

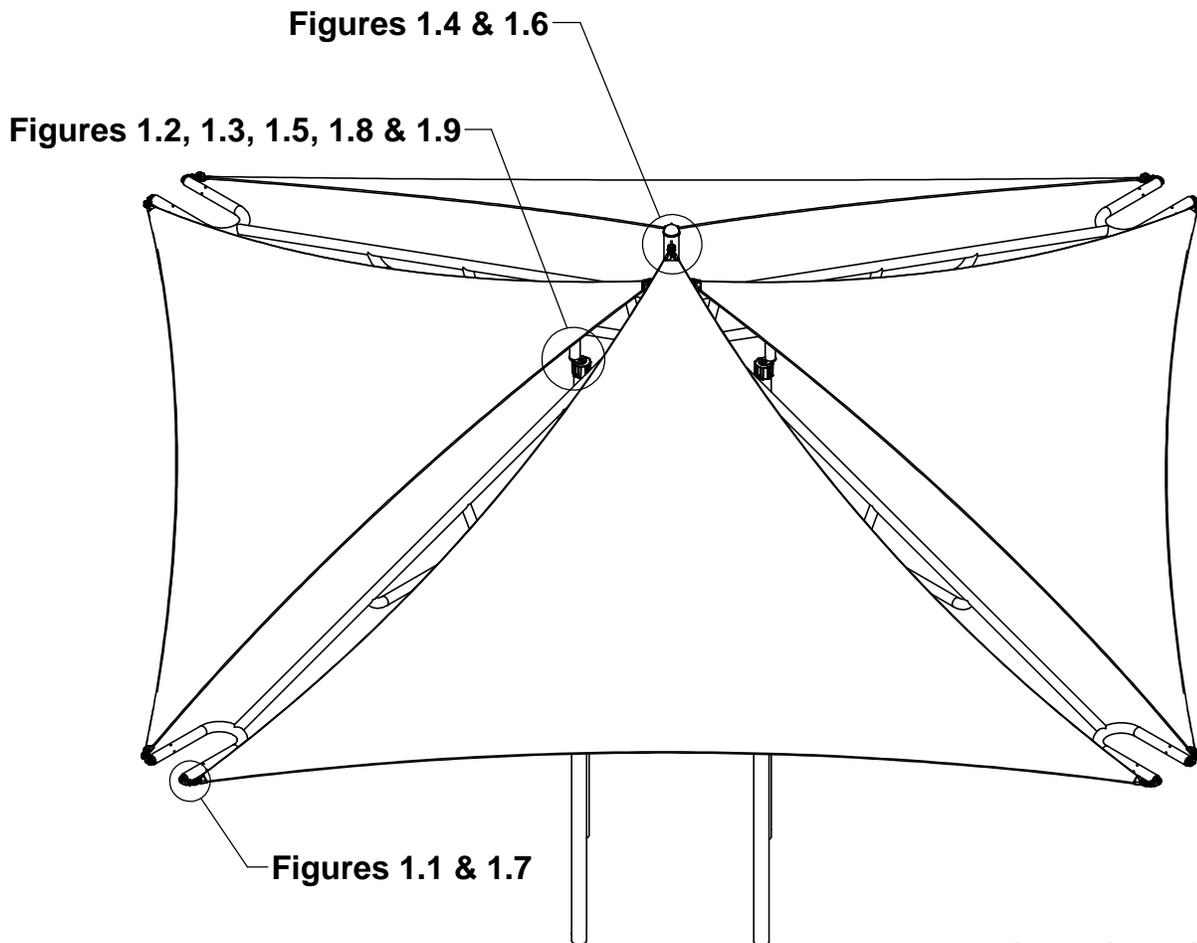
IMPORTANT NOTES: Read First

(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) When installing the Shade Sail Canopy, make sure that the lowest point of the roof is a minimum of 84" [2130mm] above the underlying play surface.

