

GeoMax Zenius5 Series

User Manual



Introduction

Purchase

Congratulations on the purchase of a GeoMax Zenius5.



This manual contains important safety directions as well as instructions for setting up the product and operating it. Refer to "1 Safety Directions" for further information.
Read carefully through the User Manual before you switch on the product.

Product Identification

The model and serial number of your product are indicated on the type plate.
Always refer to this information when you need to contact your agency or GeoMax authorised service centre.

Trademarks

- Windows is a registered trademark of Microsoft Corporation in the United States and other countries
- CompactFlash and CF are trademarks of SanDisk Corporation
- *Bluetooth*® is a registered trademark of Bluetooth SIG, Inc.
- SD Logo is a trademark of SD-3C, LLC.

All other trademarks are the property of their respective owners.

Validity of this manual

This manual applies to the Zenius5 instruments. Differences between the models are marked and described.

Available documentation

Name	Description/Format		
Zenius5 Quick Guide	Provides an overview of the product. Intended as a quick reference guide.	✓	✓
Zenius5 User Manual	All instructions required in order to operate the product to a basic level are contained in the User Manual. Provides an overview of the product together with technical data and safety directions.	-	✓

Refer to the GeoMax website for all Zenius5 documentation/software.

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1

Safety Directions

1.1 General Introduction

Description

The following directions enable the person responsible for the product, and the person who actually uses the equipment, to anticipate and avoid operational hazards.

The person responsible for the product must ensure that all users understand these directions and adhere to them.

About Warning Messages

Warning messages are an essential part of the safety concept of the instrument. They appear wherever hazards or hazardous situations can occur.

Warning messages...

- make the user alert about direct and indirect hazards concerning the use of the product.
- contain general rules of behaviour.

For the users' safety, all safety instructions and safety messages shall be strictly observed and followed! Therefore, the manual must always be available to all persons performing any tasks described here.

DANGER, WARNING, CAUTION and **NOTICE** are standardised signal words for identifying levels of hazards and risks related to personal injury and property damage. For your safety, it is important to read and fully understand the following table with the different signal words and their definitions! Supplementary safety information symbols may be placed within a warning message as well as supplementary text.

Type	Description
 DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a potentially hazardous situation or an unintended use which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation or an unintended use which, if not avoided, may result in minor or moderate injury.
NOTICE	Indicates a potentially hazardous situation or an unintended use which, if not avoided, may result in appreciable material, financial and environmental damage.
	Important paragraphs which must be adhered to in practice as they enable the product to be used in a technically correct and efficient manner.

1.2 Definition of Use

Intended use

- Remote control of product.
- Data communication with external appliances.

Additional advice

- The Zenius5 is essentially an enhanced PDA (personal digital assistant) used in geospatial applications. This device is to be used for data logging and data communication for industrial applications only and not for domestic consumer applications.
- This device does not have held-to-ear voice operations.
- This device does not have body-worn accessories.
- This device is designed to be used only in the hand or in fixed installations by mounting it on a pole or a vehicle. When the device is not mounted on a pole or a vehicle, you may use it in handheld mode only and should keep it away from your body. Do not place the device on your lap or any part of the body.

Reasonably foreseeable misuse

- Use of the product without instruction.
- Use outside of the intended use and limits.
- Disabling safety systems.
- Removal of hazard notices.
- Opening the product using tools, for example screwdriver, unless this is permitted for certain functions.
- Modification or conversion of the product.
- Use after misappropriation.
- Use of products with recognizable damages or defects.
- Use with accessories from other manufacturers without the prior explicit approval of GeoMax.
- Inadequate safeguards at the working site.
- Controlling of machines, moving objects or similar monitoring application without additional control and safety installations.

1.3

Limits of Use

Environment

Suitable for use in an atmosphere appropriate for permanent human habitation: not suitable for use in aggressive or explosive environments.



DANGER

Local safety authorities and safety experts must be contacted before working in hazardous areas, or close to electrical installations or similar situations by the person in charge of the product.



The following advice is only valid for battery charger, power adapter and car adapter.

Environment

Suitable for use in dry environments only and not under adverse conditions.



1.4

Responsibilities

Manufacturer of the product

GeoMax AG, CH-9443 Widnau, hereinafter referred to as GeoMax, is responsible for supplying the product, including the user manual and original accessories, in a safe condition.

Person responsible for the product

The person responsible for the product has the following duties:

- To understand the safety instructions on the product and the instructions in the user manual.
- To ensure that it is used in accordance with the instructions.
- To be familiar with local regulations relating to safety and accident prevention.
- To inform GeoMax immediately if the product and the application becomes unsafe.
- To ensure that the national laws, regulations and conditions for the operation of the product are respected.

1.5

Hazards of Use



DANGER

Because of the risk of electrocution, it is dangerous to use poles, levelling staffs and extensions in the vicinity of electrical installations such as power cables or electrical railways.

Precautions:

Keep at a safe distance from electrical installations. If it is essential to work in this environment, first contact the safety authorities responsible for the electrical installations and follow their instructions.



WARNING

During dynamic applications, for example stakeout procedures there is a danger of accidents occurring if the user does not pay attention to the environmental conditions around, for example obstacles, excavations or traffic.

Precautions:

The person responsible for the product must make all users fully aware of the existing dangers.

	WARNING	Inadequate securing of the working site can lead to dangerous situations, for example in traffic, on building sites and at industrial installations. Precautions: Always ensure that the working site is adequately secured. Adhere to the regulations governing safety, accident prevention and road traffic.
	CAUTION	If the accessories used with the product are not properly secured and the product is subjected to mechanical shock, for example blows or falling, the product may be damaged or people can sustain injury. Precautions: When setting up the product, make sure that the accessories are correctly adapted, fitted, secured, and locked in position. Avoid subjecting the product to mechanical stress.
	WARNING	If the product is used with accessories, for example masts, staffs, poles, you may increase the risk of being struck by lightning. Precautions: Do not use the product in a thunderstorm.
	CAUTION	Keeping the device too close to the human body during operation may pose a health risk. This device has been tested for typical operations near the human body, for example handheld mode, with the device kept at 10 mm from the user's body. Precautions: Use the device at least 10 mm apart from the human body.
	CAUTION	During the transport, shipping or disposal of batteries it is possible for inappropriate mechanical influences to constitute a fire hazard. Precautions: Before shipping the product or disposing of it, discharge the batteries by running the product until they are flat. When transporting or shipping batteries, the person in charge of the product must ensure that the applicable national and international rules and regulations are observed. Before transportation or shipping contact your local passenger or freight transport company.
	WARNING	High mechanical stress, high ambient temperatures or immersion into fluids can cause leakage, fire or explosions of the batteries. Precautions: Protect the batteries from mechanical influences and high ambient temperatures. Do not drop or immerse batteries into fluids.
	WARNING	If battery terminals are short circuited e.g. by coming in contact with jewellery, keys, metallised paper or other metals, the battery can overheat and cause injury or fire, for example by storing or transporting in pockets. Precautions: Make sure that the battery terminals do not come into contact with metallic objects.
	WARNING	Only GeoMax authorised service centres are entitled to repair these products.
		The following advice is only valid for battery charger, power adapter and car adapter.
	WARNING	If you open the product, either of the following actions may cause you to receive an electric shock. • Touching live components • Using the product after incorrect attempts were made to carry out repairs Precautions: Do not open the product. Only GeoMax authorised service centres are entitled to repair these products.
		The following advice is only valid for batteries, power adapter or docking station.

