



MS-MBA-3.2-H8-L4

RET Operation Manual



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The **MS-MBA-3.2-H8-L4** antenna comes standard with two MDCU Controllers and 16 motorized RET elements. Each motorized RET element control 2 ports +45/-45 of the respected beam.

Factory default firmware for the MDCU Controller is MRET (Type 17).



Single AISG Input / Output

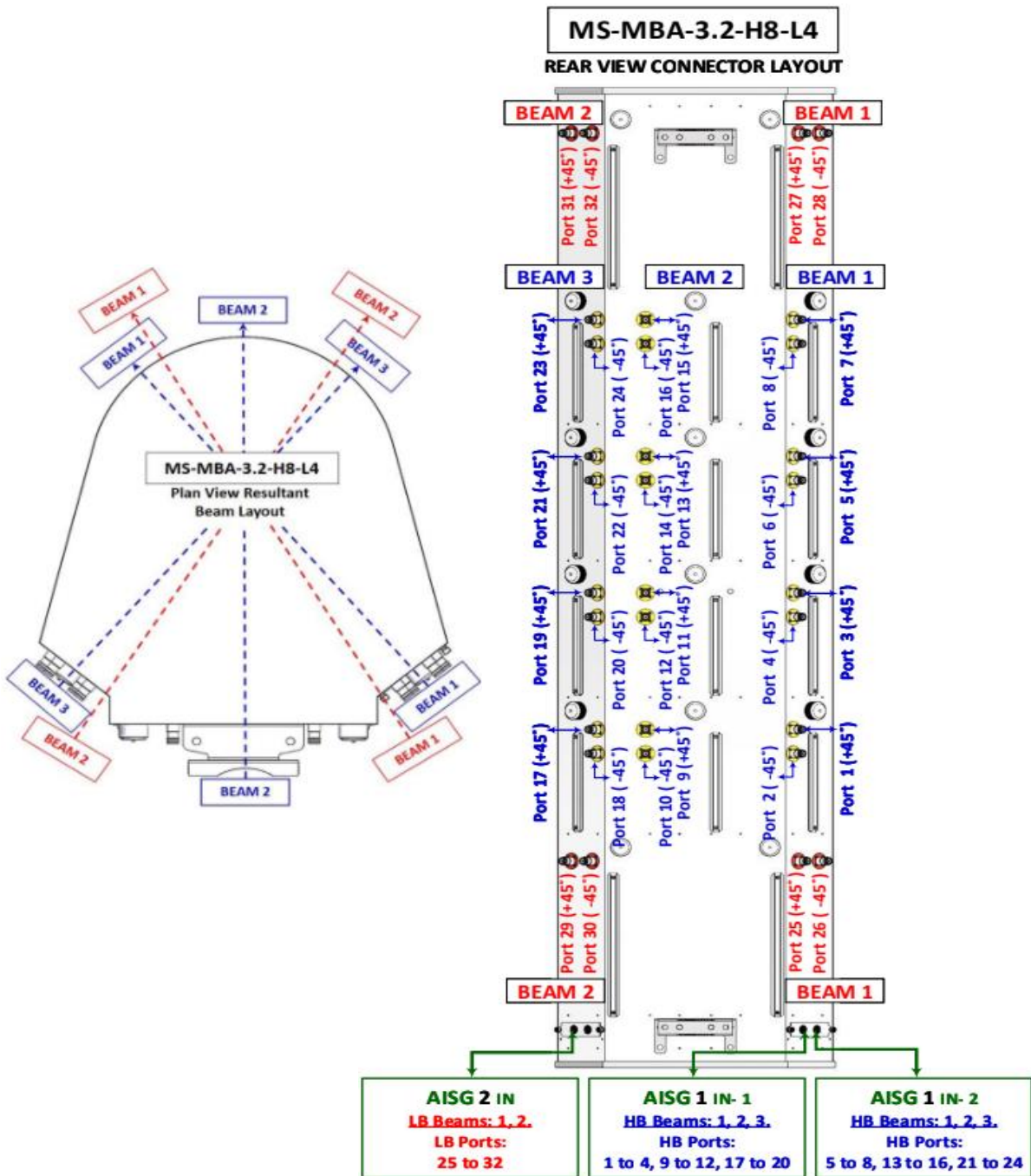


Dual AISG Input

IN Controls LB Beams 1-2 (AISG 2)

