

# MS-MBA-8 RET User Guide

Version 1.1

The Matsing MS-MBA-8 antenna comes standard with an MDCU Controller and 12 motorized RET elements. Each motorized RET element controls 2 ports +45/-45 of the respective Beam.

Factory default firmware for the MDCU Controller is MRET (type 17), however SRET (Type 1) is available upon request.

The MDCU Controller is available in 2 versions:



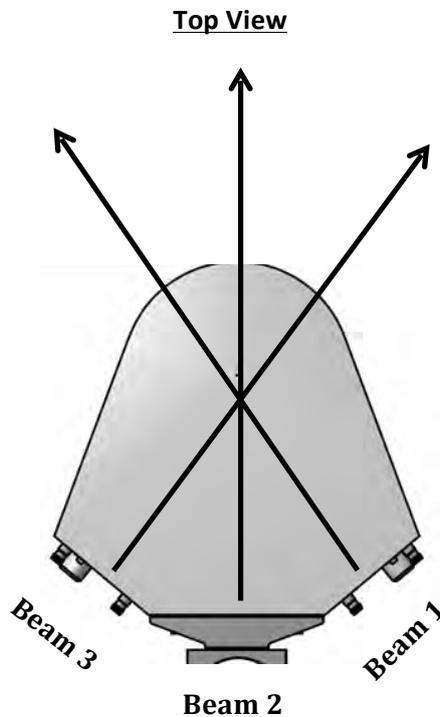
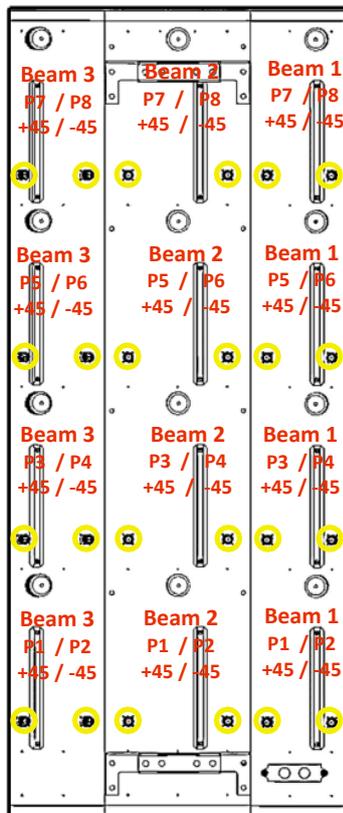
Single AISG Input / Output



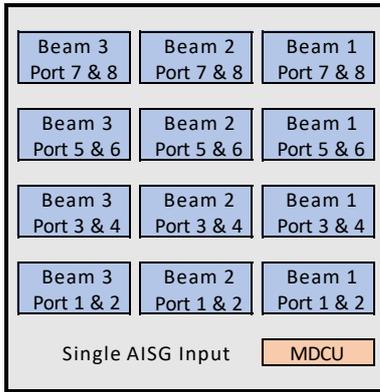
Dual AISG Input

**NOTE:** Older versions of OEM AISG Control software from Ericsson, Huawei or Nokia may not be capable of identifying all 12 RET Elements in a single antenna such as the MS-MBA-8. For this reason the Dual AISG Input MDCU was developed which allows the Lower 6 RET Elements (Beams) to be controlled by **AISG IN-1** and the Upper 6 RET Elements (Beams) to be controlled by **AISG IN-2**.

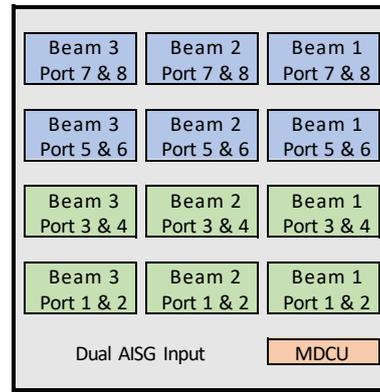
## Beam & Port Layout



**MDCU Controller RET Element mapping for Single AISG Input / Output controller**



**MDCU Controller RET Element mapping for Dual AISG Input controller**



A standard AISG 2.0 compliant control cable (*not included*) is used to connect to the MDCU AISG IN Port. Once connected, using an AISG 2.0 compliant Control software perform a Sub Unit SCAN to identify the MS-MBA-8 RET Elements. The following table shows RET Element (Sub-unit) to Beam/Port assignment.

