MATSING®

LENS TECHNOLOGY ENABLED

MatSing Multi-Beam Antenna

Installation and Alignment General Guide

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Revision History:

Date	*Description*	*Rev By*	*Check By*	*Rev no*
18-May-2024	*Initial Release*	*RL*	*Pavel*	*0*
07-Oct-2024	*Include MBA models and general update*	*RL*	*Pavel*	*1*
23-Oct-2024	*General update*	*RL*	*Pavel*	*2*
16-Jul-2026	*Add manual azimuth & MBA MLT alignment process*	*RL*	*Pavel*	*3*

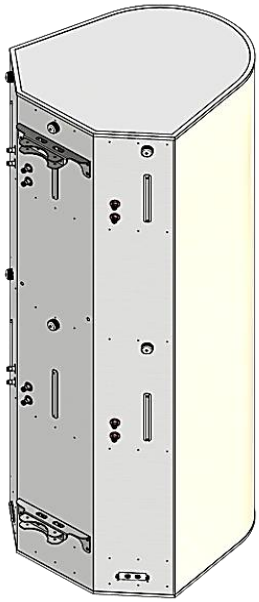
1.00 Multi-Beam Antenna (MBA) Product Overview

1.10 Product category, models, size and weight

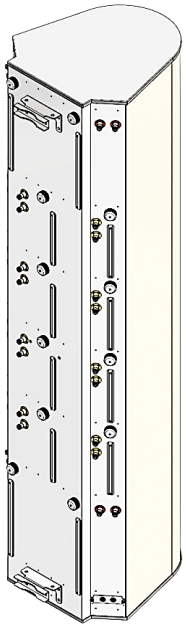
Item	Models	Dimensions (cm)			Weight
		Height	Width	Depth	(kg)
1	MS-MBA-12.12-F2-H2	87.70	61.90	64.10	34.10
2	MS-MBA-7-C2	63.20	61.90	72.60	24.06
3	MS-MBA-6.6.3-C4-H4-L2	241.90	93.70	97.80	127.10
4	MS-MBA-6.6.3-F4-H4-L2	241.90	93.70	97.80	127.10
5	MS-MBA-6.6-F4-H4 (STD)	184.40	93.70	108.60	98.96
6	MS-MBA-6.6-F2-F2-45M	110.30	61.90	72.30	39.10
7	MS-MBA-6-H4	126.80	93.70	108.60	79.48
8	MS-MBA-4.4.2-C4-H4-L4	241.90	61.90	72.30	73.30
9	MS-MBA-4.4.2-F4-H2-L2	163.70	62.00	72.20	51.54
10	MS-MBA-4.4.2-C2-H2-L2	141.20	62.00	72.20	48.22
11	MS-MBA-4.4.2-F2-H2-L2	141.20	62.00	72.20	48.22
12	MS-MBA-4.4-SH2-SH2-45M	110.30	61.90	72.30	38.30
13	MS-MBA-4.4-SH2-SH2-45	110.30	61.90	72.30	38.58
14	MS-MBA-4.4-SH2-SH2	110.30	61.90	72.30	31.92
15	MS-MBA-4.2-H2-L2	109.30	61.90	72.30	35.78
16	MS-MBA-4.2-H2-T2	109.30	61.90	72.30	38.46
17	MS-MBA-4-C8A3 (VS)	152.70	70.60	52.90	57.18
18	MS-MBA-4-C4A3 (VS)	159.80	36.30	42.80	31.88
19	MS-MBA-4-C4A3-2	159.80	36.30	42.80	30.94
20	MS-MBA-4-H4	110.30	61.90	72.30	38.42
21	MS-MBA-4-F2	55.00	36.30	46.80	13.96
22	MS-MBA-4-H2	63.50	61.90	72.30	25.64
23	MS-MBA-3.3.2-F2-H2-L2	139.20	61.90	72.30	46.38
24	MS-MBA-3.3-F4A3-H4A2	210.90	61.80	69.00	65.81
25	MS-MBA-3.3-LAA2-F4	121.40	42.90	36.20	22.66
26	MS-MBA-3.2-H8-L4	244.00	61.90	72.60	79.66
27	MS-MBA-3.2-H8-T4	244.00	61.90	72.60	79.66
28	MS-MBA-3.2-H4-L4	183.20	61.90	72.30	60.12
29	MS-MBA-3.2-H4-T4	183.20	61.90	72.30	60.12
30	MS-MBA-3.2-H2-L2	99.90	61.90	72.30	34.34
31	MS-MBA-3-C4A3	118.90	29.50	37.10	21.26
32	MS-MBA-3-F4A3	118.90	29.50	37.10	21.68
33	MS-MBA-3-H8A2	241.90	61.80	68.30	76.38
34	MS-MBA-3-H8	164.00	61.80	68.30	53.26
35	MS-MBA-3-F4	55.70	36.30	46.80	12.04
36	MS-MBA-3-H4	89.90	61.70	68.30	32.56
37	MS-MBA-3-F2	37.00	36.30	46.80	11.54
38	MS-MBA-3-H2	52.90	61.80	68.30	21.80
39	MS-MBA-3-L4A2 (VS)	241.90	93.70	108.60	122.18
40	MS-MBA-3-L4A2-S (VS)	241.90	93.70	108.60	138.00
41	MS-MBA-3-T4A2 (VS)	241.90	93.70	108.60	138.00
42	MS-MBA-2-L4A2	177.80	61.90	72.30	54.94
43	MS-MBA-2-L4	112.30	61.90	72.30	38.32
44	MS-MBA-2-L2	63.90	61.30	72.00	26.38
45	MS-MBA-2-T2	63.90	61.30	72.00	26.38
46	MS-MBA-1-T4	109.80	61.80	68.34	28.48

1.20 General product outlook, shape and size

1.21 Antenna height ≥1800mm

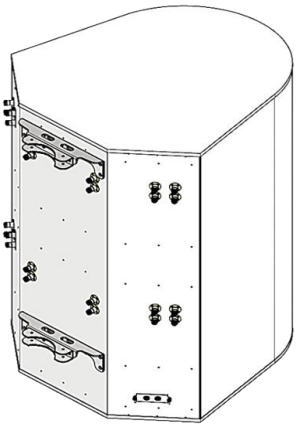


MS-MBA-3-L4A2
(2419*937*1086)



MS-MBA-3-L4A2
(2440*619*726)

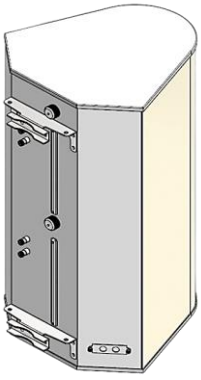
1.22 Antenna height ≥1200 to 1800mm



MS-MBA-6-H4
(1268*937*1086)

MS-MBA-4-C8A3
(1598*363*428)

1.23 Antenna height ≤ 1200mm



MS-MBA-1-T4
(1098*628*683)

MS-MBA-7-C2
(632*619*726)

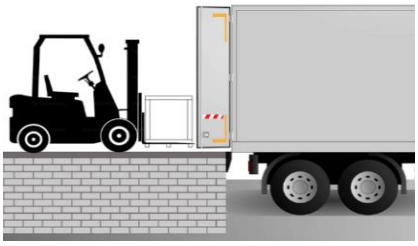
2.00 Antenna unloading, transportation, and unpacking

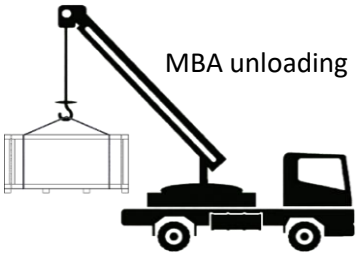
2.10 Safety precaution

DANGER	*Strictly comply with authority regulations on workplace safety and health controls and measures when performing unloading, lifting, and transporting of large or heavy equipment. Appropriate material handling machinery, equipment, safety harnesses, and tools should be used, and only certified personnel should perform the task.*

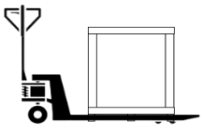
2.20 Antenna wooden crate lifting and handling

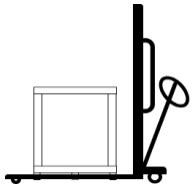
2.21 Unloading using a crane truck, manual hydraulic jack, or forklift





