

GPS based Azimuth Adjustment tool to azimuth base station antennas in the field.

- Compatible to all Panel Antennas
- Easy to adapt onto an Antenna
- Compact size
- No cabling necessary

Type No.	<b>86010157</b>
<b>GPS Sensor Specification</b>	
Receiver Type	L1, C/A code, with carrier Phase smoothing
Channels	Two 12-channel, parallel tracking
SBAS Tracking	2-channel, parallel tracking
Used Geodetic System	WGS 84
Update Rate	10 Hz (10 measurement values per sec.)
Horizontal Accuracy	< 1.0 m 95% confidence (DGPS <sup>1)</sup> < 2.5 m 95% confidence
Heading Accuracy <sup>2)</sup>	± 0.8°
Tilt Accuracy <sup>3)</sup>	± 0.25°
Orthometric Height Accuracy <sup>4)</sup>	± 1 m
First start	max 12 min. (primary initialisation of almanac)
Cold Start	< 60 s (no almanac or RTC)
Warm Start	< 20 s typical (almanac or RTC)
Heading Fix	< 10 s typical (valid position)
Interface	W-LAN (802.11); RS 232 (optional)
Power Supply	LiPo-Battery ( 14.8 V, 2200 mAh)
Input Voltage	18 – 28 VDC
Power Consumption	5 W nominal; 36 W charging mode
Protection class	IP 54
Operating Temperature	-10 °C to +50 °C
Storage Temperature	-10 °C to +60 °C
Charging Temperature	0 °C to +35 °C
Certifications	FCC; CE
Dimensions (L x W x H)	580 (900 deployed) x 116 x 65 mm
Weight	3.1 kg



<sup>1)</sup> Depends on multipath environment, number of satellites in view; satellite geometry, ionospheric activity and use of SBAS.

<sup>2)</sup> Depends on multipath environment, number of satellites in view; satellite geometry, ionospheric activity.

<sup>3)</sup> After calibration.

<sup>4)</sup> Based on a 40 second time constant.

<b>Tablet Specification</b>	
Model	Fieldbook
<b>Display</b>	
LCD Size	10" TFT LCD
Brightness	Best-in-class sunlight readable Display - ECR 11.19 at 50.000 lux
Max Resolution	1366 (H) x 768 (V)
Touch Screen	Polarized capacitive type
Operating System	Android 4.x
Memory	32 GB eMMC Flash + 1 GB SDRAM
Storage	Micro SD Slot
<b>Communication</b>	
W-LAN	802.11 b/g/n
Bluetooth	Bluetooth 4.0
Modem	3.5 G
RFID	HF RFID; ISO 14443A; ISO 14443B; ISO 15693; NFC
<b>Data Collection</b>	
Barcode	1D laser / 2D imager scan engine
Camera (Back)	5 megapixels CMOS camera
Camera (Front)	1.2 megapixels CMOS camera
<b>I/O Interface</b>	
Audio	1 x 1.5 W speaker; 1 x Digital Mic
Expansion	1 x USB 2.0; 1 x DC Jack
Power	Internal Smart Lithium Polymer battery, 10000 mAh, 3.7 V
<b>Environment</b>	
Operating Temperatur	-10 °C to +40 °C
Storage Temperatur	-10 °C to +60 °C
Drop Survival	1.8 m
Protection class	IP 65 & MIL-STD810G
Certification	CE / FCC / UL
Dimensions (L x W x H)	287 x 189 x 28 mm
Weight	1.1 kg
Scope of Supply	GPS Azimuth Adjustment Tool; Tablet PC; Adapterplates; Charging Device; Storage and carrying bag; Cables
Shipment Dimension (L x W x H)	735 x 300 x 350 mm
Shipment Weight	5.2 kg



**Please note:**

The installation team must be properly qualified and also be familiar with the relevant national safety regulations! Non-observance of these instructions may damage or destroy the devices. Death or severe injuries may occur! The details given in the product documentation must be carefully followed during the installation and operation of the GPS Azimuth Adjustment Tool (read the product documentation thoroughly before connecting the GPS Azimuth Adjustment Tool to the power supply).

936.4669/c Subject to alteration.

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## FCC – Statements

### FCC § 15.19

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### FCC § 15.105

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### Canada CNR-Gen Section 7.1.3

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### ICES-003

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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### FCC § 15.21 (Warning Statement)

[Any] changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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## Compliance Information Statement (Declaration of Conformity Procedure)

**Responsible Party:** Kathrein Inc., Scala Division

**Address:** PO Box 4580, Medford Oregon . 97501

**Telephone:** (+01)541 779 6500

**Type of Equipment:**



**Trade name:** GPS Azimuth Adjustment Tool

**Model number:** 86010157