

USER MANUAL



SCHEDULE
GS-07F-5916R

MADE IN THE U.S.A.



ALI & AL2 STANDARD SERIES *MANUAL PUSH UP SYSTEM*

REV 06/2016

BLUESKY MAST[®]
elevating solutions[™]

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AL1 / AL2 Standard Series User Manual

TABLE OF CONTENTS

Limited Twelve (12) Month Warranty.....	4
Important Safety Precautions.....	5-7
1. Part I: Power Lines, Lightning and Grounding.....	5
2. Part II: Guy Ropes and Fasteners.....	6
3. Part III: Wind Conditions.....	7
4. Wind Conditions Reference Chart.....	7
Understanding Deployment Load and Guying.....	8-25
1. Deployable Load.....	8
2. Wind Effects & Guying.....	9
3. Anchor Radius.....	10
4. Primary and Secondary Guy Placement.....	11
5. Guying Distance.....	11
6. AL1 Load Tables.....	12-18
7. AL2 Load Tables.....	19-25
Basic Component Overview.....	26
Step by Step Deployment Instructions.....	27-61
1. Deploying the Standard Mast with Primary Guying Only (Models 2 to 10 Meters Only).....	27-39
2. Deploying the Standard Mast with Primary & Secondary Guying (Models 2 to 15 Meters)...	40-53
Deploying the Surface Wire Grounding Kit.....	56
Deploying the with the Lift Handles.....	57
Datasheets for AL1 and AL2 Standard Series 15M Mast.....	54-55
Surface Wire Grounding Deployment Instructions.....	56
Lift Handle Instructions.....	57
Accessory Reference Guide.....	58-75

AL1 / AL2 Standard Series User Manual

DISCLAIMER OF WARRANTIES AND LIABILITY

DO NOT ATTEMPT TO DEPLOY THIS MAST IF YOU ARE NOT EXPERIENCED IN SIMILAR DEVICES

You are responsible for your own safety and survival and that of those persons around the mast. This manual is to be used as an aid and only to be used at your own risk. Nothing will replace good sound judgment when deploying the mast.

The information provided in this manual should be used as a guideline and not absolute fact. Many variables are involved in deploying a mast system such as weather, soil conditions, guying distances, cantilevered payloads, surrounding obstacles, accuracy and precision of guying, etc.

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Cage Code: 3JWX5

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We will send you a reply concerning incorporating your suggestions. Thank You.

AL1 / AL2 Standard Series User Manual

Limited Twelve (12) Month Warranty

This BLUESKY MAST, INC. equipment is warranted to be free from defects in material and workmanship under normal use and service. BLUESKY MAST, INC. shall repair or replace defective equipment, at no charge, or at its option, refund the purchase price, if the equipment is returned to BLUESKY MAST, INC. not more than twelve (12) months after shipment. Removal or reinstallation of equipment and its transportation shall not be at the cost of BLUESKY MAST, INC. except BLUESKY MAST, INC. shall return repaired or replaced equipment freight prepaid to a continental United States address.

This Warranty shall not apply to equipment which has been repaired or altered in any way so as to affect its stability or durability, or which has been subject to misuse, negligence or accident. This Warranty does not cover equipment which has been impaired by severe weather conditions such as excessive wind, ice, storms, lightning, or other natural occurrences over which BLUESKY MAST, INC. has no control, and this Warranty shall not apply to equipment which has been operated or installed other than in accordance with the instructions furnished by BLUESKY MAST, INC.

Products are manufactured from anodized aluminum in various colors. Color fading and varying shades of color will inevitably occur with exposure to sunlight and environmental conditions and is not considered a defect in the material or product.

Claimants under this Warranty shall present their claims along with the defective equipment to BLUESKY MAST, INC. immediately upon failure.

Noncompliance with any part of this claim procedure may invalidate this warranty in whole or in part.

This warranty is expressly in lieu of all other agreements and warranties, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of this warranty. BLUESKY MAST, INC. Neither assumes nor authorizes any representative or other person to assume for it any other liability in connection with the equipment delivered or provided. In no event shall BLUESKY MAST, INC. Be liable for any loss of profits, loss of use, interruption of business, or indirect, special or consequential damages of any kind.

In no event shall BLUESKY MAST, INC. be liable for damages in an amount greater than the purchase price of the equipment. Some states do not allow limitations on how long an implied warranty lasts, or allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Safety Precautions

Important Safety Precautions

Part I: Power Lines, Lightning and Grounding

- **LOOK UP AND LIVE!** Before erecting the mast, check for overhead power lines. Never deploy this mast where there is any possibility of direct or indirect contact with a power line. Keep the mast a distance equal to or greater than twice its height away from power lines. This will ensure that the Antenna, masts, guy ropes or cables will not contact power if it falls either during installation or later. Any person touching any part of a mast or even standing near a mast that contacts a power line can be seriously injured or killed.
- **BEWARE OF UNDERGROUND POWER LINES!** Ground stakes might penetrate underground power lines. Before deploying any ground stakes, be sure to check the area for warnings of buried cables and contact your local power company to verify. Any person touching any part of a mast or even standing near a mast that contacts a power line can be seriously injured or killed.
- Keep guy ropes away from power lines to eliminate the possibility of a power line falling on the guy rope.
- Never touch a mast or structure that you suspect may be accidentally energized electrically.
- Never work with a mast or related structure during electrical storm activity.
- Contrary to popular belief, most lightning injuries and damage do not come from direct lightning strikes. There are several ways that lightning can injure you:
 - “Step Potential” is potentially hazardous voltage that can exist on the ground like stepping on a live wire. This results from electrical energy diverted into the ground from lightning striking nearby. It is the most common injury causing lightning effect.
 - Flashover is when lightning strikes a nearby object and then jumps to another nearby object. This is usually what injures people standing under trees in an electrical storm.
- Do not stand near the mast, deploy or retract the mast during electrical storm activity.
- Always ground the mast.

Safety Precautions

Important Safety Precautions

Part II: Guy Ropes and Fasteners

- Inspect all guy ropes and fasteners for wear or damage before use. Serious injury or death may occur if a guy rope failure causes a mast to fall.
- Mark guy ropes clearly to prevent personnel from tripping over them. Personnel who trip may suffer injury and may also pull up a guy rope and cause the mast to fall.
- Monitor the tension of the guy ropes to ensure proper tension.
- Ensure that stakes and anchors are secure in the ground before attaching guy ropes. Use extra caution when anchoring guy ropes, especially in sandy or loose soil.
- Never fasten a guy rope over a sharp edge or in a manner that causes abrasion. This may cause guy rope failure. Pad any contacting surfaces if necessary.
- Do not install guy ropes across roadways or other paths of travel. Always clearly mark guy ropes.
- Ensure guy ropes are clear of branches and other obstructions.
- Use only authorized parts. Unapproved substitutes may not be strong enough for the equipment.
- Periodically inspect the mast to ensure that it remains structurally sound and properly installed.
- Never overload the mast or structure. Use ONLY the equipment and accessories in proper quantities as described by the manufacture specifications. Do not use unauthorized equipment or modifications.
- BE CAUTIOUS of ice that may form on the antenna/mast. The area around the antenna/mast should be marked and roped off to avoid falling ice. Special care must be taken when retracting the mast or structure to avoid falling ice.
- Use additional guy ropes for the mast, if heavy ice loading or wind is expected or anticipated.
- Ensure that the wind speed is not excessive during deployment/retraction operations. Maximum safe wind speeds are available from manufacturer for your specific mast.

Safety Precautions

Important Safety Precautions

Part III: Wind Conditions

- BlueSky Mast recommends that you do not attempt to actively deploy in winds that exceed 15 mph.
- During windy conditions it will be necessary to incrementally guy the mast as it is being deployed.
- Incremental Guying will add time to the deployment but increase the protection of personnel and equipment.

Use this chart to determine approximate wind speed:

VISUAL OBSERVATIONS	KM / H	MPH	DEPLOYMENT CONDITIONS
Smoke Rises Vertically	<1	<1	Safe
Wind Direction Shown by Smoke	1-6	1-3	Safe
Wind Felt on Face, Leaves Rustle	7-12	4-7	Safe
Leaves & Twigs in Constant Motion, Wind Extends Light Flag	13-18	8-11	Use Caution
Dust and Loose Paper Blown Freely, Small Branched Move	19-26	12-15	Use Caution
Small Trees Begin to Sway	27-35	16-22	Dangerous Conditions
Large Branches in Motion, Wind Whistles Through Wires	36-44	23-27	Dangerous Conditions
Whole Trees in Motion	45-55	28-34	Dangerous Conditions

Payload Capacity - Wind Load - Anchor Radius

Deployable Payload

A mast installation can be exposed to several types of loads. The physical weight of the instrument and its attachments is referred to as the **payload**. The mast can support much more weight when properly guyed and stabilized but BlueSky Masts will only recommend payloads that are safe to carry during the deployment process and we call this the **deployable load**. The remaining reserve load capacity represents the margin designed to absorb any subsequent environmental load that the mast may encounter. The primary environmental load on a mast is **wind load**.

The payload capacity on a BlueSky Mast is governed by the installer's ability to safely elevate the payload to the desired height. As poles are inserted into the tripod and the mast begins to climb, the mast tip has a tendency to lean off-center and away from its position of greatest strength. An iterative process of incremental guying and mast pole elevation may be required to successfully deploy the mast. For best results, please limit your deployment to the height and payload combinations given in the table below.

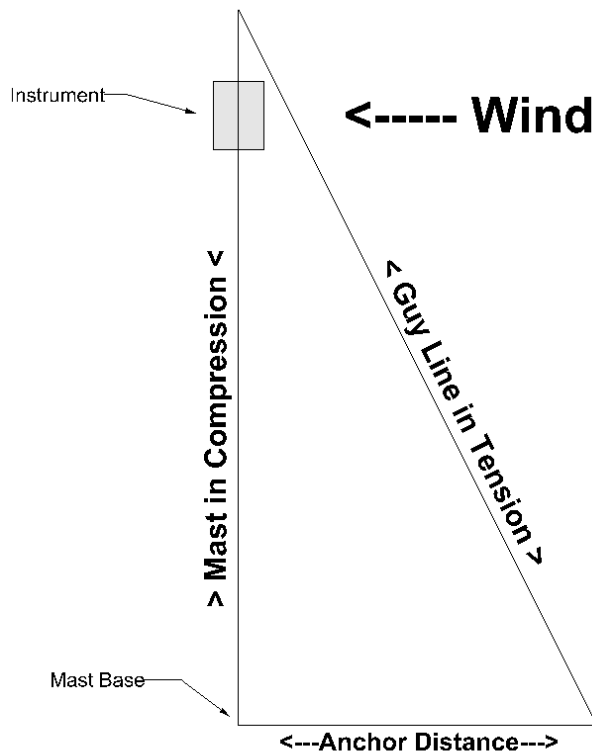
Mast Model	Height (ft.)	AL1 Deployable Load (lbs.)	AL2 Deployable Load (lbs.)
2 Meter	7.5 ft.	50	100
3 Meter	10.5 ft.	47.5	85
4 Meter	13.5 ft.	45	70
5 Meter	16.5 ft.	42.5	65
6 Meter	19.5 ft.	40	60
7 Meter	22.5 ft.	37.5	57.5
8 Meter	25.5 ft.	35	55
9 Meter	28.5 ft.	32.5	52.5
10 Meter	31.5 ft.	30	50
11 Meter	34.5 ft.	25	40
12 Meter	37.5 ft.	20	35
13 Meter	40.5 ft.	15	30
14 Meter	43.5 ft.	12.5	25
15 Meter	46.5 ft.	10	20

Payload Capacity - Wind Load - Anchor Radius

Wind Effects

When wind blows on a mast and its instruments, the guys restrict the top of the mast and its instruments from moving off center. The mast's reaction to wind will put tension in the guy line and force the top of the mast downward in compression, the amount of which will vary depending on the anchor distance as described below.

The size and shape of the instruments determine the amount of force they produce in any given wind condition. Don't forget that the mast itself is a surface area exposed to the wind and its wind load will need to be added to the instrument wind load to get the total wind load on the system. The mast wind loads are given in the table at the end of this section and clearly show the benefits of Secondary Guying.



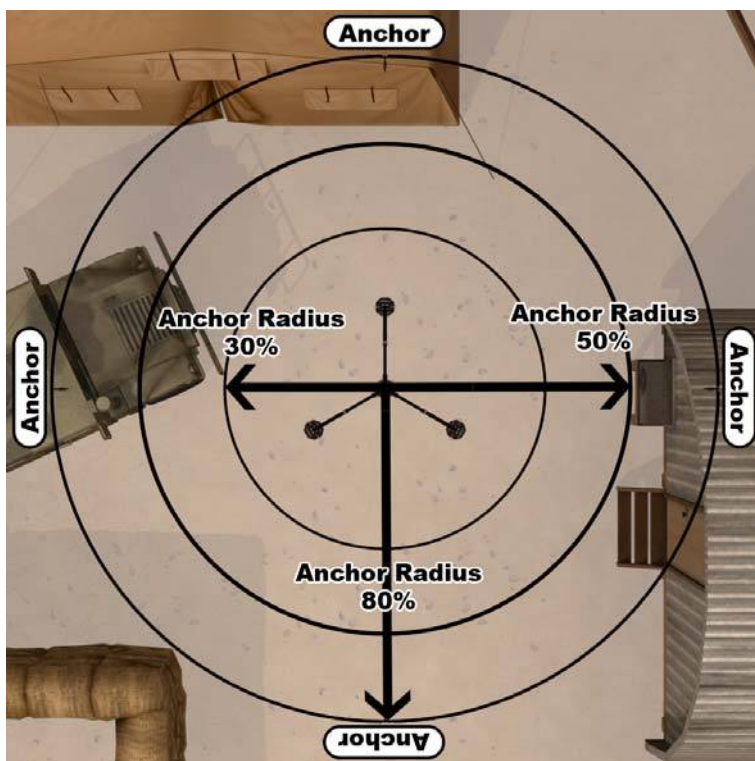
Guying

Guy lines are used to **maintain the position** of the top of the mast directly over the center of the tripod. This is its position of greatest strength, which will maximize the load carrying capacity of the mast in terms of payload as well as wind survivability. When no wind is present, the guy lines remain critical to stabilize the top of the mast and to keep the instrument mounts level.

Payload Capacity - Wind Load - Anchor Radius

Anchor Radius

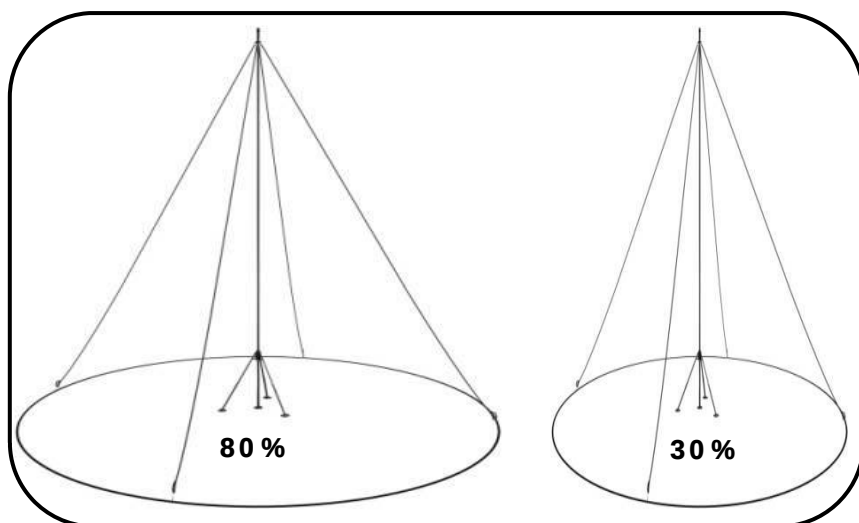
Ideal guying is set with an anchor radius of 80% of the mast height. Many applications of mast deployments are not able to afford an installation footprint of this size and installers may find it more convenient to place the guy anchors much closer to the mast as shown in the figure to the right. BlueSky Mast does not recommend configurations utilizing less than 80% guy radius, but if your site dictates that you must deviate from the recommended configuration it is imperative that the installer is aware of the effects of the reduced anchor radius and its effect on total payload capacity and wind loading.



