

# Product News

Survey / GIS

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## Z-Max.Net GPRS Operation

### Product concerned

Product Names:

**Z-Max.Net, FAST Survey**

Product Family:

**Land Survey**

### 1. PURPOSE

The GPRS operation of Z-Max.Net is very powerful but can also surprise vintage UHF users. Connecting to a GPRS / IP station is technically much more complex than connecting to a UHF station.

This product news provides some additional recommendations to take full advantage of these important and powerful features.

### 2. THE PROPER PROCEDURE

#### 2.1. Connection

FAST Survey is organized to help the operator by providing a workflow to define the connection parameters and launch the various steps of connection:

- **“Equip / Configure Rover / Port”** menu
  - o select an existing or define a new base
  - o press **OK**

Modem will start its initialisation. It will take around 90 seconds typically for the whole process: turning the modem on, initialising the modem parameters, connecting to the GPRS network.

**WAIT. DO NOT PRESS ANY BUTTON during this phase**

- Modem status turns to **READY** (modem is connected to GPRS network but not yet to the station)
- Press **Connect**
- the modem status turns to **ON-LINE** (it may take a few seconds to change the status)

Depending on the station it will take a few seconds for the first data to be delivered. The “**Communication**” LED on Z-Max front panel will blink after a few seconds. Data link can be also monitored through the **Monitor** menu

Z-Max unit “**RTK solution**” LED will be flashing from red (autonomous) to orange (float) to fixed (green).

The Z-Max unit is now operational.

## 2.2. *Disconnection*

A proper disconnection is the best way to guarantee a trouble-free future connection.

- “**Receiver utilities / GSM settings**” menu
  - o Press “**Disconnect**”
  - o Wait for the modem status to be **READY**  
The Z-Max unit is disconnected from the station but the modem is still connected to the telecom network. By pressing Connect, the unit will re-establish communication with the station
  - o Press “**Turn off**”

The whole Z-Max.Net unit is in a proper configuration to start a new connection.

## 3. **GSM/GPRS STATUS SUMMARY**

- **OFF**: modem is turned off
- **ON**: modem is powered. It is not connected to the GPRS network
- **READY**: modem is connected to the GPRS network
- **ON-LINE**: modem (and Z-Max) is connected to the station
- **DIALING**: first attempt to establish data connection to the station failed and Z-Max is trying to connect again

## 4. **DO NOT**

- **re-enter Configure Rover menu and Press OK when the unit is already in operation**: you are attempting an additional connection. This will fail and put your system in a intermediate non-operational configuration. Z-Max unit will still be connected to the station and the unit will still be operational. However data communication between the internal CPU and the communication modem may not be available.
- **Forget to disconnect before turning modem OFF**
  - o This will leave the station port hanging. Nobody will be able to connect to this port until it is released by the server.
  - o The Z-Max unit CPU is at that time exchanging data with the communication module. At the next turn-on / connection all necessary virtual ports may not have been released and will therefore not be available.

## 5. WHAT TO DO IN CASE OF ANOMALIES

The following list is not exhaustive but can be used as a guideline to understand the Z-Max.Net unit status and identify the next best course of action.

- **DIALING**
  - o Cause
    - The station is not responding to connection attempt
  - o Possibilities
    - Server / port access problem
  - o Actions
    - Wait for the Connexion screen to be available again. Do not press any button during this time
    - Press connect again
    - If the error message appears again, verify that the server is available. Turn off the modem and the Z-Max.Net unit properly
  
- **Modem Initialization error**
  - o Cause
    - The modem could not be properly initialised
  - o Possibilities
    - Data link between CPU and modem was not available
  - o Actions
    - Go to Receiver utilities / GSM settings
    - Turn-off the modem
    - Try to connect again

If the error message appears again, on unit's front panel SETTINGS menu

    - Reset memory
    - Reset to factory default
    - Turn-off the unit before starting again
  
- **GPRS session failed**
  - o Cause
    - The modem could not get into the GPRS telecom network
  - o Possibilities
    - SIM not properly inserted
    - Wrong SIM card credentials (APN Server / User name / Password)
    - GPRS network not available

- Actions
  - In Receiver Utilities / GSM modem, turn-off the modem
  - Check the SIM card is properly inserted
  - Check / re-enter the SIM card credentials

## **6. CUSTOMER NOTIFICATION**

All RSMs will receive this Product Marketing Update for information on their channels / customers.