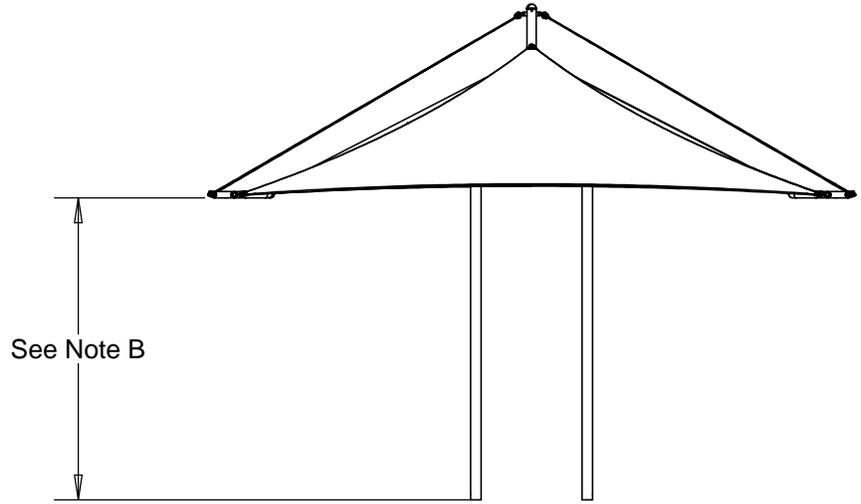
(C) Remove sails from Shade Sail Canopy in high wind and heavy snow conditions. Block protrusions while sails are removed to maintain CPSC/ASTM compliance.

FIGURE 1
Square Shade Sail Canopy

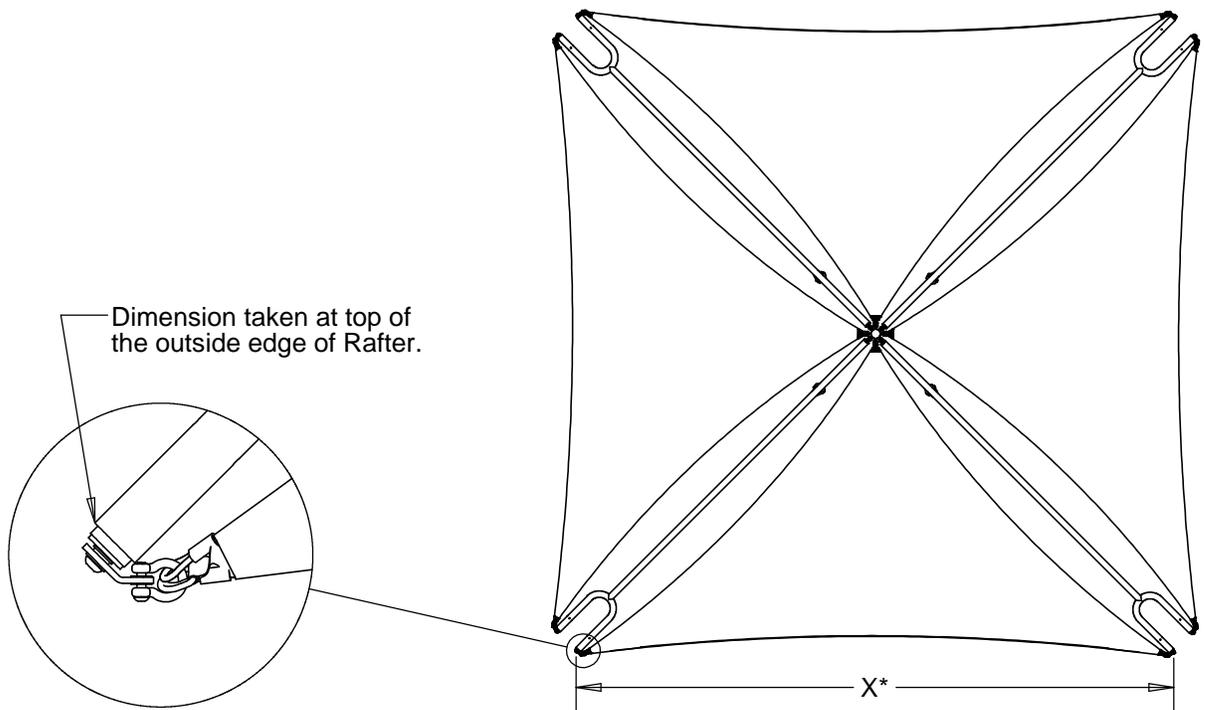


NOTE: 20' R5 Square Shade Sail Canopy shown. Other configurations will vary slightly, but does not affect assembly.

Elevation View



Top View



* Dimension indicated should be equal on all sides.



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Step 1 (Factory Assembled)

Attach Dome Post Cap and Flat Post Cap to Hub as shown in Figure 2.

