

Zenith35 First Steps

Video

https://youtu.be/M6D_NgtS8EU



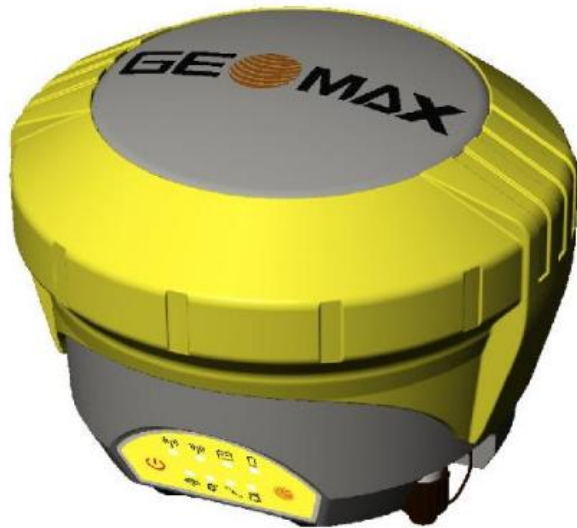
Topics

- **Introduction**
- **Z35 first steps**
 - Web interface connection
 - Firmware upgrade
 - UHF Settings
 - License installation
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- **Z35 field sw configuration**
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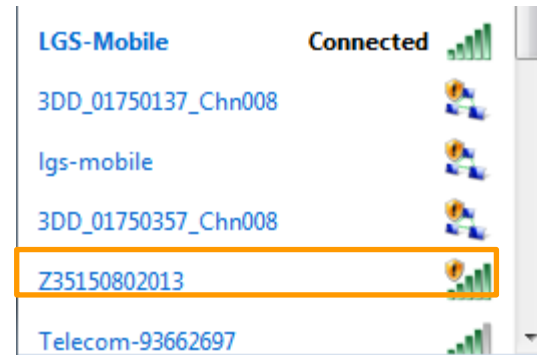
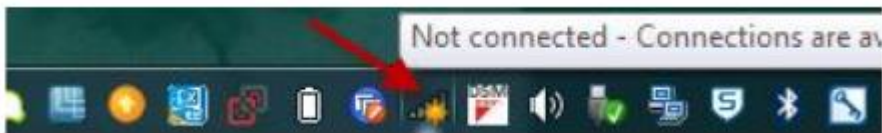
Needed equipment

- Zenith35 GNSS receiver
- Device with Wi-Fi connection (PC, smartphone, etc..) to access web interface
- Web browser (IE, Chrome, Firefox, etc..)
- GeoMax Partner area login



Web interface

- To access to the web interface the device (PC, smartphome, controller, etc..) must connect to the Z35 Wi-Fi network
- Search for Z35 Wi-Fi network (it is named with Z35 serial number)