IN-1 Controls HB Beams 1-3 (AISG 1)

IN-2 Controls HB Beams 1-3 (AISG 1)



MS-MBA-3.2-H8-L4 Connector Ports Table					
BEAM 2			BEAM 1		
Port 31 (+45°)	Port 32 (-45°)			Port 27 (+45°)	Port 28 (-45°)
BEAM 3		BEAM 2		BEAM 1	
Port 23 (+45°)	Port 24 (-45°)	Port 15 (+45°)	Port 16 (-45°)	Port 7 (+45°)	Port 8 (-45°)
Port 21 (+45°)	Port 22 (-45°)	Port 13 (+45°)	Port 14 (-45°)	Port 5 (+45°)	Port 6 (-45°)
Port 19 (+45°)	Port 20 (-45°)	Port 11 (+45°)	Port 12 (-45°)	Port 3 (+45°)	Port 4 (-45°)
Port 17 (+45°)	Port 18 (-45°)	Port 9 (+45°)	Port 10 (-45°)	Port 1 (+45°)	Port 2 (-45°)
BEAM 2			BEAM 1		
Port 29 (+45°)	Port 30 (-45°)			Port 25 (+45°)	Port 26 (-45°)

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 **Sub Unit SCAN** to identify the **MS-MBA-3.2-H8-L4** RET Elements.

RET CONNECTION												
AISG-1 IN-1: "A" (HB) Serial End with "AMM"												
AISG-1 IN-2: "B" (HB) Serial End with "BMM"												
ALD List												
NO	HDLC	Vendor	Serial Number	Product Number	Hardware Version	SW Version	...	Device	AISG	Connect	Link	
1	1	MS	MBA32H8L400001AMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link	
2	2	MS	MBA32H8L400001BMM	ACS-RMC20	1.00	1.17	6	Multi RET	2	Connect	Link	
3	3	MS	MBA32H8L400001CMM	ACS-RMC00	1.00	1.17	6	Multi RET	2	Connect	Link	
AISG-2 IN: "C" (LB) Serial End with "CMM"												

Device Data Management for AISG-1 IN-1	
RET ID : MSMB32H8L400001AMM	
RET Additional Device Data	
Antenna Number	Sub Unit : 1/6
Additional Data	Devide Data
ANT NO	1
ANT Model	MBA-3.2-H8-L4
ANT Serial	MBA3.2H8L400001
Band	UL(1920~1980),DL(2110~2170)/UL(...)
Band Ext8	
Band Ext9	
Beamwidth #1	22
Beamwidth #2	0
Beamwidth #3	0
Beamwidth #4	0
Gain #1	17.8
Gain #2	0.0
Gain #3	0.0
Gain #4	0.0
Max Tilt	30.0
Min Tilt	0.0
Installation Date	
Installer's ID	
Base Station ID	
Sector ID	HB 1 (P1,2)
Ant Bearing	0.0
Mechanical Tilt	0.0

Device Data Management for AISG-1 IN-2	
RET ID : MSMB32H8L400001BMM	
RET Additional Device Data	
Antenna Number	Sub Unit : 1/6
Additional Data	Devide Data
ANT NO	1
ANT Model	MBA-3.2-H8-L4
ANT Serial	MBA3.2H8L400001
Band	UL(1920~1980),DL(2110~2170)/UL(...)
Band Ext8	
Band Ext9	
Beamwidth #1	22
Beamwidth #2	0
Beamwidth #3	0
Beamwidth #4	0
Gain #1	17.8
Gain #2	0.0
Gain #3	0.0
Gain #4	0.0
Max Tilt	30.0
Min Tilt	0.0
Installation Date	
Installer's ID	
Base Station ID	
Sector ID	HB 1 (P5,6)
Ant Bearing	0.0
Mechanical Tilt	0.0