2.22 Point-to-point transport by manual hydraulic jack or forklift

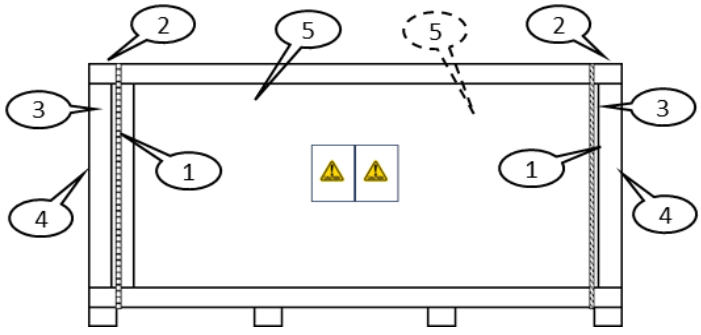


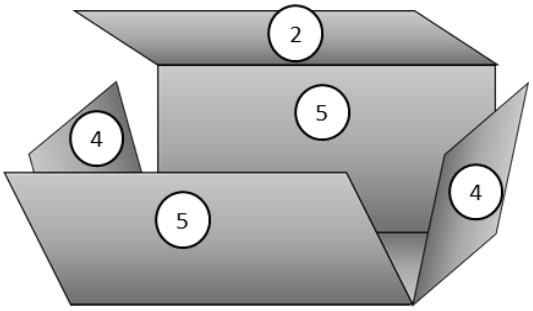


2.30 Antenna wooden crate unpacking and lifting

2.31 Antenna height >1500mm unpacking tools and steps (Example of MS-MBA-3-L4A2)

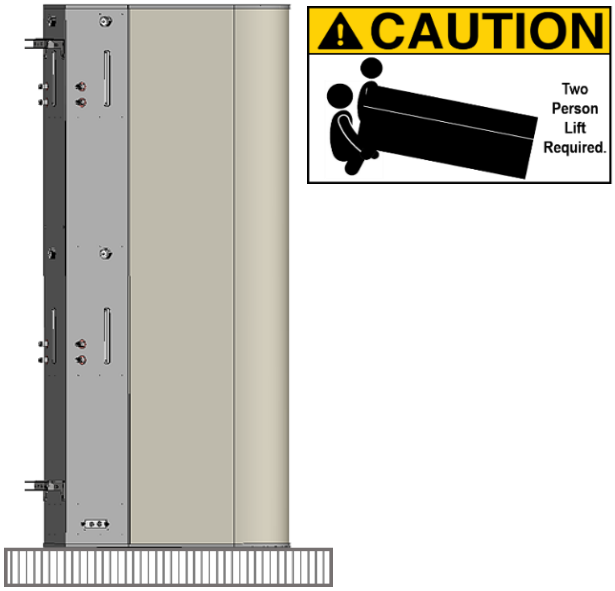
MS-MBA-3-L4A2 Unpacking Step	
Step 1	Use a cutter to cut and remove plastic straps.
Step 2	Unscrew and remove the top panel.
Step 3	Unscrew the left and right sides to remove the rear panel.
Step 4	Remove left and right side panels.
Step 5	Remove front and rear panels.



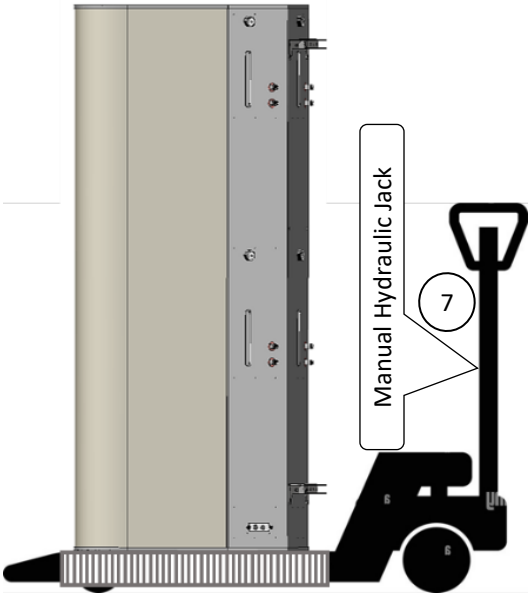


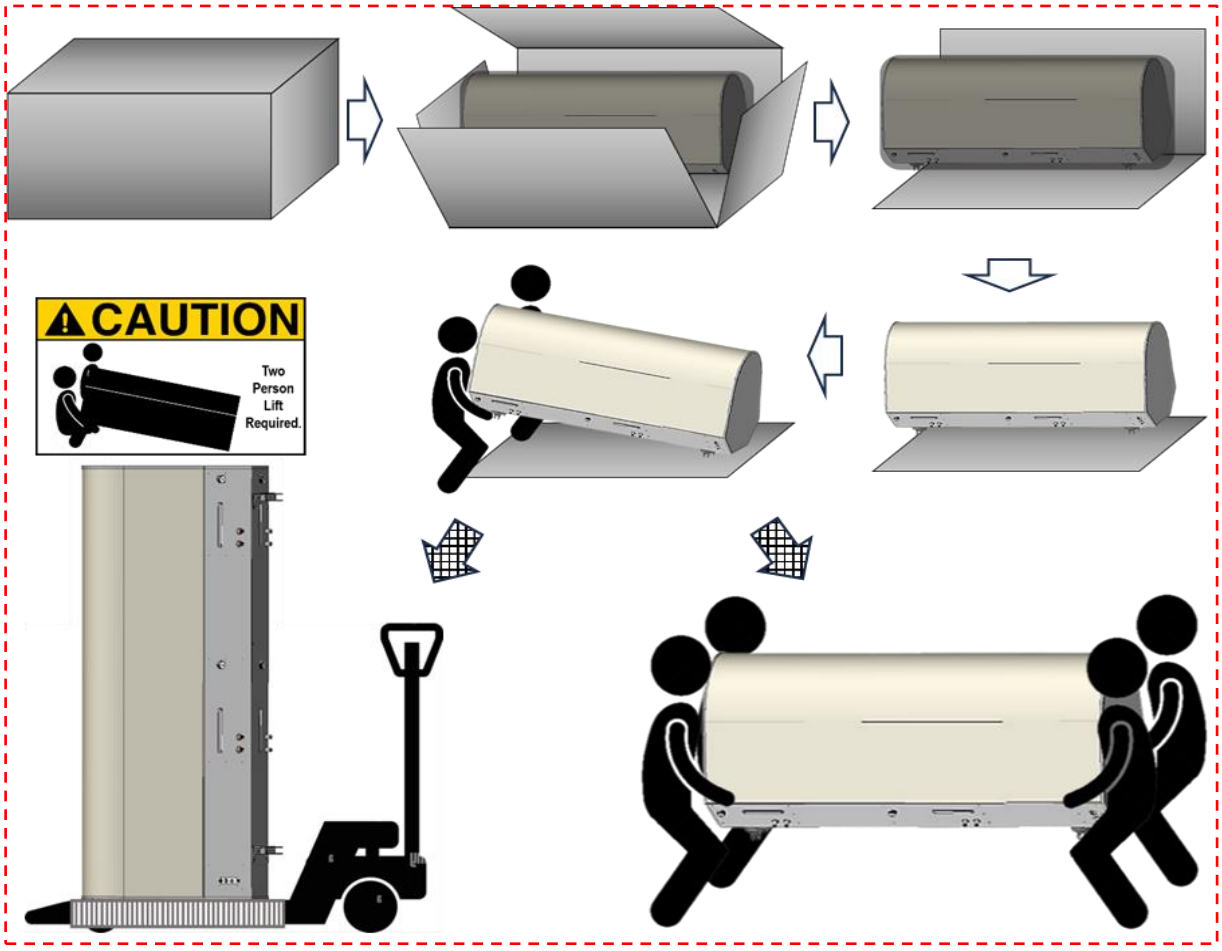
Step 6	Unwrapping shrink wrap.

Step 7	With 2 men, lift up the antenna vertically and place it on the pallet.



