

MATSING[®]

LENS TECHNOLOGY ENABLED

MS-LSA-SLP-1 Mounting Guide

(Large sphere antenna stadium laser pointer for 6 models)



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Revision History:

<u>Date</u>	<u>Description</u>	<u>Rev By</u>	<u>Check By</u>	<u>Rev no</u>
13-Jul-2023	Initial Release	RL	Pavel	0
21-Aug-2023	Include laser position guide	RL	Pavel	1
27-Jan-2024	Rename for difference SLP	RL	Pavel	2
26-Sep-2024	Document and part renaming and general update	RL	Pavel	3

1.00 MatSing antenna stadium laser pointer (SLP)

1.10 Applicable antenna models

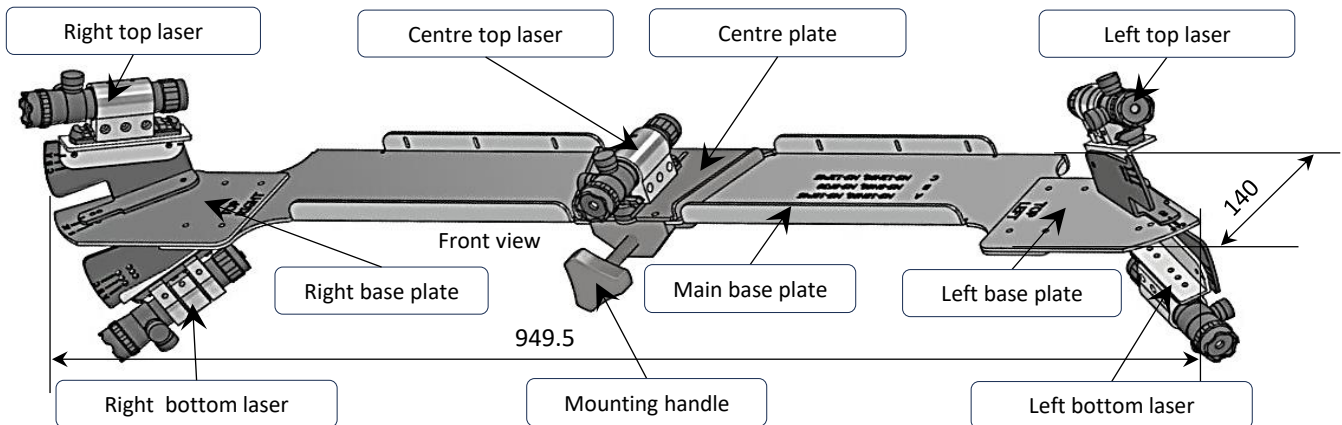
1	MS-18H90	3	MS-8H60	5	MS-12H90
2	MS-18F45	4	MS-8F30	6	MS-12F45

1.20 Model setting and assembly configuration table

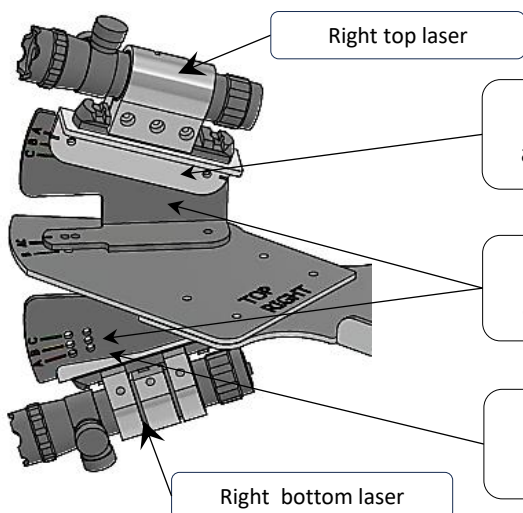
Setting	Model	Frame Width	Left Angle Top	Right Angle Top	Nos of Rows	Tilt Up	Row nos	Tilt Down	Row nos
A (Red)	MS-18H90	620.00 (24.41")	45	55	3	-17	Row 1	17	Row 3
	MS-18F45	350.80 (13.81")	45	55	3	-17	Row 1	17	Row 3
B (Yellow)	MS-8H60	466.82 (18.38")	37.5	52.5	2	-13	Row 1	13	Row 2
	MS-8F30	220.00 (8.66")	37.5	52.5	2	-13	Row 1	13	Row 2
C (Green)	MS-12H90	535.00 (21.06")	45	55	2	-8.7	Row 1	8.7	Row 2
	MS-12F45	350.80 (13.81")	45	55	2	-8.7	Row 1	8.7	Row 2