RET Tilt Window						
RET ID : MSMBA32H8L400001AMM						
RET Status and Control						
Antenna Information List						
NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status	
1/6	HB 1 (P1,2)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
2/6	HB 2 (P9,10)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
3/6	HB 3 (P17,18)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
4/6	HB 1 (P3,4)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
5/6	HB 2 (P11,12)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
6/6	HB 3 (P19,20)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	

RET Element to AISG-1 IN-1
HB Beam & Port Assigned

RET Tilt Window						
RET ID : MSMBA32H8L400001BMM						
RET Status and Control						
Antenna Information List						
NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status	
1/6	HB 1 (P5,6)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
2/6	HB 2 (P13,14)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
3/6	HB 3 (P21,22)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
4/6	HB 1 (P7,8)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
5/6	HB 2 (P15,16)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
6/6	HB 3 (P23,24)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	

RET Element to AISG-1 IN-2
HB Beam & Port Assigned

Device Data Management for AISG-2 IN	
RET ID : MSMBA32H8L400001CMM	
RET Additional Device Data	
Antenna Number	Sub Unit : 1/4
Additional Data	Devide Data
ANT NO	1
ANT Model	MBA-3.2-H8-L4
ANT Serial	MBA3.2H8L400001
Band	UL(824~849),DL(869~894)/UL(830...
Band Ext8	
Band Ext9	
Beamwidth #1	34
Beamwidth #2	0
Beamwidth #3	0
Beamwidth #4	0
Gain #1	13.5
Gain #2	0.0
Gain #3	0.0
Gain #4	0.0
Max Tilt	40.0
Min Tilt	0.0
Installation Date	
Installer's ID	
Base Station ID	
Sector ID	LB 1 (P25,26)
Ant Bearing	0.0
Mechanical Tilt	0.0

Device Data Management
for AISG-2 IN

RET Tilt Window						
RET ID : MSMBA32H8L400001CMM						
RET Status and Control						
Antenna Information List						
NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status	
1/4	LB 1 (P25,26)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
2/4	LB 2 (P29,30)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
3/4	LB 1 (P27,28)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	
4/4	LB 2 (P31,32)	MBA-3.2-H8-L4	MBA3.2H8L400001	0.0	Normal	

RET Element to AISG-2 IN
LB Beam & Port Assigned

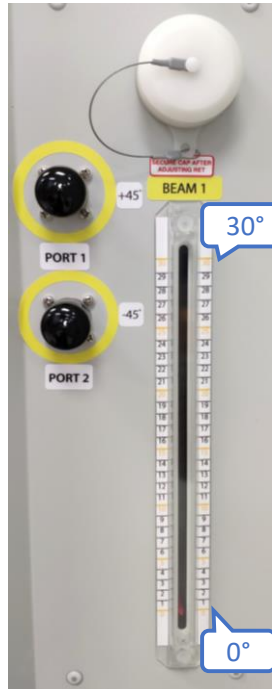
Calibration:

Prior to use, RET Element calibration is required.

Re-Calibration is also required if manual mode was used at any point to adjust tilt

During calibration, the RET Element will use an Upper & Lower hard-stop to calibrate **0°-30° (HB)** and **0°-40° (LB)** Degree range.

The current degree of tilt is indicated by the movable **RED MARKER TIP**.



12 Beam / RET HB Elements offer a tilt range from **0° - 30°** degree independently.



4 Beam / RET LB Elements offer a tilt range from **0° - 40°** degree independently.

Manual Mode

The MS-MBA-3.2-H8-L4 antenna offers a manual override option.

Step 1:

Unscrew/Screw the cap for tilt adjustment process



Step 2:

Engaged with internal RET Motor position



Step 3:

Pull knob out to disengaged RET for tilt adjustment