- Connect to the Wi-Fi network and open an internet browser

Web interface

- Connect to the Wi-Fi network and open an internet browser

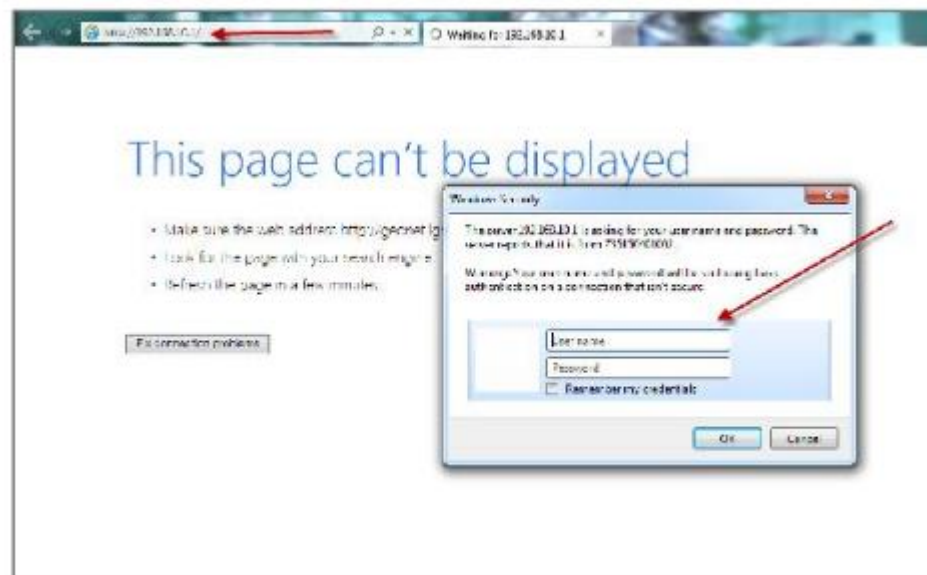


Web interface

- Once an internet browser has been opened, digit the following internet page

<http://192.168.10.1>

- A login window pops--up



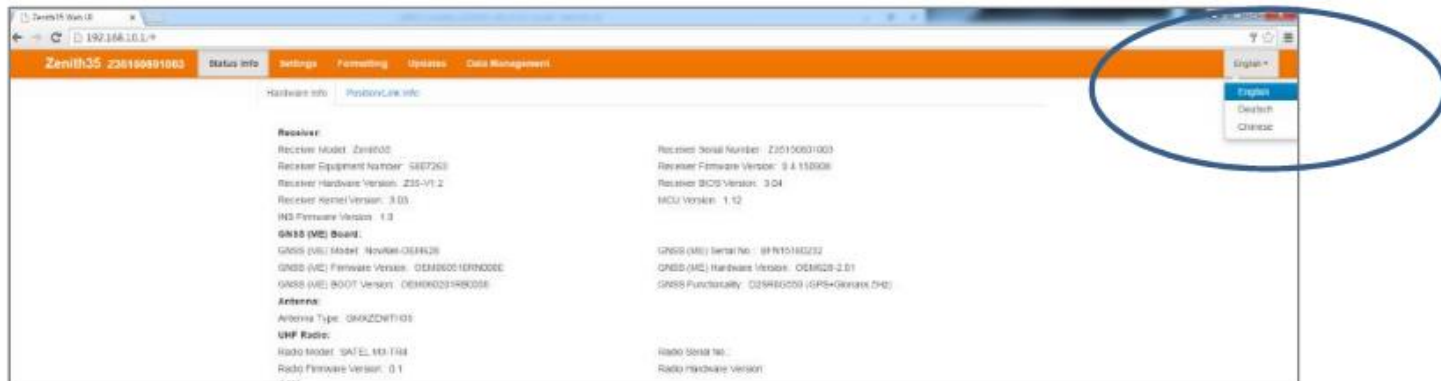
Web interface

- Default values for login are

User: admin

Password: password

- After a successful login the web interface appear
- Click on top right of the screen to change the interface language



Firmware upgrade

- Login in geomax partner area and open the folder GeoMax > GNSS > Zenith35 Series > **Firmware**
- Download the Z35 firmware file

 **Zenith35 Onboard Firmware**
2015-11-25

(v1.04) English 8 MB (BIN)

Download

- Before to upload the new one check in *Status info* – *Device info* that the firmware need to be upgraded



Receiver:

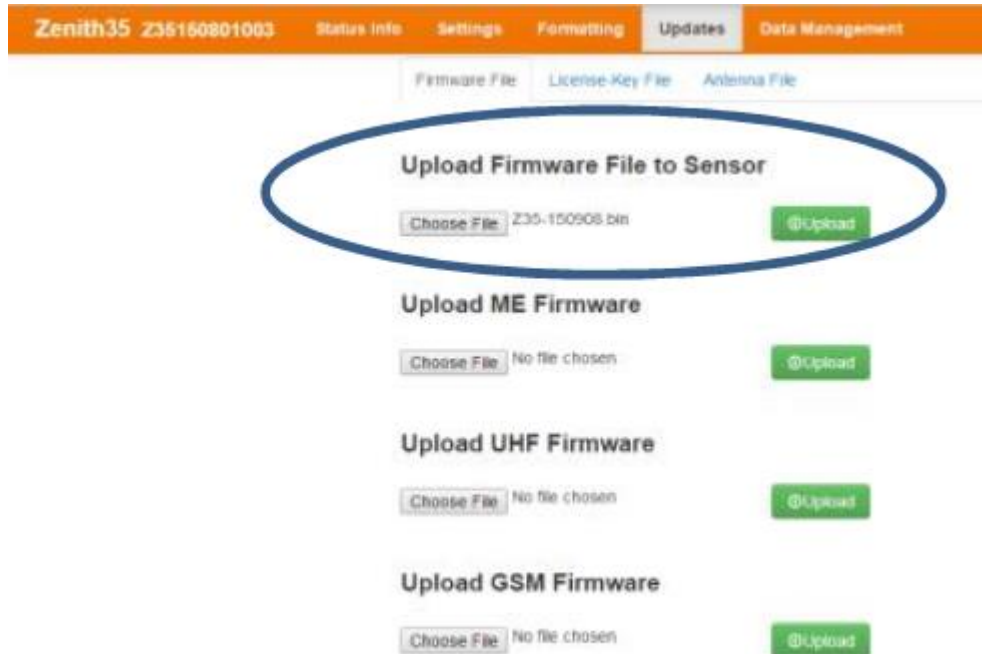
Receiver Model: Zenith35	Receiver Serial Number: Z35152001020
Receiver Equipment Number: 6107263	Receiver Firmware Version: 1.04 (11/16/15)
Receiver Hardware Version: Z35-V1.2	Receiver BIOS Version: 3.04
Receiver Kernel Version: 3.03	MOT Version: 1.12
INS Firmware Version: 1.0	

GNSS (ME) Board:

GNSS (ME) Model: NavAid-OTM020	GNSS (ME) Serial No.: 07N15110212
GNSS (ME) Firmware Version: OEM060108N000	GNSS (ME) Hardware Version: OEM828-2.01
GNSS (ME) CCOT Version: OEM002021RD000	GNSS Functionality: D2SR06550 (GPS+Glonass.BHz)

Firmware upgrade

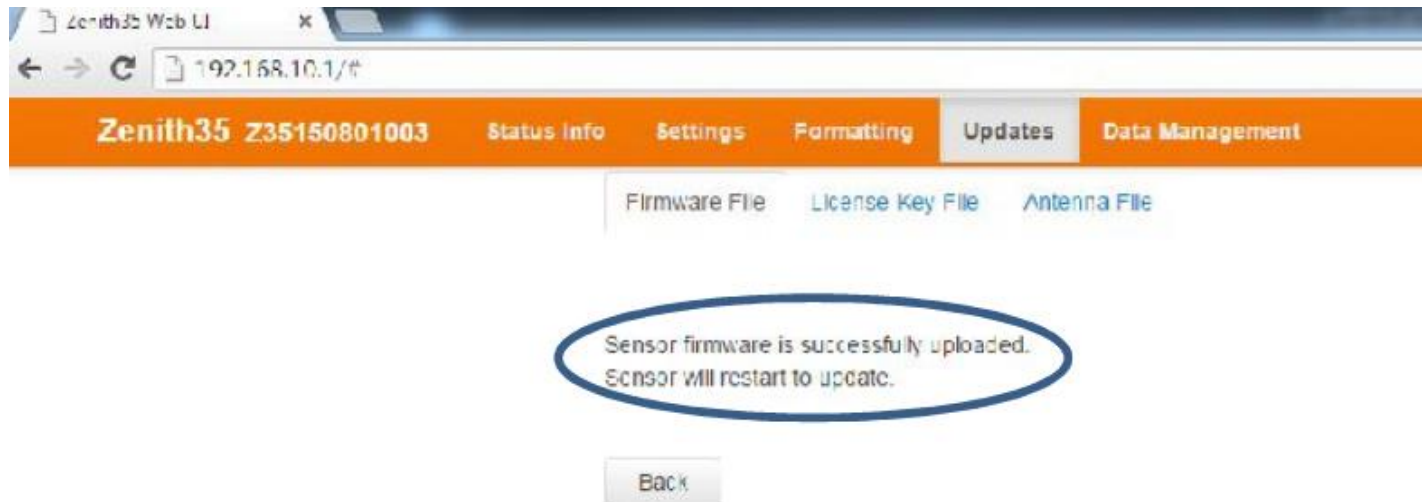
- If you need to upgrade the firmware in web interface go to Updates
- Choose the downloaded firmware from the PC and click on Upload