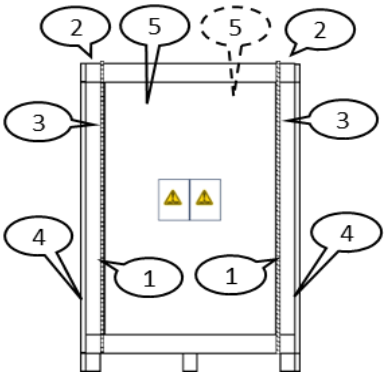
Step 8	Use a manual hydraulic jack for transporting

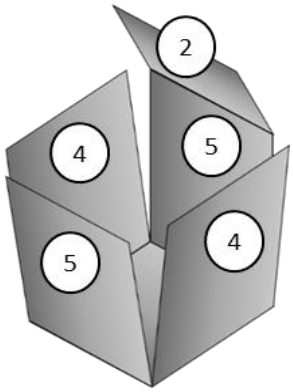




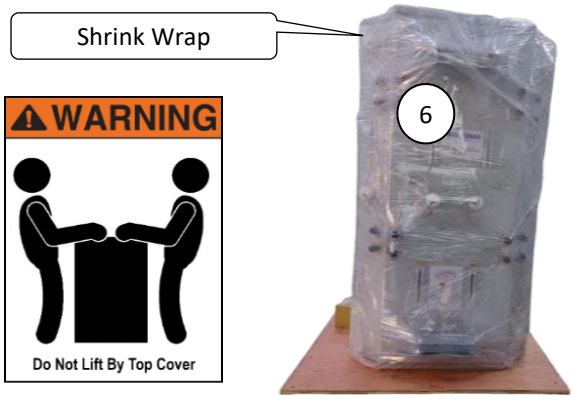
2.32 Antenna height <=1490mm unpacking steps
(Example Of MS-MBA-4.4-SH2-SH2-45M)

MS-MBA-4.4-SH2-SH2-45M Unpacking Step	
Step 1	Use a cutter to cut and remove plastic straps.
Step 2	Unscrew and remove the top panel.
Step 3	Unscrew the left and right sides to remove the rear panel.
Step 4	Remove left and right side panels.
Step 5	Remove front and rear panels.

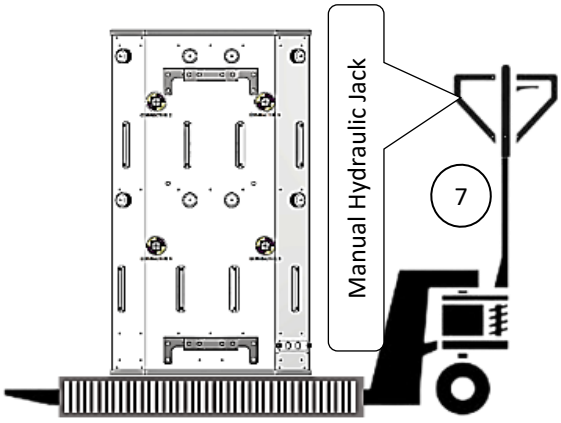


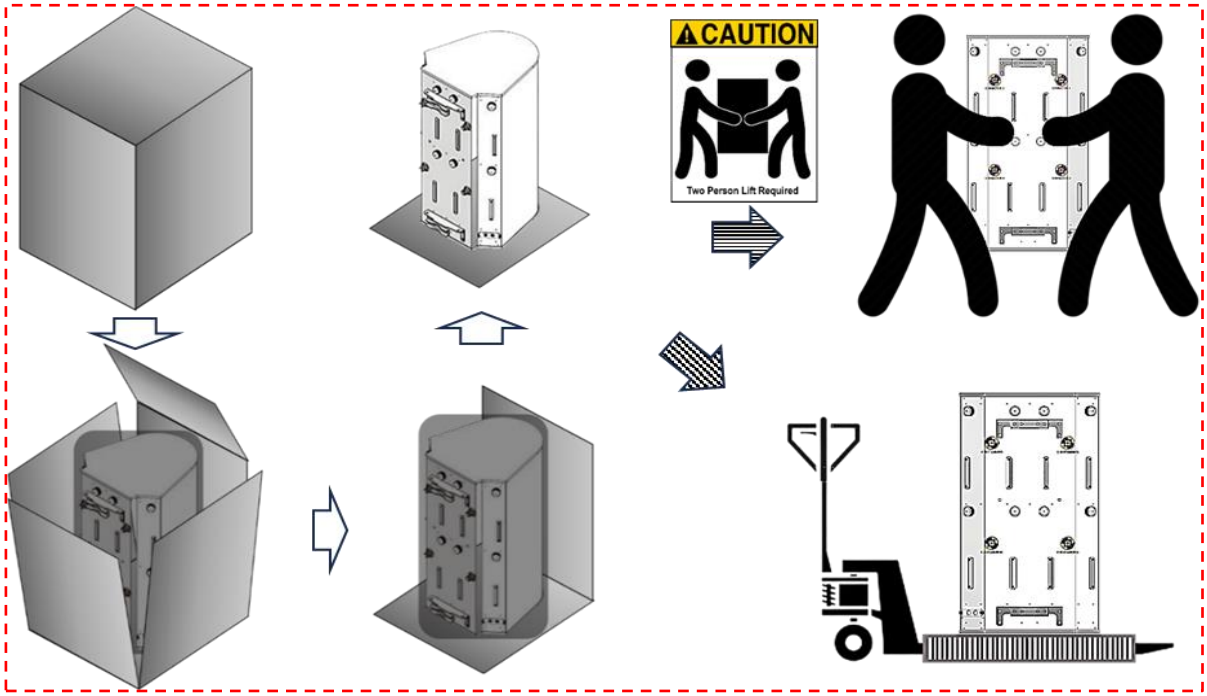


Step 6	Unwrapping the shrink wrap, lift up the antenna, and place it on the pallet.



Step 7	Use a manual hydraulic jack for transporting





3.00 Antenna lifting and installations

3.10 Equipment preparations

CAUTION	*Antenna installation location may vary from point to point in facing different terrains and environments; only appropriate material handling machines, lifting equipment, and working platforms are to be deployed with a certified operator.*

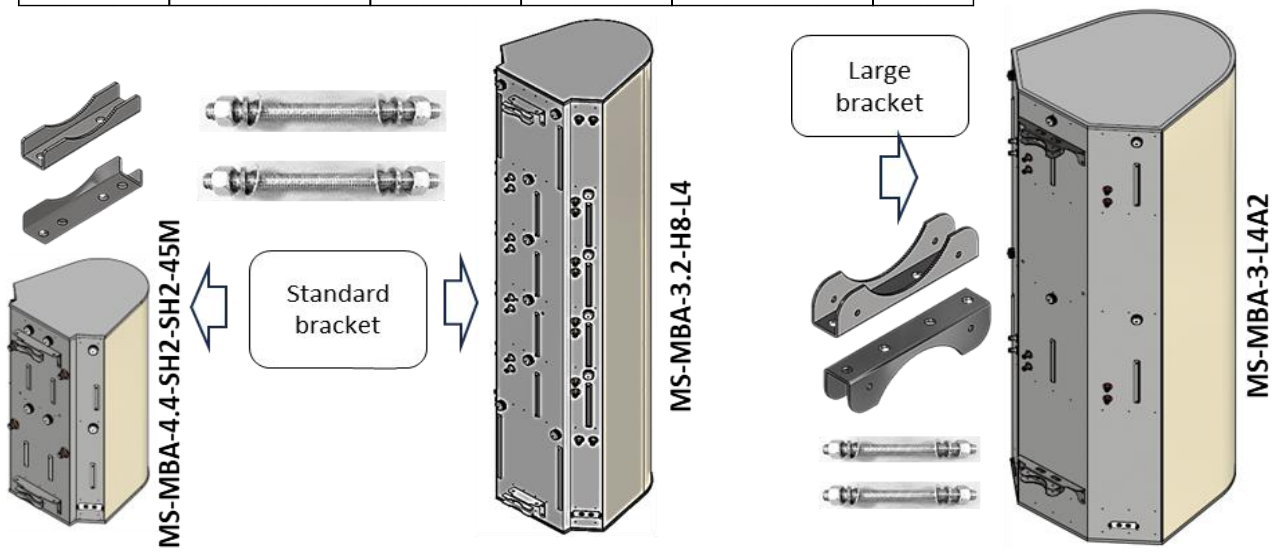
3.20 Planning and execution

CAUTION	*Advance planning for the antenna position and direction is essential to ensure minimum risk and safety compliance during lifting, installation and adjustment.*

3.30 Lifting and installation

3.31 Antenna mounting bracket

Size	L x W x H (mm)	Thickness (mm)	Holes Size (mm)	Holes Spacing (mm)	Qty
Large	215 x 40 x 50	4	Ø12.5	185	2
Standard	165 x 40 x 26	4	Ø12.5	135	2



3.32 Additional supporting bracket (User custom-make)

Important Notes: The user is required to custom-make the additional supporting bracket and tighten the existing antenna bracket to meet the deployment needs.

