APPENDIX B - MOUNT SPECIFIC DATA
For

AVL 1.2 m. / 400 degree Mount with resolvers

Revision: 20 January 2010 Software Version: 1.60

1.2 Mount Models

This appendix describes the RC3000 variation built for use by the AVL 1.2 m. / 400 degree SNG Mount with resolvers. This model will be referred to as “U1”.

1.3.2 System Interface Requirements

The U1 mount follows the standard RC3000 interface requirements with the following notable variations:
- resolvers present for azimuth and elevation
- azimuth potentiometer also present
- elevation inclinometer also present

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
U1	1.69	17.35

2.3.3 Azimuth Calibration

Calibrate the azimuth resolver as described in the baseline manual. Be sure to center the azimuth potentiometer also as it is used to indicate which "sector" the mount is in as the mount travels beyond +/- 180 (where the resolver wraps around).

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	**U1**					**INSTALL VALUE**
SYSTEM DEFINITION						
GPS	0					
COMPASS MOUNT	0					
COMPASS TYPE	0					
MODE	2					
antenna_size_cm	120					
Waveguide	0					
ELEVATION CALIBRATION						
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					
Resolver offset	0.00					
Resolver direction	0					
AZIMUTH CALIBRATION						
Fluxgate_offset	0.0					
ccw_azim_limit	200					
Cw_azim_limit	200					
Resolver offset	0.00					
Resolver direction	0					
POLARIZATION CAL						
Zero Voltage	2.50					
Polarization_Offset	0.0					
CW Polarization Limit	95.0					
CCW Polarization Limit	95.0					
Pol_Scale_Factor	38.54					
Polarization_type	2					
H/V_Reference	1					
Default Horizontal Position	-45.0					
Default Vertical Position	45.0					
Pol_Automove_Enable	1					

CONFIGURATION ITEM	**U1**					**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	**U1**					**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	10431					
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	10431					
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	**U1**					**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	-67.5					
PL STOW	0.0					
AZ DEPLOY	0.0					
EL DEPLOY	22.3					
PL DEPLOY	0.0					
PL ENABLED	2					
EL_TIME	0					
SHAKE						
AZ1	-40.0					
EL1	30.0					
PL1	-10.0					
AZ2	50.0					
EL2	40.0					
PL2	10.0					
AZ3	0.0					
EL3	-67.5					
PL3	0.0					
CYCLES	5					
DELAY	1					