The angle of pull on the guy line relative to the anchor radius may produce a lever effect increasing the mast compression due to wind loading by a **factor of 5 !**

Guying Distance (% of Mast Height)	Anchor Radius Factor
10%	10.00
20%	5.00
30%	3.33
40%	2.50
50%	2.00
60%	1.67
70%	1.43
80%	1.25
90%	1.11
100%	1.00

The table at left shows the affect the anchor radius has on the multiplying factors of compressive loads produced on the mast by a horizontal wind force. Below are examples of various anchor radii.



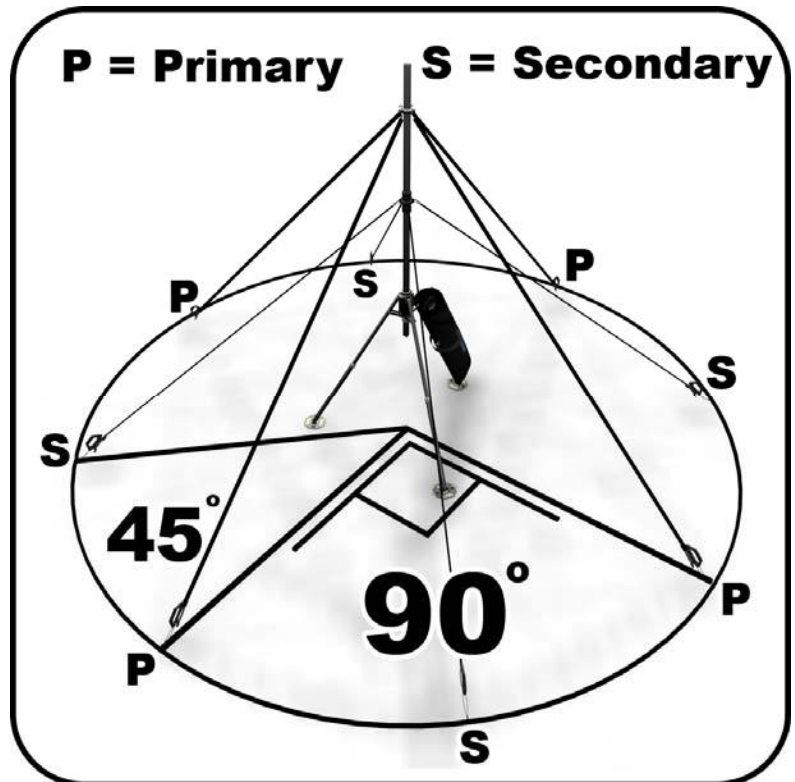
Payload Capacity - Wind Load - Anchor Radius

Primary and Secondary Guy Placement

BlueSky utilizes a 4 guy configuration to help minimize the affect wind loading has on the mast. The primary guys are always deployed from the top of the mast and extend out at a 90 degree angle from each other.

The secondary guys are deployed halfway down the mast between the top of the tripod and the primary guys. They are also deployed at 90 degrees of each other and 45 degrees of the primary guy ropes.

The primary and secondary guys are always deployed at the same distance or anchor radius from the base of the mast.



Guying Distance from Base of Mast

Use the chart to the right as reference to determine the proper distance to place the guy stake for the guys from the base of the mast.

If you are unable to utilize the 80% rule then refer to the load characteristics of your mast in the tables following this section to understand the impact to the payload capacity and wind loading of your mast.

Model Height	% Anchor Radius / Distance of the Guys from the Base of the Mast		
	80 %	50 %	30 %
2 M	6 ft	3.75 ft	2.25 ft
3 M	8.4 ft	5.25 ft	3.15 ft
4 M	10.8 ft	6.75 ft	4.05 ft
5 M	13.2 ft	8.25 ft	4.95 ft
6 M	15.6 ft	9.75 ft	5.85 ft
7 M	17.2 ft	10.75 ft	6.45 ft
8 M	20.4 ft	12.75 ft	7.65 ft
9 M	22.8 ft	14.25 ft	8.55 ft
10 M	25.2 ft	15.75 ft	9.45 ft
11 M	27.6 ft	17.25 ft	10.35 ft
12 M	30 ft	18.75 ft	11.25 ft
13 M	32.4 ft	20.25 ft	12.15 ft
14 M	34.8 ft	21.75 ft	13.05 ft
15 M	37.2 ft	23.25 ft	13.95 ft

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
2 m AL1 Standard Series (7.5 ft)				
Primary Guying Only				
50 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
2 m AL1 Standard Series (7.5 ft) Primary & Secondary Guying 50 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
3 m AL1 Standard Series (10.5 ft) Primary Guying Only 47.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
3 m AL1 Standard Series (10.5 ft) Primary & Secondary Guying 47.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
4 m AL1 Standard Series (13.5 ft)				
Primary Guying Only				
45 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
4 m AL1 Standard Series (13.5 ft) Primary & Secondary Guying 45 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
5 m AL1 Standard Series (16.5 ft)				
Primary Guying Only				
42.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
5 m AL1 Standard Series (16.5 ft) Primary & Secondary Guying 42.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
6 m AL1 Standard Series (19.5 ft)				
Primary Guying Only				
40 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
7 m AL1 Standard Series (19.5 ft)				
Primary & Secondary Guying				
40 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
7 m AL1 Standard Series (22.5 ft)				
Primary Guying Only				
37.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
7 m AL1 Standard Series (22.5 ft)				
Primary & Secondary Guying				
37.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
8 m AL1 Standard Series (25.5 ft)				
Primary Guying Only				
35 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
8 m AL1 Standard Series (25.5 ft) Primary & Secondary Guying 35 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
9 m AL1 Standard Series (28.5 ft)				
Primary Guying Only				
32.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
9 m AL1 Standard Series (28.5 ft) Primary & Secondary Guying 32.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
10 m AL1 Standard Series (31.5 ft)				
Primary Guying Only				
30 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
10 m AL1 Standard Series (31.5 ft)				
Primary & Secondary Guying				
30 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
11 m AL1 Standard Series (34.5 ft)				
Primary Guying Only				
25 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
11 m AL1 Standard Series (34.5 ft)				
Primary & Secondary Guying				
25 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
12 m AL1 Standard Series (37.5 ft)				
Primary Guying Only				
20 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
12 m AL1 Standard Series (37.5 ft) Primary & Secondary Guying 20 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
13 m AL1 Standard Series (40.5 ft) Primary Guying Only 15 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
13 m AL1 Standard Series (40.5 ft) Primary & Secondary Guying 15 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
14 m AL1 Standard Series (43.5 ft)				
Primary Guying Only				
12.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
14 m AL1 Standard Series (43.5 ft) Primary & Secondary Guying 12.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
15 m AL1 Standard Series (46.5 ft)				
Primary Guying Only				
10 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
15 m AL1 Standard Series (46.5 ft) Primary & Secondary Guying 10 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL2 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
2 m AL2 Standard Series (7.5 ft)				
Primary Guying Only				
100 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
2 m AL2 Standard Series (7.5 ft) Primary & Secondary Guying 100 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
3 m AL2 Standard Series (10.5 ft)				
Primary Guying Only				
85 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
3 m AL2 Standard Series (10.5 ft) Primary & Secondary Guying 85 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL2 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
4 m AL2 Standard Series (13.5 ft)				
Primary Guying Only				
70 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
4 m AL2 Standard Series (13.5 ft) Primary & Secondary Guying 70 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
5 m AL2 Standard Series (16.5 ft)				
Primary Guying Only				
65 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
5 m AL2 Standard Series (16.5 ft)				
Primary & Secondary Guying				
65 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL2 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
6 m AL2 Standard Series (19.5 ft)				
Primary Guying Only				
60 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
6 m AL2 Standard Series (19.5 ft)				
Primary & Secondary Guying				
60 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
7 m AL2 Standard Series (22.5 ft)				
Primary Guying Only				
57.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
7 m AL2 Standard Series (22.5 ft) Primary & Secondary Guying 57.5 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL2 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
8 m AL2 Standard Series (25.5 ft)				
Primary Guying Only				
55 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
8 m AL2 Standard Series (25.5 ft)				
Primary & Secondary Guying				
55 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
9 m AL2 Standard Series (28.5 ft)				
Primary Guying Only				
52 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
8 m AL2 Standard Series (28.5 ft)				
Primary & Secondary Guying				
52 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL2 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
10 m AL2 Standard System (31.5 ft)				
Primary Guying Only				
50 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
10 m AL2 Standard System (31.5 ft)				
Primary & Secondary Guying				
50 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
11 m AL2 Standard System (34.5 ft)				
Primary Guying Only				
40 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
11 m AL2 Standard System (34.5 ft) Primary & Secondary Guying 40 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL2 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
12 m AL2 Standard System (37.5 ft)				
Primary Guying Only				
35 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
12 m AL2 Standard System (37.5 ft)				
Primary & Secondary Guying				
35 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
13 m AL2 Standard System (40.5 ft)				
Primary Guying Only				
30 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
13 m AL2 Standard System (40.5 ft)				
Primary & Secondary Guying				
30 lbs Deployed				
	Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL2 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure		
14 m AL2 Standard System (43.5 ft)				
Primary Guying Only				
25 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
14 m AL2 Standard System (43.5 ft) Primary & Secondary Guying 25 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
15 m AL2 Standard System (46.5 ft)				
Primary Guying Only				
20 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

Fully Operational	Survivable	Mast Failure		
15 m AL2 Standard System (46.5 ft) Primary & Secondary Guying 20 lbs Deployed				
Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
1 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
2 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			
3 Sq Ft Panel	30% Guy Distance			
	50% Guy Distance			
	80% Guy Distance			

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

Standard Series - Basic Component Overview

BlueSky Mast Standard Series (2 to 6 Meters)

Base Pole



Wheeling Carry Bag



2 to 6 Center Mast Poles



AL1/AL2 Standard Tripod



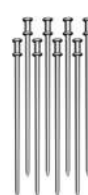
Pole Bag



Reference Pack



8 Tripod Stakes



Hammer



18" Mounting Pole

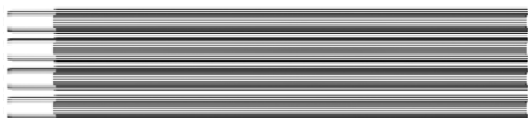


Staking Kit Bag

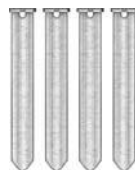


BlueSky Mast Standard Series (7 to 10 Meters)

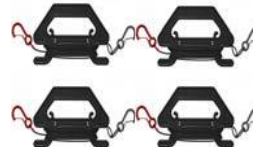
1 to 4 Additional Center Mast Poles



4 Guy Stakes



4 Guy Handles

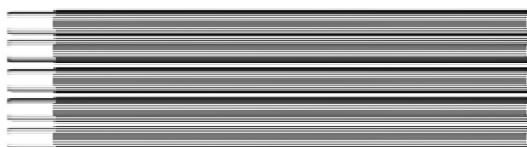


Primary Guy Ring

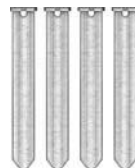


BlueSky Mast Standard Series (11 to 15 Meters)

1 to 5 Additional Center Mast Poles



4 Guy Stakes



4 Guy Handles



Secondary Guy Ring



Pole Bag



AL1 / AL2 Standard Series User Manual
Primary Guying Only (2 - 10 Meters)

**Deploying the
AL1 or AL2 Standard Series Mast
with Primary Guying Only**

(For Models 2 to 10 Meters Only)

AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

1. Inspect the Site before Deployment

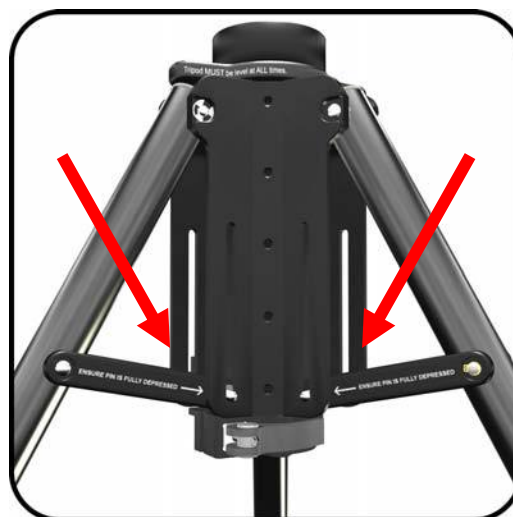
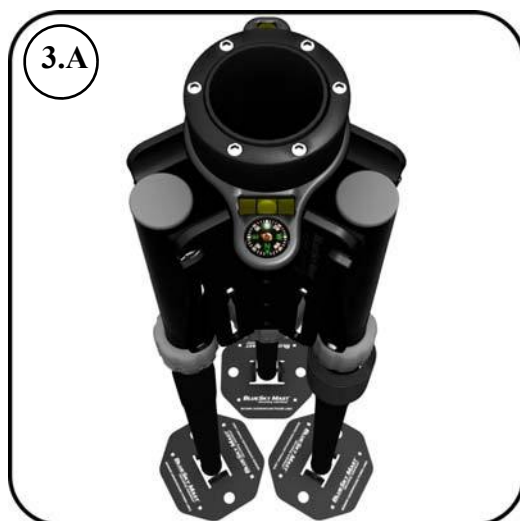
- A. Ensure that the following conditions are met prior to deployment:
 - I. There are no overhead wires or power lines.
 - II. There are no buried power lines or unexploded ordinance.
 - III. The ground is capable of holding tripod stakes if stakes are required.

2. Unpack the Wheeling Carry Bag

- A. Remove the pole bag and stake bag and set them next to the wheeling carry bag.

3. Set up and Orient the Tripod

- A. Remove the tripod from the wheeling bag and stand it up with the base plates on the ground.
- B. Orient the tripod.
 - I. Always orient the tripod with the serial number and compass of the tripod directly to your front and center. This will standardize deployment and assure the view of the mast corresponds to the step-by-step instructions in this manual.
 - II. For "Directionally Based Applications", face the direction that you want the device you are deploying to face. Use the compass on the tripod for general orientation if you are unsure.
 - III. For non-directional based applications, the tripod should be deployed with your back to the sun for maximum visibility and to avoid looking into the sun as the mast rises.
- C. Release the Velcro strap on the tripod that holds the legs.
- D. Unfold the tripod legs
- E. Verify the cross bar on each of the 3 tripod legs is fully deployed by pushing down on it with at least two fingers until the sliding pin is resting completely at the bottom of the slot.



AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

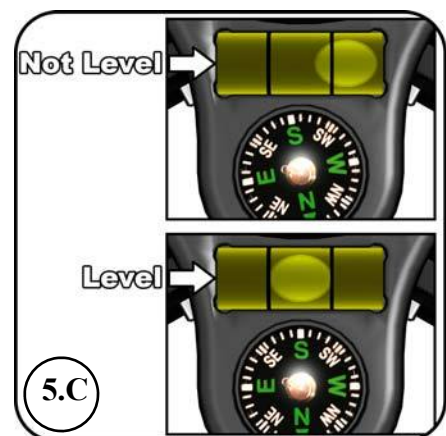
4. Raise the Tripod

- Loosen the turn knob on each of the 3 tripod legs. Make sure the legs are fully extended and all 3 base plates are flat on the ground.
- If a leg does not extend easily, check that the turn knob has been properly loosened and then pull on the leg until it extends fully. *(This may happen the 1st time a new mast is deployed and will abate with several uses.)*
- Place the tripod back on the ground making sure all 3 base plates are flat and level.
- Tighten the turn knobs on each of the 3 telescoping legs



5. Level the Tripod

- Level the tripod by using the two bubble levels on the top of the tripod. The perpendicular positioning of 2 bubble levels assures easy, accurate leveling.
- When the air bubbles in both levels are centered between the level marks at the middle of each bubble level, the tripod is level.
- If both bubbles are not centered, adjust the telescoping legs using the turn knobs until the air bubbles in both levels are centered.
- Fully tighten the turn knob on each leg.



