

Date	Prepared by	Approved by	Document no's	Revision
26 Jul 2021	WJ Chong	Patrick Yeo	MS-WI-00067	2

MBA INSTALL NEW CONTROLLER & TEST

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Revision History:

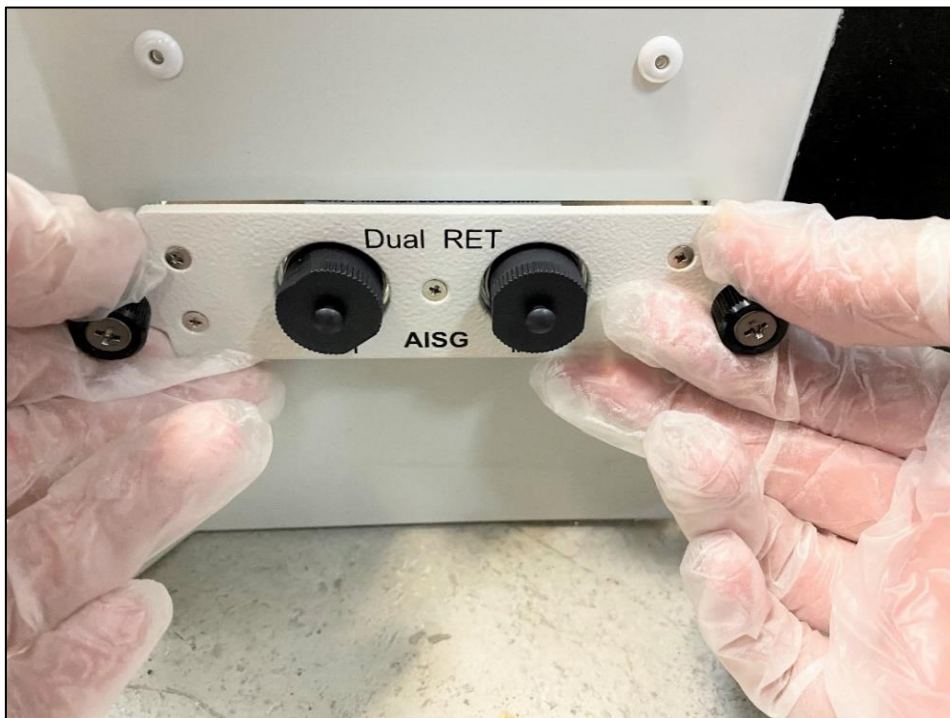
Date	Description	Revised by	Revision nos.
26-Jul-21	Additional information included	WJ	Rev-2

1.00 REPLACE NEW CONTROLLER

1.01 Remove silicone sealant around the controller



1.02 Unscrew and remove the controller from the Antenna



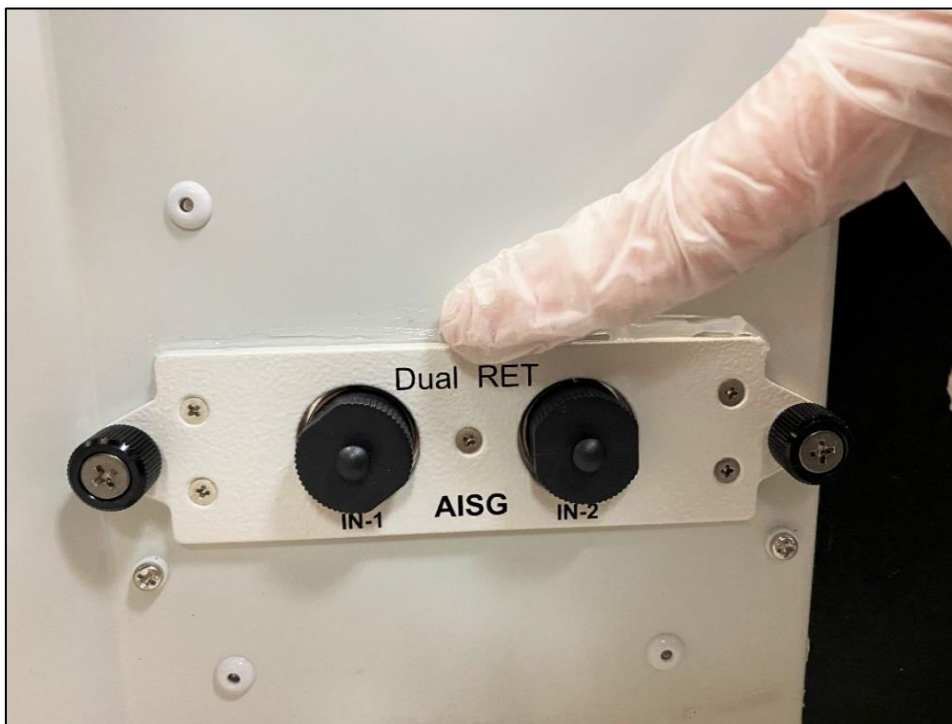
1.03 Replace with a new controller. Ensure the controller SN# tally with Antenna SN#



