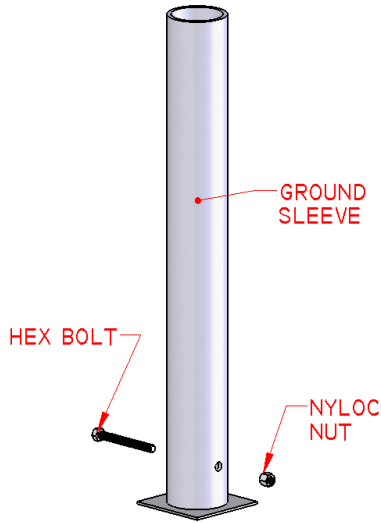


Figure 2 - Ground Sleeve

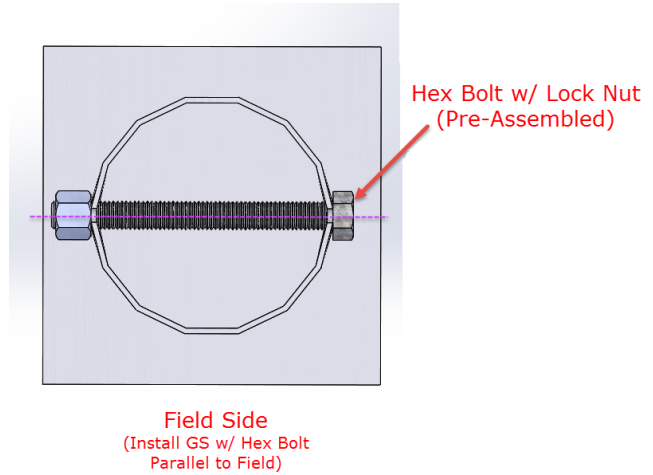


Figure 3 - Ground Sleeve Orientation (Top View)

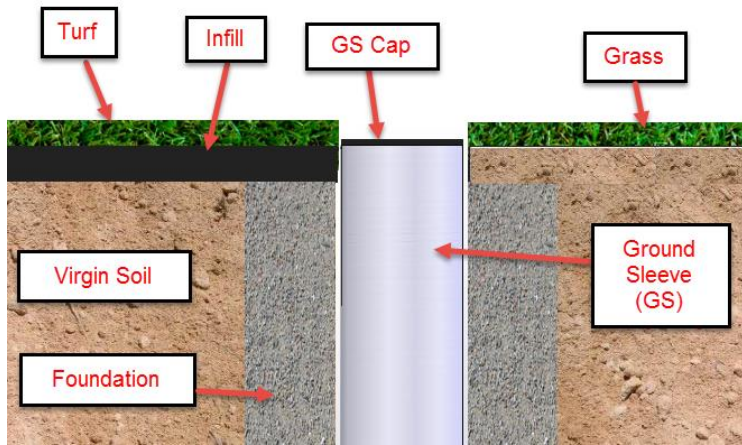


Figure 4 - Ground Sleeve Depth Reference (Section View)

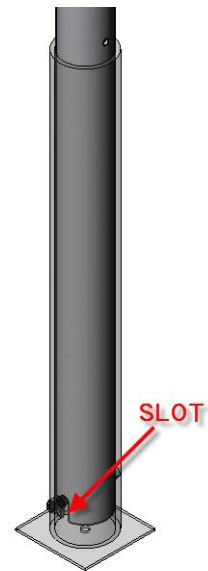


Figure 5 - Pole Inside Ground Sleeve Ref.

1. Mark the ground sleeve locations on the field.

IMPORTANT: It is recommended that the distance between each pole is (20) feet but should not exceed (25) feet to minimize net sag.

2. Excavate for the footings and place concrete forms. Footing requirements will vary depending on applicable codes and site soil conditions.

3. Center the ground sleeves in the forms and secure them in a plumb position. The top of the ground sleeve should be flush with finished grade as shown in *Figure 4*.

IMPORTANT: The ground sleeves shall be installed with the hex bolt parallel to the netting run to facilitate proper pole orientation as shown in *Figure 3*.