3.33 Lifting or hoisting up the antenna

3.34 Antenna installation (on-site picture sample)

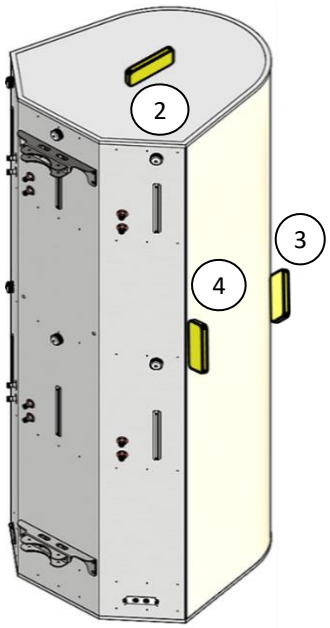
3.35 Antenna leveling and steps (for vertical setting)

Step 1	Digital gauge calibration to zero "0" level

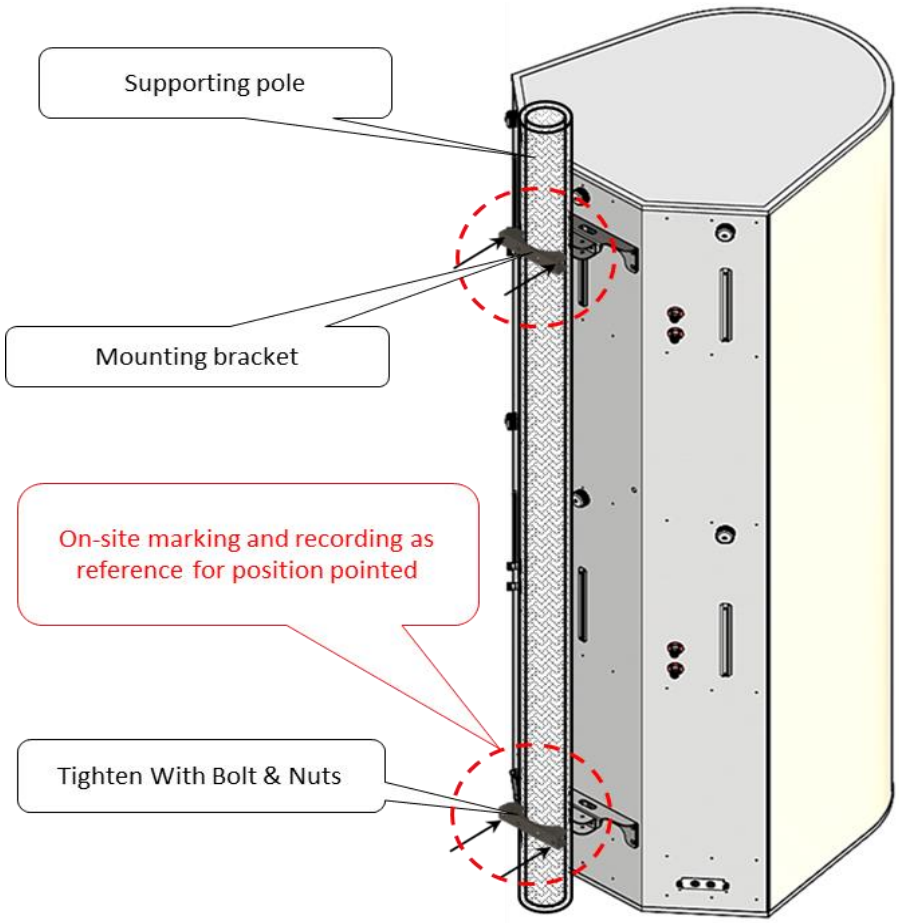
Step 5	Acceptable range (0˚ zero ≤0.2˚)

Step 6	If level is offset, tilt and adjust according to the level display.

Target level is 0˚ (zero) ≤0.2˚	
Step 2	Place the digital gauge on the rear frame top center.
Step 3	Place the digital gauge on the right frame top center.
Step 4	Place the digital gauge on the left frame top center.



3.36 Antenna leveled, secure, and marking



4.00 Antenna Azimuth Adjustment

4.10 Overview

Azimuth adjustment establishes the horizontal pointing direction (boresight bearing) of the antenna to align precisely with the planned cell sector coverage. This mechanical procedure is executed once the antenna leveling steps are completed and the structure is physically supported on the tower pole.

CAUTION	**CAUTION**: Ensure all mounting bracket bolts are completely loosened before attempting to rotate the antenna body. Re-tighten all hardware to the specified torque settings immediately after the target azimuth is verified and locked to prevent shifting.

4.20 Boresight Azimuth Reference Point

Unlike open-frame designs, the MBA series features a compact, fully enclosed top Radome cover. Because a clear visual centerline is not naturally present on the shell, a temporary alignment reference path must be marked manually by the installer before taking measurements.

- **Drawn Boresight Centerline:**

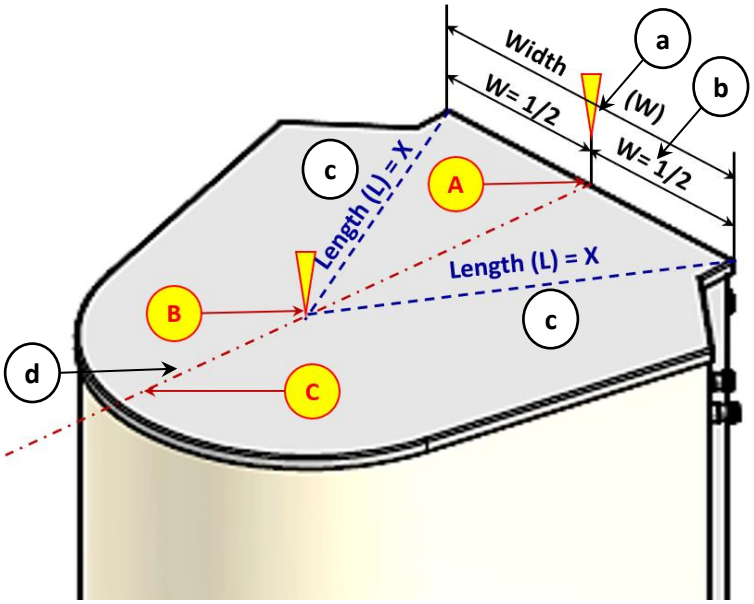
Step a: Find the rear top cover width

Step b: Divide the width into half and get the center point and mark **"A"**.

Step c: Set the ruler to **Length "X"** and measure from both the left and right rear corners toward the center to establish mark **"B".**

Step d: Draw a **Boresight Centerline** from **"A"** to **"B"** to get the Apex Position **"C".**

- **Front Apex Position:** The physical forward node where the reference line meets the nose tip. The alignment tool must be placed at this location. Pushing the compass forward to the front apex isolates the tool from the massive steel mounting bracket and pole assembly at the rear, mitigating local magnetic deviation errors.



4.30 Tools Required

☑ **No Special Tool Required:** Tower crews may use any standard compass or bearing tool commonly available in the industry. No proprietary MatSing tool is needed for azimuth adjustment.

Acceptable tools include (but are not limited to):

- Magnetic compass (handheld or digital)
- Digital inclinometer / angle finder with compass function
- Smartphone compass application
- Surveyor's transit or bearing instrument