1.04 Insert the new controller gently to ensure the controller's pin sits right into the D-sub connector socket and then fasten the screw



1.05 Apply silicone sealant along the controller

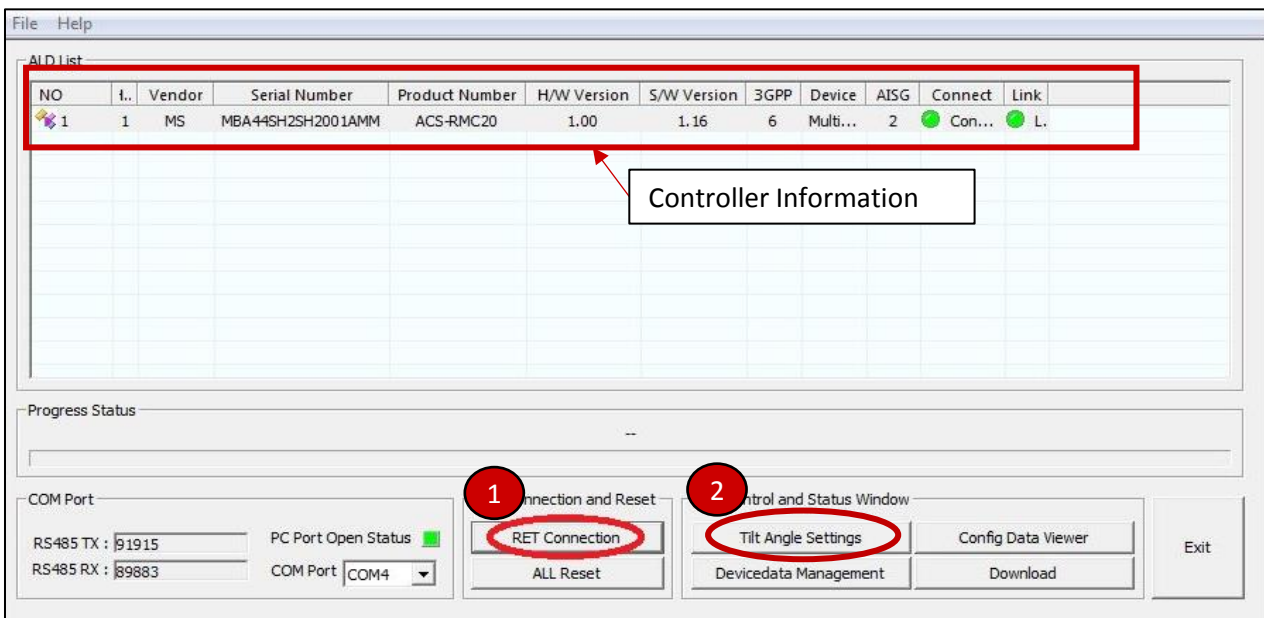


2.00 PERFORM RET TEST

2.01 Connect AISG cable to IN-1 of controller. Customer can use any standard AISG-2.0 compatible external interface to connect to IN-1



2.02 Perform RET Test



The screenshot shows a software window with a menu bar (File, Help) and a table titled "AID List". The table contains the following data:

NO	I..	Vendor	Serial Number	Product Number	H/W Version	S/W Version	3GPP	Device	AISG	Connect	Link
1	1	MS	MBA44SH2SH2001AMM	ACS-RMC20	1.00	1.16	6	Multi...	2	Con...	L.

An arrow points from the text "Controller Information" to the first row of the table. Below the table is a "Progress Status" section. At the bottom, there are two main control areas:

- 1 Connection and Reset:** Includes "COM Port" settings (RS485 TX: 91915, RS485 RX: 89883, PC Port Open Status: green, COM Port: COM4), "RET Connection" (circled in red), and "ALL Reset".
- 2 Control and Status Window:** Includes "Tilt Angle Settings" (circled in red), "Config Data Viewer", "Devedata Management", "Download", and "Exit".