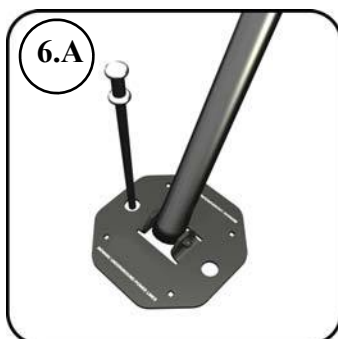
Warning: Improper leveling can result in excessive leaning when fully deployed, which can damage the system and cause serious bodily harm

AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

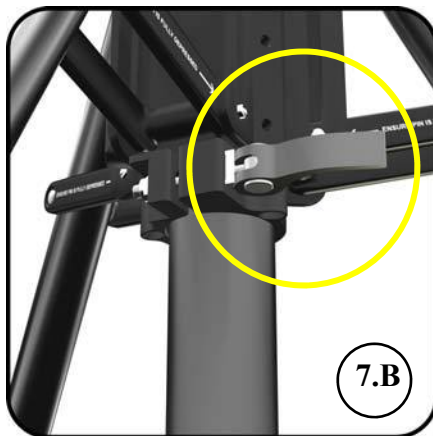
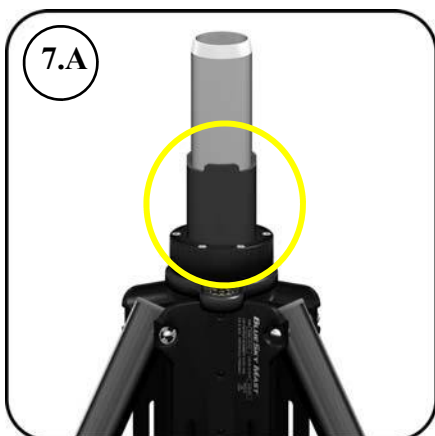
6. Secure the Tripod

- A. Using the tripod stakes located in the black stake bag, drive a stake through each of the two holes on all three of the tripod base plates.
- B. Make sure the steel head on the tripod stakes contact the top of the tripod base plates. Once the head has firmly contacted the tripod base plate, stop hammering, continued hammering may damage the tripod base plate.
- C. If the ground is too hard to hammer the stakes deep enough for the head to contact the base plate, then drive the stakes into the ground at an angle towards the center of the tripod to maximize the surface area contact of the stake so that the tripod base plate is secure and cannot lift up.
- D. When tripod stakes cannot be used such as on a roof top, on a paved or hard surface, or inside a building, then the tripod base plates should be secured by sandbags or other weights, preferably utilizing BlueSky's optional Telescoping Tripod Struts (Part # BSM2-K-T712-BSP-STR).
- E. If securing the tripod using weights, then the higher the mast is raised the more weight will be needed at the base to counteract the payload at the top and keep the mast from tipping over.
- F. Recheck bubble levels to make sure tripod is level.



7. Insert the First Mast Pole

- A. Grab a mast pole and insert up through the bottom of the tripod until the silver insert of the mast pole is visible at least 4 inches above the top of the tripod.
- B. Secure the mast pole by locking the cam lock on the tripod.
- C. If slipping occurs with the cam lock while a pole is inserted, use the wrench provided and turn the nut a quarter turn until slipping no longer occurs.



AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

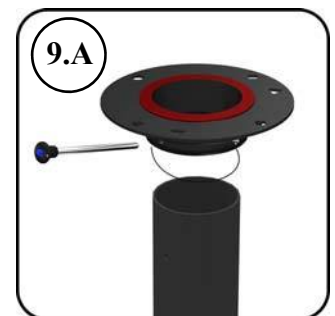
8. Add the Mounting Pole

- Locate the 18 Inch Mounting Pole (it is 1/2 the length of a mast pole) and slide it over the silver insert of the first mast pole in the tripod.
- Make sure the castle cut on both poles nest fully together and there is no silver visible in the seams of the joint.



9. Add the Primary Guy Ring

- Locate the **Red Primary Guy Ring** and slide it over the top of the mounting pole.
- Pin it into the last hole at the base of the mounting pole.
- Pull on the stainless steel push pin to make sure it has engaged properly.



10. Attach Your Device or Devices to the Mast

- Attach your devices to mounting pole / mast.
- Secure any loose cables to the mounting pole.



WARNING: Use Velcro straps or some other form of cable management to secure instrument cables to the mast to reduce strain on cables and prevent damage to cable connections. Loose cables can also cause the mast to lean to one side and affect performance and safety

AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

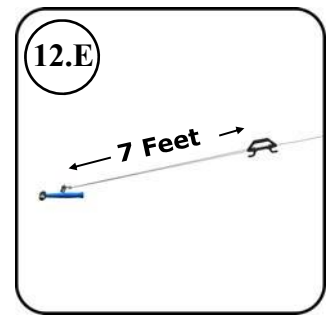
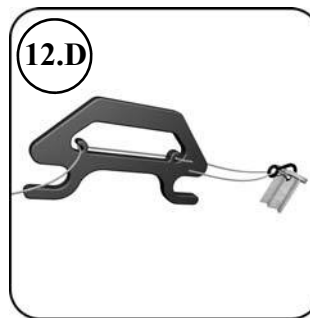
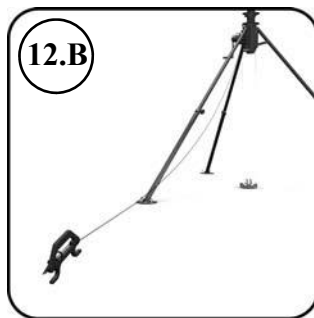
11. Locate the four Primary Guy Ropes with Red Clips and Guy Stakes

- A. Locate the four Primary Guy Ropes with Red Clips and four galvanized steel guy stakes



12. Attach the 1st Primary Guy Rope.

- A. Attach the red clip on the free end of the 1st primary guy rope to the **ROUND HOLE** on the red primary guy ring.
- B. Unwind the 1st primary guy rope while walking away from the mast taking one **NORMAL** step for each meter of height of the mast. Example 10 meters equals 10 **NORMAL** steps. Do not use exaggerated steps.
- C. Drive a guy stake into the ground at the length that you determined based on the previous step.
- D. Standing in place above the guy stake, unwind the rest of the guy rope off the handle and then attach the stainless steel clip onto the guy stake.
- E. For mast heights above 10 meters - Slide the handle towards the mast approx. 7 feet. This will take up the slack in the guy rope during deployment and prepare you for incremental guying (if required).



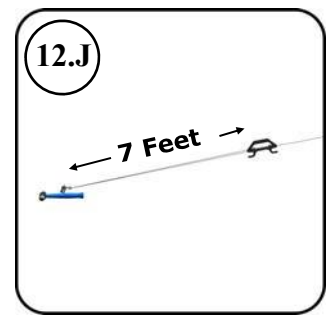
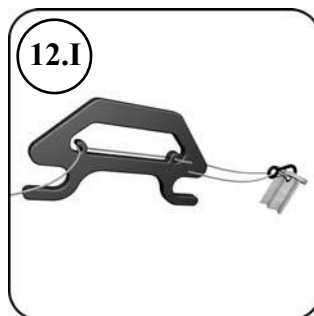
Helpful Hint: Walk the 1st guy rope in the opposite direction of the sun. This will help you align the 2nd guy rope (opposite of 1st guy rope) without interference of the sun.

AL1 / AL2 Standard Series User Manual

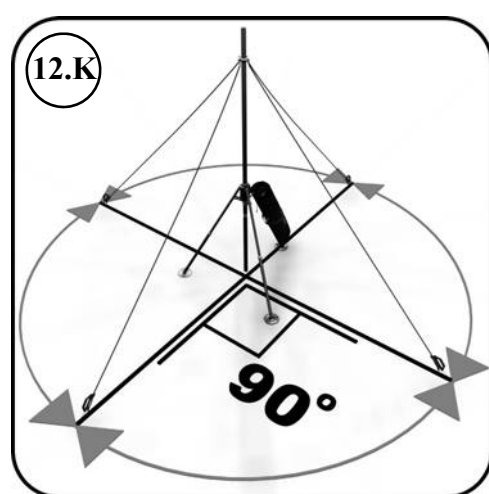
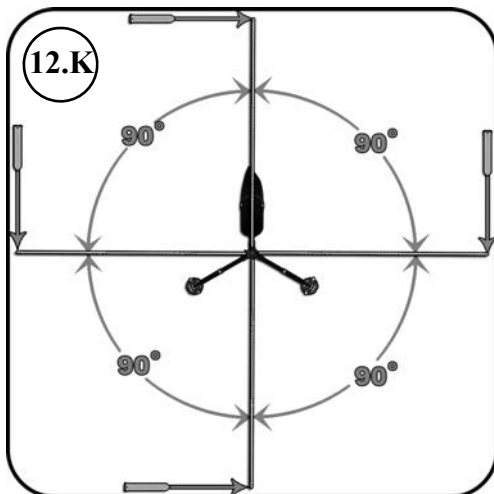
Primary Guying Only (2 - 10 Meters)

12. Attach the Primary Guy Ropes (continued)

- F. Attach the stainless steel clip on the free end of the 2nd primary guy rope to the **SQUARE HOLE opposite the round hole** on the red primary guy ring.
- G. Unwind the 2nd primary guy rope (opposite of 1st primary guy rope) at the same number of **NORMAL** steps you used for the first guy rope. Do not use exaggerated steps.
- H. Visually confirm that the 2nd primary guy rope is in line with the 1st primary guy rope directly opposite the tripod.
- I. Drive a guy stake into the ground and clip the free end of the guy rope to the stake.
- J. For mast heights of 10+ meters - Slide the handle towards the mast approx. 7 feet. This will take up the slack in the guy rope during deployment and prepare you for incremental guying (if required).



- K. Repeat the steps above until all four primary guy ropes have been properly deployed **90 Degrees** from each other.
- L. When all guys have been deployed, inspect the spacing and orientation and make any adjustments now.



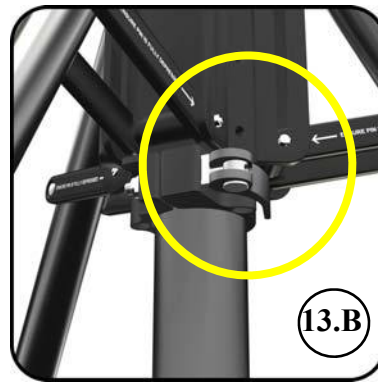
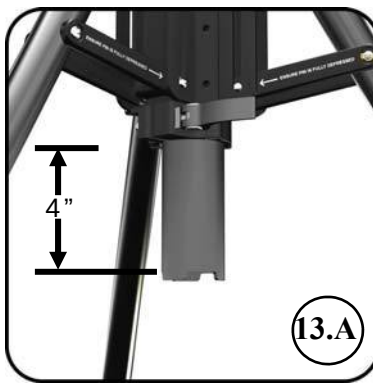
Helpful Hint: If you are deploying the mast to a shorter height than the purchased height or are in a tight spot, then see the guying addendum in this manual for help in determining your spacing and load specs.

AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

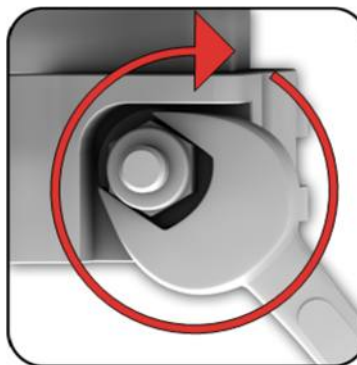
13. Raise the First Mast Pole

- A. Holding the first mast pole in the tripod, release the cam lock and raise the mast pole until only 4 inches is visible below the tripod.
- B. Secure the mast pole by locking the cam lock.



Warning: Keep your feet clear below the tripod until the entire mast has been deployed and the base pole has been inserted. Slippage of the mast poles may occur if the Cam Lock is not secured properly, causing damage to objects located within the tripod area below the tripod.

Warning: If at point the mast begins to slip while the cam lock is locked - STOP!! Use the 7/16 wrench provided with the system and tighten the nut on the cam lock 1/4 turn until slipping no longer occurs.

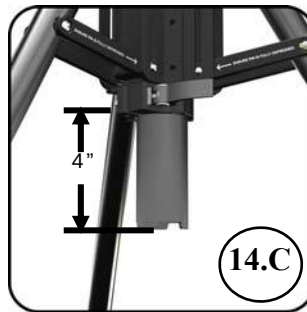
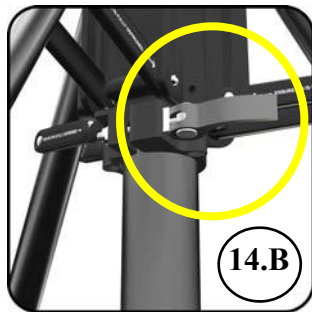


AL1 / AL2 Standard Series User Manual

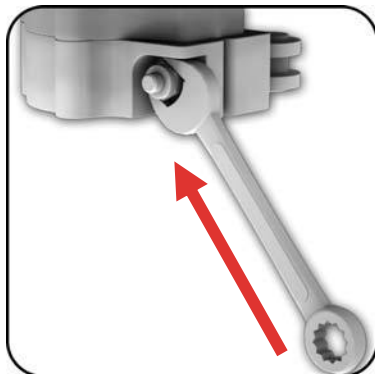
Primary Guying Only (2 - 10 Meters)

14. Raise the Rest of the Mast Poles

- Get another mast pole out of the pole bag insert the silver end into the bottom the mast pole already locked in the cam lock. Make sure that the castle cut on both poles nest firmly together and no silver is visible in the seams of the joint.
- Holding the bottom mast pole firmly with one hand, release the cam lock and allow the weight to settle onto the hand holding the just-added mast pole.
- Using both hands, slide the mast pole up through the tripod until only until there is only about 4 inches of the bottom of the mast pole visible below the tripod.
- Lock the cam lock on the tripod.
- Repeat this process for the remaining mast poles or until desired height is reached.



Warning: If at point the mast begins to slip while the cam lock is locked - STOP!! Use the 7/16 wrench provided with the system and tighten the nut on the cam lock 1/4 turn until slipping no longer occurs.



Helpful Hint: Lift Handles are available as an optional accessory and can be used to more easily raise the mast poles. Lift Handles (BSM2-P-Y702-GRP-000)



AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

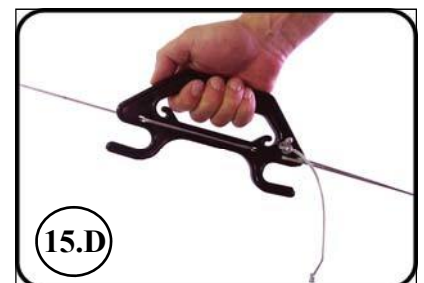
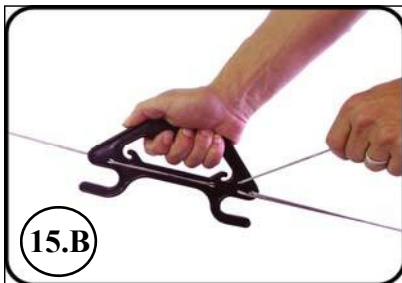
⚠ WARNING: If you experience excessive leaning during the deployment due to heavier loads or high winds then be sure to use incremental guying as outlined in step 15.