4.40 Azimuth Adjustment Steps

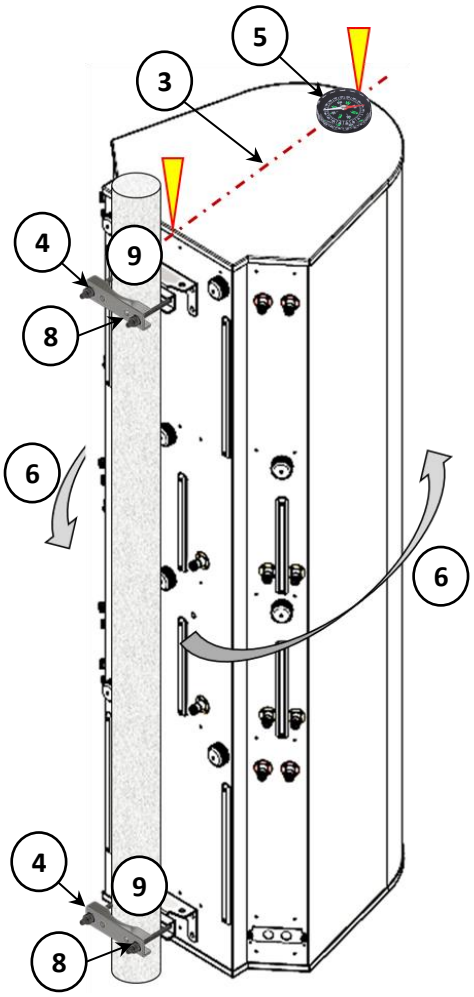
Step	Action	Details / Notes
1	Obtain target azimuth bearing	Confirm the planned azimuth bearing (in degrees) from the RF network design sheet or site survey before climbing the tower.
2	Verify antenna is vertically leveled	Confirm antenna leveling is completed per **Section 3.35** (Antenna leveling and steps) before proceeding with azimuth adjustment.
3	Mark the boresight centerline	Measure and mark the midpoint of the flat rear cover edge. Use a straight edge to draw a high-visibility line from this midpoint directly to the center of the front nose tip.
4	Loosen mounting bracket bolts	Loosen (do not fully remove) the bracket nuts sufficiently to allow the antenna frame structure to rotate smoothly on the pole.
5	Place bearing tool on front apex	Place the compass flat and stable on the drawn line at the **absolute front nose apex.** Ensure it is perfectly centered and away from the rear steel mountings.
6	Rotate frame to target bearing	Slowly rotate the antenna body horizontally until the drawn centerline matches the target azimuth bearing exactly on your compass dial.
7	Verify bearing reading	Confirm the final mechanical compass heading reads within ±1° of the target sector azimuth. Re-adjust minor variances if necessary.
8	Tighten all hardware	Re-tighten all mounting bracket bolts progressively to the specified torque. Monitor the tool to ensure the antenna body does not drift out of alignment during tightening.
9	Mark and record position	Apply high-visibility paint alignment marks across the pole-bracket interface. Record the verified azimuth bearing on the site acceptance form.

Note:

● Azimuth adjustment is a pure mechanical rotation process that acts completely independent of individual beam tilt (manual or RET) internal settings.

● For high-precision structural optimization using our standardized tracking laser system, please cross-reference the **MLT-MBA-45EW Antenna Alignment Guide**. For model **MS-MBA-3.2-H4-L4**, refer specifically to the **RT-5** setup instructions.

● Repeat this process for each additional antenna sector requiring azimuth adjustment.



5.00 MLT Alignment Guide

5.10 Overview

- We are officially moving from a fragmented accessory list to a **Proprietary Alignment Ecosystem**.
- By retiring the 'Stadium Laser Pointer' (SLP) name and launching **MatSing Lens Tools (MLT)**, we are elevating our professional branding to match our core technology.
- **Proprietary Technology:** Every **MLT**—is custom-mapped to the unique focal points of the **MatSing** lens antennas.
- **Professional Branding:** We have successfully consolidated **42 MBA antenna models** into just 3 **standardized MLT tools**, which simplifies our logistics and reduces field errors.
- **Global Ready:** This rebranding allows us to bypass 'laser pointer' regulatory restrictions in some key markets, where industrial tool classification is required for customs and safety clearance.

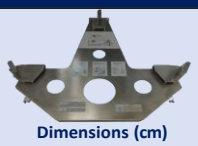
5.20 Antenna model MLT application master list

Item	Antenna Model	MLT Model	Lens	Fixed/RET Tilt Configuration	Lasers Qty	Left Beam	Center	Right Beam	Tilt	Note
1	MS-MBA-6.6.3-C4-H4-L2	MLT-MBA-75V	75cm	RT-2	3	-50.0°	0°	+50.0°	-15°	Default 0° (RET Tilt)
2	MS-MBA-6.6.3-F4-H4-L2									
3	MS-MBA-6.6.3-F4-H4-T2									
4	MS-MBA-6.6-C4-H4									
5	MS-MBA-6.6-F4-H4									
6	MS-MBA-6-H4									
7	MS-MBA-6.3-H4-L4	MLT-MBA-75V	75cm	RT-4	3	-40.0°	0°	+40.0°	-20°	Default 0° (RET Tilt)
8	MS-MBA-6.3-H4-T4									
9	MS-MBA-6.3-H4-L2									
10	MS-MBA-3-L4A2-S	MLT-MBA-75V	75cm	RT-4	3	-40.0°	0°	+40.0°	-15°	Default 0° (RET Tilt)
11	MS-MBA-3-L4A2									
12	MS-MBA-3-T4A2									

Item	Antenna Model	MLT Model	Lens	Fixed/RET Tilt Configuration	Lasers Qty	Left Beam	Center	Right Beam	Tilt	Note
1	MS-16.16W45	MLT-MBA-45EW	45cm	FT-1	5	-14.1° -19.8°	0°	+19.8° +14.1°	+15.0° -15.0°	5 Laser fixed tilt
2	MS-MBA-4.4-SH2-SH2-45M	MLT-MBA-45EW	45cm	RT-1	3	-52.5°	0°	+37.5°	-15°	Default 0° (RET Tilt)
3	MS-MBA-4.4-SH2-SH2-45									
4	MS-MBA-6-C4	MLT-MBA-45EW	45cm	RT-2	3	-50.0°	0°	+50.0°	-15°	Default 0° (RET Tilt)
5	MS-MBA-6-C4									
6	MS-MBA-4.4.2-B4-H4-L4	MLT-MBA-45EW MLT-MBA-45E	45cm	RT-3	3	-45.0°	0°	+45.0°	-20°	Default 0° (RET Tilt)
7	MS-MBA-4.4.2-C4-H4-L4									
8	MS-MBA-4.4.2-F4-H4-L4									
9	MS-MBA-4.4.2-C4-H2-L2									
10	MS-MBA-4.4.2-F4-H2-L2									
11	MS-MBA-4.4.2-C2-H2-L2									
12	MS-MBA-4.4.2-F2-H2-L2									
13	MS-MBA-4-H4									
14	MS-MBA-4-H2									
15	MS-MBA-3.3.2-C2-H2-L2-I	MLT-MBA-45EW	45cm	RT-4	3	-40.0°	0°	+40.0°	-30°	Default 0° (RET Tilt)
16	MS-MBA-3.3.2-C2-H2-L2									
17	MS-MBA-3.3.2-F2-H2-L2									
18	MS-MBA-4.2-H2-L2	MLT-MBA-45EW MLT-MBA-45E	45cm	RT-5	3	-30.0°	0°	+30.0°	-40°	Default 0° (RET Tilt)
19	MS-MBA-4.2-H2-T2									
20	MS-MBA-3.2-H8-L4									
21	MS-MBA-3.2-H8-T4									
22	MS-MBA-3.2-H4-L4									
23	MS-MBA-3.2-H4-T4									
24	MS-MBA-3.2-H2-L2									
25	MS-MBA-3.2-H2-T2									
26	MS-MBA-2-L4									
27	MS-MBA-2-T4									
28	MS-MBA-2-L2									
29	MS-MBA-2-T2									
30	MS-MBA-2-L4A2	MLT-MBA-45EW MLT-MBA-45E	45cm	RT-5	3	-30.0°	0°	+30.0°	-20°	Default 0° (RET Tilt)

5.30 3 MLT tools

- **MLT-MBA-75V** (75cm Lens 3 Lasers 12 Antenna Models)
- **MLT-MBA-45EW** (45cm Lens 5 Lasers 30 Antenna Models)
- **MLT-MBA-45E** (45cm Lens 3 Lasers 22 Antenna Models)