4. Cover the sleeves with plastic caps (provided) to keep debris out during concrete placement.

5. Pour concrete foundation and allow concrete to fully cure, and backfill.

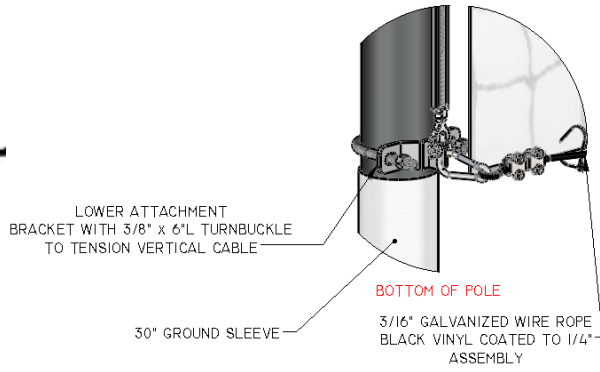
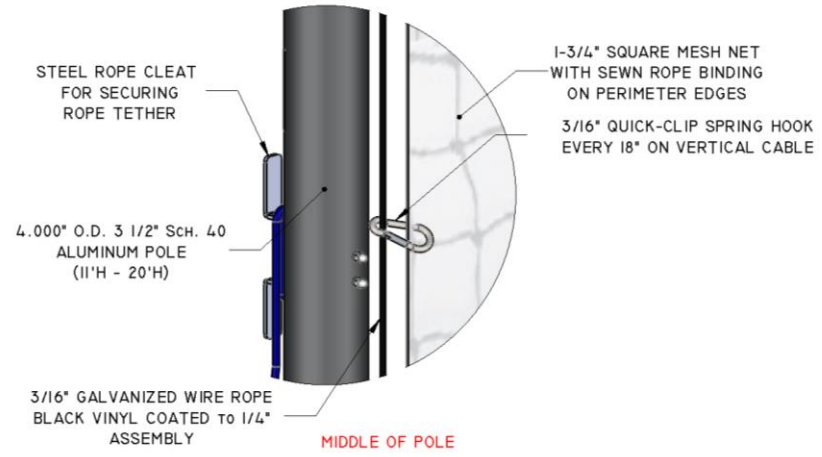
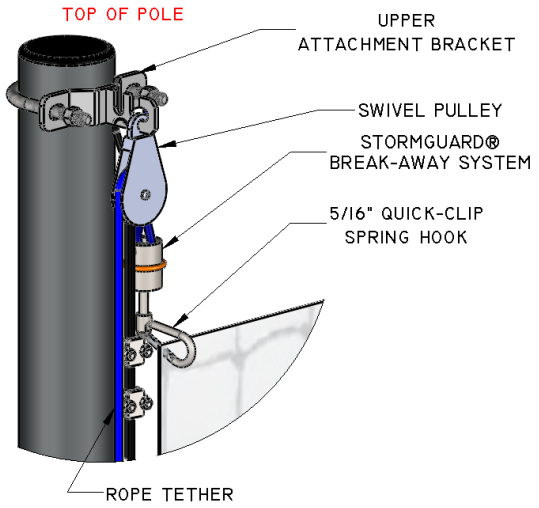
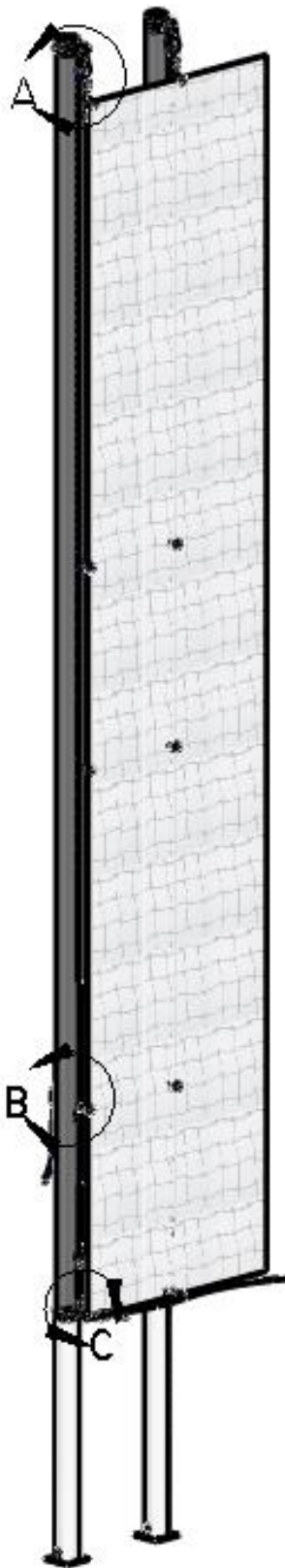
IMPORTANT: Nets are manufactured after ground sleeves are set and final field measurements have been provided. Please communicate this to your Sportsfield Specialties Representative so the nets can be produced. When nets are delivered please double check the length prior to installation. **Please note: It is not uncommon for netting to require a final field length adjustment due to the stretch characteristics of nylon netting.**