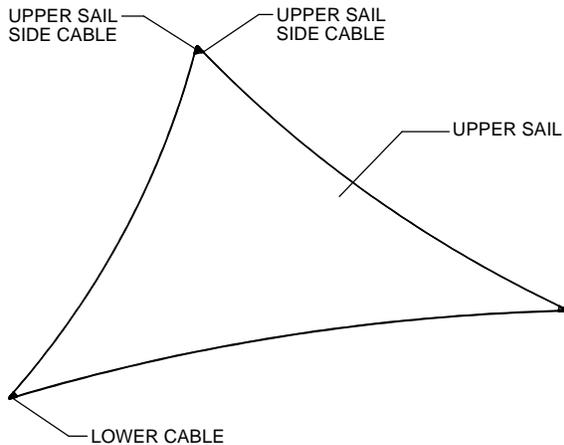


FIGURE 3

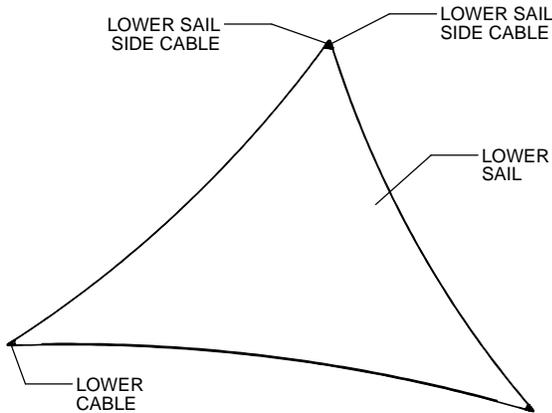


FIGURE 4

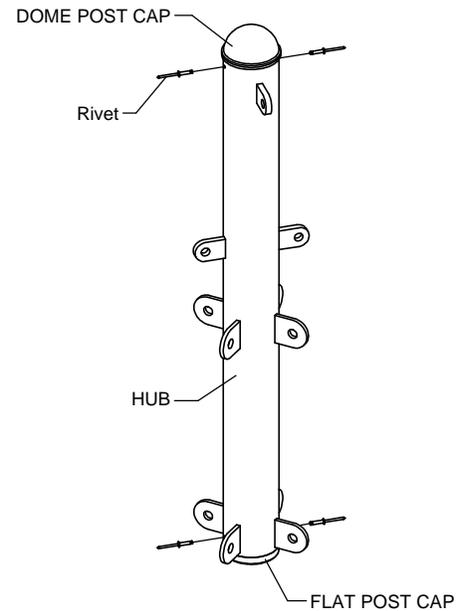


FIGURE 2

Step 2 (Factory Assembled)

Run cables through designated loops to assemble Upper Sails as shown in Figure 3 and Lower Sails as shown in Figure 4.

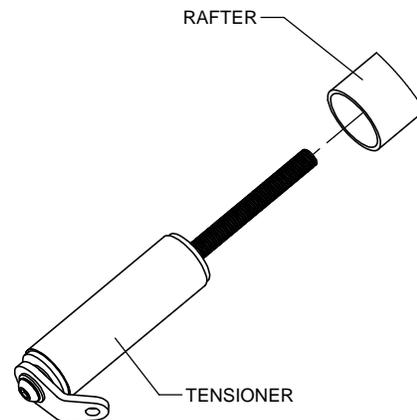


Figure 1.1

Step 3 (Factory Assembled)

Apply grease to threads and insert Tensioners into end of Rafters as shown in Figure 1.1.

Step 4

For R3.5 & R5 Only

Attach Roof Castings to Rafters as shown in Figure 1.2.
(See Note A)

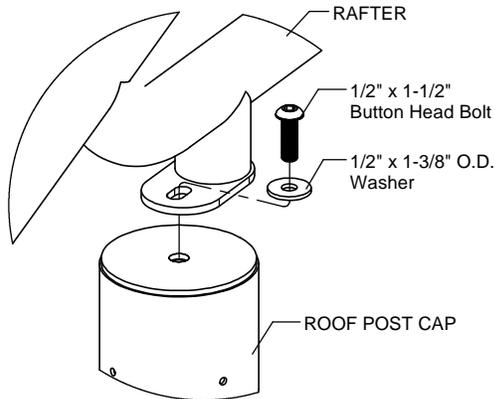


Figure 1.3

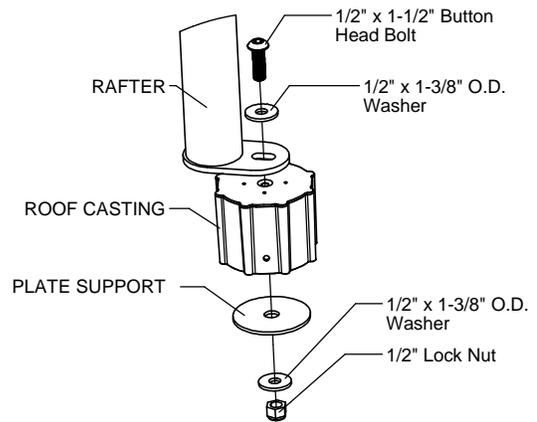


Figure 1.2

Step 5

For RV Canopy Only

Attach Roof Post Caps to Rafters as shown in Figure 1.3. (See Note A)