15. Incremental Guying (if required)

May be required when less than two people are available to hold the primary guy ropes during deployment with heavy loads or high winds.

Heavy loads or windy conditions can exert extra force on the center mast poles during deployment causing them to bind in the tripod and create potentially unsafe conditions. Excessive leaning during deployment is an indicator that incremental guying is required. When these conditions exist, it will be necessary to incrementally guy the mast during deployment before reaching the desired height. Incremental guying will add time to the deployment but will ensure the safety of both personnel and equipment

- A. Start with the guy rope that is opposite the direction that the mast may be leaning.
- B. Pull on the knotted end of the rope stay until you have removed enough slack from the line to allow only the insertion of a single mast pole.
- C. Tie a slip knot in the slack to prevent the line from pulling back through the hole on the rope stay.
- D. Adjust the guy rope by sliding the rope stay towards the mast to tighten and away from the mast to loosen.
- E. Adjust the remaining 3 primary guy ropes the same way to allow for only enough slack for a single mast pole to be inserted.
- F. Continue raising the mast sections utilizing incremental guying until the full height has been achieved.



AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

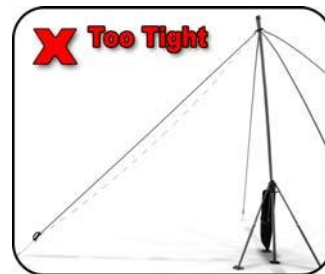
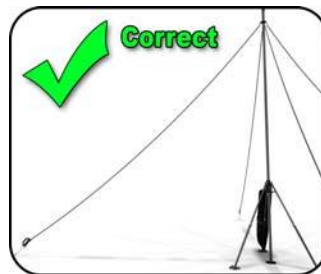
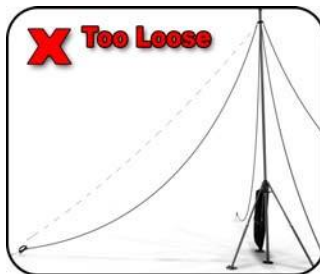
16. Insert the Base Pole

- Get the base pole out of the pole bag and insert the silver end into the bottom mast pole already secured by the cam lock. Holding the base pole firmly with one hand, slowly release the cam lock and allow the weight to settle onto the hand holding the base pole.
- Permit the base pole to slowly slide down until the base plate on the bottom of the base pole firmly contacts the ground.
- Lock the cam lock.

17. Adjust the Primary Guy Ropes

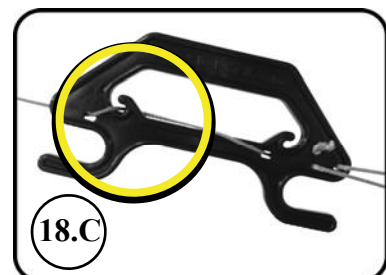
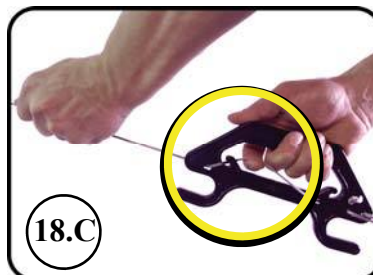
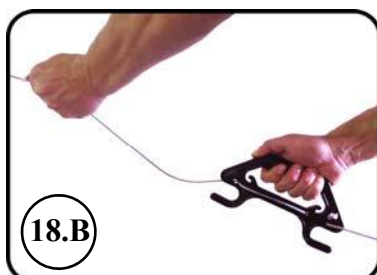
Adjust the guy ropes so that the mast is straight and perpendicular. If the guy ropes are too loose it will allow the mast to lean. If the guy ropes are too tight then they put unnecessary strain and load on the mast causing it to bend or bow. The tension should be firm, not slack nor taut.

- Adjust the primary guy ropes so that the mast is straight and perpendicular starting with the guy rope that is opposite the direction that the mast may be leaning.
- Adjust the primary guy rope by sliding the rope stay towards the mast to tighten and away from the mast to loosen.
- Adjust the remaining 3 primary guy ropes the same way to allow till the mast is straight and perpendicular.
- It may be necessary to do this several times until the mast is straight and perpendicular.
- Rotate the mast to align any directional devices if necessary.



18. Locking & Securing the Primary Guy Ropes.

- Make sure the mast is completely straight and perpendicular to the ground.
- Pull a small amount of slack in the line.
- Grab the rope and wrap it around the rope lock to secure the Primary Guy Ropes

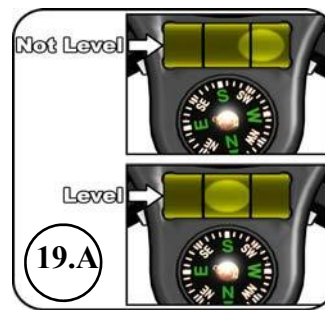


AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

19. Level the Mast and Adjust the Base Pole

- Make sure that the tripod is level and that the base plate on the base pole is centered below the mast.
- Secure the base pole in the tripod by gripping the knurled section of the top of the tripod with one hand and while applying slightly downward force, use the other hand to lock the Cam Lock.
- Re-level the tripod by simply tapping or nudging the base pole with your foot in the correct direction until the bubble levels on the tripod read correctly.



20. Stake the Base Pole

- Using the tripod stakes, drive a stake through two of the four holes on the base pole base plate.
- Make sure the steel head of the tripod stake contacts the base plate. Once the Head has firmly contacted the base plate, stop hammering. (Continued hammering may damage the base plate.)
- If the ground is too hard to hammer the stake deep enough for the head to contact the base plate, then drive the stake into the ground at an angle towards the center to maximize the surface area contact of the stake so that the base plate is secure.



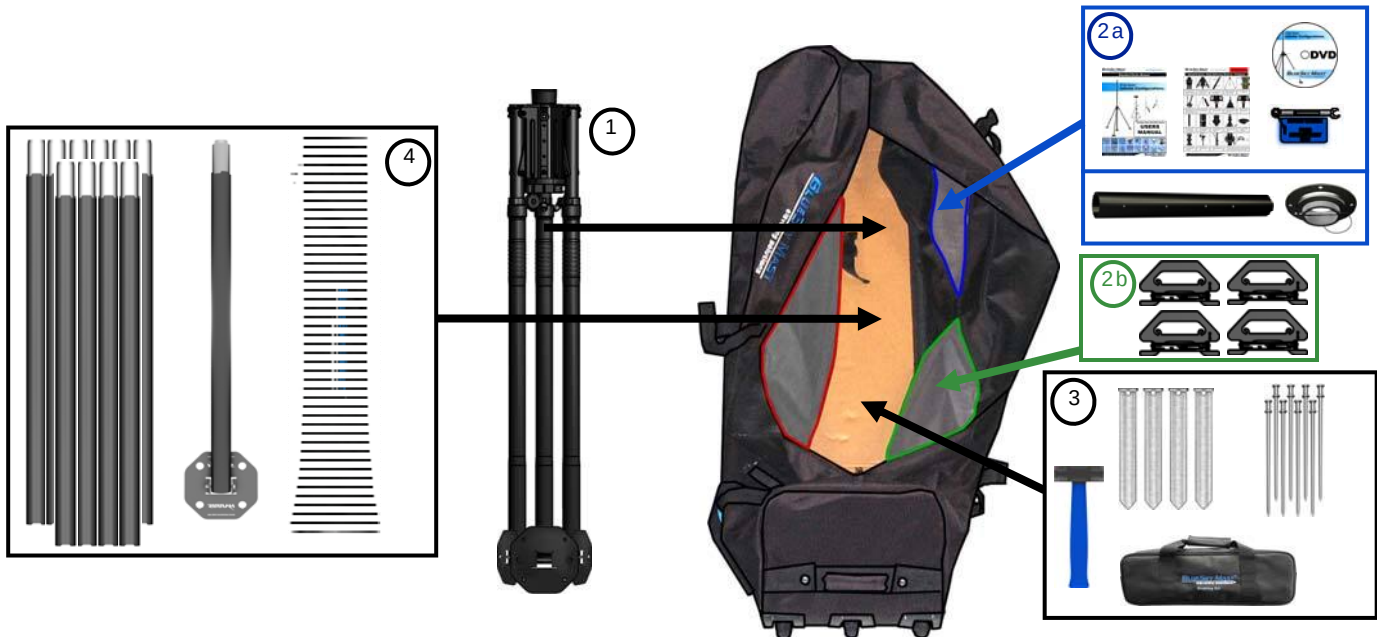
20. Secure the Area—Finished

- Secure any remaining cable to the mast.
- Attach BlueSky Surface Wire Grounding Kit (Part # BST2-K-L104-GND-000) if so equipped. See addendum in Manual for instructions.
- Stow any equipment and tools in the Wheeling Carry Bag to prevent loss.

AL1 / AL2 Standard Series User Manual

Primary Guying Only (2 - 10 Meters)

Packing and Stowing the BlueSky Mast



1. Place Tripod in the Wheeling Carry Bag

- Place tripod in the bag.
- Rotate top leg so that base plate is vertical.
- Slide tripod down to the bottom of the bag so that base plates touch the bottom.

2. Place the Small Items in the Wheeling Carry Bag

- Put the mounting pole, primary guy ring and reference pack into the top right pocket.
- Place the 4 guy ropes in the inside the bottom right pocket.

3. Place Staking Kit Bag in the Wheeling Carry Bag

- Put 4 guy stakes, 8 tripod stakes, and the hammer in the Staking Kit Bag.
- Place the Staking Kit Bag between the legs of the tripod.

4. Place Pole Bags in the Wheeling Carry Bag

- Put the Center Mast Poles and the Base Pole in the Pole Bag.
- Place the Pole Bag in the Wheeling Carry Bag on the left side of the tripod.

5. Secure the Wheeling Carry Bag

- Use the two straps on the inside of the bag too secure the tripod, pole bag and stake bag.
- Put any other ancillary devices in the bag at this time.
- Do not overload the bag or damage may occur.
- Zip up the main outside zipper and secure the 3 straps on the outside of the bag.

AL1 / AL2 Standard Series User Manual
Primary and Secondary Guying (2 - 15 Meters)

Deploying the Standard Series Mast with Primary and Secondary Guying

(For Models 2 to 15 Meter)

AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

1. Inspect the Site before Deployment

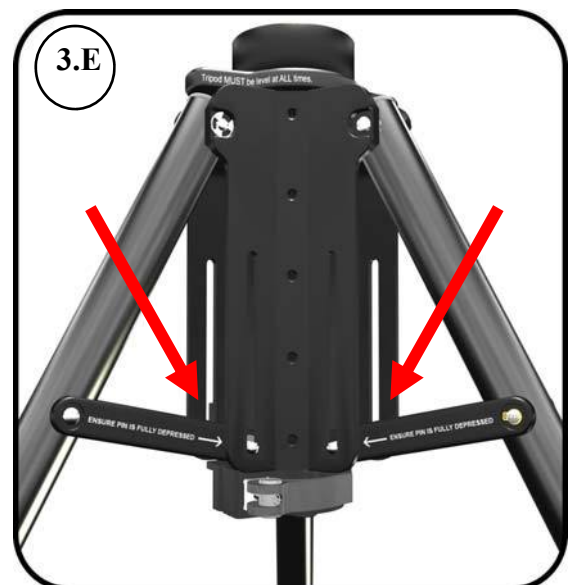
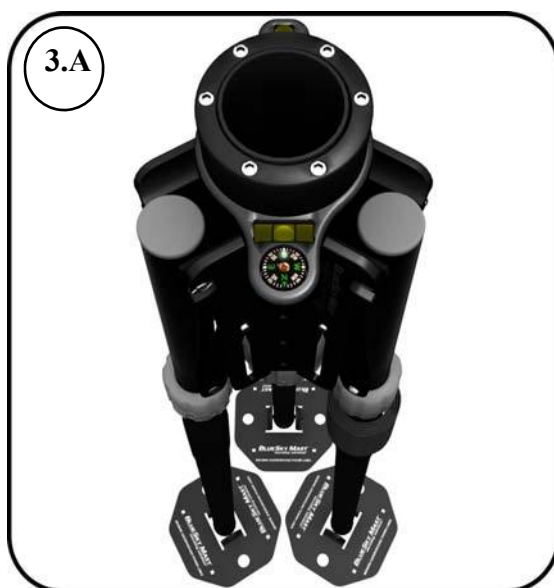
- A. Ensure that the following conditions are met prior to deployment:
 - I. There are no overhead wires or power lines.
 - II. There are no buried power lines or unexploded ordinance.
 - III. The ground is capable of holding tripod stakes if stakes are required.

2. Unpack the Wheeling Carry Bag

- A. Remove the pole bag and stake bag and set them next to the wheeling carry bag.

3. Set up and Orient the Tripod

- A. Remove the tripod from the wheeling bag and stand it up with the base plates on the ground.
- B. Orient the tripod.
 - I. Always orient the tripod with the serial number and compass of the tripod directly to your front and center. This will standardize deployment and assure the view of the mast corresponds to the step-by-step instructions in this manual.
 - II. For "Directionally Based Applications", face the direction that you want the device you are deploying to face. Use the compass on the tripod for general orientation if you are unsure.
 - III. For non-directional based applications, the tripod should be deployed with your back to the sun for maximum visibility and to avoid looking into the sun as the mast rises.
- C. Release the Velcro strap on the tripod that holds the legs.
- D. Unfold the tripod legs.
- E. Verify the cross bar on each of the 3 tripod legs is fully deployed by pushing down on it with at least two fingers until the sliding pin is resting completely at the bottom of the slot.



AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

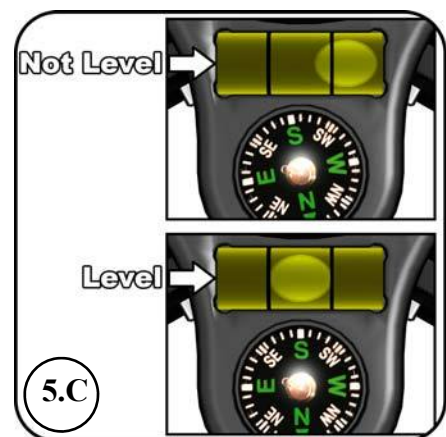
4. Raise the Tripod

- Loosen the turn knob on each of the 3 tripod legs. Make sure the legs are fully extended and all 3 base plates are flat on the ground.
- If a leg does not extend easily, check that the turn knob has been properly loosened and then pull on the leg until it extends fully. *(This may happen the 1st time a new mast is deployed and will abate with several uses.)*
- Place the tripod back on the ground making sure all 3 base plates are flat and level.
- Tighten the turn knobs on each of the 3 telescoping legs



5. Level the Tripod

- Level the tripod by using the two bubble levels on the top of the tripod. The perpendicular positioning of 2 bubble levels assures easy, accurate leveling.
- When the air bubbles in both levels are centered between the level marks at the middle of each bubble level, the tripod is level.
- If both bubbles are not centered, adjust the telescoping legs using the turn knobs until the air bubbles in both levels are centered.
- Fully tighten the turn knob on each leg.