Items	Product Family	MLT Part Nos	Picture	MLT Configuration	Lens	Models	Applicable Model
1	MBA	MLT-MBA-75V (3 Lasers)	 Dimensions (cm) L=85.5 W=104.6 H=20.0	Fixed (3.80 Kg) (Adjustable Plate)	75cm	12	MS-MBA-6.6.3-C4-H4-L2, MS-MBA-6.6.3-F4-H4-L2, MS-MBA-6.6.3-F4-H4-T2, MS-MBA-6.6-C4-H4, MS-MBA-6.6-F4-H4, MS-MBA-6.3-H4-L4, MS-MBA-6.3-H4-T4, MS-MBA-6.3-H4-L2, MS-MBA-6-H4, MS-MBA-3-L4A2-S, MS-MBA-3-L4A2, MS-MBA-3-T4A2.
2	MBA	MLT-MBA-45EW (5 Lasers)	Dimensions (cm) L=51.8 W=90.5 H=15.5	Fixed (2.70 Kg) (Adjustable Plate)	45cm	30	MS-16.16W45, MS-MBA-4.4-SH2-SH2-45M_(45), MS-MBA-6-C4_(F4), MS-MBA-4.2-H2-L2_(T2), MS-MBA-4.4.2-B4-H4-L4_(C4-H4-L4)_(F4-H4-L4), MS-MBA-4.4.2-C4-H2-L2_(F4-H2-L2), MS-MBA-4.4.2-C2-H2-L2_(F2-H2-L2), MS-MBA-3.3.2-C2-H2-L2-I_(C2-H2-L2)_(F2-H2-L2), MS-MBA-4-H4_(H2), MS-MBA-3.2-H8-L4_(T4), MS-MBA-3.2-H4-L4_(T4), MS-MBA-2-L4A2, MS-MBA-3.2-H2-L2_(T2), MS-MBA-2-L4_(T4), MS-MBA-2-L2_(T2),
3	MBA	MLT-MBA-45E (3 Lasers)	Dimensions (cm) L=51.8 W=73.5 H=15.5	Fixed (2.40 Kg) (Adjustable Plate)	45cm	22	MS-MBA-4.4.2-B4-H4-L4_(C4-H4-L4)_(F4-H4-L4), MS-MBA-4.4.2-C4-H2-L2_(F4-H2-L2), MS-MBA-4.4.2-C2-H2-L2_(F2-H2-L2), MS-MBA-4-H4_(H2), MS-MBA-4.2-H2-L2_(T2), MS-MBA-3.2-H8-L4_(T4), MS-MBA-3.2-H4-L4_(T4), MS-MBA-3.2-H2-L2_(T2), MS-MBA-2-L4A2, MS-MBA-2-L4_(T4), MS-MBA-2-L2_(T2),

5.40 Laser configuration

1. Standard Configuration (USA Parts)

- **3-5 sets** of Laser sight/rails.
- **Picatinny Rail**: As laser bed.
- **Pinty Laser sight:** Laser alignment.

2. Alternative Configuration (Europe Parts)

- **3-5 sets** of Laser Pointer: **Class2 ≤1 mW EN60825-1.**
- **Ø22mm** Holder clamp: For Ø16-20mm laser.
- **Ø15mm** Holder clamp: For Ø11-15mm laser.

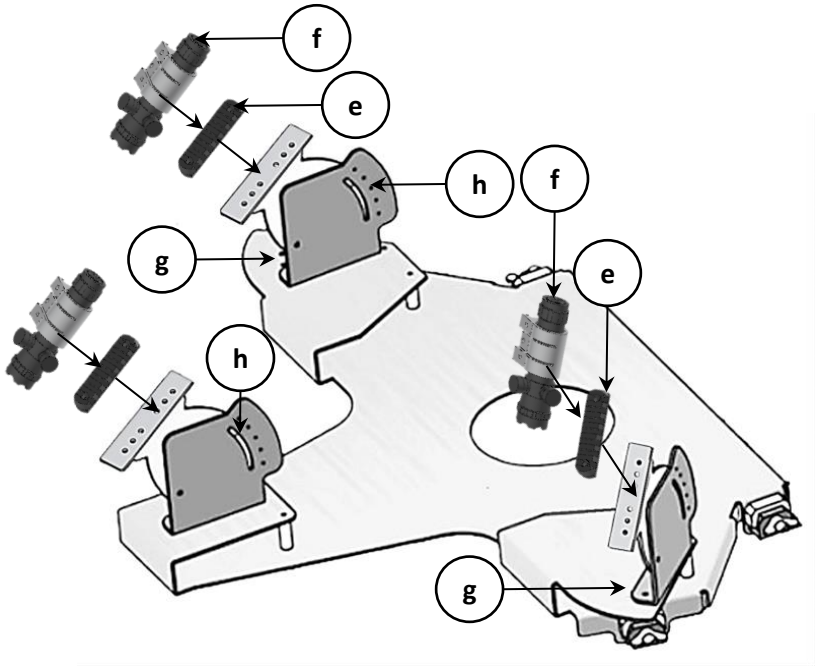
5.50 Standard procedure for laser installation (3 Laser sets example **MLT-MBA-45E**)

Step e: Install laser beds (L=1, R=1, Center=1).

Step f: Insert laser sight and secure it.

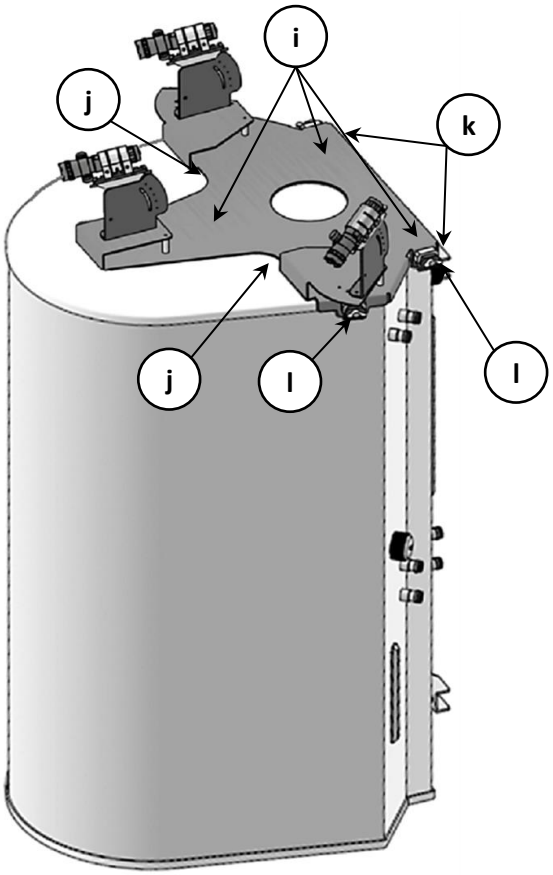
Step g: Pre-Set left and right to 0°.

Step h: Pre-Set up and down to 0°.



5.60 Lifting

- Perform a **pre-hoist torque check** on all primary mounting bolts and verify laser battery levels.
- Ensure **hoisting equipment** is rated for the specific weight of the MLT.
- Lift with **proper rigging**; secure with tag lines.



5.70 Mounting

Step i: Position the MLT directly on top of the antenna.

Step j: Place it down so the MLT sits flat on all surfaces.

Step k: Ensure the rear side is fully in contact with the cover edge.

Step l: Once in position, secure the MLT by tightening the 4 corners of the Side-Locks.

6.00 Antenna MLT Setting and Positioning

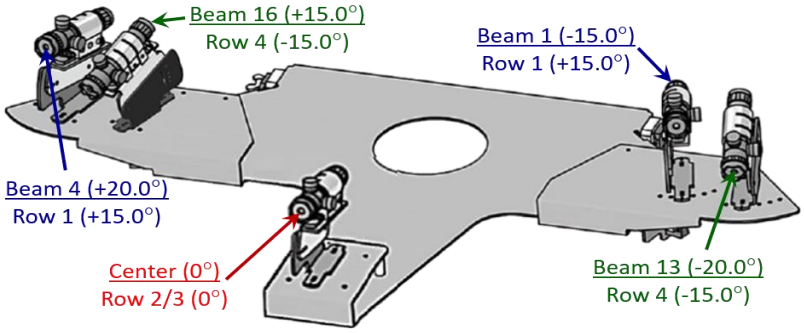
6.10 **MLT-MBA-45EW** (5 Lasers Example)

Antenna with **FT-1** Setting and Positioning

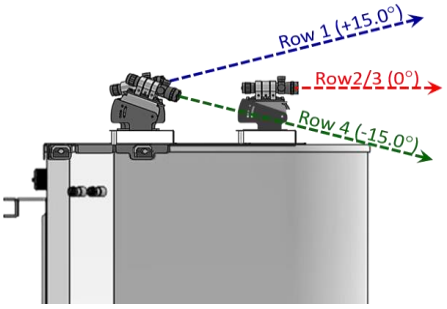
- Top Beam Setting: Left -14.1°, Center 0°, Right +19.8° (Tilt +15.0°)
- Bottom Beam Setting: Left -19.8°, Center 0°, Right +14.1° (Tilt -15.0°)