2.00 SLP General descriptions and parts overview

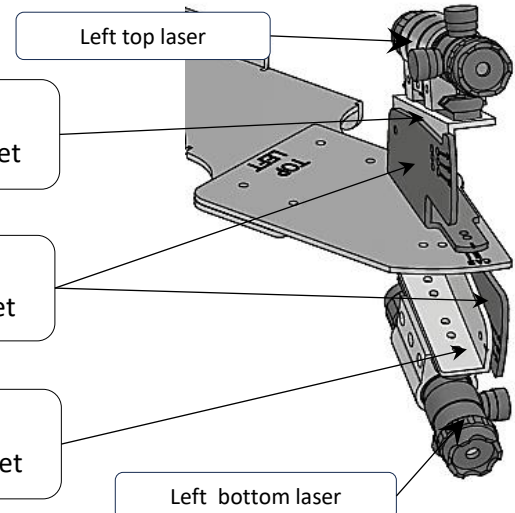
2.10 Front top view



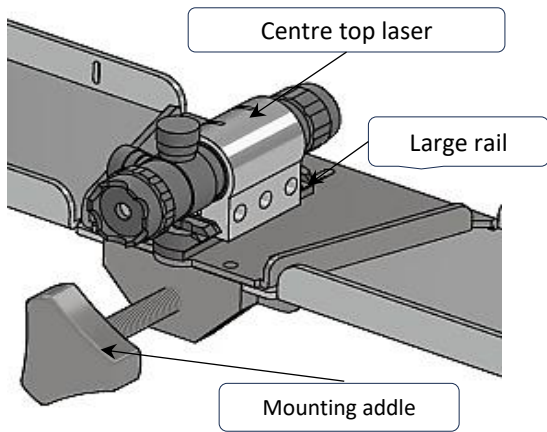
2.20 Right laser pointer detail



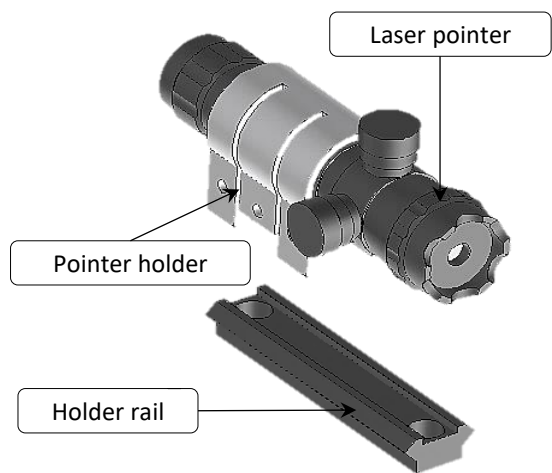
2.30 Left laser pointer detail



2.40 Centre laser pointer detail



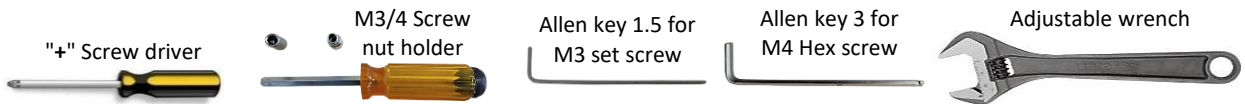
2.50 Laser pointer detail



3.00 SLP General assembly guide

3.10 Tools, parts and fittings

3.11 Tools



3.12 Laser pointer and accessory



3.13 Types of fastener



3.14 Parts and fitting

Item	Description	Qty
LP	Laser pointer	5
LR	Large rail	1
MR	Medium rail	2
SR	Small rail	2

Item	Description	Qty
S1	M4x8mm PH screw	2
S2	M4x12mm PH screw+locknut	8
S3	M4x20mm PH screw+washer+locknut	2
S4	M4x16mm PH screw+washer+locknut	4
S5	M4x16mm PH screw+wingnut	8