The screenshot displays the web interface for a Zenith35 device. The top navigation bar includes 'Zenith35 Z35160801003', 'Status Info', 'Settings', 'Formatting', 'Updates', and 'Data Management'. Below this, there are tabs for 'Firmware File', 'License-Key File', and 'Antenna File'. The main content area is titled 'Upload Firmware File to Sensor' and is circled in blue. It contains a 'Choose File' button, the text 'Z35-150908.bin', and a green 'Upload' button. Below this, there are three more sections: 'Upload ME Firmware', 'Upload UHF Firmware', and 'Upload GSM Firmware'. Each of these sections has a 'Choose File' button, the text 'No file chosen', and a green 'Upload' button.

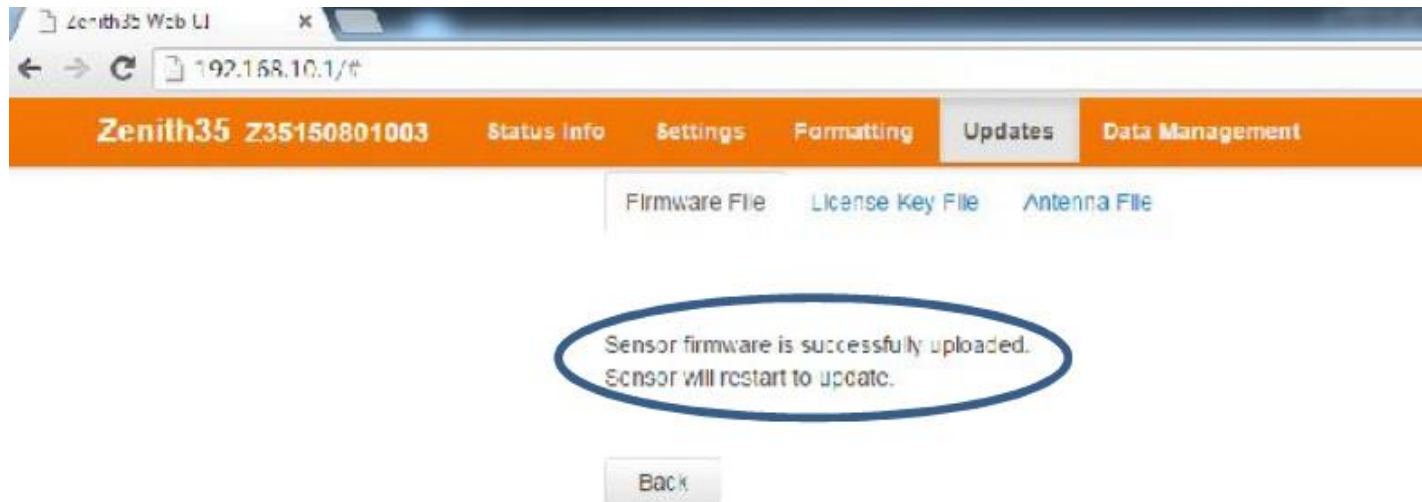
Firmware upgrade

- Accept the warning message and wait for confirmation message
- Then unit will restart




