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.

SYSTEM DEFINITION VALUE SYSTEM DEFINITION AZIMUTH CALIBRATION Zero Voltage 2.50 Zaim_offset 0.0 Cow azim_limit 180	CONFIGURATION ITEM	M1					INSTALL
antenna_size_cm 244							
AZIMUTH CALIBRATION Image: Second Secon	SYSTEM DEFINITION						
Zero Voltage 2.50	antenna_size_cm	244					
Azim_offset 0.0	AZIMUTH CALIBRATION						
ccw_azim_limit 180	Zero Voltage	2.50					
Cw_azim_limit 180	Azim_offset	0.0					
Azim_Scale_Factor 75.00 ELEVATION CALIBRATION Zero Voltage 1.69 Elev_offset 0.0 Up_elev_limit 90 Down_elev_limit 0 Elevation_Scale_Factor 50.00 Elevation_Scale_Factor 50.00 Elevation_look_configuration 1 POLARIZATION CAL	ccw_azim_limit	180					
ELEVATION CALIBRATION Zero Voltage 1.69	Cw_azim_limit	180					
Zero Voltage 1.69	Azim_Scale_Factor	75.00					
Elev_offset 0.0	ELEVATION CALIBRATION		·	·		•	
Up_elev_limit 90 Image: state sta	Zero Voltage	1.69					
Down_elev_limit 0 Elevation_look_configuration 1 Elevation_look_configuration 1 POLARIZATION CAL Zero Voltage 2.50 Polarization_Offset 0.0 CW Polarization Limit 90.0 COW Polarization Limit 90.0 Pol_Scale_Factor 37.5 Polarization_type 2 Polarization_type 2 Polarization_type 2 Polarization_type 2 Polarization_type 2	Elev_offset	0.0					
Down_elev_limit 0 Elevation_look_configuration 1 Elevation_look_configuration 1 POLARIZATION CAL Zero Voltage 2.50 Polarization_Offset 0.0 CW Polarization Limit 90.0 COW Polarization Limit 90.0 Pol_Scale_Factor 37.5 Polarization_type 2 Polarization_type 2 Polarization_type 2 Polarization_type 2 Polarization_type 2	Up_elev_limit	90					
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CW Polarization Limit 90.0 Image: Constraint of the second secon		0.0					
Pol_Scale_Factor 37.5	CW Polarization Limit	90.0					
Pol_Scale_Factor 37.5							
Polarization_type 2 H/V_Reference 1							
Default Horizontal Position -45.0 Image: Constraint of the stress of th	Polarization type	2					
Default Vertical Position 45.0 Image: Mark Stress of the	H/V_Reference	1					
Pol_Automove_Enable 1 Image: model and	Default Horizontal Position	-45.0					
SIGNAL PARAMETERS Channel 1 Polarity 1 Channel 1 Threshold 100 Channel 1 Delay 0.1 Channel 1 Delay 0.1 Channel 1 Lock Type 0 Channel 2 Polarity 1 Channel 2 Threshold 100 Channel 2 Threshold 100 Channel 2 Delay 0.1 Channel 2 Lock Type 0 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	Default Vertical Position	45.0					
SIGNAL PARAMETERS Channel 1 Polarity 1 Channel 1 Threshold 100 Channel 1 Delay 0.1 Channel 1 Delay 0.1 Channel 1 Lock Type 0 Channel 2 Polarity 1 Channel 2 Threshold 100 Channel 2 Threshold 100 Channel 2 Delay 0.1 Channel 2 Lock Type 0 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	Pol Automove Enable	1					
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Spiral Search AZ Limit 3 Spiral Search EL Limit 3 Spiral Signal Threshold 200 Scan Range Limit 8	RF Band	1				1	
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Spiral Signal Threshold 200 Scan Range Limit 8						1	
Scan Range Limit 8					1	1	
					1	1	
	Scan Signal Threshold	200				1	

CONFIGURATION ITEM	M1					INSTALL VALUE
AZIMUTH POT DRIVE		I	1	I	I	
Fast/Slow Threshold	2.5					
Maximum Position Error	0.20					
Coast Threshold	0.1					
Maximum Retry Count	3					
AZIMUTH PULSE DRIVE		I				
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					
AZIM DRIVE MONITORING	•					
Jam Slop	1					
Runaway Slop	200					
Fast Deadband	1000					
Slow Deadband	500					
ELEV POT DRIVE	•					
Fast/Slow Threshold	3.0					
Maximum Position Error	0.2					
Coast Threshold	0.4					
Maximum Retry Count	3					
ELEV PULSE DRIVE			•	•	•	
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					
ELEV DRIVE MONITORING						
Jam Slop	1					
Runaway Slop	200					
Fast Deadband	1000					
Slow Deadband	500					
POL POT DRIVE						
Fast/Slow Threshold	2.0					
Maximum Position Error	0.5					
Coast Threshold	0.3					
Maximum Retry Count	3					
POL DRIVE MONITORING				 		
Jam Slop	1					
Runaway Slop	200					
Fast Deadband	1000					
Slow Deadband	500					

CONFIGURATION ITEM	M1			INSTALL VALUE
TRACK				
Search Enable	0			
Max Track Error	3			
Search Width	4			
Peakup Holdoff Time	120			
Track Signal Source	2			
Signal Sample Time	2			
REMOTE CONTROL				
Remote Enabled	1			
Bus Address	50			
Baud Rate	6			
STOW / DEPLOY				
AZ STOW	0.0			
EL STOW	-67.5			
PL STOW	0.0			
AZ DEPLOY	0.0			
EL DEPLOY	22.3			
PL DEPLOY	0.0			
PL ENABLED	1			