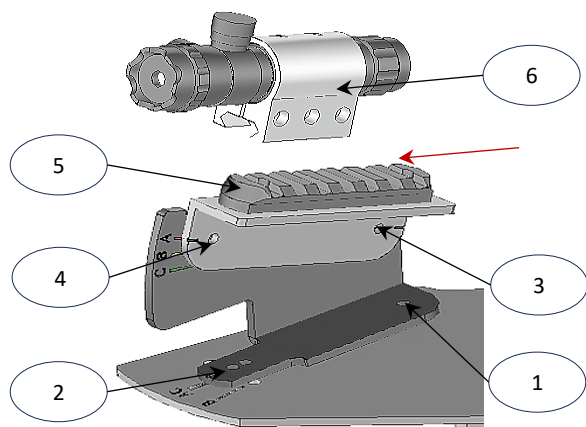
3.20 SLP Model's assembly guide

Setting	A (Red)		B (Yellow)		C (Green)	
Models	MS-18H90	MS-18F45	MS-8H60	MS-8F30	MS-12H90	MS-12F45

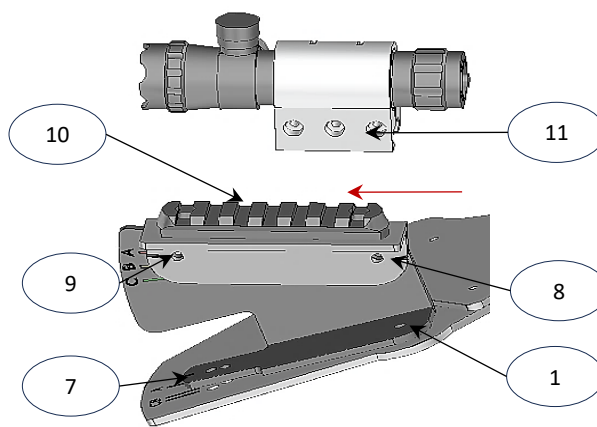
3.30 Right top and bottom and left top and bottom laser setting and assembly steps

Step 1	Align 2pcs of left and right adjustable brackets for top and bottom and secure both brackets with "S3" x 1pc	Step 7	Align bottom left and right bracket marker to "X" setting secure with "S5" x 1pc
Step 2	Align top left and right bracket marker to "X" setting secure with "S5" x 1pc	Step 8	Secure up and down bracket with "S4" x 1pc
Step 3	Secure up and down bracket with "S4" x 1pc	Step 9	Align up and down bracket marker to "X" setting secure with "S5" x 1pc
Step 4	Align up and down bracket marker to "X" setting secure with "S5" x 1pc	Step 10	Place "SR" Small rail secure with "S2" x2pcs
Step 5	Place "MR" Medium rail secure with "S2" x2pcs	Step 11	Slide-in "LP" Laser pointer and tightened with Allen key
Step 6	Slide-in "LP" Laser pointer and tightened with Allen key		

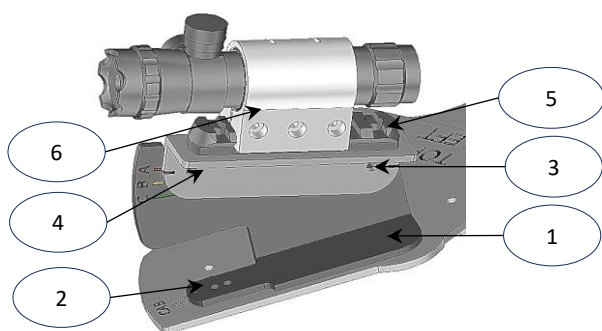
3.31 Right top laser (Top-down view)



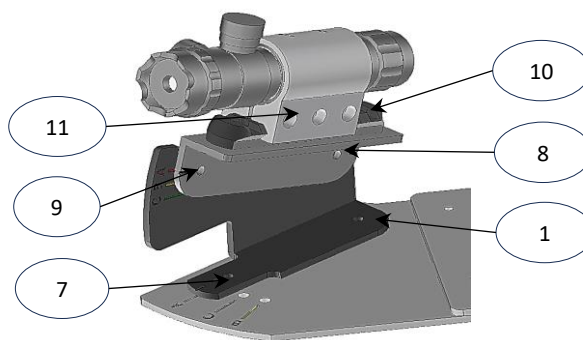
3.32 Right bottom laser (Bottom-up view)