Step 6

Attach (2) Rafters to Hub as shown in Figure 1.4.
(See Note A)

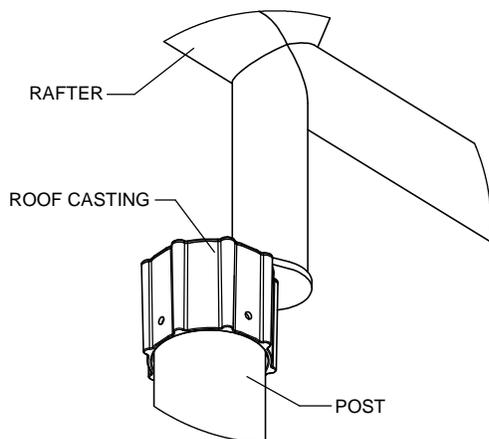


Figure 1.5

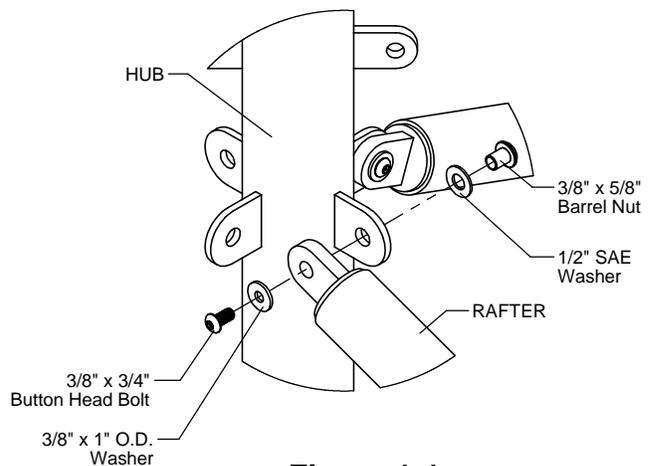


Figure 1.4

Step 7

Place assembled Canopy Rafters and Hub on posts as shown in Figure 1.5. (See Note B)

Step 8

Place remaining Rafters on posts as shown in Figure 1.5 and attach to Hub as shown in Figure 1.4. (See Note A)

Step 9

Attach Upper Canopies and Lower Canopies to Hub as shown in Figure 1.6.

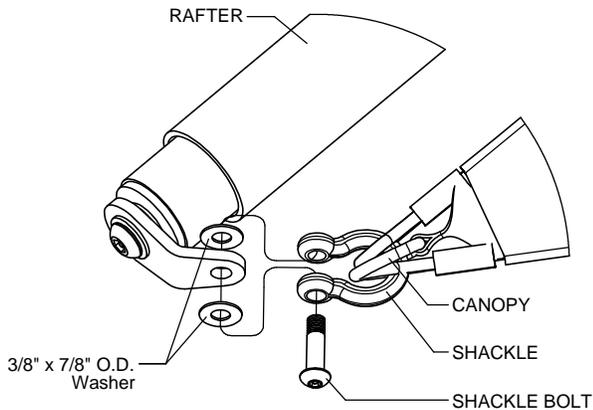


Figure 1.7

Step 12

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

Step 13

For R3.5 & R5 Only

Secure Roof Castings to posts as shown in Figure 1.8. (See Note B)

NOTE: Adjust height of Canopy Rafters so that tops of Roof Castings are level and Canopy Hub is plumb. Rotate Roof Castings so that installed rivets do not interfere with installation.