WARNING

If the product is improperly disposed of, the following can happen:

- If polymer parts are burnt, poisonous gases are produced which may impair health.
- If batteries are damaged or are heated strongly, they can explode and cause poisoning, burning, corrosion or environmental contamination.
- By disposing of the product irresponsibly you may enable unauthorised persons to use it in contravention of the regulations, exposing themselves and third parties to the risk of severe injury and rendering the environment liable to contamination.

Precautions:



The product must not be disposed with household waste.

Dispose of the product appropriately in accordance with the national regulations in force in your country.

Always prevent access to the product by unauthorised personnel.

Product-specific treatment and waste management information can be received from your GeoMax distributor.

1.6

Electromagnetic Compatibility EMC

Description

The term Electromagnetic Compatibility is taken to mean the capability of the product to function smoothly in an environment where electromagnetic radiation and electrostatic discharges are present, and without causing electromagnetic disturbances to other equipment.

WARNING

Electromagnetic radiation can cause disturbances in other equipment.

Although the product meets the strict regulations and standards which are in force in this respect, GeoMax cannot completely exclude the possibility that other equipment may be disturbed.

The product is a class A product when operated with the internal batteries. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CAUTION

There is a risk that disturbances may be caused in other equipment if the product is used with accessories from other manufacturers, for example field computers, personal computers or other electronic equipment, non-standard cables or external batteries.

Precautions:

Use only the equipment and accessories recommended by GeoMax. When combined with the product, they meet the strict requirements stipulated by the guidelines and standards. When using computers or other electronic equipment, pay attention to the information about electromagnetic compatibility provided by the manufacturer.

CAUTION

Disturbances caused by electromagnetic radiation can result in erroneous measurements.

Although the product meets the strict regulations and standards which are in force in this respect, GeoMax cannot completely exclude the possibility that the product may be disturbed by intense electromagnetic radiation, for example, near radio transmitters, two-way radios or diesel generators.

Precautions:

Check the plausibility of results obtained under these conditions.

CAUTION

If the product is operated with connecting cables attached at only one of their two ends, for example external supply cables, interface cables, the permitted level of electromagnetic radiation may be exceeded and the correct functioning of other products may be impaired.

Precautions:

While the product is in use, connecting cables, for example product to external battery, product to computer, must be connected at both ends.

Radios or Digital Cellular Phones



WARNING

Use of product with radio or digital cellular phone devices:

Electromagnetic fields can cause disturbances in other equipment, in installations, in medical devices, for example pacemakers or hearing aids and in aircraft. It can also affect humans and animals.

Precautions:

Although the product meets the strict regulations and standards which are in force in this respect, GeoMax cannot completely exclude the possibility that other equipment can be disturbed or that humans or animals can be affected.

- Do not operate the product with radio or digital cellular phone devices in the vicinity of filling stations or chemical installations, or in other areas where an explosion hazard exists.
- Do not operate the product with radio or digital cellular phone devices near to medical equipment.
- Do not operate the product with radio or digital cellular phone devices in aircraft.

1.7

FCC Statement, Applicable in U.S.



WARNING

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:

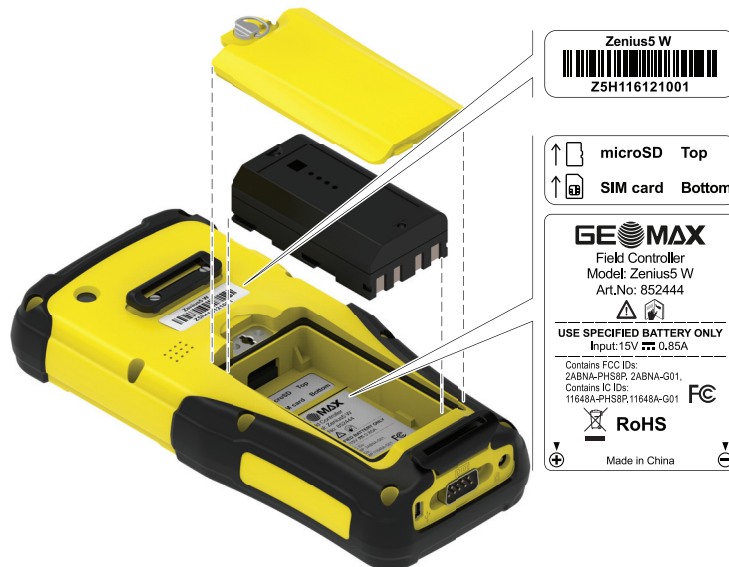
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



WARNING

Changes or modifications not expressly approved by GeoMax for compliance could void the user's authority to operate the equipment.

Labelling Zenius5



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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.

**WARNING**

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.

Exposure to radio frequency (RF) signals

The wireless device is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limit for exposure to radio frequency (RF) energy set by the OET Bulletin 65 Supplement C / Ministry of Health (Canada), Safety Code 6. These limits are part of comprehensive guidelines and established permitted levels of RF energy for the general population. These guidelines are based on the safety standards previously set by international standard bodies. These standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

This device has been shown to be capable of compliance for localised specific absorption rate (SAR) for uncontrolled environment / general public exposure limits specific in ANSI/IEEE C95.1-1992 and had been tested in accordance with the measurement procedures specified in IEEE Std. 1528-2003.

IC Canadian Compliance

This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p) is not more than that necessary for successful communication. This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur. Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante. 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.

(2) L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

2 Description of the System

2.1 Overview

Zenius5 General Description

The Zenius5 is a compact, high performance, low weight device with an integrated high accuracy GNSS, designed for outdoor & fieldwork usage. The Zenius5 can withstand severe environmental conditions including vibration, shock, moisture and temperature variations. The Zenius5 is suitable for use in harsh environments such as construction sites, warehouses, military, manufacturing and field service.

2.2 System Concept

2.2.1 Power Concept

General

Use the batteries, chargers and accessories recommended by GeoMax to ensure the correct functionality of the instrument.

Power options

Power for the instrument can be supplied either internally or externally.

Internal power supply:

One battery fitting into the instrument.

External power supply:

10.5 V to 28 V DC power supply via cable.

2.2.2 Data Storage Concept

Description

Data can be recorded on the SD card.

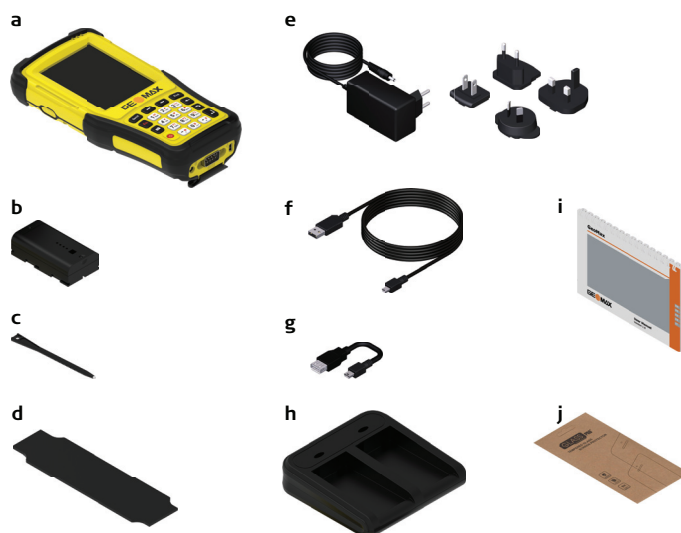
Memory device

The instrument has a SD card slot fitted as standard. A SD card can be inserted and removed. Refer to **Inserting and Removing a SIM Card and SD Card**.