3.33 Left top laser (Top-down view)

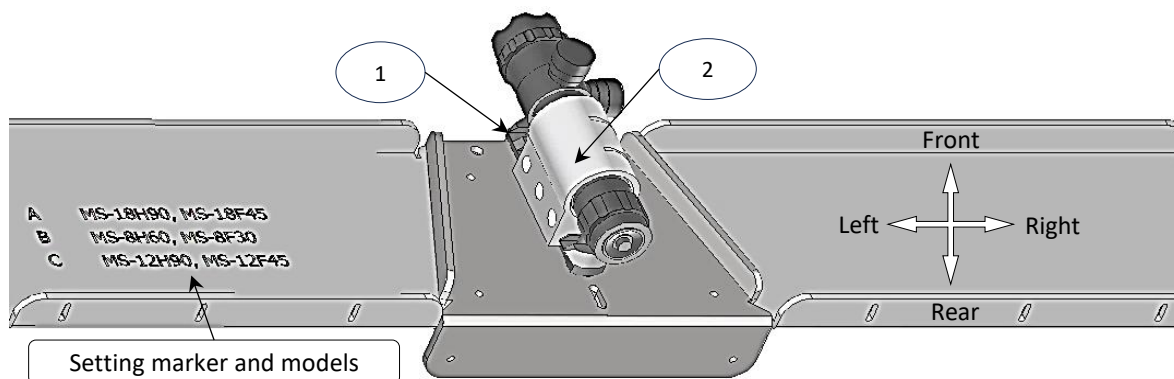


3.34 Left bottom laser (Bottom-up view)



3.35 Centre top laser setting and assembly steps

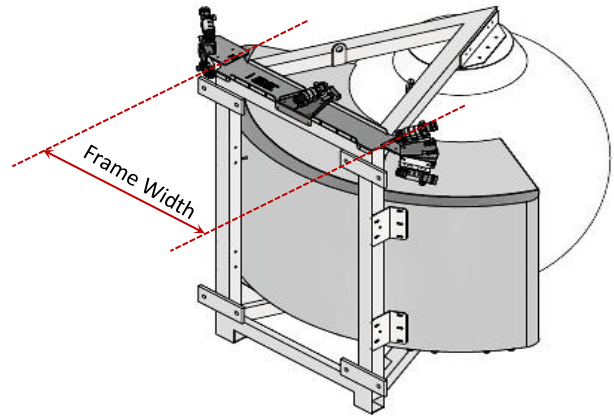
Step 1	Place "LR" Large rail secure with "S1" x2pcs	Step 2	Slide-in "LP" Laser pointer and tightened with Allen key
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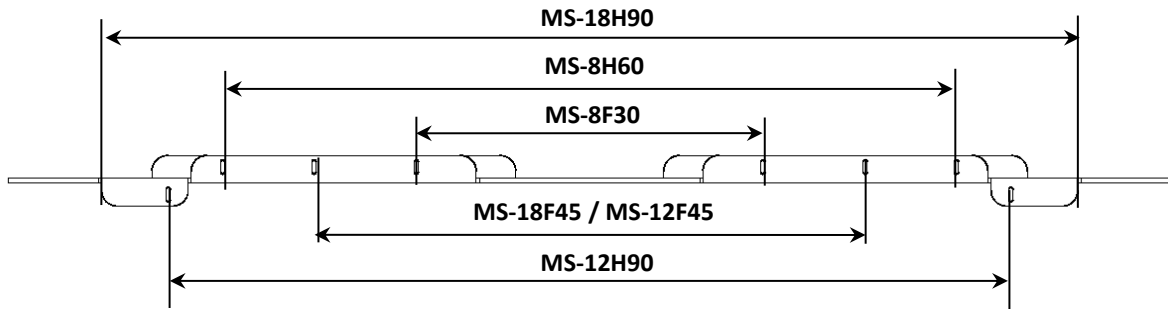
4.00 SLP Antenna mounting guide

4.10 Frame width dimension in mm (inch)

Setting	Model	Frame Width
A (Red)	MS-18H90	620.00 (24.41")
	MS-18F45	350.80 (13.81")
B (Yellow)	MS-8H60	470.80 (18.54")
	MS-8F30	220.00 (8.66")
C (Green)	MS-12H90	535.00 (21.06")
	MS-12F45	350.80 (13.81")