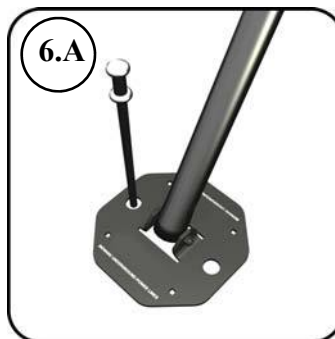
Warning: Improper leveling can result in excessive leaning when fully deployed, which can damage the system and cause serious bodily harm

AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

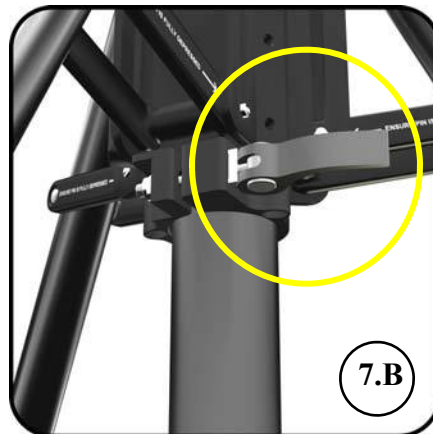
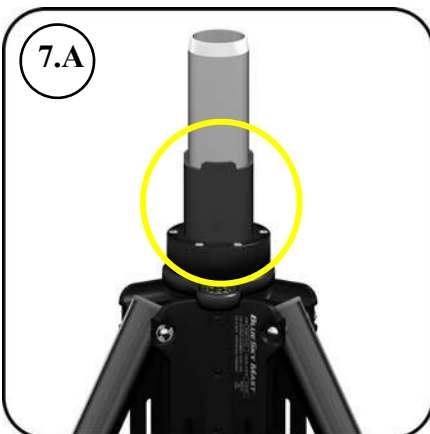
6. Secure the Tripod

- Using the tripod stakes located in the black stake bag, drive a stake through each of the two holes on all three of the tripod base plates.
- Make sure the steel head on the tripod stakes contact the top of the tripod base plates. Once the head has firmly contacted the tripod base plate, stop hammering, continued hammering may damage the tripod base plate.
- If the ground is too hard to hammer the stakes deep enough for the head to contact the base plate, then drive the stakes into the ground at an angle towards the center of the tripod to maximize the surface area contact of the stake so that the tripod base plate is secure and cannot lift up.
- When tripod stakes cannot be used such as on a roof top, on a paved or hard surface, or inside a building, then the tripod base plates should be secured by sandbags or other weights, preferably utilizing BlueSky's optional Telescoping Tripod Struts (Part # BSM2-K-T712-BSP-STR).
- If securing the tripod using weights, then the higher the mast is raised the more weight will be needed at the base to counteract the payload at the top and keep the mast from tipping over.
- Recheck bubble levels to make sure tripod is level.



7. Insert the First Mast Pole

- Grab a mast pole and insert up through the bottom of the tripod until the silver insert of the mast pole is visible at least 4 inches above the top of the tripod.
- Secure the mast pole by locking the cam lock on the tripod.
- If slipping occurs with the cam lock while a pole is inserted, use the wrench provided and turn the nut a quarter turn until slipping no longer occurs.

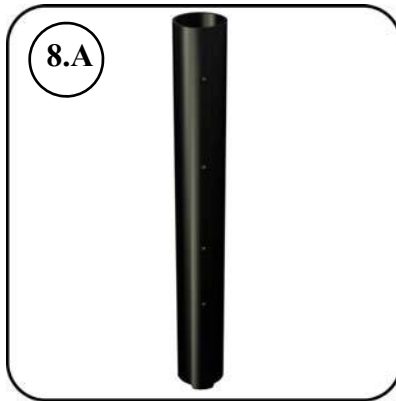


AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

8. Add the Mounting Pole

- Locate the mounting pole (it is 1/2 the length of a mast pole) and slide it over the silver insert of the first mast pole in the tripod.
- Make sure the castle cut on both poles nest fully together and there is no silver visible in the seams of the joint.



9. Add the Secondary Guy Ring

- Locate the **Blue Secondary Guy Ring** in the Wheeling Carry Bag.
- Release the cam lock on the Blue Secondary Guy Ring and slide it over the top of the mounting pole until it rests on top of the tripod. **DO NOT** lock it into place at this time.



10. Add the Primary Guy Ring

- Locate the **Red Primary Guy Ring** in the Wheeling Carry Bag.
- Remove the push pin and slide it over the top of the mounting pole.
- Pin it to the last hole on the bottom of the mounting pole.



11. Attach Your Device or Devices to the Mast

- Attach your devices to mounting pole / mast.
- Secure any loose cables to the mounting pole.



WARNING: Use Velcro straps or some other form of cable management to secure instrument cables to the mast to reduce strain on cables and prevent damage to cable connections. Loose cables can also cause the mast to lean to one side and affect performance and safety

AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

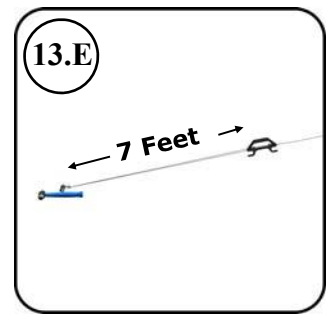
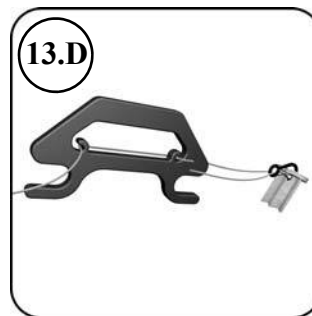
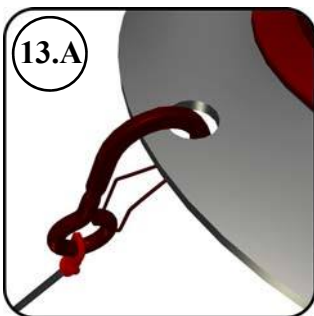
12. Locate the four Primary Guy Ropes and Guy Stakes

- A. Locate the four Primary Guy Ropes with Red Clips and four galvanized steel guy stakes



13. Attach the 1st Primary Guy Rope.

- A. Attach the red clip on the free end of the 1st primary guy rope to the **ROUND HOLE** on the red primary guy ring.
- B. Unwind the 1st primary guy rope while walking away from the mast taking one **NORMAL** step for each meter of height of the mast. Example 15 meters equals 15 **NORMAL** steps. Do not use exaggerated steps.
- C. Drive a guy stake into the ground at the length that you determined based on the previous step.
- D. Standing in place above the guy stake, unwind the rest of the guy rope off the handle and then attach the stainless steel clip onto the guy stake.
- E. For mast heights of 10+ meters - Slide the handle towards the mast approx. 7 feet. This will take up the slack in the guy rope during deployment and prepare you for incremental guying.



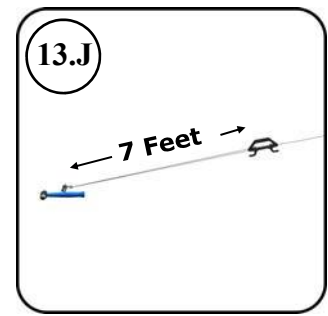
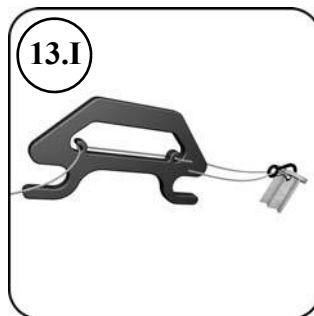
Helpful Hint: Walk the 1st guy rope in the opposite direction of the sun. This will help you align the 2nd guy rope (opposite of 1st guy rope) without interference of the sun.

AL1 / AL2 Standard Series User Manual

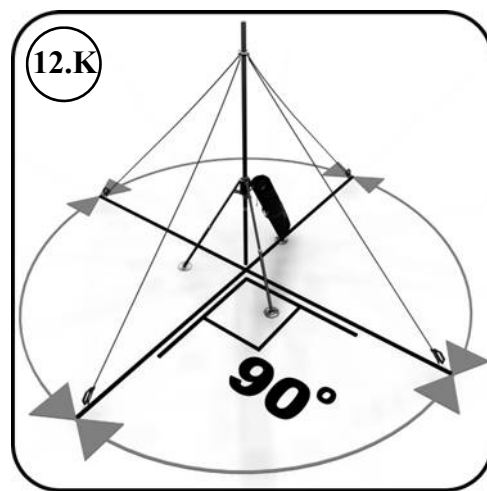
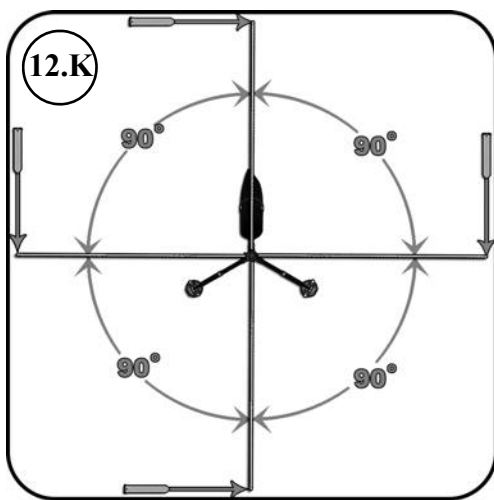
Primary and Secondary Guying (2 - 15 Meters)

13. Attach the Primary Guy Ropes (continued)

- F. Attach the stainless steel clip on the free end of the 2nd primary guy rope to the **SQUARE HOLE opposite the round hole** on the red primary guy ring.
- G. Unwind the 2nd primary guy rope (opposite of 1st primary guy rope) at the same number of **NORMAL** steps you used for the first guy rope. Do not use exaggerated steps.
- H. Visually confirm that the 2nd primary guy rope is in line with the 1st primary guy rope directly opposite the tripod.
- I. Drive a guy stake into the ground and clip the free end of the guy rope to the stake.
- J. For mast heights of 10+ meters - Slide the handle towards the mast approx. 7 feet. This will take up the slack in the guy rope during deployment and prepare you for incremental guying (if required).



- K. Repeat the steps above until all four primary guy ropes have been properly deployed **90 Degrees** from each other.
- L. When all guys have been deployed, inspect the spacing and orientation and make any adjustments now.



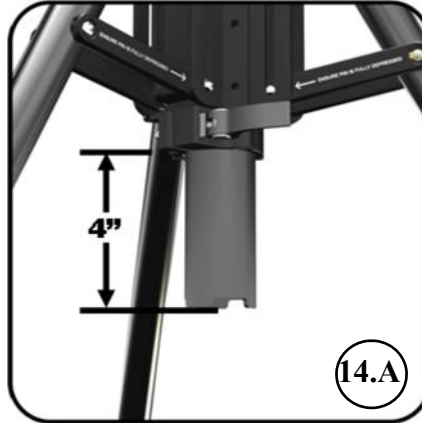
Helpful Hint: If you are deploying the mast to a shorter height than the purchased height or are in a tight spot, then see the guying addendum in this manual for help in determining your spacing and load specs.

AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

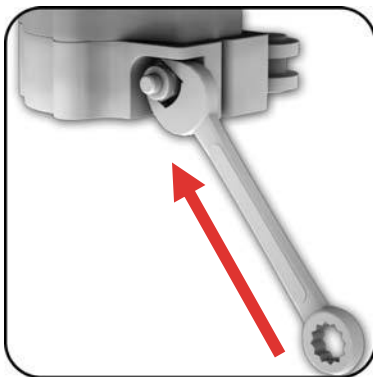
14. Raise the First Mast Pole

- Holding the first mast pole in the tripod, release the cam lock and raise until only 4 inches is visible below the tripod.
- Secure the mast pole by locking the cam lock.



Warning: Keep your feet clear below the tripod until the entire mast has been deployed and the base pole has been inserted. Slippage of the mast poles may occur if the Cam Lock is not secured properly, causing damage to objects located within the tripod area below the tripod.

Warning: If at point the mast begins to slip while the cam lock is locked - STOP!! Use the 7/16 wrench provided with the system and tighten the nut on the cam lock 1/4 turn until slipping no longer occurs.

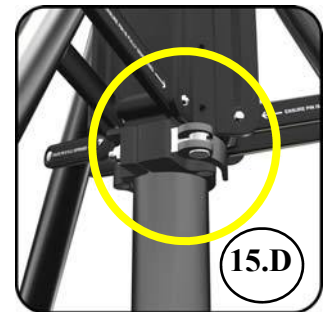
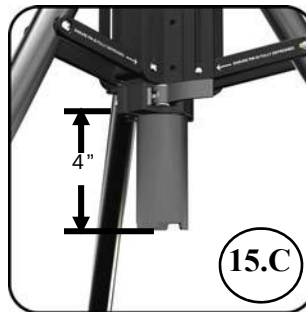
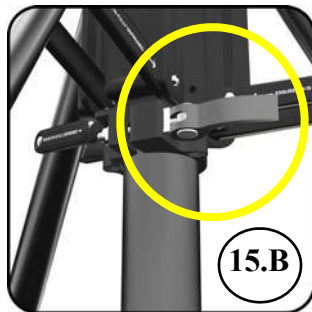


AL1 / AL2 Standard Series User Manual

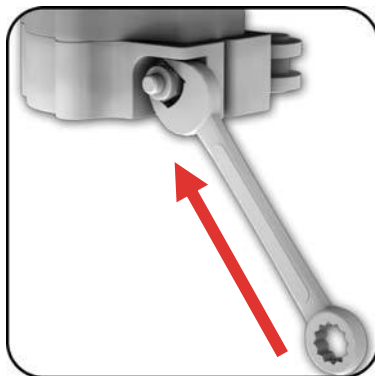
Primary and Secondary Guying (2 - 15 Meters)

15. Raise the Rest of the Mast Poles

- Get another mast pole out of the pole bag insert the silver end into the bottom the mast pole already locked in the cam lock. Make sure that the castle cut on both poles nest firmly together and no silver is visible in the seams of the joint.
- Holding the bottom mast pole firmly with one hand, release the cam lock and allow the weight to settle onto the hand holding the just-added mast pole.
- Using both hands, slide the mast pole up through the tripod until only until there is only about 4 inches of the bottom of the mast pole visible below the tripod.
- Lock the cam lock on the tripod.
- Repeat this process for the remaining mast poles or until desired height is reached.



Warning: If at point the mast begins to slip while the cam lock is locked - STOP!! Use the 7/16 wrench provided with the system and tighten the nut on the cam lock 1/4 turn until slipping no longer occurs.



Helpful Hint: Lift Handles are available as an optional accessory and can be used to more easily raise the mast poles. Lift Handles (BSM2-P-Y702-GRP-000)

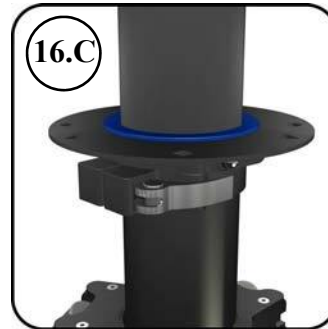
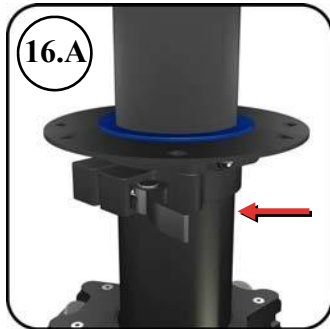


AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

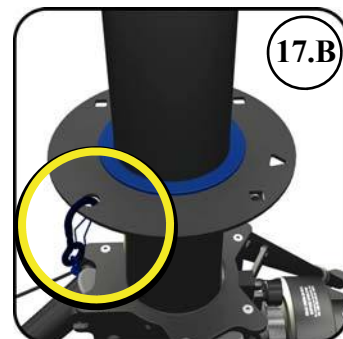
16. Secondary Guying - Securing the Secondary Guy Ring

- When you have reached 1/2 the total height of the mast, stop and lock the cam lock on the bottom of the tripod.
- Locate the Blue Secondary Guy Ring on top of the tripod and lock the cam lock.