2.3 System Components

Zenius5 package

The Zenius5 package includes the following components:



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- a) Zenius5
- b) ZBA700 rechargeable battery
- c) Capacitive stylus
- d) Hand strap
- e) Switching power supply
- f) Mini USB cable
- g) USB OTG cable
- h) ZCH700 battery charger (optional)
- i) Quick guide
- j) Glass protection

2.4

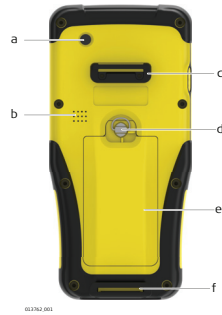
Components

Front side of the Zenius5



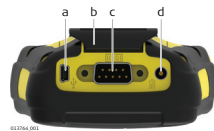
- a) Communication LED
- b) GPS LED
- c) Power LED
- d) Screen
- e) Keypad
- f) Power key
- g) Microphone

Back side of the Zenius5



- a) Camera
- b) Speaker
- c) Holder for hand strap
- d) Release lever for battery compartment
- e) Compartment with slots for battery, SIM card and SD card
- f) Hand strap fixation

Bottom panel of the Zenius5



- a) USB port
- b) Hand strap holder
- c) Serial connector
- d) Power connector

Battery compartment



- a) SD card slot
- b) SIM card slot
- c) Battery connectors

3 User Interface

3.1 Keyboard

Keypad



- a) Left softkey
- b) Send key
- c) Function key
- d) Camera key
- e) Power key
- f) Numeric keys and alternative function keys
- g) Right softkey
- h) End key
- i) Backspace key
- j) Start key
- k) Enter key
- l) Collect key

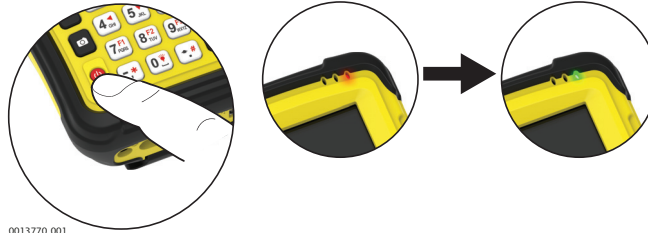
Functions of the keys

Key	Function
Left softkey	Performs the command shown on the bottom left corner of the screen.
Send key	Dials or answers a call.
Function key	Switches the alternative functions of the numeric keys on or off. If the alternative functions are switched on, the icon Fn appears in the navigation bar.
Camera key	Press to open camera app. If camera app is opened: Press to take a picture.
Power key	Turns the Zenius5 on or off.
Numeric keys	To enter numbers.
Right softkey	Performs the command shown on the bottom right corner of the screen.
End key	Ends or rejects a call. Returns to the start screen.
Backspace key	Press to backspace over one character in a text editable field.
Windows key	Press to open the start menu.
Enter key	Press to confirm selections.
Collect key	Press to record data during measurements. Depending on 3rd party software implementation.

Touch screen

The user interface is operated through the capacitive touch screen. You can either use the supplied stylus or touch the screen with the finger.

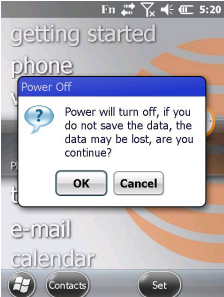
Operation	Description
To select an item	Tap on the item.
To start the edit mode in editable fields	Tap on the editable field.
To highlight an item or parts of it for editing	Drag the supplied stylus from the left to the right.
To accept data entered into an editable field and exit the edit mode	Tap on the screen outside of the editable field.
To open a context-sensitive menu	Tap on the item and hold for 2 s.

Turning on the Zenius5 step-by-step

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Step	Description
1.	Place the Zenius5 on a flat and stable surface or hold the device in your hand.
2.	Ensure that either the device is connected with the AC power adapter or the batteries are charged up.
3.	Press and hold Power key  until the LED power indicator turns from red colour to green colour. <i>The operating system needs usually about 30-40 seconds for booting up. When the main screen is displayed, the Zenius5 is ready to use.</i>

Turning off the Zenius5 step-by-step

Step	Description
1.	Press the Power key for at least 3 seconds to open the Power Off menu. Within the menu, the following options are available: • OK: The operating system shuts down and the device is turned off. • Cancel: Close the Power Off menu and return to the main screen.
2.	To turn off the device, select the option OK . 
	After turning off the Zenius5, wait for at least 5 seconds before turning on the device again.

**Resetting the Zenius5
step-by-step**

If the Zenius5 stops responding to the stylus or does not respond when you press any key, it is necessary to start a hard reset. To start a hard reset, do the following:

Step	Description
1.	Press and hold the Send key and the End key. <i>The Zenius5 resets.</i>
2.	Press and hold the Power key  until the LED power indicator turns from red colour to green colour to turn on the Zenius5 again.

**Sleep mode activation
step-by-step**

To activate the sleep mode of Zenius5 do the following:

Step	Description
	The Zenius5 must be switched on.
1.	Press and hold the Power key for 1 second. <i>The Zenius5 enters the sleep mode. The LED power indicator turns to green.</i>
2.	Press the Power key again to resume operation.

 The LED communication indicator stays green during sleep mode. Any incoming call ends the sleep mode.

Using the stylus

Use the stylus for navigating and selecting objects by tapping on the screen.

 Store the stylus in the slot, if it is not in use.

**Fitting the hand strap
step-by-step**



Step	Description
1.	Align the upper hand strap bracket with the two mounting holes at the back side of the Zenius5.
2.	Tighten the screws.
	The other side of the hand strap is fixed at the bottom of the Zenius5.

3.3

LED Indicators on Zenius5

LED indicators



- a) Communication LED
- b) GPS LED
- c) Power LED

Status of the LED Indicators

The Zenius5 device has **L**ight **E**mitting **D**iode indicators. They indicate the basic status of the device.

LED	Status of LED	Description
Communication LED	off	No communication function is active.
	blue	Bluetooth function is switched on.
	green	Phone function is switched on.
GPS LED	off	No connection.
	green	GPS function is switched on.
Power LED	off	Zenius5 is switched off.
	green	Battery is charging or Zenius5 is in sleep mode.
	red	Zenius5 is ready for operation.

4 Operation

4.1 Batteries

Battery Power System The Zenius5 device is designed to work with one removable battery placed inside the battery compartment. The fully charged battery provides several hours of battery life.

4.1.1 Operating Principles

- First-time Use/Charging Batteries**
- The battery must be charged before using it for the first time because it is delivered with an energy content as low as possible.
 - The permissible temperature range for charging is from 0 °C to +40 °C/+32 °F to +104 °F. For optimal charging, we recommend charging the batteries at a low ambient temperature of +10 °C to +20 °C/+50 °F to +68 °F if possible.
 - It is normal for the battery to become warm during charging. Using the chargers recommended by GeoMax, it is not possible to charge the battery once the temperature is too high.
 - For new batteries or batteries that have been stored for a long time (> three months), it is effectual to make only one charge/discharge cycle.
 - For Li-Ion batteries, a single discharging and charging cycle is sufficient. We recommend carrying out the process when the battery capacity indicated on the charger or on a GeoMax product deviates significantly from the actual battery capacity available.

- Operation / Discharging**
- The batteries can be operated from -30°C to +60°C/-22°F to +140°F.
 - Low operating temperatures reduce the capacity that can be drawn; high operating temperatures reduce the service life of the battery.