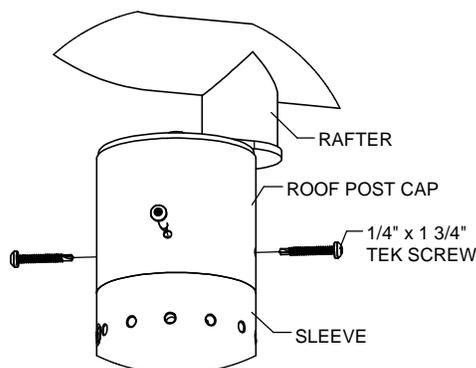


Figure 1.9

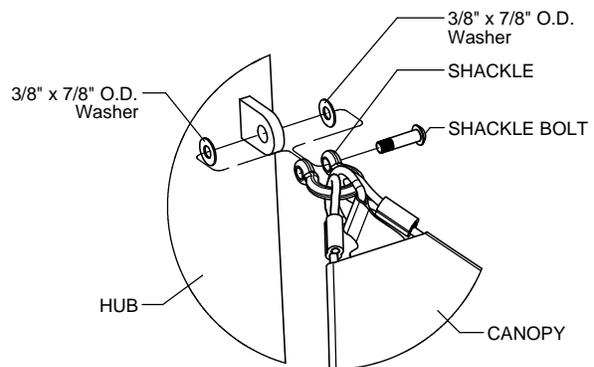


Figure 1.6

Step 10

Attach Upper Canopies and Lower Canopies to Rafters as shown in Figure 1.7.

Step 11

Adjust cable tension evenly using Tensioners, maintaining a consistent dimension on all sides. (See Top View)

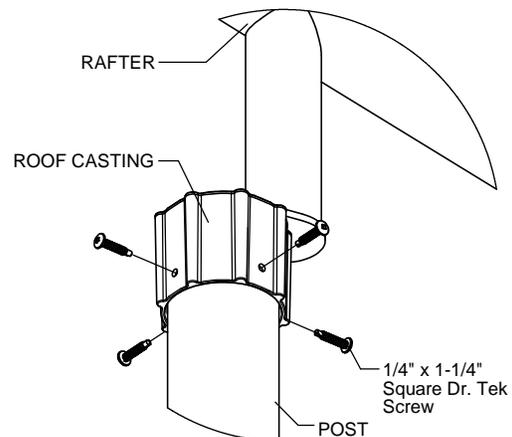


Figure 1.8

Step 14

For RV Canopy Only

Secure Roof Post Caps to sleeves as shown in Figure 1.9. (See Note B)

NOTE: Adjust height of Canopy Rafters so that tops of Roof Castings are level and Canopy Hub is plumb. Rotate Roof Castings so that installed rivets do not interfere with installation.

R3.5 Parts List

SQUARE SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
AG-8298	Roof Canopy Leg Support R3.5	4
GG-8164-T	Roof Casting R3.5 Trimmed	4
451161-SS	Swing Shackle - Stainless Steel	12
9103032-TR	Bolt Button Head 3/8" x 3/4"	8
9105072	Bolt Button Head 1/2" x 1-1/2"	4
9271060	Screw Tek 1/4" x 1-1/4" PH SQDR	16
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	8
9333042	Washer Flat 3/8" x 7/8" O.D.	24
9335062-5	Washer Flat 1/2" x 1-3/8" OD	8
9345002	Washer Flat SAE 1/2"	8
9415132	Nut Lock 1/2"	4
9443022-TR	Nut Barrel 3/8" x 5/8" BH	8

R5 Parts List

SQUARE SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
AF-7271	Roof Canopy Leg Support R5	4
GF-7163-T	Roof Support Casting R5 Trimmed	4
451161-SS	Swing Shackle - Stainless Steel	12
9103032-TR	Bolt Button Head 3/8" x 3/4"	8
9105072	Bolt Button Head 1/2" x 1-1/2"	4
9271060	Screw Tek 1/4" x 1-1/4" PH SQDR	16
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	8
9333042	Washer Flat 3/8" x 7/8" O.D.	24
9335062-5	Washer Flat 1/2" x 1-3/8" OD	8
9345002	Washer Flat SAE 1/2"	8
9415132	Nut Lock 1/2"	4
9443022-TR	Nut Barrel 3/8" x 5/8" BH	8

HEX SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
AF-7271	Roof Canopy Leg Support R5	6
GF-7163-T	Roof Support Casting R5 Trimmed	6
451161-SS	Swing Shackle - Stainless Steel	18
9103032-TR	Bolt Button Head 3/8" x 3/4"	12
9105072	Bolt Button Head 1/2" x 1-1/2"	6
9271060	Screw Tek 1/4" x 1-1/4" PH SQDR	24
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	12
9333042	Washer Flat 3/8" x 7/8" O.D.	36
9335062-5	Washer Flat 1/2" x 1-3/8" OD	12
9345002	Washer Flat SAE 1/2"	12
9415132	Nut Lock 1/2"	6
9443022-TR	Nut Barrel 3/8" x 5/8" BH	12