Firmware upgrade

- Accept the warning message and wait for confirmation message
- Then unit will restart



UHF Settings

- To define the UHF settings you can use the web interface
- Open the UHF settings in Settings and select UHF as real time datalink
- When you click on Advanced UHF settings you are asked to enter a password

 To meet some countries restriction UHF frequencies are protected with a password

- To proceed with the UHF settings, enter the password
config1234

UHF Settings

- When logged, enter the desired settings
 - Frequency
 - Protocol (Satel, PacCrest, Trimtalk)
 - Spacing
 - Error checking
- Press Save Settings to confirm

The screenshot displays the 'Settings' tab of a software interface. The top navigation bar includes 'Settings', 'Formatting', 'Updates', and 'Data Management'. The 'Settings' section is divided into two parts. The top part contains radio button options for 'Working Mode' (Static, RTK Rover, RTK Base), 'RTK Data Source' (UHF, GSM/GPRS, External, Bluetooth), 'Antenna Height to ARP' (0 mm), 'RTK Quality Mode' (Normal, Extra Safe RTK), and 'Raw Data Logging' (Enable, Disable). The bottom part is titled 'Radio Channel' and shows a dropdown menu set to '1' with a '441 MHz' button. Below this is an 'Advanced UHF Settings' section with input fields for Channel 1 through Channel 8 frequencies, ranging from 441 MHz to 448 MHz. A 'Restore Default Frequency' button is located below these fields. At the bottom, there are dropdown menus for 'Protocol' (set to POC GMSK), 'Channel Spacing' (set to 25), and 'FCC' (set to OFF). A green 'Save Settings' button is positioned at the bottom right of the interface.

License installation

- The following licenses are optional:
 - Beidou
 - 20Hz
 - GPS L5 frequency
- If you order an optional license you will receive a key file that need to be uploaded
- To update a license select Updates -> License key



License installation

- Select the .key file from the PC
- Click on Upload to load the license file to the receiver



A manual entry of the license is not permitted

Antenna file upload

- An antenna file is used in case you are working as rover and the base is not GeoMax.
- This don't apply if you are working in a network; the network always use ADVNULLANTENNA
- If your Z35 works as rover and the base is not a Geomax antenna, you need to know the phase center offsets of the base
- The Z35 allow to import a file that includes all the phase center offsets for all the receiver brands



It is important to verify that the antenna file has been loaded to avoid errors in fields

Antenna file upload

- Download from Geomax partner area the antenna file

 **Zenith35 Antenna-Management**
2015-11-25

(v1.04) 40 KB (ZIP)

Download

- Click on Upload – Antenna file to upload the new antenna file you have downloaded

Field software Installation

- To configure the field controller and the field software, proceed in the standard way
- Verify that the field software is the last version available and the Zenith35 firmware is upgraded
- XPAD version 2.7.000



- GeoMax Fieldgenius 8.1.15.4 and Layout 2.4.15.3



Focus on Safe mode

- With Zenith35 the user can configure the accuracy level
- On field software or on web interface is possible to activate/deactivate the **safe mode**
- When a point must be saved with maximum reliability is recommended to activate the safe mode
- Especially in difficult environments, the safe mode guarantee the best accuracy, but time to fix is increased



Focus on Safe mode

- Standard environment
 - SAFE MODE OFF and SAFE MODE ON the accuracy and the time to fix is the same
- Severe environment
 - SAFE MODE ON the accuracy is better but time to fix is increased
- In standard environment there is no different in accuracy and TTF using or not safe mode
- If working in difficult environment using safe mode I have a higher accuracy but the TTF is increased

Thanks for your attentions

Any question?

For comment/suggestion please send an email to:

webinar@geomax-positioning.com