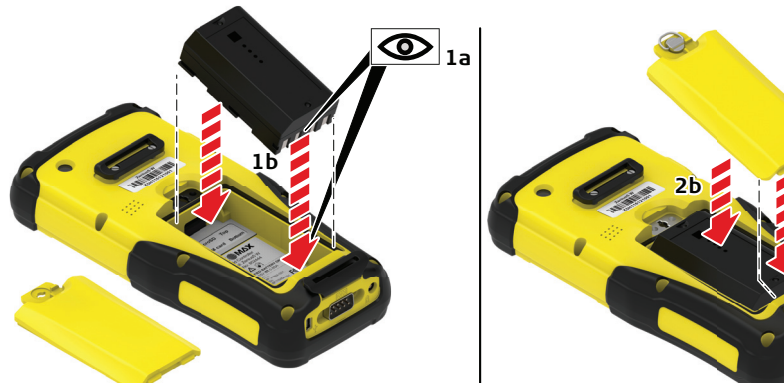
4.1.2 Changing the Battery

Remove the battery step-by-step



Step	Description
	Ensure that the handheld is put into stand-by mode.
1.	Place the Zenius5 on a stable surface, with the back side facing up.
2.	Lift the latch handle of the cover and turn it counterclockwise to the vertical unlock position.
3.	Remove the cover of the battery compartment.
4.	To release the battery from the compartment, lift the upper side of the battery and remove it from compartment.

Insert the battery
step-by-step



Step	Description
	To open the battery compartment, follow the instructions of the previous paragraph.
1.	To insert the battery to the compartment, attach the bottom side of the battery to the compartment at an angle and then lower the upper side to engage the connector.
2.	Reattach the compartment cover by inserting it bottom first. Fit the latch handle into place. Secure the latch by turning it clockwise to the horizontal lock position. The IP rating is only ensured if the battery compartment is attached correctly!

4.1.3

Charging the Battery



The following advice is only valid for battery charger, power adapter and car adapter.



WARNING

If you open the product, either of the following actions may cause you to receive an electric shock.

- Touching live components
- Using the product after incorrect attempts were made to carry out repairs

Precautions:
Do not open the product. Only GeoMax authorised service centres are entitled to repair these products.



The following advice is only valid for batteries, power adapter or docking station.



WARNING

The product is not designed for use under wet and severe conditions. If unit becomes wet it may cause you to receive an electric shock.

Precautions:
Use the product only in dry environments, for example in buildings or vehicles. Protect the product against humidity. If the product becomes humid, it must not be used!



Charge battery
step-by-step



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Step	Description
	Only use the charger delivered with the Zenius5.
1.	Connect the AC power adapter to the Zenius5 and to an A/C plug. Alternative: • Connect the Zenius5 to a computer using the data transfer cable. Note: The data transfer cable has a lower charging capability than the AC power adapter.
2.	<i>The battery starts charging. The Power LED flashes green to indicate the charging.</i>

4.2

Inserting and Removing a SIM Card and SD Card



- Keep the card dry.
- Use it only within the specified temperature range.
- Do not bend the card.
- Protect the card from direct impacts.



Failure to follow these instructions could result in data loss and/or permanent damage to the card.

 CAUTION

Always ground yourself to remove any static charge before touching the circuit board. The electronic devices are sensitive to static electricity.

Precautions:

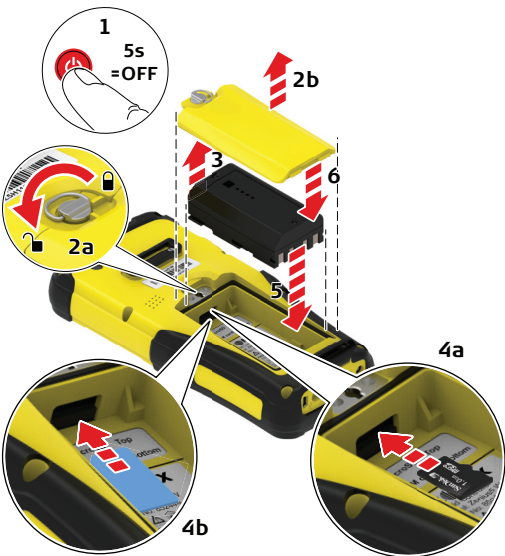
- 1) Only experienced personnel should open the mechanical housing of the device.
- 2) Use a grounding wrist strap all the time.
- 3) Place all the electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.



Apply general practice for working with static-sensitive devices when you open the device, insert the SIM or SD card and closing the device:

- Discharge any static charge before opening the device and working with the SIM or SD card.
- The device must not be subject to high electrostatic potentials when it is open.
- Minimise contact with internal components of the device.
- Avoid any discharges of static electricity near the device when inserting the SIM or SD card.

Insert and remove a
SIM Card or a SD Card
step-by-step



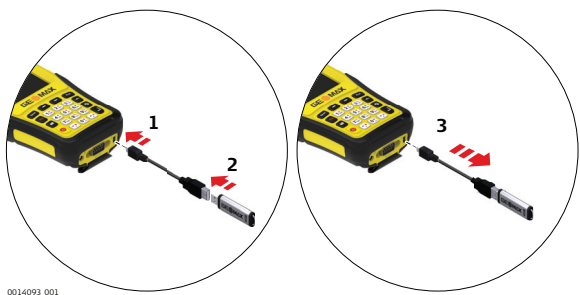
0014004_001

Step	Description
	The slots for the SIM card and the SD card are inside the battery compartment of the Zenius5.
1.	Turn off the Zenius5 and place it on a stable surface, with the back side facing up.
2.	Lift the latch handle of the cover and turn it counterclockwise to the vertical unlock position. Remove the cover of the battery compartment.
3.	Remove the battery.
4.	a) Slide the SD card firmly into the upper slot. b) Slide the SIM card with the chip facing down firmly into the bottom slot.  Do not force the card into the slot. The card should be held with the contacts facing the slot.
5.	Insert the battery back into the battery compartment.
6.	Reattach the compartment cover by inserting it bottom first. Fit the latch handle into place. Secure the latch by turning it clockwise to the horizontal lock position.

4.3

Working with a USB Memory Stick

Working with a USB memory stick step-by-step



0014093_001

Step	Description
	The USB port is located at the bottom panel of the Zenius5, refer to Bottom panel of the Zenius5 .
1.	Connect the USB OTG cable with the Zenius5.
2.	Slide the USB stick firmly into the USB host port of the USB OTG cable. Do not force the USB stick into the port.
3.	To remove the USB stick, slide the USB stick out of the port and disconnect the USB OTG cable from the Zenius5

5 Connecting and Synchronising with a Computer

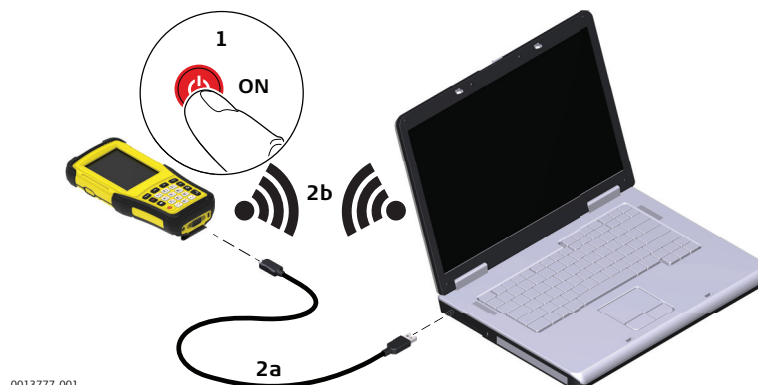


Microsoft ActiveSync (for PCs with Windows XP operating system) or Windows Mobile Device Center (for PCs with Windows Vista or Windows 7/Windows 8 operating system) is the synchronisation software for Windows mobile-based pocket PCs. Microsoft ActiveSync or Windows Mobile Device Center enables a PC and a Windows mobile-based pocket PC to communicate.



If Microsoft ActiveSync or Windows Mobile Device Center is not installed on your PC, download it from <http://www.microsoft.com/download/en/windows.aspx?q=windows>.