Pole Hardware

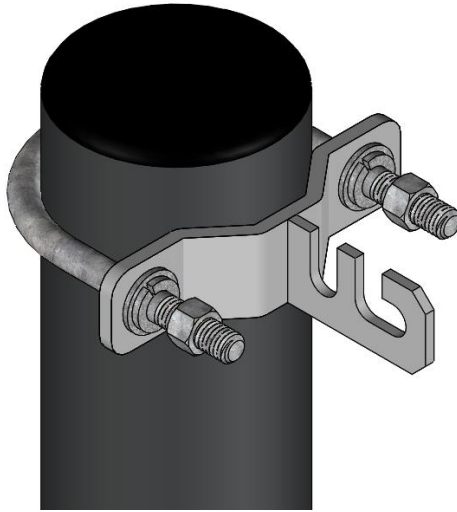
Quantity	Part Number	Description
1	PURCHP-0009 (113-209860)	Spring Hook (Tether to Horizontal Cable)
Varies*	PURCHP-0097 (114-116-304-SPHK2450-187N)	3/16" Spring Hook (Net to Vertical Cable)
1	E-1000-0013 (Rope Cleat)	Rope Cleat
2	101-HHC-0025 (101-HHC1/4-20x4.5-SS)	1/4-20 Hex Head Bolt
2	107-HXN-0006 (107-HXN1/4-20ACORN-SS)	1/4-20 Stainless Steel Acorn Nut
1	E-0007-S036 (HD-04-UPPER)	Upper Mounting Bracket
1	E-0007-S035 (HD-04-LOWER)	Lower Mounting Bracket
1	PURCHP-0026 (113-BLOCKWR300-02548)	1/4" Swivel Eye Block Pulley
1	TETHER	Tether measuring 2 x height of system plus 5 ft
Varies*	PURCHP-0048 (113-VGACB187/250-0050)	7 x 19 Galvanized Wire Rope, Black Vinyl Coated (height of system plus 3ft)
2	110-SLW-0002 (110-SLW1/4-SS)	1/4" lock Washer
2	102-UBOLT-0001 (114-UBOLT4.5"-GALV)	Galvanized U-Bolt (with 1/2-13 Hex Nuts)
4	110-FLW-0001 (110-FLW1/2-SS)	1/2" Flat Washer
4	110-SLW-0001 (110-SLW1/2-SS)	1/2" Lock Washer
1	E-0007-HD15 (HD-RUN)	Hardware per run
1	CT26175B	26" L Black Nylon Reusable Cable/Zip Tie

* Depends on the height of the system how many of the small spring hooks you receive to attach the net to the vertical cable. One spring hook for every 18" of netting.

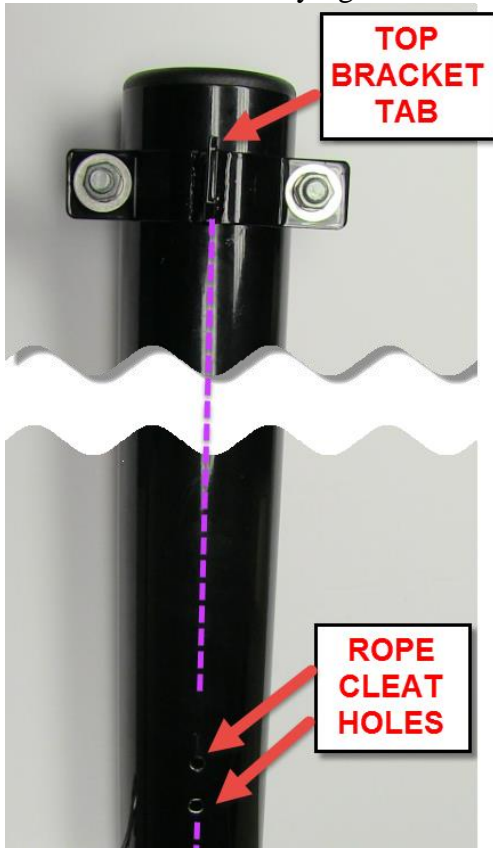
Pole Installation



1. Gather the top bracket hardware and loosely assemble TBH with the bracket shown below, down ~2" from top of pole shown below:



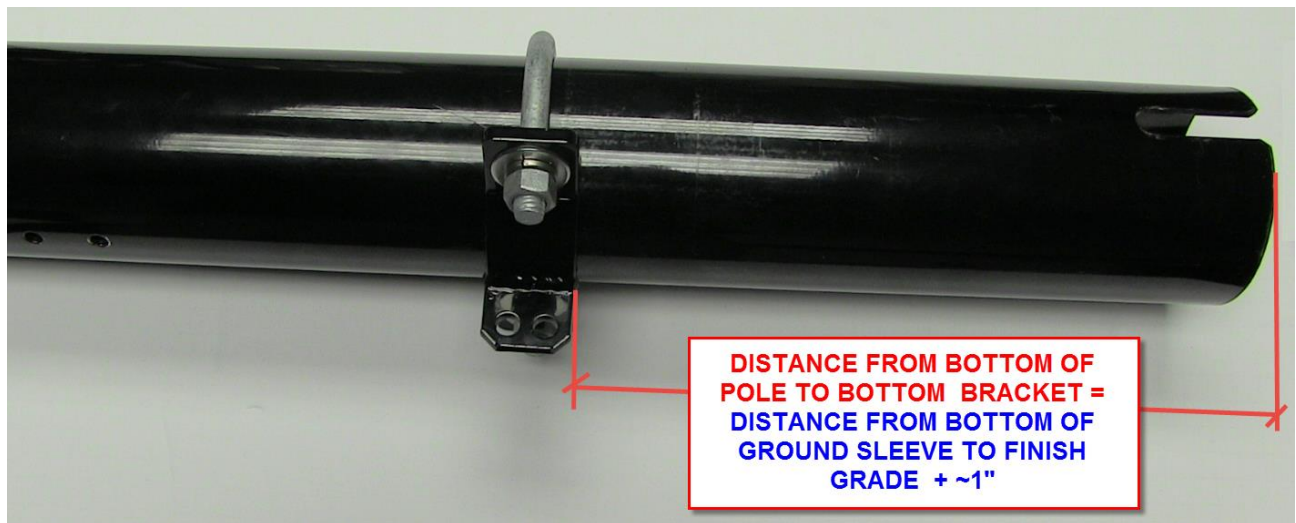
2. Align the top bracket tab with rope cleat holes and fully tighten the U-bolt nuts:



3. Gather the bottom bracket hardware (BBH) shown below:



4. Install the BBH hardware 1" above the top of the ground sleeve, leave hand tight for now. (ie: for a 30" ground sleeve, install the bracket 31" from the bottom of the pole):

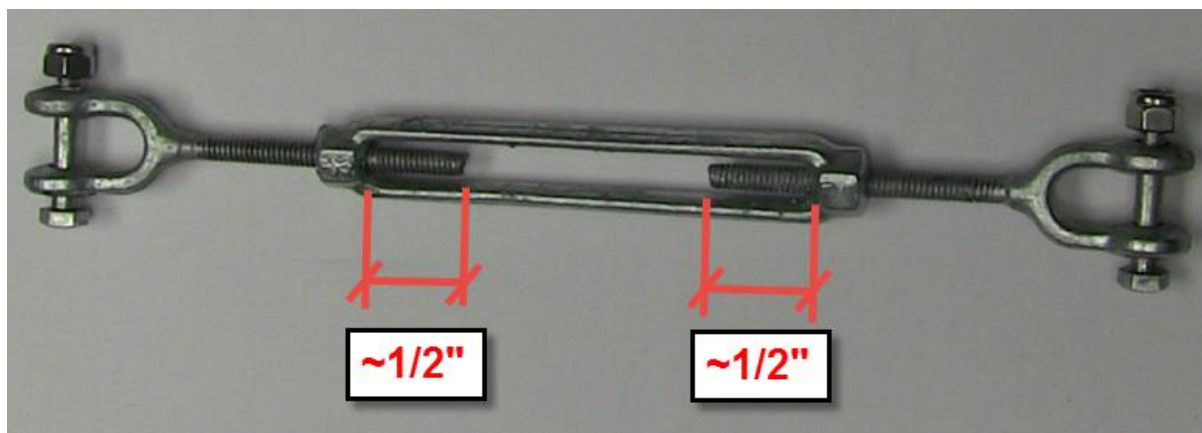


5. Align the bottom bracket tab with the rope cleat holes and top bracket tab and fully tighten both U-bolt nuts, alternating as required to ensure adequate tightness:

6. Turnbuckle assembly, with Jam Nuts:



8. Back out ends until ~ 1/2" of threads remains inside the turnbuckle body:



9. Attach one end of the turnbuckle to the top hole of bottom bracket tab:



10. Fully tighten nut, securing the bottom of the turnbuckle to bottom bracket:

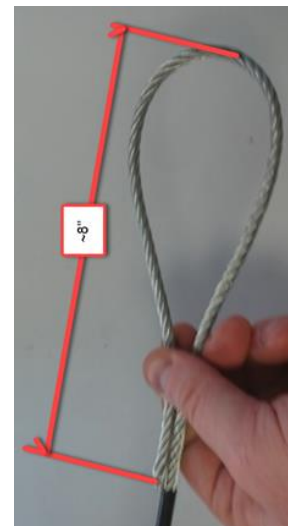


11. Gather BSS-SC-XX vertical slide cable (pre-cut black vinyl coated cable bundle).

Galv. Wire Rope, Black Vinyl Coated
PT#: PURCHP-0048 (113-VGACB187/250-0050)



12. 16" of vinyl will need to be stripped (both ends), loop the cable at one end, holding it with an ~8" loop as shown.



13. Insert a thimble as shown below:



14. Secure with wire rope clips:
*An impact drill is recommended for this task, alternate a minimum of 6-8 times while tightening



Wire Rope Clip Installation

Incorrect: Clip Saddles Installed on the Dead End of the Wire Rope



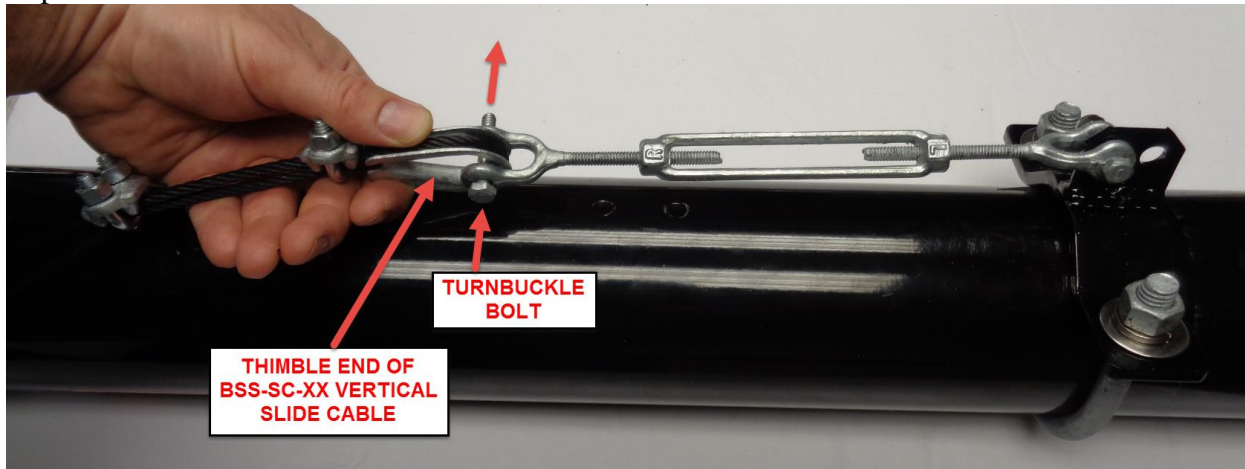
Incorrect: Alternating Rope Clip Orientation