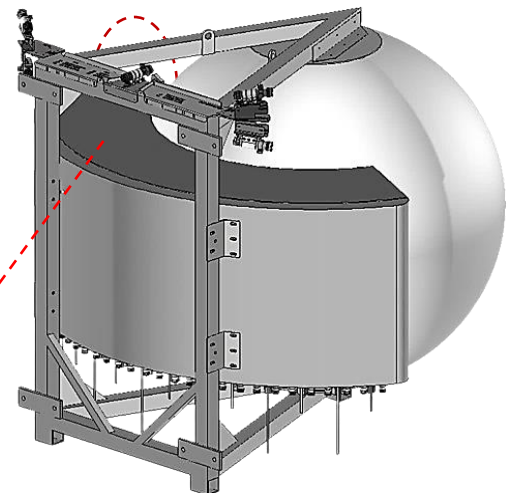
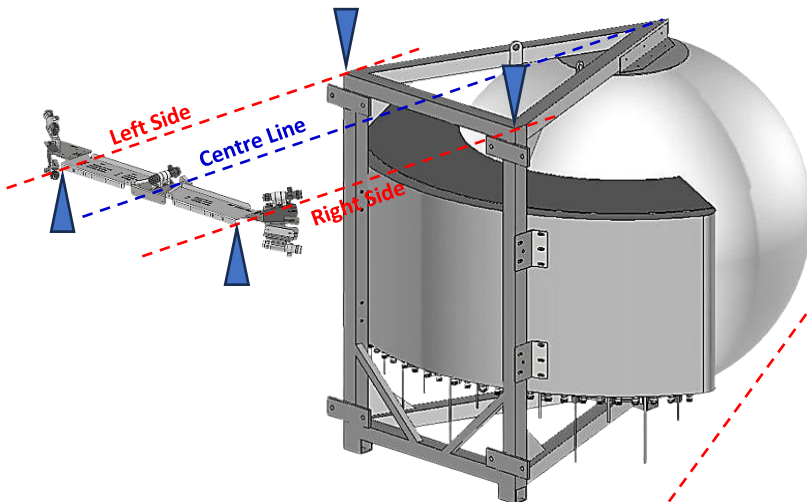
4.11 Main base plate (antenna frame width dimension indicator)



4.20 SLP Mounting

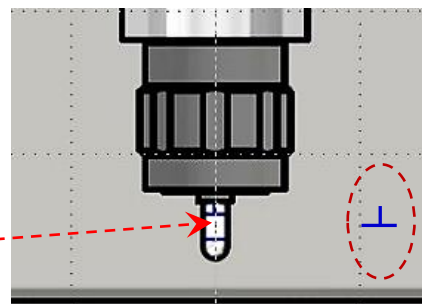
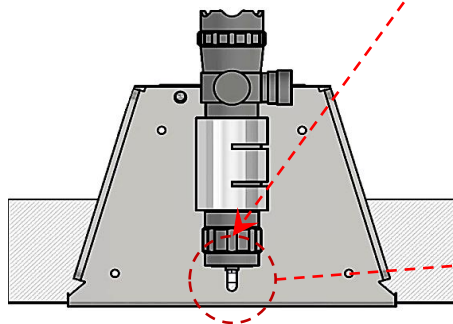
4.21 SLP and frame alignment