Connecting the Zenius5 to a computer step-by-step



Ensure that a Connection Management Software is installed on the computer.

1. Turn on the Zenius5 and the computer.
2. Connect the device to the computer using the USB cable or use the integrated Bluetooth radio of the Zenius5 to establish a wireless link to a Bluetooth-enabled computer.
If the connection management software is installed on the computer, the software starts automatically.
3. After synchronisation, you can access the data stored on the Zenius5 directly from the computer.



If a SD card is inserted into the Zenius5 and the device is connected to a computer, you can also access the data stored on the SD card.

Connection via Windows Mobile Device Center Step-by-step

Step	Description
1.	Connect the Zenius5 to a computer. Refer to Connecting the Zenius5 to a computer step-by-step. <i>If the Zenius5 successfully connects to the computer the Windows Mobile Device Center screen appears.</i> 
2.	Select Connect without setting up your device. <i>The Quick Connect screen appears.</i> 
3.	Select File Management. Select Browse the contents of your device in the drop-down menu.  <i>The Windows explorer menu appears for uploading and downloading data.</i>

6

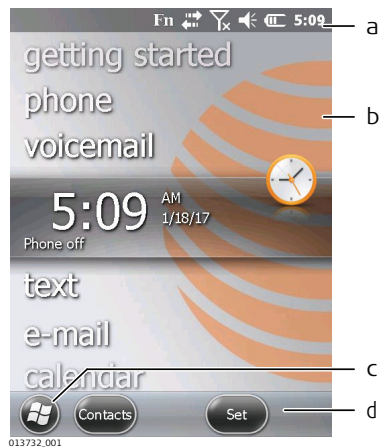
6.1

Operating System and Software

System Main Interface

Home screen

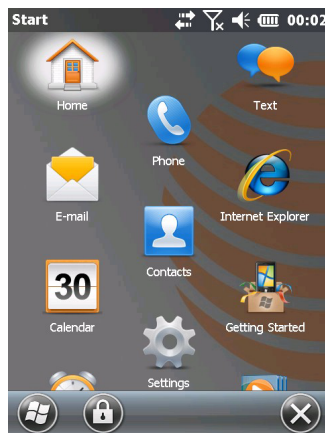
The home screen is the starting place for accessing all functionalities of the Zenius5. The screen is displayed after switching on the Zenius5.



- a) Status bar with icons
- b) Default list of applets such as phone and voicemail
- c) Windows key
- d) Softkeys

Start screen

Tap the Windows button  on the Zenius5 home screen to switch to the **Start** screen.



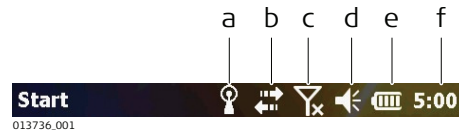
Customise the Start screen

Tap and hold a program icon, for example the phone icon, until the icon bounce. Now you can drag the icon to another position.



Status icons

The icons within the status bar indicate the current status of the main system functions.



- a) Wi-Fi connection status
- b) LAN/Bluetooth mode
- c) Phone connection mode
- d) Speaker status
- e) Battery status
- f) Current time

Battery status icons

Icon	Description
	Battery has full charge.
	Battery has high charge.
	Battery has medium charge.
	Battery has low charge.
	Battery has less than 20 percent charge.
	Connected to AC. Battery is charging.

Speaker status icons

Icon	Description
	Volume ON.
	Volume OFF.

Network and modem status icons

Icon	Description
	Connected to a computer via LAN or Bluetooth.
	Wi-Fi radio ON.
	Maximum signal strength of cellular modem.
	Cellular modem OFF.
	No cellular service available.
	No SIM card.

Softkeys

The softkeys at the bottom of the **Start** screen are for navigation. For example, the **Windows** button  provides access to everything you need to work within Windows Embedded Handheld.

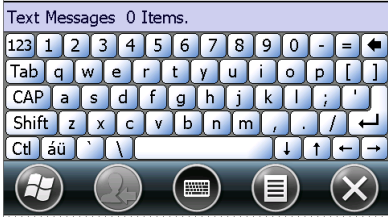
Working with the touch-screen

Action	Description
Tap	Touch the screen once to open items and select options.
Select and hold	Select and hold an item. <i>A pop up menu with a list of available actions opens.</i> Tap the action you want to perform.
Drag	Hold the stylus or finger on the screen and drag across the screen to select text and images.
Flick	Flick the stylus or finger to scroll a page or a list up and down.

Input methods

Input method	Description
Synchronising	Exchange information between the Zenius5 and a computer via connection management software.
Typing	Use the keyboard input panel to enter text.
Drawing	Use the stylus like a pen to draw or write directly on the screen.
Recording	Create a stand-alone recording or embed a recording into a note.

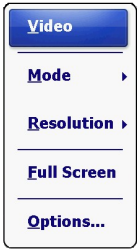
Working with the on-screen keyboard step-by-step

Step	Description
1.	Tap the on-screen keyboard button  at the bottom of the screen to show the on-screen keyboard. 
2.	Input the text by tapping the letters.
	When you use the keyboard, your device anticipates the word you are typing and displays it above the on-screen keyboard. Tap the displayed word to insert it into your text at the insertion point. The more you use the Zenius5, the more words it learns to anticipate.
3.	Tap the on-screen keyboard button  again to hide the on-screen keyboard.

Taking pictures
step-by-step

Step	Description
1.	Press the Camera key on the keypad  to start the camera. <i>The Pictures & Videos screen opens.</i> 
2.	Press the Camera key  to take a picture. <i>The picture is shown on the screen.</i>
3.	Tap the Menu button  to change settings of the picture. Refer to Camera settings.
	The display area blanks out and shows the word Standby when the camera has been idle for one minute. To resume, tap the screen.

Camera settings



Setting	Description
Mode	Normal: Single picture mode.
	Burst: Continuous shooting of 5 pictures.
	Timer: 5 second countdown before shooting.
Resolution	640x480
	1024x768
	2048x1536
Full Screen	Switches full screen on or off.
Options...	General settings to the camera program.

Pre-installed programs The following programs are pre-installed on the Zenius5:

Program	Icon	Description
ActiveSync		Synchronise information between the Zenius5 and a computer.
Alarms		Set alarms.
Text		Send, receive and organise text messages.
E-mail		Send, receive and organise e-mail messages.
Internet explorer		Access the Internet.
Calendar		Track appointments and arrange meetings.
Contacts		Manage contacts in the address book.
Windows Live		Access Windows Live services, including: E-mail, instant messenger and Internet search.
Windows		Play Windows Media or MP3 audio and video files.
Notes		Create handwritten, typed or recorded notes.
Calculator		Perform basic arithmetic functions.
Tasks		Track tasks.
Pictures & Videos		Take, view and edit pictures. Record and launch video clips.
Search Phone		Search for a stored file.

Installing programs step-by-step

Step	Description
	The program must be saved on the computer.
1.	Connect the Zenius5 to the computer. Refer to Connecting the Zenius5 to a computer step-by-step .
2.	Copy the installation program to the Zenius5.
3.	Find the installation program in the File Explorer of Zenius5, run it and follow the installation instructions.
	The system generates a shortcut when the installation has completed.
4.	Click the shortcut to run the program.

Uninstalling programs step-by-step

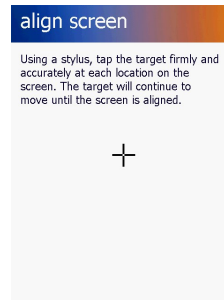
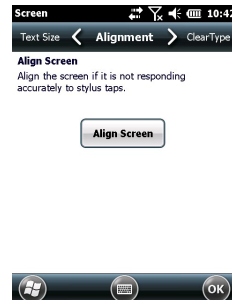
Step	Description
1.	Tap the Windows button  /Settings/System/Remove Programs .
2.	Select the program and tap Remove to start uninstalling.