Correct: Always Install Clips with the Saddles on the Live End of the Wire Rope



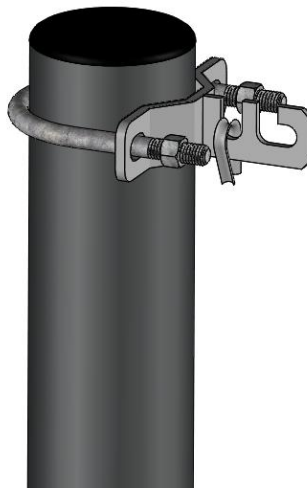
15. Insert the end of the BSS-SC-XX vertical cable into the top of the turnbuckle and slide the bolt into place:



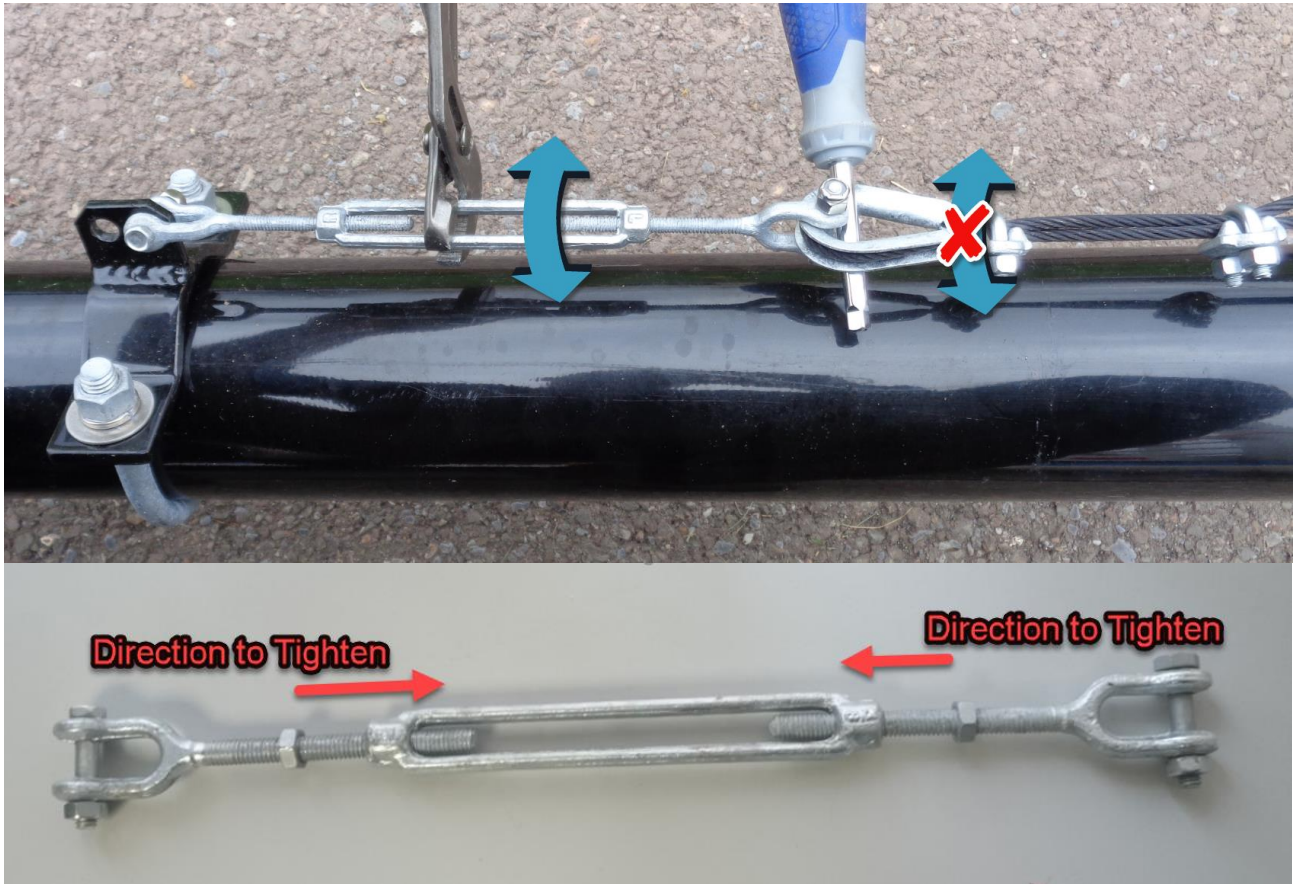
16. Install and tighten the nut, securing the vertical slide cable to the top of the turnbuckle:



17. Place a thimble in the back notch of the upper bracket. Feed the stripped end of the vertical slide cable over the thimble and pull the vertical slide cable taut and secure with (2) wire rope clips.