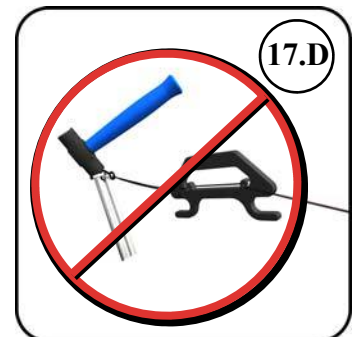
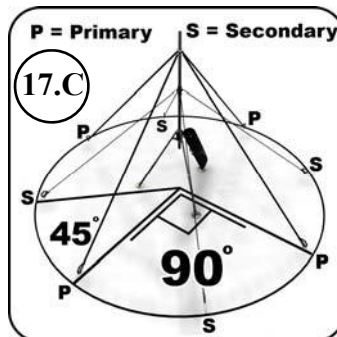
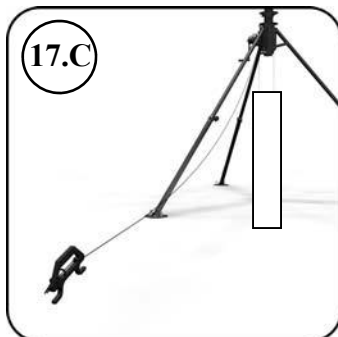


17. Secondary Guying - Deploying the Secondary Guy Ropes

- Locate the four secondary guy ropes with Blue Clips in the wheeling carry bag.
- Attach the blue stainless steel clip on the free end of the 1st Secondary Guy Rope to the **ROUND** hole on the Blue Secondary Guy Ring.



- Walk away from the mast while unwinding all of the guy rope from the handle. Place the 1st Secondary Guy Rope on the ground in between two of the Primary Guy Ropes so that it is at a 45 degree angle from the Primary Guy Ropes. **DO NOT** stake the Secondary Guy Ropes at this time.
- Repeat this process until all 4 Secondary Guy Ropes are deployed. **DO NOT** stake the Secondary Guy Ropes at this time, they will be adjusted and staked at the end of the mast deployment.



AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

18. Continue raising the mast (*Incremental Guying may be required*)

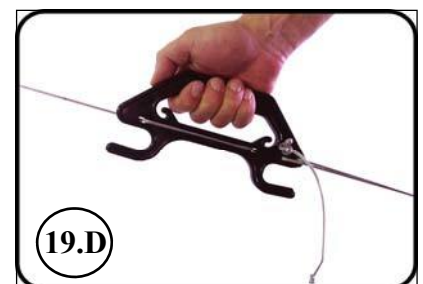
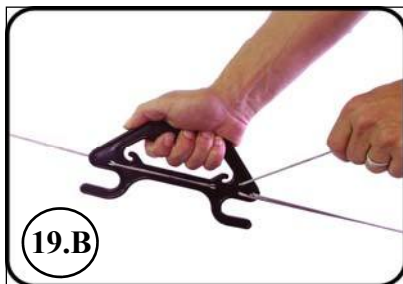
- A. Continue raising the mast until you have reach desired height and you are ready to insert the base pole.

⚠ WARNING: If you experience excessive leaning during the deployment due to heavier loads or high winds then be sure to use incremental guying as outlined in step 15.

19. Incremental Guying may be required when less than two people are available to hold the primary guy ropes during deployment with heavy loads or high winds.

Heavy loads or windy conditions can exert extra force on the center mast poles during deployment causing them to bind in the tripod and create potentially unsafe conditions. Excessive leaning during deployment is an indicator that incremental guying is required. When these conditions exist, it will be necessary to incrementally guy the mast during deployment before reaching the desired height. Incremental guying will add time to the deployment but will ensure the safety of both personnel and equipment

- A. Start with the guy rope that is opposite the direction that the mast may be leaning.
B. Pull on the knotted end of the rope stay until you have removed enough slack from the line to allow only the insertion of a single mast pole.
C. Tie a slip knot in the slack to prevent the line from pulling back through the hole on the rope stay.
D. Adjust the guy rope by sliding the rope stay towards the mast to tighten and away from the mast to loosen.
E. Adjust the remaining 3 primary guy ropes the same way to allow for only enough slack for a single mast pole to be inserted.
F. Continue raising the mast sections utilizing incremental guying until the full height has been achieved.



AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

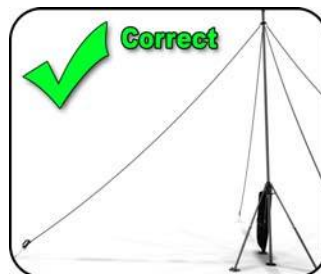
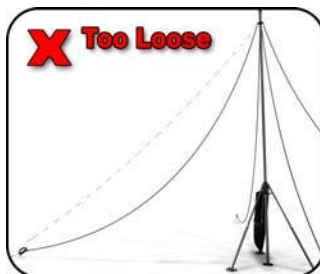
20. Insert the Base Pole

- Get the base pole out of the pole bag and insert the silver end into the bottom mast pole already secured by the cam lock. Holding the base pole firmly with one hand, slowly release the cam lock and allow the weight to settle onto the hand holding the base pole.
- Permit the base pole to slowly slide down until the base plate on the bottom of the base pole firmly contacts the ground.
- Lock the cam lock.

21. Adjust the Primary Guy Ropes

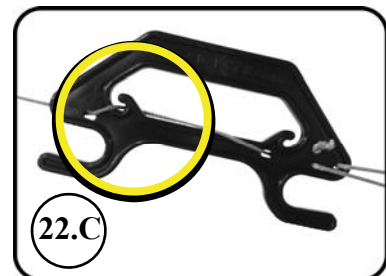
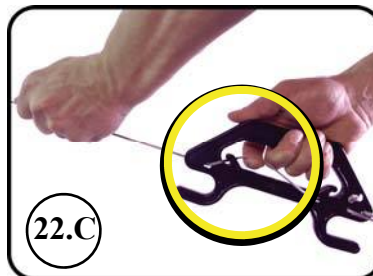
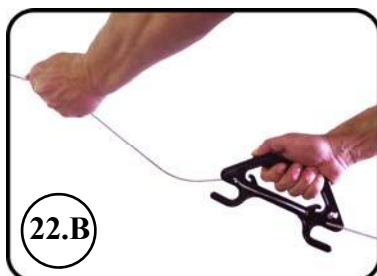
Adjust the guy ropes so that the mast is straight and perpendicular. If the guy ropes are too loose it will allow the mast to lean. If the guy ropes are too tight then they put unnecessary strain and load on the mast causing it to bend or bow. The tension should be firm, not slack nor taut.

- Adjust the primary guy ropes so that the mast is straight and perpendicular starting with the guy rope that is opposite the direction that the mast may be leaning.
- Adjust the primary guy rope by sliding the rope stay towards the mast to tighten and away from the mast to loosen.
- Adjust the remaining 3 primary guy ropes the same way to allow till the mast is straight and perpendicular.
- It may be necessary to do this several times until the mast is straight and perpendicular.
- Rotate the mast to align any directional devices if necessary.



22. Locking & Securing the Primary Guy Ropes.

- Make sure the mast is completely straight and perpendicular to the ground.
- Pull a small amount of slack in the line.
- Grab the rope and wrap it around the rope lock to secure the Primary Guy Ropes



AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

23. Level the Mast and Adjust the Base Pole

- Make sure that the tripod is level and that the base plate on the base pole is centered below the mast.
- Secure the base pole in the tripod by gripping the knurled section of the top of the tripod with one hand and while applying slightly downward force, use the other hand to lock the Cam Lock.
- Re-level the tripod by simply tapping or nudging the base pole with your foot in the correct direction until the bubble levels on the tripod read correctly.

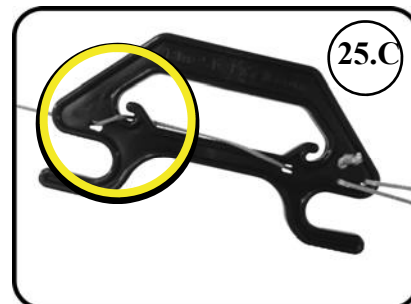
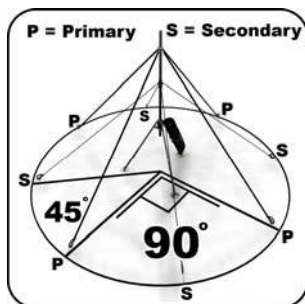
24. Stake the Base Pole

- Using the tripod stakes, drive a stake through two of the four holes on the base pole base plate.
- Make sure the steel head of the tripod stake contacts the base plate. Once the Head has firmly contacted the base plate, stop hammering. (Continued hammering may damage the base plate.)
- If the ground is too hard to hammer the stake deep enough for the head to contact the base plate, then drive the stake into the ground at an angle towards the center to maximize the surface area contact of the stake so that the base plate is secure.



25. Final Step - Staking, Adjusting and Locking the Secondary Guy Ropes

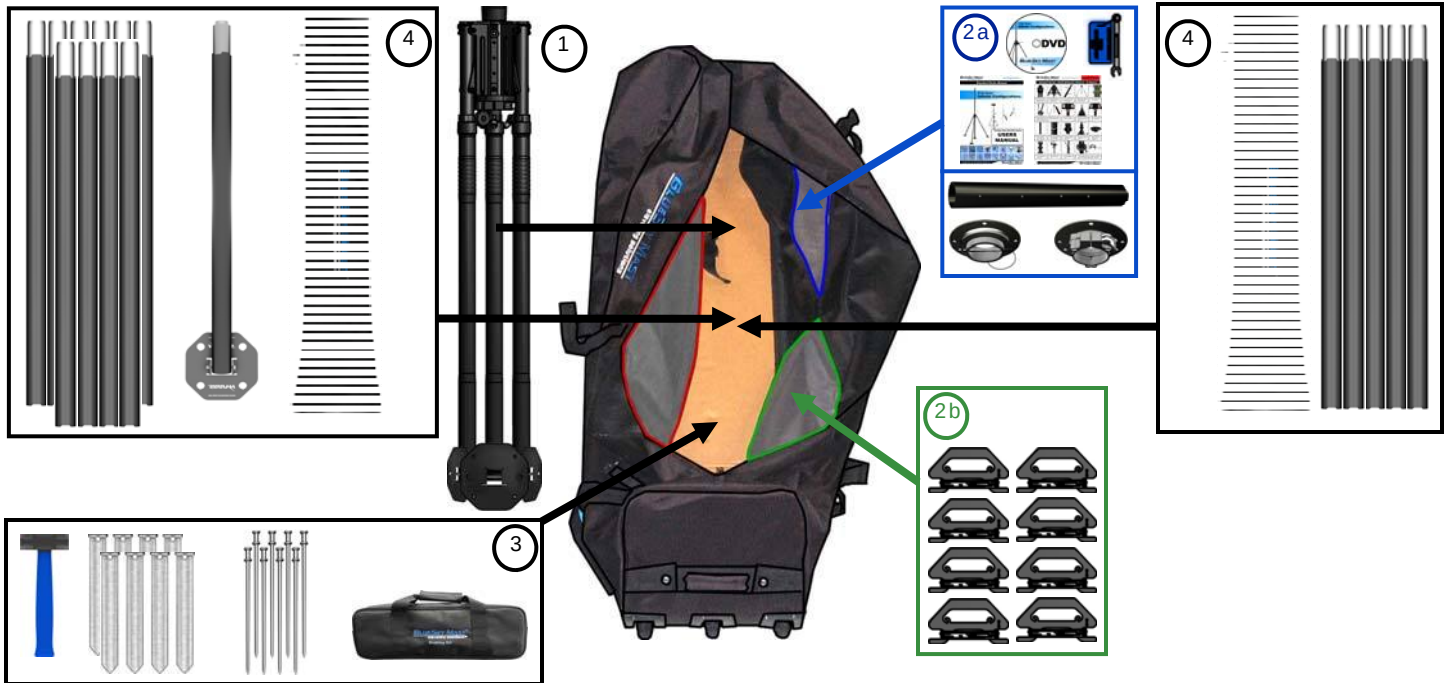
- Locate the 4 galvanized steel guy takes in the staking kit bag.
- Confirm all 4 Secondary Guys are evenly placed at a 45 degree angle between the Primary Guy Ropes.
- Pull each of the Secondary Guy Ropes out to its fullest distance and drive a guy stake into the ground. Attach, adjust and lock the guy rope into position.



AL1 / AL2 Standard Series User Manual

Primary and Secondary Guying (2 - 15 Meters)

Packing and Stowing the BlueSky Mast



1. Place Tripod in the Wheeling Carry Bag

- Place tripod in the bag.
- Rotate top leg so that base plate is vertical.
- Slide tripod down to the bottom of the bag so that base plates touch the bottom.

2. Place the Small Items in the Wheeling Carry Bag

- Put the mounting pole, guy rings and reference pack into the top right pocket.
- Place the guy ropes in the bottom right Pocket.

3. Place Staking Kit Bag in the Wheeling Carry Bag

- Put 4 guy stakes, 8 tripod stakes, and the hammer in the Staking Kit Bag.
- Place the Staking Kit Bag between the legs of the tripod.

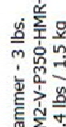
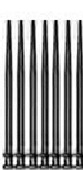
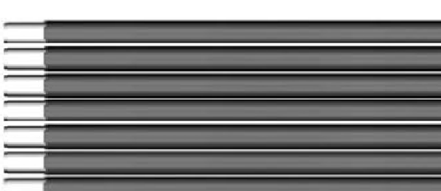
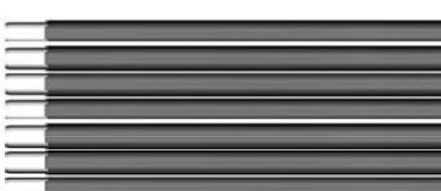
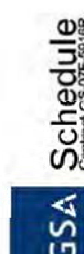
4. Place Pole Bags in the Wheeling Carry Bag

- Put the poles in the Pole Bags.
- Place the Pole Bags in the Wheeling Carry Bag on each side of the tripod.

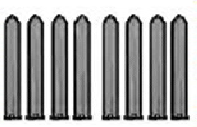
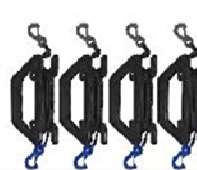
5. Secure the Wheeling Carry Bag

- Use the two straps on the inside of the bag too secure the tripod, pole bag and stake bag.
- Put any other ancillary devices in the bag at this time.
- Do not overload the bag or damage may occur.
- Zip up the main outside zipper and secure the 3 straps on the outside of the bag.