RET ID : MSMBA44SH2SH2001AMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/4	Beam 1 (P1,2)	MBA-4,4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm
2/4	Beam 3 (P5,6)	MBA-4,4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm
3/4	Beam 5 (P9,10)	MBA-4,4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm
4/4	Beam 7 (P13,14)	MBA-4,4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm

Board Information

Final Counter
Target : 0
Current : 0
Over : 0

Progress Counter
Target : 0
Current : 0
Over : 0

Board#1 Voltage
Minimum : 0 mV
Maximum : 0 mV
Current : 0 mV

Board#2 Voltage
Minimum : 0 mV
Maximum : 0 mV
Current : 0 mV

Motor Voltage
Minimum : 0 mV
Maximum : 0 mV
Current : 0 mV

Backlash Count : 0
Direction for Backlash Compensation : CW
Final Tilt Angle : 0.0

Get Board Information

Alarm

Motor Jam Unknown Procedure
 Actuator Jam Read Only
 Busy Unknown Parameter
 Checksum Error Software Missing
 Invalid File Content
 Not Calibrated Format Error
 Not Configured Unsupported Proc.
 Hardware Error Invalid Proc. Seq.
 Out of Range Actuator Interference

Get Alarm Status

Tilt and Calibration
Minimum Tilt : 0.0
Maximum Tilt : 15.0

Set Tilt(Combo) Calibration
Set Tilt(Edit) SelfTest

Parking
Status : OFF Set Parking(ON) Set Parking(OFF)

Motor Start PWM Level
Cur PWM Level : 0: Not used Set Mot Start Level

Motor User Control
Current Count : 0 Set Target Count

All Antenna Control
0 Set Tilt (ALL) Calibration (ALL)

Get Log Close

2.03 Observe tilt angle scale

PORT 6 PORT 2 BEAM 1

Beam 1 Tilt marker should be moving upward through the whole scale and back to zero.

If Beam 1 performs correct tilting, means the RET is working well.

1 2

RET ID : MSMBA44SH2SH2001AMM

RET Status and Control

Antenna Information List

NO	Sector ID	Ant Model	Ant Serial	Current Tilt	Status
1/4	Beam 1 (P1,2)	MBA-4.4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm
2/4	Beam 3 (P5,6)	MBA-4.4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm
3/4	Beam 5 (P9,10)	MBA-4.4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm
4/4	Beam 7 (P13,14)	MBA-4.4-SH2-SH2	MSMBA44SH2SH2001	0.0	Alarm

Repeat the same step on Beam 3,5,7.

Board Informaion

Final Counter
Target : 0
Current : 0
Over : 0

Progress Counter
Target : 0
Current : 0
Over : 0

Board#1 Voltage
Minimum : 0 mV
Maximum : 0 mV
Current : 0 mV

Board#2 Voltage
Minimum : 0 mV
Maximum : 0 mV
Current : 0 mV

Motor Voltage
Minimum : 0 mV
Maximum : 0 mV
Current : 0 mV

Backlash Count : 0
Direction for Backlash Compensation : CW
Final Tilt Angle : 0.0

AISG Alarm
Motor Jam Unknown Procedure
Actuator Jam Read Only
Busy Unknown Parameter
Checksum Error Software Missing
Invalid File Content
Not Calibrated Format Error
Not Configured Unsupported Proc.
Hardware Error Invalid Proc. Seq.
Out of Range Actuator Interference

Get Board Information

Alarm

Motor Jam Unknown Procedure
Actuator Jam Read Only
Busy Unknown Parameter
Checksum Error Software Missing
Invalid File Content
Not Calibrated Format Error
Not Configured Unsupported Proc.
Hardware Error Invalid Proc. Seq.
Out of Range Actuator Interference

Get Alarm Status

Tilt and Calibration

Minimum Tilt : 0.0
Maximum Tilt : 15.0

Set Tilt(Combo) **Calibration**
 Set Tilt(Edit) SelfTest

Parking

Status : OFF

Motor Start PWM Level

Cur PWM Level : 0: Not used

Motor User Control

Current Count : 0

All Antenna Control

Get Log

Close

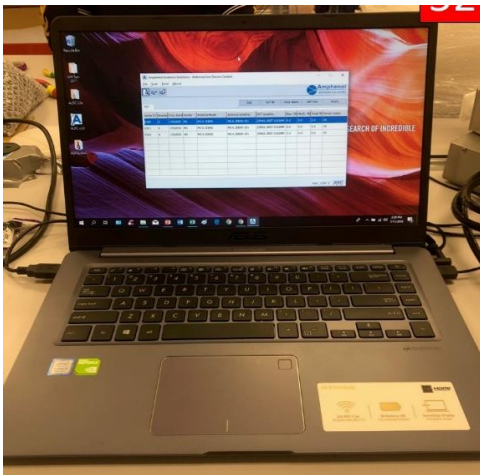
After complete, please plug into IN-2 and repeat the above steps

3.00 RECOMMENDED MATERIALS & TOOLS TO PERFORM THE REPLACEMENT OF THE RET MODULE

3.01 RET Kit



3.02 PC with ASIG-2.0 compatible software



3.03 Sealant Gun (with Transparet Silicone)



3.04 Pen Knife



3.05 Screwdriver



**4.00 NOTE: EXTERNAL INTERFACE RET KIT AND RET SOFTWARE
ARE NOT MATSINGS' PROPRIETARY ITEMS**