18. Tension the vertical cables to 840 lbf. The preferred method to accurately determine the cable tension is to check it with a tension meter. If a tension meter is not available, this tension can be approximated by first hand-tightening the turnbuckle and then tightening for 16 additional full rotations using a screwdriver and pliers. Verify that the cables have an adequate amount of tension by pushing, at the rope cleat height, with two fingers on the cable and ensuring that the cable cannot touch the pole without considerable effort:



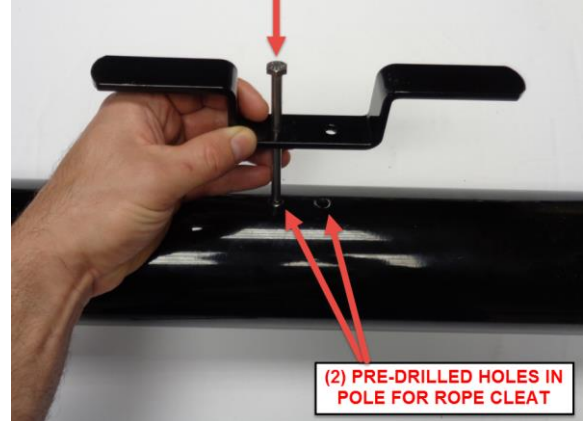
19. After tensioning the cable, check and fully tighten all wire rope clips. (An impact drill with a nut driver is recommended, alternate back & forth to ensure both nuts of any single clip are tight). Tighten both jam nuts fully down towards the turnbuckle body to prevent it from working loose.

IMPORTANT: Failure to complete step #19 may cause the cable clamps and turnbuckle to vibrate loose. SSI is not responsible for cable failures if this step is not completed at all top and bottom clamps and turnbuckle.

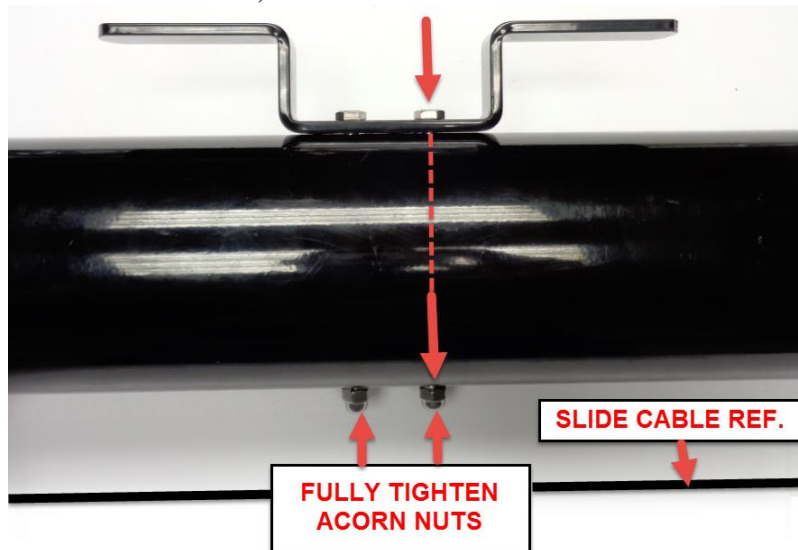
20. Gather the rope cleat hardware shown below:



21. Install the cleats opposite the vertical slide cable using the pre-drilled holes in the pole



22. Secure the cleats with the 1/4" bolts, lock & acorn washers.



23. Using a 26" Zip Tie:



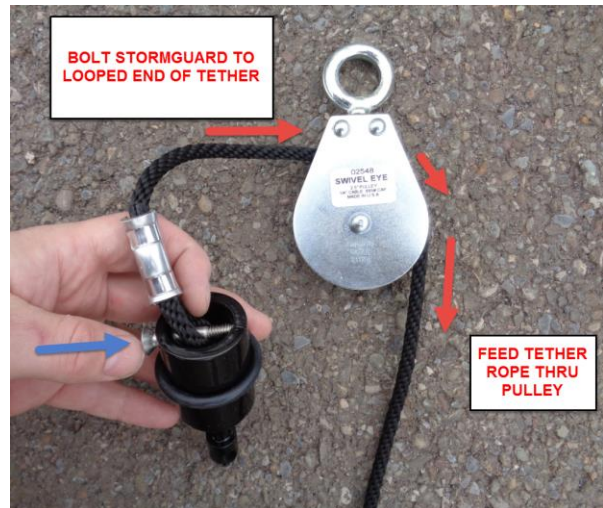
24. Wrap the turnbuckle ends as shown to prevent loosening:



25. Find the tether, StormGuard® & Pulley:



26. Insert the StormGuard® bolt through looped end of the tether & tighten the bolt. Feed the opposite end of the tether rope through the pulley until it stops at looped end:



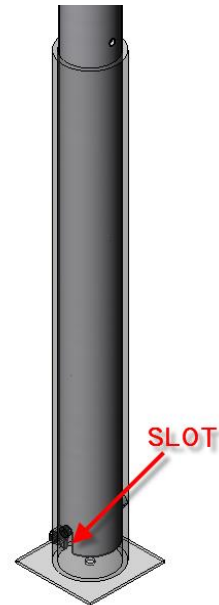
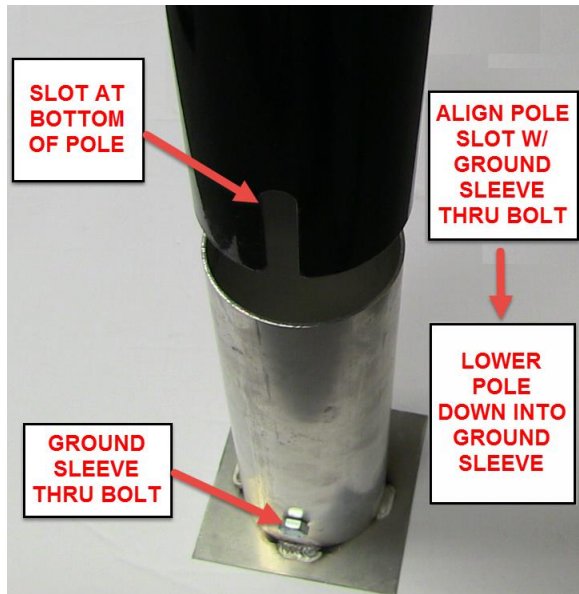
27. Add the 5/16" spring hook to the StormGuard® pin and place the pulley eye over the front notch of the top bracket.



28. Pull the tether rope down and secure it to the rope cleat.



29. Raise the pole with the slide cable assembly facing the field of play. Orientate the slot on the bottom of the pole to go over the ground sleeve through bolt to prevent rotation:



30. Repeat for remaining poles for your netting system.

NET PREPARATION:

31. Find the vinyl coated wire rope bundle:



32. Find a 1/4" thimble, (2) 3/16" wire rope clips and a 5/16" spring hook:



33. Follow steps 12-14 for attaching the thimble and rope cleats. **Cut cable to desired length. Remove 16" of vinyl coating from each end.**

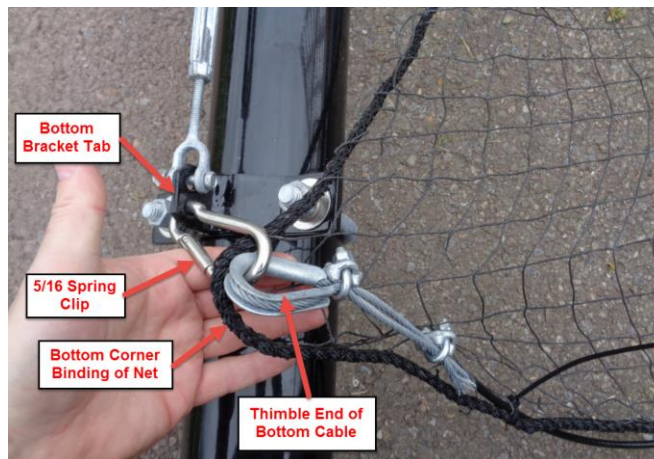
34. Unfold and layout a run of netting at the base of poles it will be attaching to. Starting at the bottom corner of netting, weave the free end of wire rope through the square mesh at the bottom of the net every 6-8" for the full length of netting. Go back through and zip tie the net binding to the wire rope every 12-18".



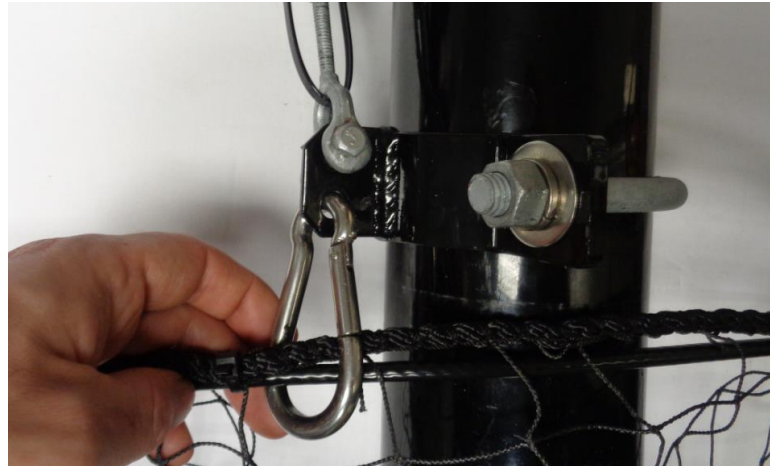
35. At an end pole, clip a 5/16" spring hook into the bottom hole of the bottom bracket:



36. Grab the bottom corner of the net binding & the thimble end of the bottom cable and clip it to the 5/16" spring clip:



37. Clip a 5/16” spring hook into the bottom hole of the bottom bracket and clip the bottom cable & net binding into it at all interior poles:



*Note: Bottom net attachment described above is for stand-alone BSS systems. Bottom net attachment may be different when a BSS system is integrated with a chain link fence.