Datasheet - AL1 Standard Series - 15 Meter System

 Stake - Kit - Double Guyed Mast P/N: BSMU-K-S8G8-STL-016 (Contains Items Below)	 Bag - Small Accessory - Black P/N: BSM2-B-P610-BAG-BLK 1 lbs / 0.4 kg	 Hammer - 3 lbs. P/N: BSM2-V-P350-HMR-000 3.4 lbs / 1.5 kg	 Qty: (8) Stake - Zinc Plated - Tripod P/N: BSM2-P-S800-STA-000 0.9 / 0.4 kg (each)	 Qty: (2) Tool - Stake Extractor P/N: BSM2-P-S801-PUL-000 0.7 / 0.3 kg (each)	 Qty: (8) Stake - Galvanized - Guying P/N: BSM2-P-G700-STA-000 0.9 lbs / 0.4 kg (each)
 Qty: (7) Pole - Center Mast - AL1 P/N: BSM2-P-M101-AL1-000 1.9 lbs / 0.9 kg (each)	 Secondary Guy Ring P/N: BSM2-A-M100-RNG-CM1 1 lbs / 0.4 kg	 Qty: (4) 15M - Guy Rope - Secondary P/N: BSMU-P-G615-2ND-BLU 0.6 lbs / 0.3 kg (each)	 Qty: (4) 15M - Guy Rope - Primary P/N: BSMU-P-G615-PR1-RED 0.6 lbs / 0.3 kg (each)	 Qty: (4) 15M - Guy Rope - Secondary P/N: BSMU-P-G615-2ND-BLU 0.6 lbs / 0.3 kg (each)	 Bag - Pole - Black P/N: BSM2-B-P400-BAG-BLK 1.1 lbs / 0.5 kg
 Qty: (7) Pole - Center Mast - AL1 P/N: BSM2-P-M101-AL1-000 1.9 lbs / 0.9 kg (each)	 Primary Guy Ring P/N: BSM2-A-M100-RNG-PN0 0.6 lbs / 0.3 kg	 Qty: (4) 15M - Guy Rope - Primary P/N: BSMU-P-G615-PR1-RED 0.6 lbs / 0.3 kg (each)	 Qty: (4) 15M - Guy Rope - Secondary P/N: BSMU-P-G615-2ND-BLU 0.6 lbs / 0.3 kg (each)	 Tripod with Base Plates P/N: BSM2-P-T200-POD-000 16.7 lbs / 7.6 kg	 Bag - Pole - Black P/N: BSM2-B-P400-BAG-BLK 1.1 lbs / 0.5 kg
 Pole - Base - AL1 w Base Plate P/N: BSM2-P-M201-AL1-00P 2.7 lbs / 1.2 kg	 Pole - Base - AL1 - Mounting 18 Inch P/N: BSM2-A-M118-00P-AL1 0.7 lbs / 0.3 kg	 Reference Pack - Standard P/N: BSM2-L-M501-PAC-000	 GSA Schedule Contract GS-07T-591BR	 Wheeling Carry P/N: BSM2-B-P305-BAG-3WH 23.7 lbs / 10.8 kg	 BLUE SKY MAST elevating solutionsSM

Datasheet - AL2 Standard Series - 15 Meter System

 Stake - Kit - Double Guyed Mast P/N: BSMU-K-S8G8-STL-016 (Contains Items Below)  Bag - Small Accessory - Black P/N: BSM2-B-P610-BAG-BLK 1 lbs / 0.4 kg  Hammer - 3 lbs. P/N: BSM2-V-P350-HMR-000 3.4 lbs / 1.5 kg  Qty: (8) Stake - Zinc Plated - Tripod P/N: BSM2-P-S800-STA-000 0.9 / 0.4 kg (each)  Qty: (2) Tool - Stake Extractor P/N: BSM2-P-S801-PUL-000 0.7 / 0.3 kg (each)  Qty: (8) Stake - Galvanized - Guying P/N: BSM2-P-G700-STA-000 0.9 lbs / 0.4 kg (each)	 Qty: (7) Pole - Center Mast - AL2 P/N: BSM2-P-M101-AL2-000 3.1 lbs / 1.4 kg (each)  Bag - Pole - Black P/N: BSM2-B-P400-BAG-BLK 1.1 lbs / .5 kg  Primary Guy Ring P/N: BSM2-A-M100-RNG-PNO 0.6 lbs / 0.3 kg  Secondary Guy Ring P/N: BSM2-A-M100-RNG-CM1 1 lbs / 0.4 kg	 Qty: (4) 15M - Guy Rope - Primary P/N: BSMU-P-G615-PR1-RED 0.6 lbs / 0.3 kg (each)  Qty: (4) 15M - Guy Rope - Secondary P/N: BSMU-P-G615-2ND-BLU 0.6 lbs / 0.3 kg (each)	 Pole - Base - AL2 w Base Plate P/N: BSM2-P-M201-AL2-00P 3.8 lbs / 1.7 kg  Qty: (7) Pole - Center Mast - AL2 P/N: BSM2-P-M101-AL2-000 3.1 lbs / 1.4 kg (each)  Tripod with Base Plates P/N: BSM2-P-T200-POD-000 16.7 lbs / 7.6 kg	 Bag - Pole - Black P/N: BSM2-B-P400-BAG-BLK 1.1 lbs / .5 kg  Pole - AL2 - Mounting 18 Inch P/N: BSM2-A-M118-00P-AL2 1.3 lbs / 0.6 kg	 Wheeling Carry P/N: BSM2-B-P305-BAG-3WH 23.7 lbs / 10.8 kg	 Reference Pack - Standard P/N: BSM2-L-M501-PAC-000  GSA Schedule Contract GS-07F-9916R	BLUE SKY MAST elevating solutionsSM <table border="1"> <tr> <td>WGT</td> <td>114.8 lbs / 52.1 kg</td> </tr> <tr> <td>WIND RATING</td> <td>70 mph / 112.7 km/h</td> </tr> <tr> <td>MAX LOAD</td> <td>30 lbs / 9.1 kg</td> </tr> <tr> <td colspan="2">BlueSky Mast, Inc. 1515 Gunn Hwy Odeessa, FL 33566 www.blueskymast.com sales@blueskymast.com</td> </tr> <tr> <td colspan="2">Phone: 877-411-6278 CAGE: 3MMX5</td> </tr> </table> TITLE BlueSky Mast - AL2 - Standard Series - 15 Meters (46.5 ft.) PART NUMBER BSM2-M-M215-AL2-000 REV E (c) Copyright 2005-12 Allendale, LLC All Rights Reserved. This specification is subject to change without notice. DRAWING SCALE NONE. DIMENSIONS IN INCHES.	WGT	114.8 lbs / 52.1 kg	WIND RATING	70 mph / 112.7 km/h	MAX LOAD	30 lbs / 9.1 kg	BlueSky Mast, Inc. 1515 Gunn Hwy Odeessa, FL 33566 www.blueskymast.com sales@blueskymast.com		Phone: 877-411-6278 CAGE: 3MMX5	
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Phone: 877-411-6278 CAGE: 3MMX5																	

Grounding Deployment Instructions

Surface Wire Grounding Kit — BST2-K-L104-GND-000

Contents of Surface Wire Grounding Kit



Grounding Bracket
BST2-P-B205-GND-000



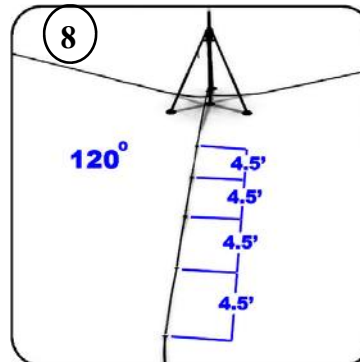
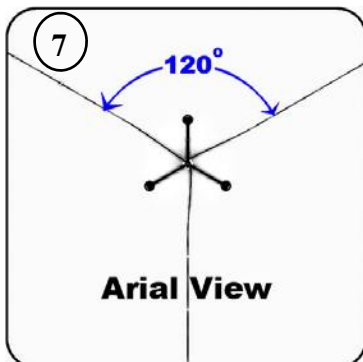
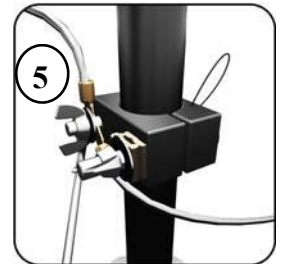
Stainless Steel Cable w/ Stakes
BST2-P-C225-GND-000



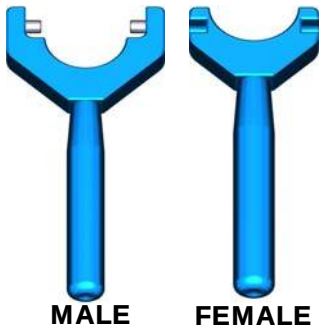
Grounding Bag
BST2-B-P300-BAG-GND

GROUNDING DEPLOYMENT INSTRUCTIONS

1. Locate grounding bracket and attach to the base pole of the mast.
2. The grounding bracket should be attached to the middle of the base pole to provide the best grounding.
3. Locate the grounding cables and place them at the base of the mast.
4. Remove the wing nut from the post without the Bronze ECLE connector and attach the ends of the grounding cables.
5. Connect one end of each of the grounding cables to the grounding bracket post and tighten back down the wing nut.
6. If additional equipment grounds are required, attach them to the Bronze ECLE connector.
7. Extend the grounding cables away from the base pole at 120 degree angles from each other.
8. Position the 1st stake of each cable at the free end furthest from the base of the mast.
9. Evenly space the remaining stakes of each cable at an interval of 4.5 ft.
10. Hammer the stakes into the ground making sure that the head of each stake contacts the ground.



Lift Handle Instructions



LIFT HANDLE DEPLOYMENT INSTRUCTIONS

- Get another mast pole out of the pole bag insert the silver end into the bottom the mast pole already locked in the cam lock. Make sure that the castle cut on both poles nest firmly together and no silver is visible in the seams of the joint.
- Holding the bottom mast pole firmly with one hand, slowly release the cam lock and allow the pole to slide down and rest firmly on the ground.
- Locate the male lift handle and place it at the bottom of mast pole on the ground 5 inches from the bottom. Do not use the bottom 5 inches of the mast pole.
- Interlock the female lift handle with the male lift handle and lift the mast pole up.
- Engage the Cam Lock on the tripod and release the mast pole slowly to make sure that it does not slide down in the tripod. If it does begin to slide down, check that the cam lock is engaged fully or make adjustments as needed.
- Repeat this process for the remaining mast poles or until desired height is reached.



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AL1 and AL2 ACCESSORY GUIDE

Tool-less Solutions

BlueSky Mast's suite of patented interchangeable tool-less accessories allow you to easily adapt to changing requirements which give our systems ultimate versatility and strategic value. Our innovative designs completely remove the need for tools, simplifying platform construction and reducing training time and man power requirements. The end result is a faster, highly effective mast deployment.

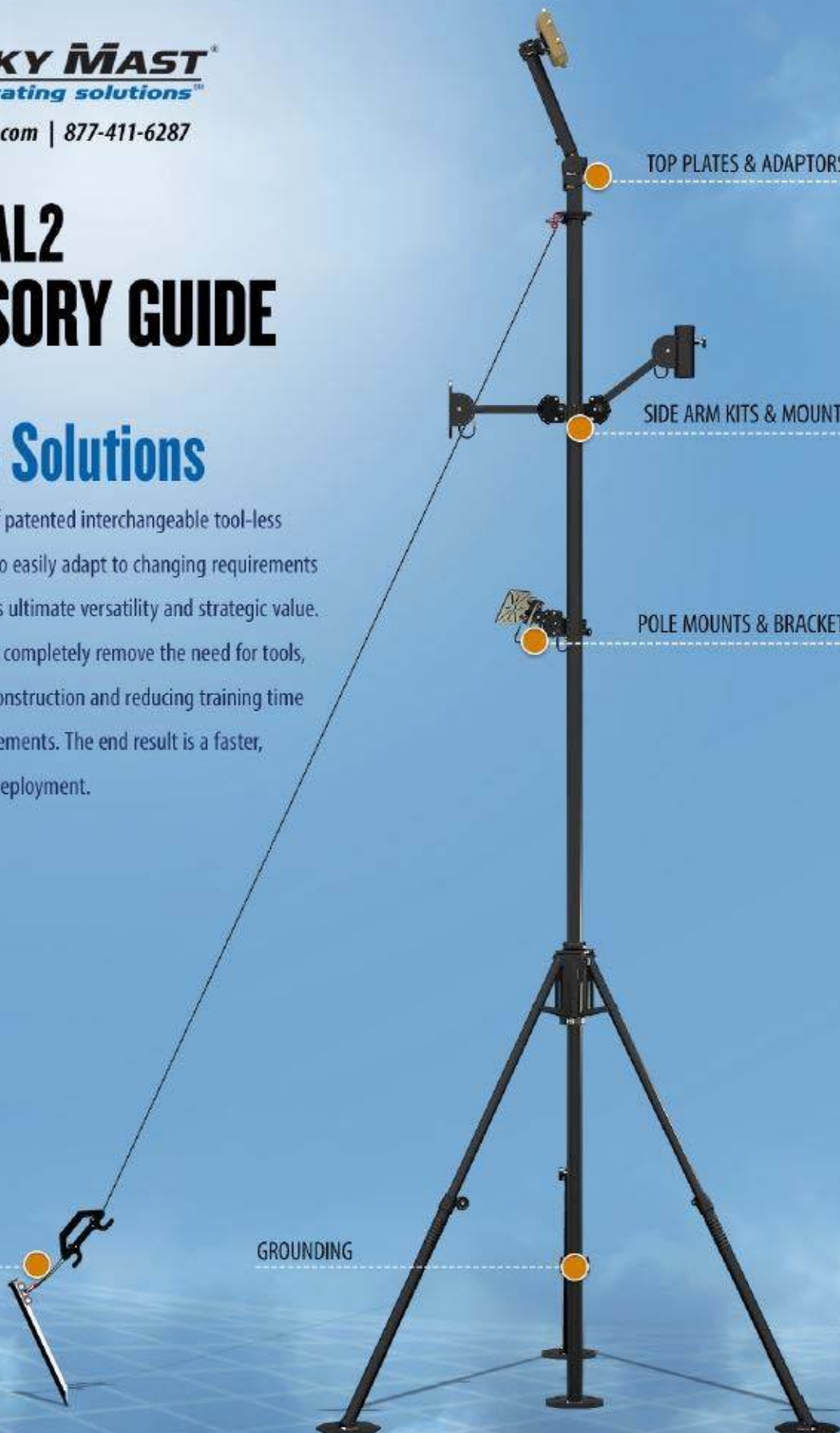
GUY KITS

GROUNDING

TOP PLATES & ADAPTORS

SIDE ARM KITS & MOUNTS

POLE MOUNTS & BRACKETS



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Top Plates & Adaptors

BlueSky Mast offers a full suite of quick release top plates and adaptors for all types of antennas, cameras and devices. Each of the mounting options includes a quick release pin-on adaptor that mounts directly to the mast system mounting pole, which eliminates the need for tools in the field. These quick release adaptors allow for fast and easy installation and increased flexibility for warfighters who have to mount multiple devices on a single mast.





Top Plates & Adaptors

These accessories attach to the mounting pole on the top of an AL1 or AL2 mast system *(Based on system height and payload)*.



OE-254 & COM201 Antennas
BSM2-K-M400-OE2-000



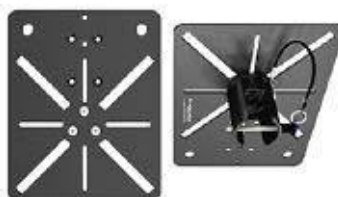
Manual Tilt Assembly with Mounting Pole
BSM2-K-M650-TLT-000
(+/- 22 Degrees Tilt Angle Adjustment)



Pan & Tilt for Quickset OPT & FLIR
BSM2-A-M460-MPP-00A



Cross Pattern 6x6 Inches
BSM2-A-M550-MPP-00A



Cross Pattern 8x10 Inches
BSM2-A-M408-MPP-00A



NATO - SINGARS - EPLRS
BSM2-A-M305-NT0-00A



Solid 7.5x7.5
BSM2-A-M407-MPP-00A



Solid 11.5x11.5
BSM2-A-M411-MPP-00A



Radar 8x11
BSM2-A-M400-MPP-RDA



Top Plates & Adaptors

These accessories attach to the mounting pole on the top of an AL1 or AL2 mast system (Based on system height and payload).