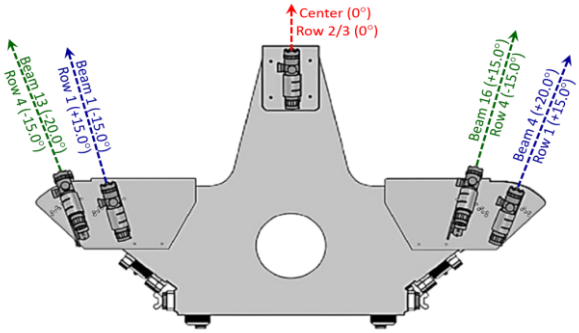
Item	Antenna Model	Fixed Tilt	Laser	Row	Left Tilt Angle		Ctr	Right Tilt Angle		Fixed Tilt
1	MS-16.16W45 (WiFi)	FT-1	5	1	B 1 -14.1°	B 2 -2.8°	0°	B 3 +8.5°	B 4 +19.8°	+15.0°
				2	B 5 -19.8°	B 6 -8.5°		B 7 +2.8°	B 8 +14.1°	+5.0°
				3	B 9 -14.1°	B 10 -2.8°		B 11 +8.5°	B 12 +19.8°	-5.0°
				4	B 13 -19.8°	B 14 -8.5°		B 15 +2.8°	B 16 +14.1°	-15.0°

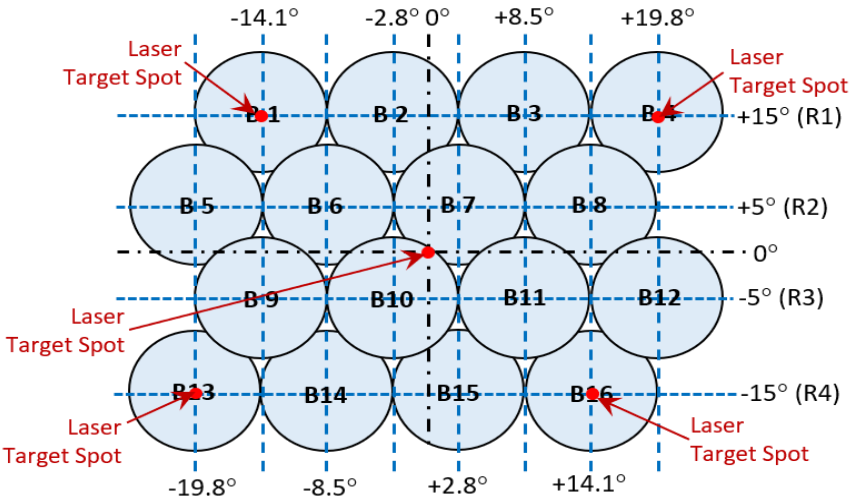
6.20 Angle Plate & Tilt Setting



6.30 Positioning



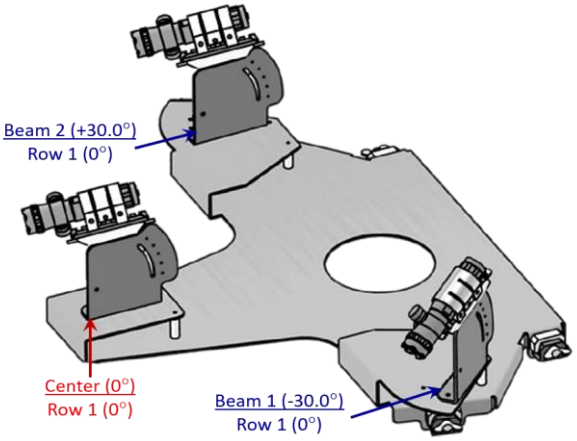




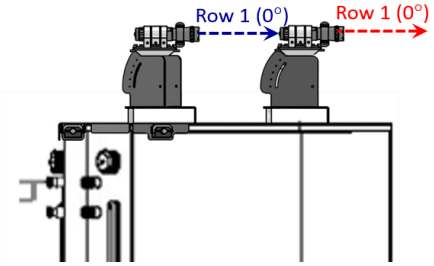
6.40 **MLT-MBA-45E** (3 Lasers Example)
Antenna with **RT-5** Setting and Positioning

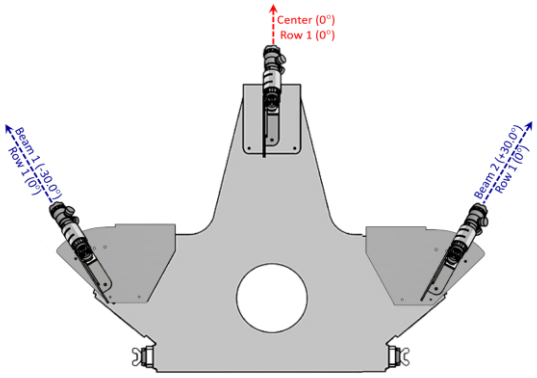
Item	Antenna Model	RET Tilt	Laser	Band	Row	Left Tilt Angle	Center	Right Tilt Angle	RET Tilt
12	MS-MBA-3.2-H8-L4	RT-5	3	L,T	1	B 1 -30.0°	0°	B 2 +30.0°	-40°
13	MS-MBA-3.2-H8-T4			H	2,3,4,5	B 1 -40.0°	B 2 0°	B 3 +40.0°	-30°
				L,T	6	B 1 -30.0°	0°	B 2 +30.0°	-40°
14	MS-MBA-3.2-H4-L4	RT-5	3	L,T	1	B 1 -30.0°	0°	B 2 +30.0°	-40°
15	MS-MBA-3.2-H4-T4			H	2,3	B 1 -40.0°	B 2 0°	B 3 +40.0°	-30°
				L,T	4	B 1 -30.0°	0°	B 2 +30.0°	-40°
16	MS-MBA-3.2-H2-L2	RT-5	3	L,T	1	B 1 -30.0°	0°	B 2 +30.0°	-40°
17	MS-MBA-3.2-H2-T2			H	2	B 1 -40.0°	B 2 0°	B 3 +40.0°	-30°
18	MS-MBA-2-L4	RT-5	3	L,T	1,2	B 1 -30.0°	0°	B 2 +30.0°	-40°
19	MS-MBA-2-T4								
20	MS-MBA-2-L2	RT-5	3	L,T	1	B 1 -30.0°	0°	B 2 +30.0°	-40°
21	MS-MBA-2-T2								
22	MS-MBA-2-L4A2	RT-5	3	L	1,2	B 1 -30.0°	0°	B 2 +30.0°	-20°