Customise the screen

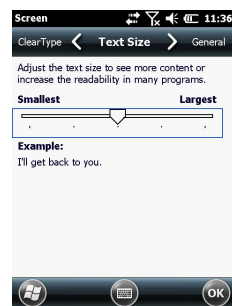
Use the Screen interface to enable Clear Type, align the screen or change the appearance of text.

Align Screen

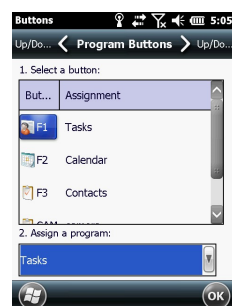
- 1) Tap the Windows button  /**Settings/System/Screen**.
- 2) Tap the **Alignment** Tab.
- 3) Tap **Align Screen** if the touchscreen does not respond to the stylus.
- 4) Follow the instructions and tap the target cross with the stylus.

**Changing the text size**

- 1) Tap the Windows button  /**Settings/System/Screen**.
- 2) Tap the **Text Size** Tab and drag the slider control to change the size of text.
- 3) Tap **OK** to confirm the setting.

**Home screen settings****Buttons**

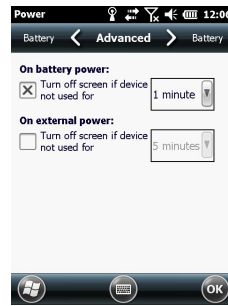
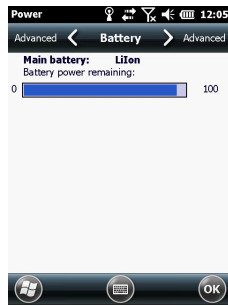
- 1) Tap the Windows button  /**Settings/Personal/Buttons**.
The Buttons screen opens.
- 2) Tap the **Program Buttons** Tab to assign the action that is performed when the left or right soft key is pressed.
- 3) Tap **OK** to confirm the setting.



Power and backlight settings

Power settings

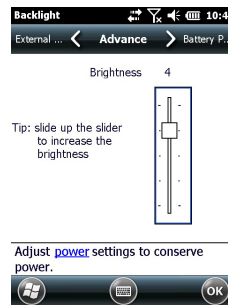
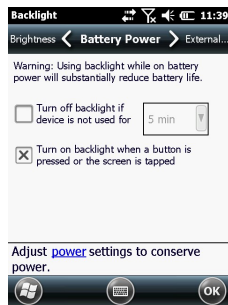
- 1) Tap the Windows button  / **Settings/System/Power** or tap the title bar and the Power icon  in the drop-down list.
- 2) Tap the **Battery** Tab and to check the battery level.
- 3) Tap the **Advanced** Tab to set the time before the Zenius5 turns of when idle.



Backlight settings

The backlight makes the screen easier to read in low light conditions but it uses extra power. To configure power-saving settings for the backlight, do the following:

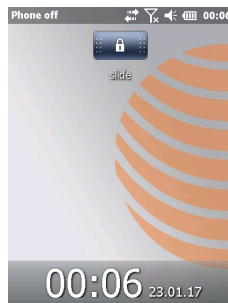
- 1) Tap the Windows button  / **Settings/System/Backlight**.
- 2) Tap the **Battery Power** Tab and switch the power-saving settings on or off.
- 3) Tap the **Advance** Tab to increase or decrease the backlight brightness.
- 4) Tap **OK** to confirm the setting.



Screen lock and pass-word settings

Screen lock

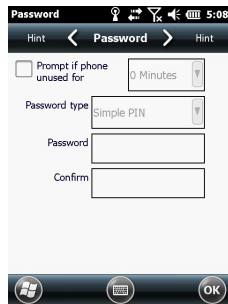
- 1) Tap the Screen lock button  on the **Start** screen.
The screen and keypad are locked while the Zenius5 remains turned on. The screen lock screen opens.
- 2) To unlock the Zenius5 slide the unlock button .



Password setting

A password helps to keep the Zenius5 data secure. To set a password, do the following:

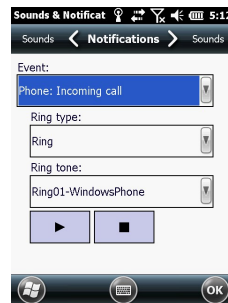
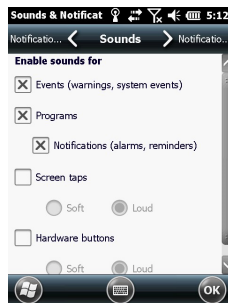
- 1) Tap the Windows button  /**Settings/Lock**.
The Password screen opens.
- 2) Choose the **Password type** and enter the password.
- 3) Enter the same password in the **Confirm** field.
- 4) Tap the **Hint** Tab to set a password hint.
- 5) Tap **OK** to confirm the setting.



Sounds and notifications settings

To set preferences for system sounds and ring tones, do the following:

- 1) Tap the Windows button  /**Settings/Sounds & Notifications**.
- 2) Tap the **Sounds** Tab to enable or disable sounds.
- 3) Tap the **Notifications** Tab to choose **Ring type** and **Ring tone**.
- 4) Tap **OK** to confirm the setting.



Date and time settings

To set date and time, do the following:

- 1) Tap the Windows button  /**Settings/Clock & Alarms** or
tap the clock icon  on the **Start** screen.
- 2) Tap the **Time** Tab to set date and time.
- 3) Tap **OK** to confirm the setting.



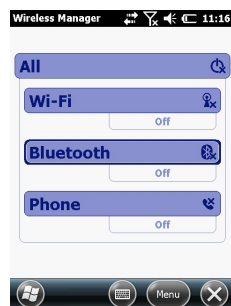
General

To use the phone, you need to set up an account with a phone network service. The functions available to you depend on the services offered by your phone network service provider and your type of subscription. Your service provider provides you a SIM card. This card contains your digital cellular phone account details. You must install the SIM card before you can make or receive phone calls or use wireless data services.

7.1.1**Phone****Switching on/off**

The phone is switched on by default when you turn on the Zenius5. To switch off the phone without turning off the Zenius5, do the following:

- 1) Tap the Windows button  **/Settings/Connections/Wireless Manager** or tap the title bar, the Connectivity icon  in the drop-down list and select **Wireless Manager**.
The Wireless Manager screen opens.
- 2) Tap **Phone** to switch on the phone. Tap **Phone** again to turn off the phone.



When the phone is switched on, you are requested to enter the PIN code provided by the phone network service. After entering the PIN code, the Zenius5 searches for the phone network service.

Phone status icons

The phone status icons are displayed in the status bar to indicate the status of phone functions.

Icon	Description	Icon	Description
	Phone off/ airplane mode		EDGE available
	Signal strength		EDGE in use
	Call in progress		WCDMA/UMTS available
	Missed call		WCDMA/UMTS in use
	Call on hold		HSPA available
	GPRS available		HSPA in use
	GPRS in use		Missing SIM card

Starting the phone program

There are 3 possibilities to start the phone program:

- Press the **Send** key on the Zenius5 keypad.
- Tap the **Phone** icon on the **Start** screen.
- Tap the Windows button  **/Phone**.



It is possible to use other programs during a call. To switch back to phone program, press the **Send** key on the Zenius5 keypad.

Call history

The call history shows time and duration of all incoming, outgoing and missed calls and a summary of total calls. Call history provides easy access to any notes taken during a call.