KVH TracPhone TPV 3-7, TVHD 11
BSM2-K-M309-MPP-TRC



Cisco 1500 Series
BSM2-A-M410-CSC-00A



Tampa Microwave
BSM2-A-M410-MPA-TML



G2 Magnetic Mount
BSM2-A-M325-MAG-00A



BMS GPS & RF Tracking, GTA 17/58
BSM2-A-M365-BMS-00A



Pipe Mount for 1-2 Inch Antennas
BSM2-A-M420-MPA-000



Mobile Mark Omni Antenna
BSM2-A-M718-MPP-00A



PSL / DF Device
BSM2-A-M415-MPP-00A



Pin On Threaded Adaptor
BSM2-A-P-M510-PIN-000

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Side Arm Kits & Mounts

BlueSky Mast offers a full suite of side arm kits and mounts. Based on your separation requirements, we have multiple arm lengths and a variety of side mounts which include a quick release push pin for fast and easy installation.





Side Arm Kits

These Side Arm Kits can be mounted anywhere on an AL1 or AL2 mast system *(Based on system height and payload).*

DUAL

STRAIGHT ARM KIT - DUAL - COM201/OE-254



This kit includes two insulated adaptors that work with both COM201 and OE-254 antennas.

ARM LENGTH

44 in.

PART NUMBER

BSM2-K-A352-S44-OE2

(1) Side Arm Mount - 1 in. COM201 / OE-254
P/N: BSM2-K-M400-OE2-EM0

(1) AL1 / AL2 Pole Mount - Two sided
P/N: BSM2-P-A352-T00-100

(2) Straight Arm Bracket w/1 in. Side Arm (44 in.)
P/N: BSMU-P-A344-ARM-105

DUAL

STRAIGHT ARM KIT - DUAL - NATO



ARM LENGTH (Inches)

24 in.

PART NUMBER

BSM2-K-A352-S24-NT0

36 in.

BSM2-K-A352-S36-NT0

44 in.

BSM2-K-A352-S44-NT0

(1) AL1 / AL2 Pole Mount - Two sided
P/N: BSM2-P-A352-T00-100

(1) Side Arm Mount - 1 in. NATO-SINGARS-EPLRS
P/N: BSM2-A-M305-NT0-EM0

(2) Straight Arm Bracket w/1 in. Side Arm (44 in.)
P/N: BSMU-P-A344-ARM-105

DUAL

ARTICULATING ARM KIT - DUAL w/BOLSTER PLATE



ARM LENGTH (Inches)

6 in. ARM X 2

PART NUMBER

BSM2-K-A352-T06-BOL

12 in. ARM X 2

BSM2-K-A352-T12-BOL

24 in. ARM X 2

BSM2-K-A352-T24-BOL

36 in. ARM X 2

BSM2-K-A352-T36-BOL

(1) AL1 / AL2 Pole Mount - Two sided
P/N: BSM2-P-A352-T00-100

(2) Slotted Side Arms (6 to 36 in.)
P/N: BSM2-P-A3XX-ARM-100

(2) Articulating Arm Brackets
P/N: BSMU-P-A3XX-ARM-105

(2) Side Arm Mounts - 1 in. - Bolster Plates
P/N: BSM2-P-A101-EM0

SINGLE ARM



DUAL ARM



THREE WAY ARM



Side Arm Kits

These Side Arm Kits can be mounted anywhere on an AL1 or AL2 mast system *(Based on system height and payload).*

SINGLE



(1) AL1/AL2 Pole Mount - Two Sided

P/N: BSM2-P-A352-T00-000

(1) Straight Arm Bracket w/1 in. Side Arm (6 to 44 in.)

P/N: BSMU-P-A3XX-ARM-10S

NOT INCLUDED: 1 in. Side Arm Mount *(See optional side arm mounts)*

STRAIGHT ARM KIT - SINGLE - NO SIDE MOUNT

ARM LENGTH (Inches)	PART NUMBER
6 in.	BSM2-K-A351-S06-100
12 in.	BSM2-K-A351-S12-100
24 in.	BSM2-K-A351-S24-100
36 in.	BSM2-K-A351-S36-100
44 in.	BSM2-K-A351-S44-100

DUAL



(1) AL1/AL2 Pole Mount - Two Sided

P/N: BSM2-P-A352-T00-000

(2) Straight Arm Bracket w/1 in. Side Arm (6 to 44 in.)

P/N: BSMU-P-A3XX-ARM-10S

NOT INCLUDED: 1 in. Side Arm Mount *(See optional side arm mounts)*

STRAIGHT ARM KIT - DUAL - NO SIDE MOUNT

ARM LENGTH (Inches)	PART NUMBER
6 in.	BSM2-K-A352-S06-100
12 in.	BSM2-K-A352-S12-100
24 in.	BSM2-K-A352-S24-100
36 in.	BSM2-K-A352-S36-100
44 in.	BSM2-K-A352-S44-100

THREE WAY



(1) AL1/AL2 Pole Mount - Three Sided

P/N: BSM2-P-A353-T00-000

(3) Straight Arm Bracket w/1 in. Side Arm (6 to 44 in.)

P/N: BSMU-P-A3XX-ARM-10S

NOT INCLUDED: 1 in. Side Arm Mount *(See optional side arm mounts)*

STRAIGHT ARM KIT - THREE WAY - NO SIDE MOUNT

ARM LENGTH (Inches)	PART NUMBER
6 in.	BSM2-K-A353-S06-100
12 in.	BSM2-K-A353-S12-100
24 in.	BSM2-K-A353-S24-100
36 in.	BSM2-K-A353-S36-100
44 in.	BSM2-K-A353-S44-100



Side Arm Mounts

These Side Arm Mounts can be used with all AL1 or AL2 side arm kits *(Based on system height and payload).*



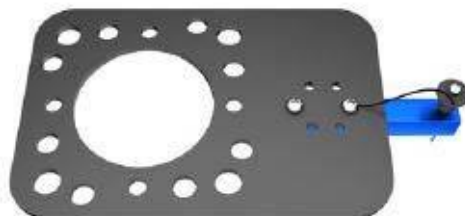
Adjust to fit antennas with an
OD of .75 to 2.0 inches

Omni Antenna .75 to 2.0 Inch
BSMU-P-A112-OMN-EM0



Adjust to fit antennas with an
OD of 2.0 to 3.5 inches

Omni Antenna 2.0 to 3.5 Inch
BSMU-P-A350-OMN-EM0



NATO - SINGARS - EPLRS
BSM2-A-M305-NT0-EM0



OE-254 & COM201 Antennas
BSM2-K-M400-OE2-EM0

This insulated adaptor works with both
COM201 and OE-254 antennas.



Side Arm Mounts

These Side Arm Mounts can be used with all AL1 or AL2 side arm kits *(Based on system height and payload).*



Cross Pattern 8x10
BSM2-A-M408-MPP-EMO



Cisco 1500 Series
BSM2-A-M410-CSC-EMO



Solid 7.5x7.5
BSM2-A-M407-MPP-EMO



Bolster Plate
BSM2-P-A101-BOL-EMO



Adjustable Cup Holder
BSM2-P-A100-CUP-EMO



Solid 11.5x11.5
BSM2-A-M411-MPP-EMO



Boltster Plate - Magnetic
BSM2-P-A101-BOL-MGO



G2 MAG MOUNT
BSM2-A-M325-MAG-EMO



GPS Antenna
BSMU-A-M375-GPS-EMO

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Pole Mounts & Plate Brackets

BlueSky Mast's patented interface (*slide lock technology*) allow warfighters to easily attach and remove devices to our universal pole mount, which can be secured anywhere on the mast from the base to the top.



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Pole Mounts

The pole mounts below can be attached anywhere on our AL1 or AL2 Mast Systems. **NOT compatible with our AL3 Mast Systems.**

Pole Mount - Two Sided - BSM2-P-A352-T00-000



Patented BlueSky Mast Interface



Pole Mount - Three Sided - BSM2-P-A353-T00-000



Patented BlueSky Mast Interface





Plate Brackets

These plate brackets can be mounted anywhere on the mast using our 2 or 3 sided pole mounts.

FRONT OF PLATE

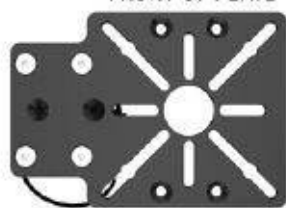
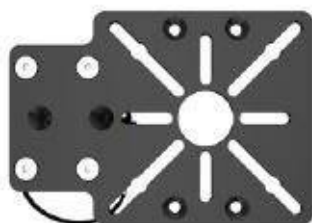


PLATE BRACKET ON POLE MOUNT

BACK OF PLATE



Patented BlueSky Mast Interface



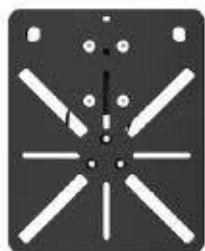
Universal PTP Plate
BSM2-A-M900-PTP-BRK



Cisco Aironet 1520 Series
BSM2-A-M524-CSC-BRK



Ultra TCS 245 Radio
BSMU-A-M850-TCS-BRK



Cross Pattern 8x10 Inch
BSM2-A-M408-MPP-BRK



Omni Bracket .75 to 2.0 Inch OD
BSMU-P-A112-OMN-BRK

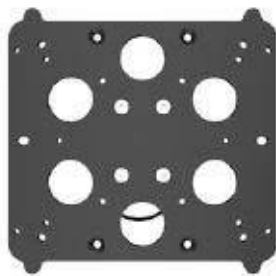


Omni Bracket 2.0 to 3.5 Inch OD
BSMU-P-A350-OMN-BRK



Plate Brackets

These plate brackets can be mounted anywhere on the mast using our 2 or 3 sided pole mounts.



GD Fortress ES Series
BSM2-A-M520-GDF-BRK



Hoffman NEMA Enclosures
BSM2-A-M412-HFM-BRK



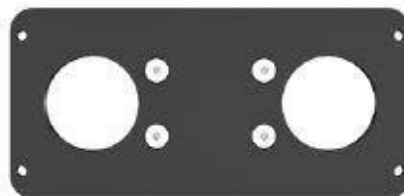
Tampa Micro Satellite Simulator
BSM2-A-M410-MPA-TM2



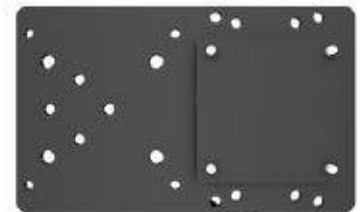
Ultra TCS Antennas
BSMU-P-A860-TCS-BRK



Radiowaves 2ft. Parabolic Antenna
BSM2-A-M502-MPP-BRK



Rajant Ethernet Radio
BSMU-A-M585-RAJ-BRK



Motorola PTP Radio & LPU
BSM2-A-M415-MOT-BRK



Mobile Mark 120 Sec Antenna
BSMU-A-M710-MMA-BRK



AirGrid M Antennas
BSM2-A-M560-MPP-BRK



Plate Brackets

These plate brackets can be mounted anywhere on the mast using our 2 or 3 sided pole mounts.



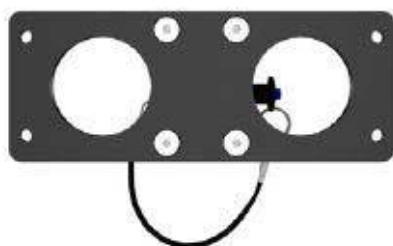
PC Tel Sector Antenna SP4959
BSMU-A-M705-PCT-BRK



Hyperlink - L-Com Panel Antenna
BSM2-A-M700-MPP-BRK



GD V6 eNode B
BSMU-A-M411-EN6-BRK



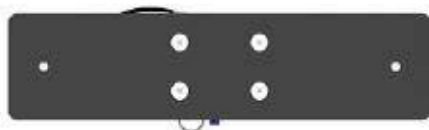
Rajant Breadcrumb Radio
BSMU-A-M580-RAJ-BRK



Solid 7.5x7.5
BSM2-A-M407-MPP-BRK



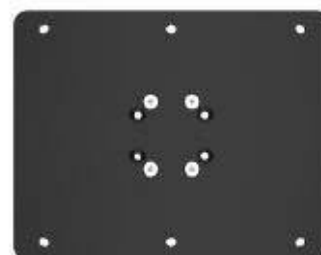
Solid 11.5x11.5
BSM2-A-M411-MPP-BRK



Rajant PC Tel Sector Antenna
BSMU-A-M587-RAJ-BRK



BKT-11 QUAD and MPU3
BSM2-A-M811-BKT-BRK



C2M2 Transceiver
BSMU-A-M525-C2M-BRK

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Certified Grounding & Lightning Protection

BlueSky Mast has created a suite of certified grounding accessories that enable you to protect your equipment and more importantly your personnel from static discharge and high voltage equipment surges. Our portable mast platforms, when combined with our surface wire grounding kit, have been tested and certified to provide lightning protection equivalent or better than driving an 8 ft. copper rod into the ground.



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elevating solutions™

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Certified Grounding & Lightning Protection

Protect your equipment with grounding and lightning components from BlueSky Mast.

GROUNDING



Surface Wire Grounding Kit - AL1 & AL2
BST2-K-L104-GND-000



LIGHTNING PROTECTION



Pin On Lightning Air Terminal - AL1 & AL2
BST2-K-L102-GND-000

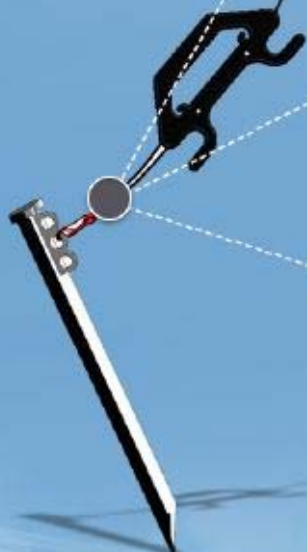


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Guy Kits

BlueSky Mast offers color-coded primary and secondary guy kits with free spinning guy rings that allow the mast to be rotated 360 degrees after deployment. The guy rope is made of Spectra Cord, a woven fiber 10 times stronger than common cable.





Guy Kits

PRIMARY GUY KITS



Primary Guy Ring



Qty: (4) Primary Guy Ropes



Qty: (4) Guy Stakes

METERS	PART NUMBER
2 METERS	BSM2-K-G602-PRI-RED
3 METERS	BSM2-K-G603-PRI-RED
4 METERS	BSM2-K-G604-PRI-RED
5 METERS	BSM2-K-G605-PRI-RED
6 METERS	BSM2-K-G606-PRI-RED
7 METERS	BSM2-K-G607-PRI-RED
8 METERS	BSM2-K-G608-PRI-RED
9 METERS	BSM2-K-G609-PRI-RED
10 METERS	BSM2-K-G6010-PRI-RED
11 METERS	BSM2-K-G6011-PRI-RED
12 METERS	BSM2-K-G6012-PRI-RED
13 METERS	BSM2-K-G6013-PRI-RED
14 METERS	BSM2-K-G6014-PRI-RED
15 METERS	BSM2-K-G6015-PRI-RED

SECONDARY GUY KITS



Secondary Guy Ring



Qty: (4) Secondary Guy Ropes



Qty: (4) Guy Stakes

METERS	PART NUMBER
2 METERS	BSM2-K-G602-2ND-BLU
3 METERS	BSM2-K-G603-2ND-BLU
4 METERS	BSM2-K-G604-2ND-BLU
5 METERS	BSM2-K-G605-2ND-BLU
6 METERS	BSM2-K-G606-2ND-BLU
7 METERS	BSM2-K-G607-2ND-BLU
8 METERS	BSM2-K-G608-2ND-BLU
9 METERS	BSM2-K-G609-2ND-BLU
10 METERS	BSM2-K-G6010-2ND-BLU
11 METERS	BSM2-K-G6011-2ND-BLU
12 METERS	BSM2-K-G6012-2ND-BLU
13 METERS	BSM2-K-G6013-2ND-BLU
14 METERS	BSM2-K-G6014-2ND-BLU
15 METERS	BSM2-K-G6015-2ND-BLU

BLUE SKY MAST[®]
*elevating solutions*SM

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