RET Status and Control				
Antenna Information List				
NO	Sector ID	Ant Model	Ant Serial	Current Tilt
1/12	Beam 1 (P1,2)	MBA	MBA-000001	0.0
2/12	Beam 2 (P1,2)	MBA	MBA-000001	0.0
3/12	Beam 3 (P1,2)	MBA	MBA-000001	0.0
4/12	Beam 1 (P3,4)	MBA	MBA-000001	0.0
5/12	Beam 2 (P3,4)	MBA	MBA-000001	1.0
6/12	Beam 3 (P3,4)	MBA	MBA-000001	0.0
7/12	Beam 1 (P5,6)	MBA	MBA-000001	0.0
8/12	Beam 2 (P5,6)	MBA	MBA-000001	0.0
9/12	Beam 3 (P5,6)	MBA	MBA-000001	0.0
10/12	Beam 1 (P7,8)	MBA	MBA-000001	0.0
11/12	Beam 2 (P7,8)	MBA	MBA-000001	0.0
12/12	Beam 3 (P7,8)	MBA	MBA-000001	0.0

**Antenna Information Utility**

**Device List**

Sector ID: Beam 1 (P1,2)  
 Antenna Bearing: 0.0  
 Antenna Model: MBA-8  
 Antenna Serial: MS-MBA-8-00029  
 RET UID: MSMBAP0000000029MM  
 RET Electrical Tilt: 0.0  
 RET Alarm Status: OK

Sector ID: Beam 2 (P1,2)  
 Antenna Bearing: 0.0  
 Antenna Model: MBA-8  
 Antenna Serial: MS-MBA-8-00029  
 RET UID: MSMBAP0000000029MM  
 RET Electrical Tilt: 0.0  
 RET Alarm Status: OK

Sector ID: Beam 3 (P1,2)  
 Antenna Bearing: 0.0

Refresh Save List Add a Device Scan

**Antenna Information Utility**

**Remote Electrical Tilt (RET)**

**Device Data** | **Antenna Data**

Model: MBA-8  
 Serial No.: MS-MBA-8-00029  
 Operating Bands: 2100/1900/1800/1700/2600/1800/1700  
 Beamwidth: 22/0/0/0  
 Antenna Gain: 17.0/0.0/0.0/0.0  
 RET[1]/EDT: MSMBAP0000000029MM 0.0  
 Operator Data  
 Sector ID: Beam 1 (P1,2)  
 Base Station ID:  
 Installer's ID:  
 Installation Date:  
 Antenna Bearing: 0.0  
 Mechanical Tilt: 0.0  
 Last Access: 2019-04-25 4:23 p.m.

Set Data

**Antenna Information Utility**

**Remote Electrical Tilt (RET)**

**Device Data** | **Antenna Data**

HDLCL Address: 1  
 Vendor Code: MS  
 Model: ACS-RMC00  
 Serial No.: MSMBAP0000000029MM  
 Hardware Version: 1.00  
 Software Version: 1.06  
 AISG Version: 2.0  
 Min-Max Tilt: 0.0 - 30.0 Calibrate  
 RET Electrical Tilt: Subunit 1  
Get Tilt **0.0** Set Tilt  
 Alarm Status: **OK**  
 Last Access: 2019-04-25 4:23 p.m.

Refresh Reset Self Test Clear Alarms Upgrade

## 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 Degree range. All 12 Beams / RET Elements offer a tilt rang from 0 to 30 degrees independantly. The current degree of tilt is indicated by the movable red marker tip.

## Manual Mode:

The MS-MBA-8 antenna offers a manual override option.

**Step 1)** Unscrew waterproof cap behind the RET Element whose tilt is to be adjusted.



Step 2) Unscrew the metal locking stub.

Step 3) Pull the white adjustment knob back/out (*aprox 1"*) This will disengage the motor from the internal RET motor. Turn the handle to change the tilt.



Step 4) Once the desired RET Tilt has been acheived, push the white adjustment knob back into place, screw in the metal locking stub, and re-install the waterproof cover.