Access: Start the Phone program, refer to **Starting the phone program**. Tap **Call History**.

Operation	Description
Viewing call history	All calls: Displays all calls made to and from your device in a chronological order. Missed: Displays only calls that were not answered. Outgoing: Displays only calls made from your device. Incoming: Displays only calls made to your device.  Default setting for the call history view is All calls. Tap the Menu icon  to open a drop down list, then tap Filter to change call history view.
Adding an entry to contacts via call history	1) Tap and hold the entry. <i>A shortcut menu opens.</i> 2) In the shortcut menu tap Save to Contacts. 3) Tap New Contact and select a contact type. 4) Enter the name of contact and select the number type. 5) Tap Save to confirm the entry.

Speed dial

The speed dial function makes it is possible to call a number with a single key press.

Operation	Description
Creating a speed dial entry	 Speed dials can only be created for numbers stored in Contacts. 1) Start the phone program. Refer to Starting the phone program. 2) Tap Speed Dial. 3) Tap the Menu icon  to open a drop down list and select New. Select a contact to create a new speed dial entry. 4) Tap OK to confirm the new speed dial entry. <i>The new speed dial entry appears on the speed dial list. The letter on the lower right corner of the entry indicates the assigned phone number.</i>
Deleting a speed dial entry	1) Start the phone program. Refer to Starting the phone program. 2) Tap Speed Dial. 3) Select an entry and tap Delete. 4) Tap Yes to confirm the deleting.

Making and ending a call

Operation	Description
Dial a call	1) Home screen: Press the numeric keys to enter the phone number. Phone program: Enter the phone number by pressing the numeric keys of the physical or onscreen keypad. <i>While entering the phone number the Zenius5 searches contacts, call history and speed dial for a matching number.</i> 2) Press the Send key to make the call.  Use the Backspace key to erase numbers, if you enter the wrong number.  To make an international call, tap and hold the number key 0 until the + sign appears.
Make a call from onscreen list	1) Start the phone program. Refer to Starting the phone program. <i>Recent calls, speed dials and contacts are listed on the screen.</i> 2) Select a number and press the Send key to make the call.
Make a call from contacts	 Microsoft Contacts displays the contact information stored on the Zenius5 and on the SIM card. 1) Tap the Contacts icon on the Start screen. 2) Tap the contact you want to call and select the number. 3) Press the Send key to make the call.
Make a call from call history list	 The call history list contains the calls that were made, received or missed. 1) Start the phone program. Refer to Starting the phone program. 2) Tap the Call History button on the onscreen keypad. 3) Select a number from the call history list and press the Send key to make the call.
Make a call from speed dial	Press and hold the numeric key of the assigned speed dial number to make the call.
Answer a call	Press the Send key or tap Answer on the screen to answer an incoming call.

Operation	Description
Reject a call	Press the End key or tap Ignore on the screen to reject an incoming call.
End a call	Press the End key or tap End on the screen to end a call.

Operations during a call

Operation	Description
Adjusting the phone volume	Tap the speaker status icon  on the status bar and select a volume level to adjust the phone volume.
Using the mute function	Tap the Mute button on the onscreen keypad to mute the microphone. Tap the Unmute button to switch off the mute function.  If the microphone is muted, the mute icon  appears on the status bar.
Using the speaker-phone	Tap the Speaker On button on the onscreen keypad to switch on the speakerphone function. Tap the Speaker Off button to switch the function off.  If the speakerphone function is switched on, the speakerphone icon appears on the status bar.

7.1.2

Text Messages

Text messages

Text messages are automatically received when your phone is switched on.

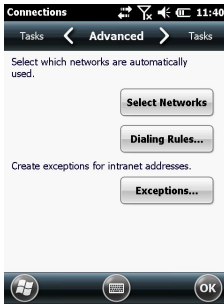
Operation	Description
Reading a text message	There are 2 different ways to open the text message list and read a text message: 1) On the Start screen: Tap on the message section, that appears, if a new message is received. 2) Tap the Windows button  / Text .
Creating and sending a text message	1) Tap the Windows button  / Text . 2) Tap Menu/New . 3) Tap To to select a phone number from Contacts or enter the phone number of one or more recipients separating them with a semicolon. 4) Enter the text message and tap Send to send it.  To quickly add common messages, tap Menu/My Text and select a message.

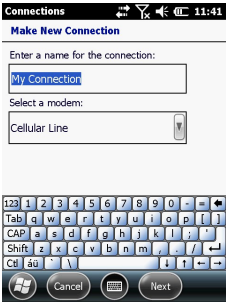
7.2

GPRS Network Setting

GPRS network setting step-by-step

GPRS is used to connect to the internet and is provided by the phone network service. To add a new GPRS connection, do the following:

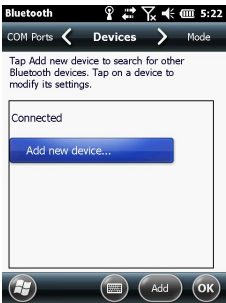
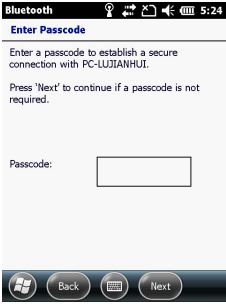
Step	Description
1.	Tap the Windows button  / Settings/Connections .
2.	Tap the Advanced Tab and tab Select Networks . 
3.	Select My ISP and tap OK to confirm the setting.

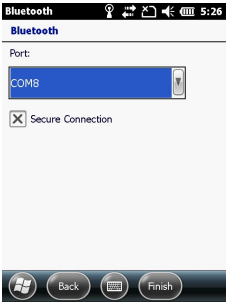
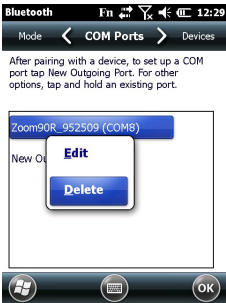
Step	Description
4.	Tap the Tasks Tab and select Add a new modem connection. The <i>Make New Connection</i> screen opens. 
5.	In the Select a modem: field select Cellular Line (GPRS). The name of access point is CMNET. Tap Next to confirm the setting.
6.	Optional: Type the User name, Password and Domain. Tap Finish to confirm the setting process.

7.3

Bluetooth Connection

Establish Bluetooth connection step-by-step

Step	Description
1.	Tap the Windows button  /Settings/Bluetooth.
2.	Tap the Devices Tab and tab Add a new device.... 
3.	Select a device to connect with and tap Next .
4.	Type a password to establish a secure connection and tap Next.  The default password is: 1234. 
5.	Back on the Bluetooth main screen, tap the COM Ports tab and select New Outgoing Port .

Step	Description
6.	Confirm the device SN and tap Next. Select a port and tap Finish to confirm the setting process.   When removing paired devices from the list, it is advised to remove any associated virtual ports first to prevent undesired behaviour. 

7.4

Wi-Fi Connection

Wi-Fi connection

Operation	Description
Turning on/off Wi-Fi radio	1) Tap the Windows button  /Settings/Wireless Manager <i>The Wireless Manager screen opens.</i> 2) Tap Wi-Fi to change the Wi-Fi radio status.  If you have previously connected to a wireless network, the Zenius5 tries to connect to the same network and display the name of the network after the connection.
Connecting to a wireless network	1) Turn on the Wi-Fi radio. Refer to Turning on/off Wi-Fi radio. <i>The Zenius5 detects available Wi-Fi networks and displays a network list.</i> 2) Select a network to connect and tap OK. If the selected network requires a network key, enter the key and tap Connect. <i>The Wi-Fi icon appears on the status bar. Refer to Wi-Fi connection status.</i>

 If the wireless network is not in use anymore, end the Wi-Fi connection by turning of the Wi-Fi radio. Leaving on the Wi-Fi radio consumes more power.

