APPENDIX B - MOUNT SPECIFIC DATA
For
AVL Technologies

This appendix describes RC3000 operations unique for several AVL mounts. 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 Mount Models

DESIGNATION	MODEL
A1	1.2 ERA
A2	1.5 ERA
A3	1.2 USA
A4	1.8 USA
A7	1.2 USA with 400 degree azimuth travel
AA	2.4 m. with 400 degree azimuth travel
AN	1.2 MVSAT
AP	1.8 MVSAT
U3	2.4 m. / 400 deg. / new polariztion

1.3.2 System Interface Requirements

All mounts in the AVL 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

MODEL	VOLTAGE	OFFSET ANGLE
A1	1.69	20.0
A2	1.69	20.0
A3	1.69	17.35
A4	1.30	22.3
A7	1.69	17.35
AA	1.69	22.3
AN	1.69	17.35
AP	1.69	22.3
U3	1.69	22.3

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	A1	A2	A3	A4	A7	AN	AA	AP	U3	INSTALL VALUE
SYSTEM DEFINITION										
antenna_size_cm	120	150	120	180	120	120	240	180	240	
AZIMUTH CALIBRATION										
Zero Voltage	2.50									
Azim_offset	0.0									
ccw_azim_limit	160	160	160	135	200	200	200	200	200	
Cw_azim_limit	140	140	140	145	200	200	200	200	200	
Azim_Scale_Factor	65.62	56.25	65.62	56.25	83.33	83.33	83.33	60.50	83.33	
ELEVATION CALIBRATION										
Zero Voltage	1.69	1.69	1.69	1.30	1.69	1.69	1.69		1.69	
Elev_offset	0.0									
Up_elev_limit	90									
Down_elev_limit	0									
Elevation_Scale_Factor	50.00									
Elevation_look_configuration	1									
POLARIZATION CAL										
Zero Voltage	2.50									
Polarization_Offset	0.0									
CW Polarization Limit	90.0									
CCW Polarization Limit	90.0									
Pol_Scale_Factor	20.83	20.83	38.54	38.54	38.54	39.33	39.31	39.58	38.54	
Polarization_type	2									
H/V_Reference	1									
Default Horizontal Position	-45.0									
Default Vertical Position	45.0									
Pol_Automove_Enable	1									
SIGNAL PARAMETERS										
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	5									
Spiral Search EL Limit	5									
Spiral Signal Threshold	200									
Scan Range Limit	10									
Scan Signal Threshold	200									

CONFIGURATION ITEM	A1	A2	A3	A4	A7	AN	AA	AP	U3	INSTALL VALUE
AZIMUTH POT DRIVE										
Fast/Slow Threshold	2.5			1.5						
Maximum Position Error	0.20									
Coast Threshold	0.1									
Maximum Retry Count	3									
AZIMUTH PULSE DRIVE										
Pulse Scale Factor	2406	2850		2850				2850		
CW Pulse Limit	64000									
CCW Pulse Limit	100									
Fast/Slow Threshold	50									
Maximum Position Error	1									
Coast Threshold	1									
Maximum Retry Count	3									
AZIM DRIVE MONITORING										
Jam Slop	1									
Runaway Slop	200			400						
Fast Deadband	1000									
Slow Deadband	500									
ELEV POT DRIVE										
Fast/Slow Threshold	3.0			1.5						
Maximum Position Error	0.2									
Coast Threshold	0.4									
Maximum Retry Count	3									
ELEV PULSE DRIVE										
Pulse Scale Factor	1646	2204		2204				2204		
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	A1	A2	A3	A4	A7	AN	AA	AP	U3	INSTALL VALUE
TRACK										
Search Enable	0									
Max Track Error	3									
Search Width	4									
Peakup Holdoff Time	120									
Track Signal Source	SS1									
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	20.0	20.0	17.35	22.3	17.35	17.35	22.3	22.3	22.3	
PL DEPLOY	0.0									
PL ENABLED	1	1	1	1	1	1	1	1	1	