APPENDIX B - MOUNT SPECIFIC DATA
For
AVL 1.2m. (1600) Flyaway

1.2 Mount Models

This appendix describes the RC3000 variation built for use by the AVL 1.2m. Flyaway antenna. This model is known as “G4”.

1.3.2 System Interface Requirements

The G4 mount follows the standard RC3000 interface requirements with a few exceptions:
- elevation STOW limit switch not utilized
- A software generated "stow" limit will be displayed when the elevation axis reaches the programmed stow position.

1.3.6 Drive System

For this mount, there is no elevation stow region about the azimuth stow switch (i.e. there is no azimuth position where the mount may go below the elevation DOWN limit).

2.1.4 Inclinometer Orientation

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

2.3.2 Elevation Calibration

Elevation Reference Position

From the face horizontal reflector position, the elevation reference voltage should be close to 3.6 V. The elevation displayed at this voltage will be 72.6 reflecting the RF offset (-17.4) of the antenna.

3.3.1.2 Reset Defaults

The following table supplies the default configuration item values for this model of the RC3000.

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	G4 Default					INSTALL VALUE
SYSTEM DEFINITION						
GPS	1					
COMPASS MOUNT	2					
COMPASS TYPE	1					
MODE	2					
antenna_size_cm	120					
Waveguide	0					
ELEVATION CALIBRATION						
Zero Voltage	0.8					
Elev_offset	0.0					
Up_elev_limit	90					
Down_elev_limit	0					
Elevation_Scale_Factor	50.00					
Elevation_look_configuration	1					
AZIMUTH CALIBRATION						
Reference Voltage	2.50					
Fluxgate_offset	0.0					
ccw_azim_limit	195					
Cw_azim_limit	195					
Azim_Scale_Factor	83.33					
POLARIZATION CAL						
Zero Voltage	2.50					
Polarization_Offset	0.0					
CW Polarization Limit	95.0					
CCW Polarization Limit	90.0					
Pol_Scale_Factor	38.54					
Polarization_type	2					
H/V_Reference	1					
Default Horizontal Position	90.0					
Default Vertical Position	0.0					
Pol_Automove_Enable	1					

CONFIGURATION ITEM	G4 Default					INSTALL VALUE
SIGNAL PARAMETERS						
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					
AUTOPEAK						
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					
Tilt Compensation	0					

CONFIGURATION ITEM	G4 Default					INSTALL VALUE
AZIMUTH POT DRIVE						
Fast/Slow Threshold	2.5					
Maximum Position Error	0.20					
Coast Threshold	0.1					
Maximum Retry Count	3					
AZIMUTH PULSE DRIVE						
Pulse Scale Factor	1197					
CW Pulse Limit	64000					
CCW Pulse Limit	100					
Fast/Slow Threshold	50					
Maximum Position Error	1					
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	2079					
UP Pulse Limit	64000					
Down Pulse Limit	100					
Fast/Slow Threshold	50					
Maximum Position Error	1					
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	G4 Default					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					
Jog Duration	20					
STOW / DEPLOY						
AZ STOW	0.0					
EL STOW	72.6					
PL STOW	0.0					
AZ DEPLOY	0.0					
EL DEPLOY	20.0					
PL DEPLOY	0.0					
PL ENABLED	2					
EL_TIME	0					
SHAKE						
AZ1	-170.0					
EL1	65.0					
PL1	-10.0					
AZ2	170.0					
EL2	45.0					
PL2	10.0					
AZ3	0.0					
EL3	5.0					
PL3	0.0					
CYCLES	5					
DELAY	1					