4.22 SLP Aligned and seated flat

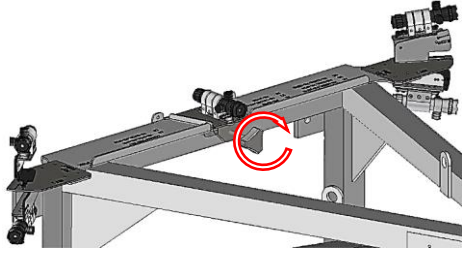


4.23 Centre line check

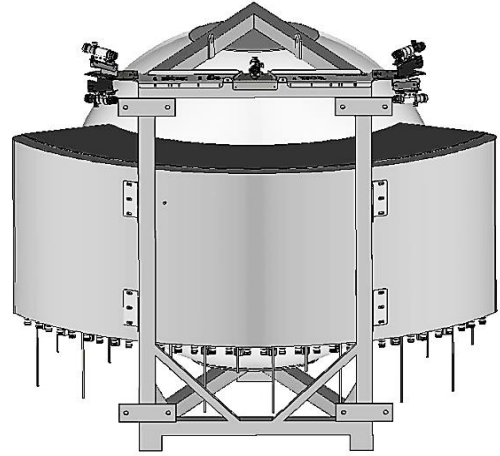
4.24 Frame center line label visible



4.25 Tighten SLP onto the frame

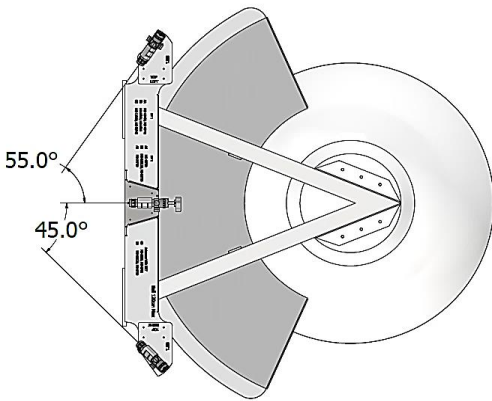


4.26 Final check ensure all parts secured

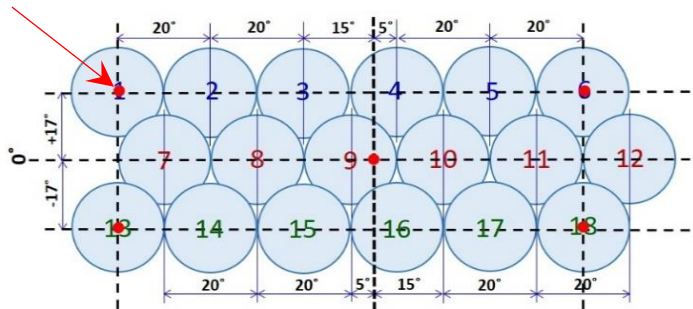


5.00 SLP on antenna positioning guide

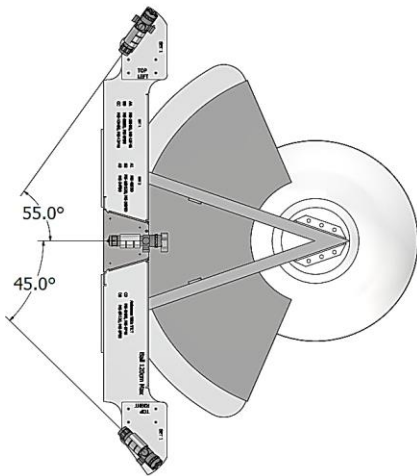
5.10 MS-18H90 ("A" Setting)



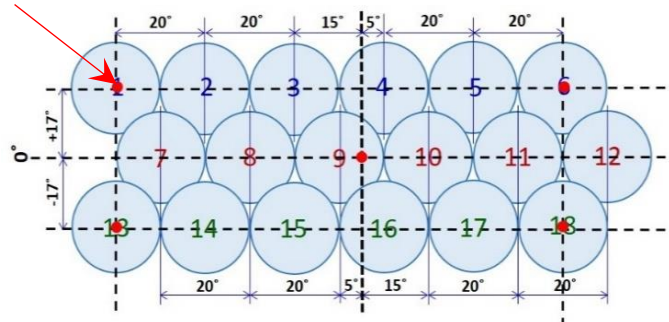
Laser pointer spot



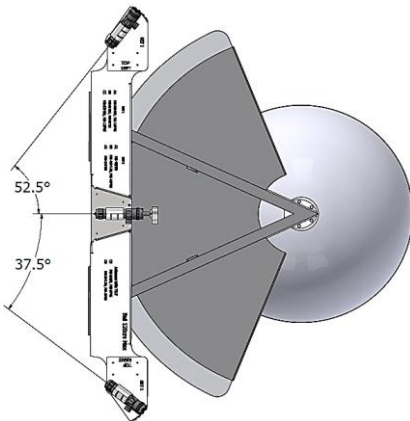
5.20 MS-18F45 ("A" Setting)