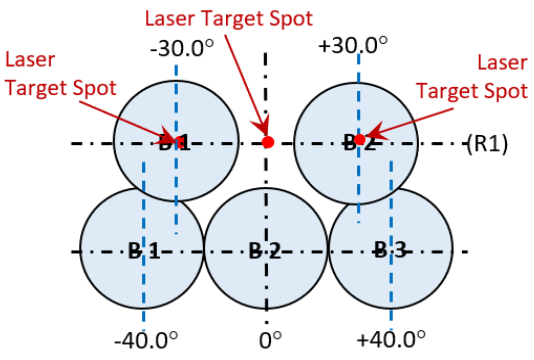
6.50 Angle Plate & Tilt Setting



6.60 Positioning







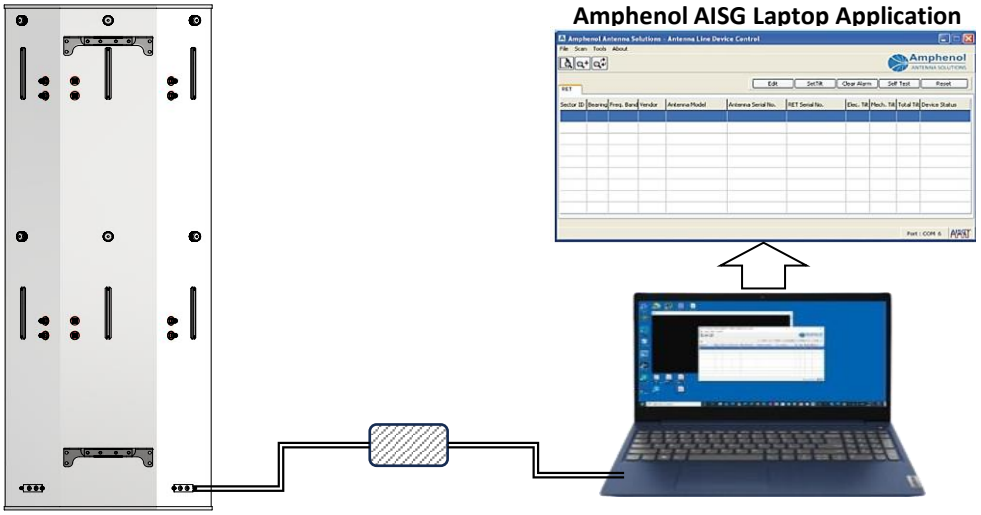
7.00 Antenna Tilt Adjustment

7.10 Planning and execution

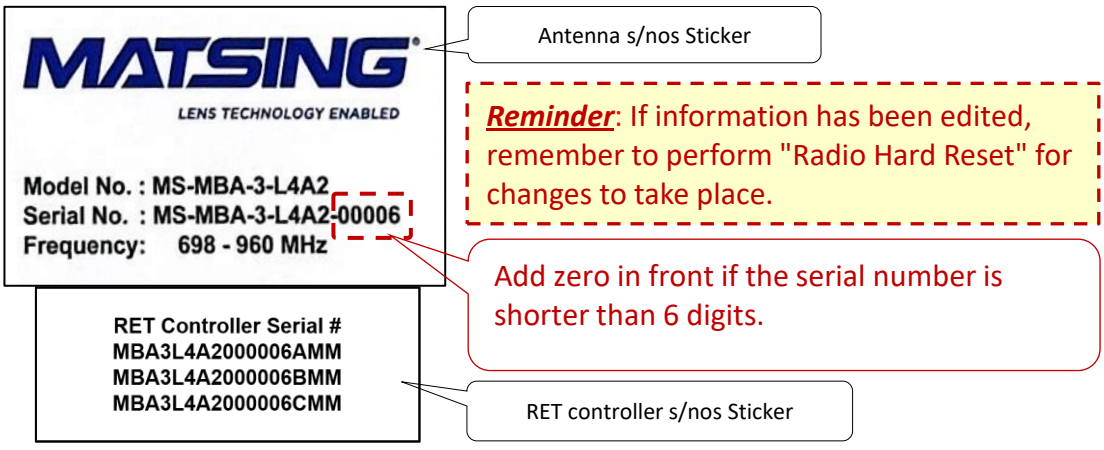
CAUTION	*Advance planning for the antenna position and direction is essential; pre-tilt the angle before the lifting and installation process will be much more helpful in reducing the work load and safety concern.*

7.20 RET connection and operations

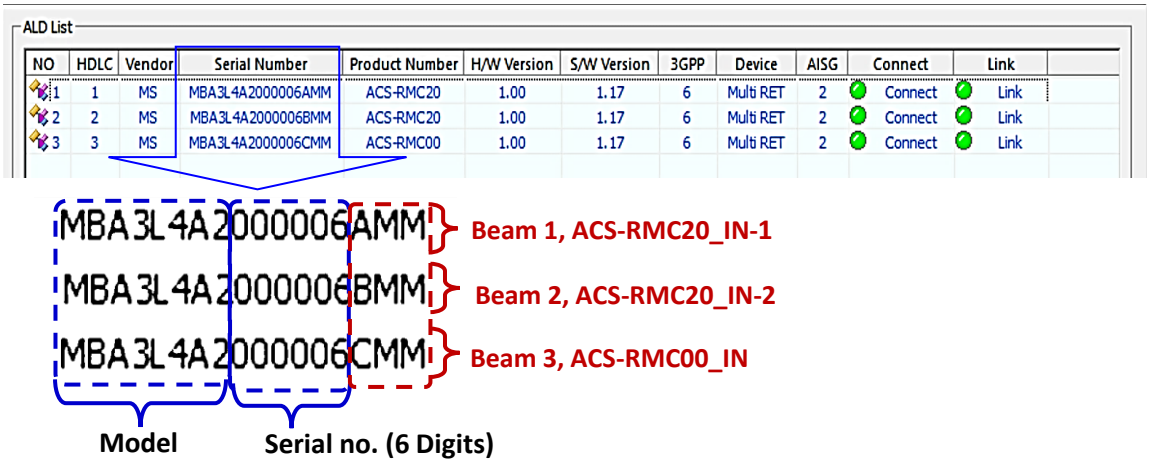
A standard AISG 2.0-compliant cable (not included) is used to connect the MDCU to the AISG interface control. Once connected, use an AISG 2.0-compliant control software to perform a subunit SCAN to identify the RET elements.



7.21 Model and serial nos reference from label



7.22 Information and reference



7.23 Beam nos and port nos display

RET ID : MSMBA3L4A2000006AMM **Beam 1, ACS-RMC20_IN-1 (Port Assigned)**

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/2	LB Beam 1 (Ports 1, 2)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal
2/2	LB Beam 1 (Ports 3, 4)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal

RET ID : MSMBA3L4A2000006BMM **Beam 2, ACS-RMC20_IN-2 (Port Assigned)**

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/2	LB Beam 2 (Ports 5, 6)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal
2/2	LB Beam 2 (Ports 7, 8)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal

RET ID : MSMBA3L4A2000006CMM **Beam 3, ACS-RMC00_IN (Port Assigned)**

RET Status and Control

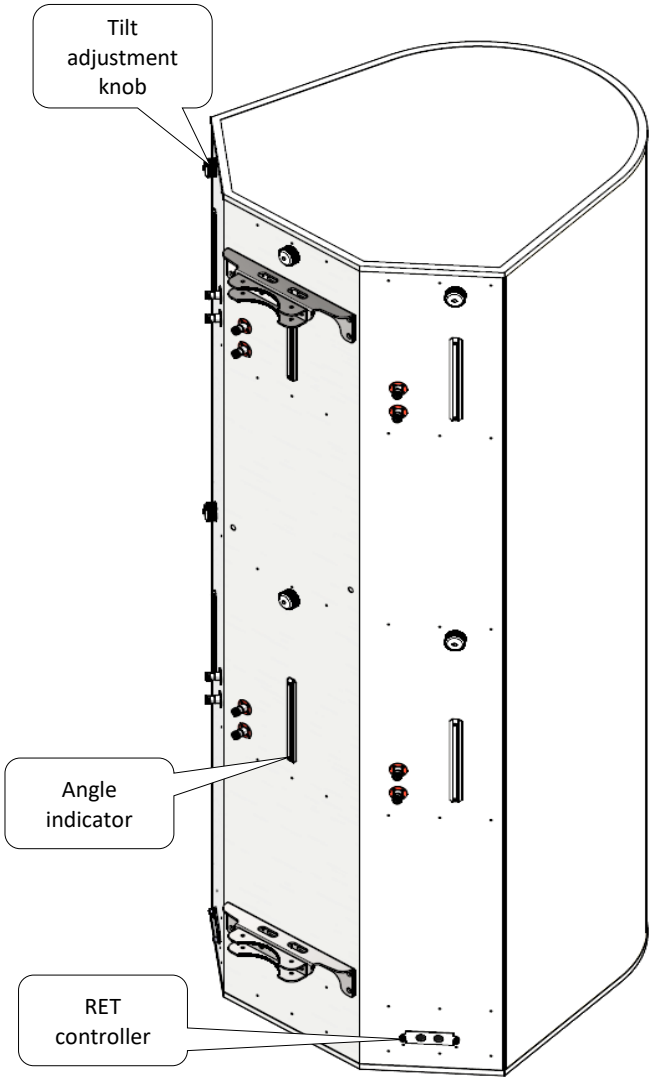
Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/2	LB Beam 3 (Ports 9, 10)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal
2/2	LB Beam 3 (Ports 11, 12)	MS-MBA-3-L4A2	MSMBA3L4A20000006	0.0	Normal

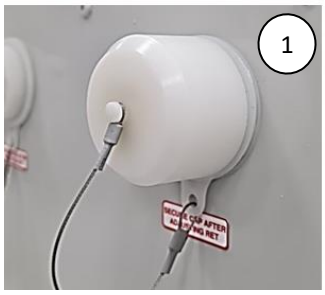
7.30 Manual tilt adjustment (Example of MS-MBA-3-L4A2)

MBA comes in RET mode by default; if needed, it can also be manually adjusted.	
Step 1	Unscrew the cap for the tilt adjustment process.

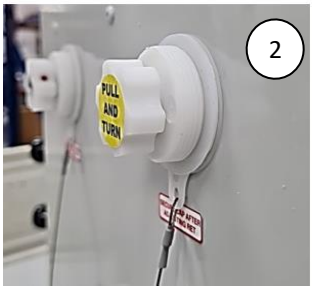
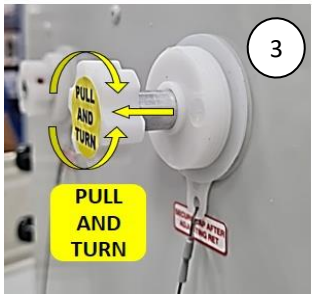
Step 2	Engaged with the internal RET motor position
Step 3	Pull the handle out to disengage RET for tilt adjustment.



Unscrew/Screw the cap for tilt adjustment process



Engaged with internal RET motor position



Pull handle out to disengaged RET for tilt adjustment