38. Carefully unwind the tether from the cleat and lower the StormGuard® hardware down from the top of pole:

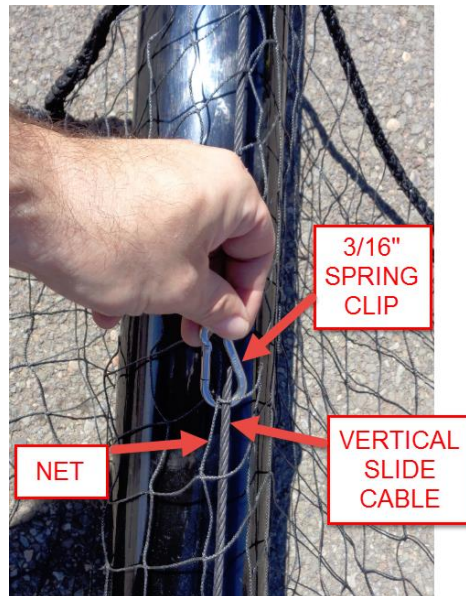


IMPORTANT: Do not stand under the StormGuard® hardware while lowering, serious injury could result if the hardware were to fall and strike a person.

39. When the StormGuard® hardware has been lowered to a safe level to handle, grab it and clip the top binding of net inside the 5/16” spring clip, then clip it to the vertical cable:



40. Slowly pull the tether up, raising the net. As the net raises, clip in the net and vertical slide cable at about every 18” using the 3/16” spring clips.



41. When the tether loop reaches the pulley with the StormGuard® hardware at the top of pole and 3/16” spring clips have clipped netting to the vertical cable every 18”, secure tether to rope cleat and tie off.

42. Repeat at all pole locations until the BSS System is fully assembled. Adjust as needed and verify all connections to be fully tightened and secure.

43. Once the netting is installed, hang provided laminated warning signs at each end of every run of netting using (4) Zip Ties on each sign.

MAINTENANCE AND DISASSEMBLY OF SYSTEM

- StormGuard pins that fail must be immediately replaced or the system taken down. Failure to do so may result in damage to the netting and/or the poles.
- The tension of all vertical cables should be checked a minimum of twice a year. Systems that remain up 12 months a year or are in high wind exposures may require additional and/or more frequent inspections. Excess slack in any of these cables should be eliminated by re-tensioning the cables as noted in the install instructions.

1. Simply unclip the spring hooks from the net.
2. Without removing the wire cable assembly (wire cable, thimble, rope clips, and zip ties) from the net, roll up the net.
3. Remove the poles from the ground sleeves.
4. Insert the ground sleeve cap into the hole left behind by the removal of the pole from the ground sleeve.

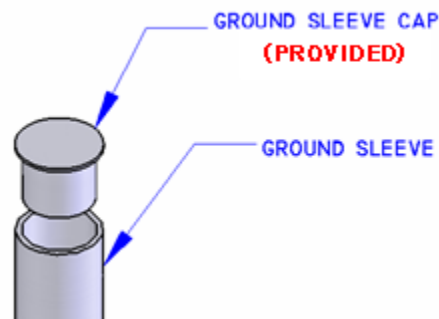


Figure 6 - Ground Sleeve Cap Insertion

5. If desired, remove all pole hardware and store in single container.
6. Store the net, poles, and hardware in a dry environment.

Sportsfield Specialties, Inc. strongly recommends the removal of all nets prior to exposure to winter weather, including snow and/or ice storms. Whenever possible, the nets should also be lowered prior to any extreme wind events. The StormGuard® system will prevent pole failure in the above scenarios, but removal/lowering of the nets will mitigate any unforeseen damage to the nets and/or attachment hardware. Storing nets in a dry, pest free location will help extend the life of the nets. Sportsfield Specialties, Inc. will not be held liable or assume responsibility for any damage to the nets, poles and/or corresponding attachment hardware if the nets are not removed/lowered prior to the above described wind and/or weather events.

SSI netting system poles are designed to strength, not deflection. As a result, some deflection will occur

during installation and should be considered normal. Deflection may also be evident in calm conditions, particularly on the outer most poles of a given netting system.

REPLACEMENT PARTS

Contact Sportsfield Specialties Customer Service at 1-888-975-3343 for replacement hardware.



Sportsfield Specialties, Inc.
P.O. Box 231
41155 State Highway 10
Delhi, N.Y. 13753
Phone: 888-975-3343
Fax: 607-746-8911
Website: www.sportsfieldspecialties.com

