

## APPENDIX B - MOUNT SPECIFIC DATA

### For

### SAMART COMTECH 2.4

This appendix describes RC3000 operations unique for the Samart Comtech 2.4m. mount. Differences between this version and the operation described in the “baseline” RC3000 manual are noted on a paragraph by paragraph basis.

#### 1.1 Manual Organization

This appendix is provided as a supplement to the baseline RC3000 manual.

#### 1.2 RC3000 Features – Configuration

A RC3000B version of hardware is required for this mount. The mount model will be designated as M1. Software will be designated as RC3K-M1-xxx

##### 1.3.2 System Interface Requirements

The interface requirements for this mount are very similar to the “standard” RC3000 interface described in the baseline manual with the addition of a polarization stow limit switch.

**NOTE: the polarization stow switch should close when at the stow position. The baseline manual incorrectly shows the polarization switch as Normally Open instead of Normally Closed.**

##### 2.1.4 Inclinometer Orientation

The inclinometer should be rigged with the reflector vertical. With the reflector vertical, the inclinometer should be mounted so that it is 12.7 (35.0 –22.3) degrees from vertical. This orientation should generate an elevation voltage (seen from the VOLTS screen) of approximately 1.69 volts.

##### 3.2.2.2 Stow

After moving to the azimuth stow position, this version of software will move the polarization axis to its stow position and confirm that the polarization stow limit switch is active.

Elevation movement below the DOWN limit switch will not be allowed unless both the azimuth and polarization stow limit switches are active.

##### 3.3.1.2 Reset Defaults

The following table supplies the default configuration item values for each model of mount.

Space has also been provided to record installation specific changes to the configuration items. Note: recording of installation specific changes to defaults may prove valuable when trying to restore system configuration.

CONFIGURATION ITEM	M1							INSTALL VALUE
<b>SYSTEM DEFINITION</b>								
antenna_size_cm	244							
<b>AZIMUTH CALIBRATION</b>								
Zero Voltage	2.50							
Azim_offset	0.0							
ccw_azim_limit	180							
Cw_azim_limit	180							
Azim_Scale_Factor	75.00							
<b>ELEVATION CALIBRATION</b>								
Zero Voltage	1.69							
Elev_offset	0.0							
Up_elev_limit	90							
Down_elev_limit	0							
Elevation_Scale_Factor	50.00							
Elevation_look_configuration	1							
<b>POLARIZATION CAL</b>								
Zero Voltage	2.50							
Polarization_Offset	0.0							
CW Polarization Limit	90.0							
CCW Polarization Limit	90.0							
Pol_Scale_Factor	37.5							
Polarization_type	2							
H/V_Reference	1							
Default Horizontal Position	-45.0							
Default Vertical Position	45.0							
Pol_Automove_Enable	1							
<b>SIGNAL PARAMETERS</b>								
Channel 1 Polarity	1							
Channel 1 Threshold	100							
Channel 1 Delay	0.1							
Channel 1 Lock Type	0							
Channel 2 Polarity	1							
Channel 2 Threshold	100							
Channel 2 Delay	0.1							
Channel 2 Lock Type	0							
<b>AUTOPEAK</b>								
Autopeak Enabled	0							
Signal Source	1							
RF Band	1							
Spiral Search AZ Limit	3							
Spiral Search EL Limit	3							
Spiral Signal Threshold	200							
Scan Range Limit	8							
Scan Signal Threshold	200							

CONFIGURATION ITEM	M1							INSTALL VALUE
<b>AZIMUTH POT DRIVE</b>								
Fast/Slow Threshold	2.5							
Maximum Position Error	0.20							
Coast Threshold	0.1							
Maximum Retry Count	3							
<b>AZIMUTH PULSE DRIVE</b>								
Pulse Scale Factor	2406							
CW Pulse Limit	64000							
CCW Pulse Limit	100							
Fast/Slow Threshold	50							
Maximum Position Error	0							
Coast Threshold	3							
Maximum Retry Count	3							
<b>AZIM DRIVE MONITORING</b>								
Jam Slop	1							
Runaway Slop	200							
Fast Deadband	1000							
Slow Deadband	500							
<b>ELEV POT DRIVE</b>								
Fast/Slow Threshold	3.0							
Maximum Position Error	0.2							
Coast Threshold	0.4							
Maximum Retry Count	3							
<b>ELEV PULSE DRIVE</b>								
Pulse Scale Factor	1646							
UP Pulse Limit	64000							
Down Pulse Limit	100							
Fast/Slow Threshold	50							
Maximum Position Error	0							
Coast Threshold	3							
Maximum Retry Count	3							
<b>ELEV DRIVE MONITORING</b>								
Jam Slop	1							
Runaway Slop	200							
Fast Deadband	1000							
Slow Deadband	500							
<b>POL POT DRIVE</b>								
Fast/Slow Threshold	2.0							
Maximum Position Error	0.5							
Coast Threshold	0.3							
Maximum Retry Count	3							
<b>POL DRIVE MONITORING</b>								
Jam Slop	1							
Runaway Slop	200							
Fast Deadband	1000							
Slow Deadband	500							



