

## APPENDIX B - MOUNT SPECIFIC DATA For

### “Unified” PATRIOT Antenna

#### 1.2 Mount Models

This appendix describes the RC3000 variation built for use by Patriot 1.8 Ku, 1.8 C and 1.2 Ku mobile antennas. This model is known as “P5”. The default configuration of the RC3000 is for the 1.8 C antenna. Small programming changes are required to configure the RC3000 for the 1.8 Ku or 1.2 Ku antennas.

#### 1.3.2 System Interface Requirements

All mounts in the Patriot family follow the standard RC3000 interface requirements.

#### 2.1.4 Inclinometer Orientation

The inclinometer should be rigged with the face of the reflector vertical.

#### 2.3.2 Elevation Reference Position

From the face vertical reflector position, the elevation reference voltage should be close to 1.69 V. The elevation displayed at this voltage will be 22.3 reflecting the RF offset of the antenna.

#### 3.3.1.2 Reset Defaults

The following table supplies the default configuration item values for this model of the RC3000. The default configuration is for the 1.8m. C band Patriot antenna. The table shows the values that must be changed to configure the RC3000 for the 1.8 Ku or 1.2 Ku antennas.

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	1.8 C	1.8 Ku	1.2 Ku		INSTALL VALUE
<b>SYSTEM DEFINITION</b>					
GPS	1				
COMPASS	2				
MODE	2				
antenna_size_cm	180		120		
Waveguide	0				
<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>AZIMUTH CALIBRATION</b>					
Zero Voltage	2.50				
Fluxgate_offset	0.0				
ccw_azim_limit	135		200		
Cw_azim_limit	135		200		
Azim_Scale_Factor	69.26		83.33		
<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	39.58	55.3	55.3		
Polarization_type	2				
H/V_Reference	1				
Default Horizontal Position	90.0				
Default Vertical Position	0.0				
Pol_Automove_Enable	1				
<b>SIGNAL PARAMETERS</b>					
RF Lock Type	0				
RF Delay	0.1				
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	1.8 C	1.8 Ku	1.2 Ku			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	N/A					
CW Pulse Limit	N/A					
CCW Pulse Limit	N/A					
Fast/Slow Threshold	N/A					
Maximum Position Error	N/A					
Coast Threshold	N/A					
Maximum Retry Count	N/A					
<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	N/A					
UP Pulse Limit	N/A					
Down Pulse Limit	N/A					
Fast/Slow Threshold	N/A					
Maximum Position Error	N/A					
Coast Threshold	N/A					
Maximum Retry Count	N/A					
<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					

CONFIGURATION ITEM	1.8 C	1.8 Ku	1.2 Ku			INSTALL VALUE
<b>TRACK</b>						
Search Enable	N/A					
Max Track Error	N/A					
Search Width	N/A					
Peakup Holdoff Time	N/A					
Track Signal Source	N/A					
Signal Sample Time	N/A					
<b>REMOTE CONTROL</b>						
Remote Enabled	1					
Bus Address	50					
Baud Rate	6					
<b>STOW / DEPLOY</b>						
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					
EL_TIME	0					