CHL NETHERLANDS B.V.
Christiaan Huygens Laboratorium

Antenna Unit Processing (AUP) board
Replacement instruction

This Engineering Note replaces Engineering Note EN5-1.

Before the AUP board is extracted from the Antenna Unit (AU) or Beacon Unit (BU), the following AUP parameter settings must be noted (if possible):

Parameter	Variable	Value	Remark
Fixed delay long (course)	fdll		These parameters are system dependent and have to be set in the replacement AUP board.
Fixed delay short (fine)	fdls		
Mobile calibration	mobc		
Servo loop gain	slgn		
Azimuth error polarity	azep		
IPA gain	ipag		These parameters are board dependent parameters. They do not have to be set in the replacement AUP board, but their value is an indication of the functioning of the board.
Azimuth error offset	azeo		
Sum-dif compensation	sdc_		

The value of these parameters can be read using the Reson Artemis MK5 Human Machine Interface (HMI).
Consult the Reson Artemis MK5 HMI operating manual on how to read the parameter values. At this moment the parameter values cannot yet be read using the external Operating Panel. This will, however, be possible shortly, when a new version of the operating panel software is issued.

AUP boards delivered after 10-1-2005 have a label affixed to the lid on the board stating the parameter settings and the software versions as uploaded in the factory.

To replace the AUP board in the Antenna Unit or Beacon Unit:

1. Switch off the 230 VAC supply to the AU or BU.

2. Undo the three snap locks with which the Bottom Cover is fixed to the AU or BU and lower the Bottom Cover from the AU or BU. Let the Bottom Cover hang on the two straps provided for.

3. Remove the two screws with which the AUP module is held in place.

Distribution

CHL NETHERLANDS B.V.	: AKI, AKO, HEB, JMH, SHH
Reson B.V.	: A. van Valkenhoef, S. Gillebaard, T. Mulyono, N. van Woerkom
Other	: All Artemis MK5 users (via Reson B.V.) With all spare AUP modules

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4. Gently pull the board from the Interconnection Board.

5. Place the replacement AUP board; push it in until the two printed circuit board connectors of the module are inserted in the two mating connectors of the Interconnection Board.

6. Lock the AUP board by fitting the two screws removed in step 3.

7. Put the Bottom Cover back in place and lock it by closing the three snap locks.

8. Switch on the 230 VAC supply to the AU or BU.

9. Using the Reson Artemis MK5 HMI, set the parameters 'Fixed delay long' (fdll), 'Fixed delay short' (fdls), 'Mobile calibration' (mobc), 'Servo loop gain' (slgn) and 'Azimuth error polarity' (azep) to the same values the replaced AUP board was set for.
   Consult the Reson Artemis MK5 HMI operating manual on how to set the parameter values.

10. Set all user settings like 'address code', 'frequency pair', 'antenna scan limits', 'antenna physical end limits' etc. to the required value.

   Note 1: When replacing the AUP board, all user settings are lost!

   Note 2: If an AUP board is exchanged between the two Antenna Units of an Artemis MK5 system, then the system dependent parameter settings of the AUP board in both Antenna Units must be noted before the AUP boards are removed.
   After switch-on of the Antenna Units the parameters 'Fixed delay long' (fdll), 'Fixed delay short' (fdls), 'Mobile calibration' (mobc), 'Servo loop gain' (slgn) and 'Azimuth error polarity' (azep) must be set to the value they were set for for each Antenna Unit.

   Note 3: Not setting the parameters 'Fixed delay long' (fdll), 'Fixed delay short' (fdls), 'Mobile calibration' (mobc) and 'Servo loop gain' (slgn) or not setting them to the value they were set for does not cause the AUP board not to function. However, the measured distance may be incorrect.

   Note 4: If the value of parameter 'azep' is "1" and the antenna does not lock but turns away instead, then change its value to "0" or vice versa.

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