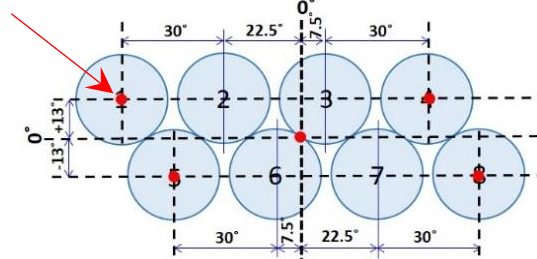
Laser pointer spot



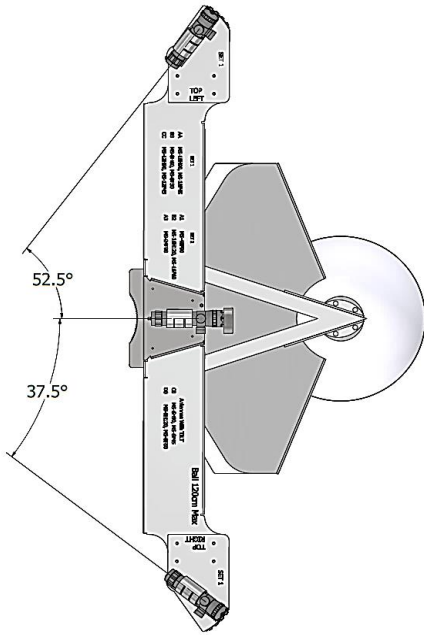
5.30 MS-8H60 ("B" Setting)



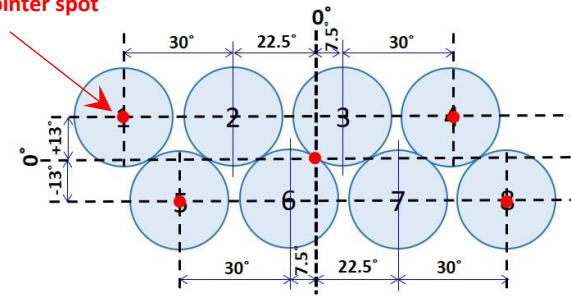
Laser pointer spot



5.40 MS-8F30 ("B" Setting)

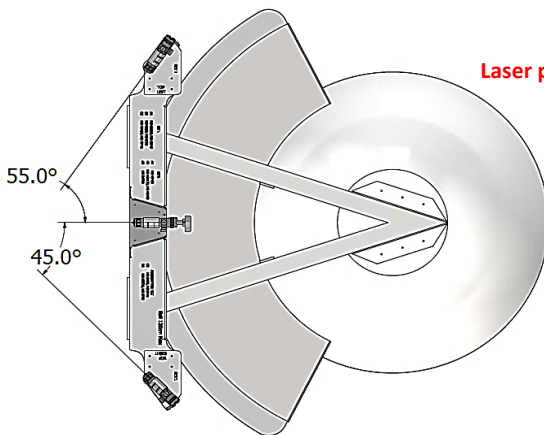


Laser pointer spot

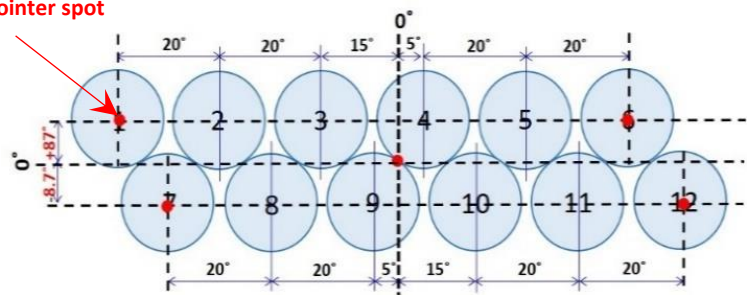


5.50 MS-12H90 ("C" Setting)

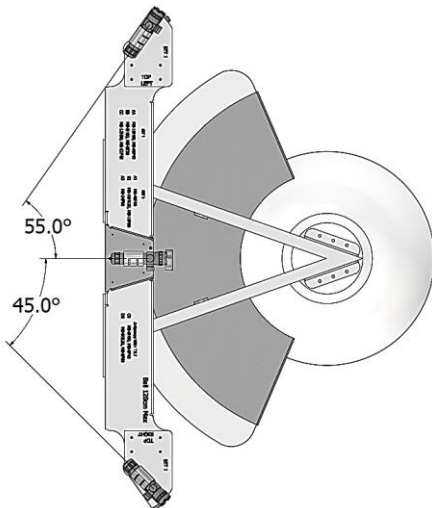
(Note: MS-12H90 Tilt Angle need to LOCK at +8.7°/-8.7° for Laser Spot Positioning)



Laser pointer spot



5.60 MS-12F45 ("C" Setting)



Laser pointer spot