RV Parts List

SQUARE SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
FS-18027-RVCAP	Canopy Roof Post Cap RV	4
451161-SS	Swing Shackle - Stainless Steel	12
9103032-TR	Bolt Button Head 3/8" x 3/4"	8
9105072	Bolt Button Head 1/2" x 1-1/2"	4
9271082-TR	1/4" x 1 3/4" Tek Screw	16
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	8
9333042	Washer Flat 3/8" x 7/8" O.D.	24
9335062-5	Washer Flat 1/2" x 1-3/8" OD	4
9345002	Washer Flat SAE 1/2"	8
9443022-TR	Nut Barrel 3/8" x 5/8" BH	8

HEX SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
FS-18027-RVCAP	Canopy Roof Post Cap RV	6
451161-SS	Swing Shackle - Stainless Steel	18
9103032-TR	Bolt Button Head 3/8" x 3/4"	12
9105072	Bolt Button Head 1/2" x 1-1/2"	6
9271082-TR	1/4" x 1 3/4" Tek Screw	24
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	12
9333042	Washer Flat 3/8" x 7/8" O.D.	36
9335062-5	Washer Flat 1/2" x 1-3/8" OD	6
9345002	Washer Flat SAE 1/2"	12
9443022-TR	Nut Barrel 3/8" x 5/8" BH	12

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.



Assembled Parts List

12' SQUARE SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
FS-18027-HUB	Sail Canopy Hub	1
VARIES	Sail Canopy Rafter	4
FS-18027-TNSR	Sail Canopy Tensioner	8
GG-8135	Post Cap R3.5 Dome	1
GG-8322	R3.5 Flat Post Cap	1
HE-0022	12' Canopy Lower Sail	2
HE-0023	12' Canopy Upper Sail	2
HE-0024	Upper Canopy Sail 12' Side Cable	4
HE-0025	Canopy Sail 12' Lower Cable	4
HE-0026	Lower Canopy Sail 12' Side Cable	4
9610012	Rivet 3/16" x 1/2" to 3/4" Pop	4

20' SQUARE SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
FS-18027-HUB	Sail Canopy Hub	1
VARIES	20' Sail Canopy Rafter	4
FS-18027-TNSR	Sail Canopy Tensioner	8
GG-8135	Post Cap R3.5 Dome	1
GG-8322	R3.5 Flat Post Cap	1
HE-0013	20' Sail Canopy - Lower Sail	2
HE-0014	20' Sail Canopy - Upper Sail	2
HE-0016	Canopy Sail Lower Cable	4
HE-0017	Upper Canopy Sail Side Cable	4
HE-0018	Lower Canopy Sail Side Cable	4
9610012	Rivet 3/16" x 1/2" to 3/4" Pop	4

14' HEX SHADE SAIL CANOPY		
Part #	DESCRIPTION	QTY.
FS-18027-TNSR	Sail Canopy Tensioner	12
VARIES	Sail Canopy Rafter	6
FS-18028-HUB	Hex Sail Canopy Hub	1
GG-8135	Post Cap R3.5 Dome	1
GG-8322	R3.5 Flat Post Cap	1
HE-0038	14' Hex Canopy Lower Sail	3
HE-0039	14' Hex Canopy Upper Sail	3
HE-0040	14' Hex Canopy Lower Cable	6
HE-0041	14' Hex Canopy Upper Sail Side Cable	6
HE-0042	14' Hex Canopy Lower Sail Side Cable	6
9610012	Rivet 3/16" x 1/2" to 3/4" Pop	4

Specifications

CANOPY HUB:

Shall be fabricated using 3.5" O.D. 11 gauge steel post with welded 1/4" and 3/8" thick steel mounting tabs. The Canopy Hub shall have a multi-stage baked-on powder coat finish.

CANOPY TENSIONER:

Shall be fabricated 2" O.D. 11 gauge stainless steel tube, 1/4" thick stainless steel plate, 3/16" steel plugs, and hardware.

CANOPY RAFTER:

Shall be fabricated using 2.375" O.D. 10 gauge steel beams and supports with welded 1/4" & 1/2" thick steel mounting tabs, and a 3/16" thick steel plug. The Canopy Rafter shall have a multi-stage baked-on powder coat finish.

UPPER & LOWER SAILS:

Shall be UV & mildew resistant woven acrylic fabric, folded and stitched for strength and to accommodate steel cable.

HARDWARE:

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