Troubleshooting

Problem	Solution
Zenius5 does not switch on when using battery power	The remaining battery power may be too low to run the Zenius5. Charge the battery, refer to Charge battery step-by-step .
Screen responds slowly	Make sure that the Zenius5 is not running out of battery power. If the problem still persists, restart your device.
Screen freezes.	Restart the Zenius5.
Cannot establish a connection with a computer via USB.	• Make sure that the Zenius5 and the computer are switched on before trying to establish a connection. • Make sure that the cable is securely plugged into the USB port on the computer and on the Zenius5. Connect the USB cable directly to your computer. Do not run the cable through a USB hub. • Restart the Zenius5 before connecting the cable. Always disconnect the Zenius5 before you restart your computer. • In some specific cases, the Zenius5 may have connection problems when it is connected to a Windows computer running ActiveSync. To resolve the problem, tap the Windows button  /Settings/Connections/USB to PC. Deselect the checkbox Enable advanced network functionality.
Warning message: Not enough memory.	• Delete files and remove programs you no longer need • Delete all files and clear history in Internet Explorer. • Stop programs you are currently not using. To check the state of active programs, tap the Windows button  /Settings/System/Task Manager • Restart the Zenius5.

9 Care and Transport

9.1 Transport

Transport in a road vehicle

Never carry the product loose in a road vehicle, as it can be affected by shock and vibration. Always carry the product in its container, original packaging or equivalent and secure it.

Shipping

When transporting the product by rail, air or sea, always use the complete original GeoMax packaging, container and cardboard box, or its equivalent, to protect against shock and vibration.

Shipping, transport of batteries

When transporting or shipping batteries, the person responsible for the product must ensure that the applicable national and international rules and regulations are observed. Before transportation or shipping, contact your local passenger or freight transport company.

9.2 Storage

Product

Respect the temperature limits when storing the equipment, particularly in summer if the equipment is inside a vehicle. Refer to "10 Technical Data" for information about temperature limits.

Li-Ion batteries

- Refer to "Technical Data" for information about storage temperature range.
- Remove batteries from the product and the charger before storing.
- After storage recharge batteries before using.
- Protect batteries from damp and wetness. Wet or damp batteries must be dried before storing or use.
- A storage temperature range of 0 °C to +30 °C / +32 °F to +86 °F in a dry environment is recommended to minimize self-discharging of the battery.
- At the recommended storage temperature range, batteries containing a 40% to 50% charge can be stored for up to one year. After this storage period the batteries must be recharged.

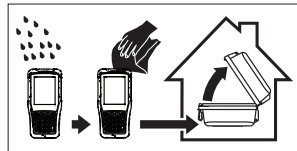
9.3 Cleaning and Drying

Product and accessories

- Use only a clean, soft, lint-free cloth for cleaning. If necessary, moisten the cloth with water or pure alcohol. Do not use other liquids; these may attack the polymer components.

Damp products

Dry the product, the transport container, the foam inserts and the accessories at a temperature not greater than 40°C/104°F and clean them. Remove the battery cover and dry the battery compartment. Do not repack until everything is dry. Always close the transport container when using in the field.



Cables and plugs

Keep plugs clean and dry. Blow away any dirt lodged in the plugs of the connecting cables.

Connectors with dust caps

Wet connectors must be dry before attaching the dust cap.

Control unit

Touch Screen:	3.7" VGA (480 x 640 pixels); Blanview Screen
Keyboard:	22 keys, including two software-specific keys
Audio:	Built-in receiver, loud-speaker and microphone
Digital camera:	5-megapixel camera with autofocus and LED flash

System

Processor:	Texas Instrument Sitara™ AM335x 1GHz
Operating System:	Windows Embedded Handheld 6.5 Professional
ROM Memory:	8 GB ROM / SD expansion to 32 GB
I/O slot:	SIM (user accessible), SD card slot
Storage:	4 GB built-in storage

Dimensions

Length [m]	Width [m]	Thickness [m]
0.193	0.091	0.042

Weight

Type	Weight [kg]
Zenius5 with battery	0.575

Recording

Data can be recorded on the USB memory stick, on an SD card or in the internal memory.

Power

Type	External supply voltage
Zenius5	Nominal voltage 5 V DC (---)

Internal battery

Type	Battery	Voltage	Capacity	Operating time, typical*
Zenius5	Li-Ion	3.7 V	7800 mAh	10 h

* Operating time depends on use of wireless communication devices.

Environmental specifications**Temperature**

Operating temperature:	-30°C to +60°C
Storage temperature:	-40°C to +80°C

Protection against water, dust and sand

IP65 (IEC60529)

Dust tight

Humidity

Protection:	5 % to 95 % The effects of condensation are to be effectively counteracted by periodically drying out the device.
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Vibration

Protection:	Withstands strong vibration during operation, compliance with MIL-STD-810G, method 514.6E-I
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Drops

Protection:	Withstands 1.2 m drop
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Interfaces

MicroUSB:	Micro A/B Connector
USB host:	USB A
Bluetooth:	Class 2
WLAN:	802.11 b/g/n
Audio:	Micro-In, Audio-Out
External antenna connector:	SMB connector

Receiver

Type	Values
Channels	72 channels
Satellite signals tracking	GPS L1 C/A SBAS L1 C/A QZSS L1 C/A GLONASS L1 C/A BeiDou: B1
Accuracy	Velocity accuracy: 0.05 m/s Heading accuracy: 0.3 degrees Position accuracy: 2.5 m
Protocol	Support RTCM 2.3, differential NMEA 0183 UBX binary, u-blox proprietary
Max. navigation update rate	5 Hz

10.1

Conformity to National Regulations

Conformity to national regulations

- FCC Part 15, 22 and 24 (applicable in US)
- Hereby, GeoMax AG, declares that the product Zenius5 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity is available from GeoMax AG.



Class 1 equipment according European Directive 1999/5/EC (R&TTE) can be placed on the market and be put into service without restrictions in any EEA member state.

- The conformity for countries with other national regulations not covered by the FCC part 15, 22 and 24 or European directive 1999/5/EC has to be approved prior to use and operation.

Frequency Band

Type	Frequency band [MHz]
Zenius5, Bluetooth	2402 ~ 2480
Zenius5, WWAN	WCDMA: HSDPA/UMTS - 800/850/900/1900/2100
	GSM: Quad-Band EDGE/GPRS/GSM - 850/900/1800/1900
	CDMA: Dual-Band EV-DO Rev. A-800/1900
Zenius5, WLAN	CE: 2412 ~ 2472
	FCC: 2412 ~ 2462

10.2

Dangerous Goods Regulations

Dangerous Goods Regulations

The products of GeoMax are powered by Lithium batteries.

Lithium batteries can be dangerous under certain conditions and can pose a safety hazard. In certain conditions, Lithium batteries can overheat and ignite.



When carrying or shipping your GeoMax product with Lithium batteries onboard a commercial aircraft, you must do so in accordance with the **IATA Dangerous Goods Regulations**.



GeoMax has developed **Guidelines** on "How to carry GeoMax products" and "How to ship GeoMax products" with Lithium batteries. Before any transportation of a GeoMax product, we ask you to consult these guidelines on our web page (<http://www.geomax-positioning.com/dgr>) to ensure that you are in accordance with the IATA Dangerous Goods Regulations and that the GeoMax products can be transported correctly.



Damaged or defective batteries are prohibited from being carried or transported onboard any aircraft. Therefore, ensure that the condition of any battery is safe for transportation.

Software Licence Agreement

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GeoMax Zenius5 Series



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