



Terminals Manual

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SAFETY INSTRUCTIONS

- When using the device, make sure to follow the legal regulations and local restrictions.
- Do not use the device in hospitals as this may impair the function of medical devices; eg. near pacemakers or hearing aids.
- Read this manual carefully before installation, commissioning and use.
- Do not use the device in an aircraft.
- Do not use the machine near gas stations, chemical plants or in areas where explosives are handled and explosion hazards areas. The device may interfere with some devices.
- The device may cause interference in the vicinity of televisions, radios, and personal computers.
- Use only recommended accessories to prevent damage to the equipment, property, health and violation of relevant provisions. These recommended accessories have been tested and work with the device. However, the warranty does not cover these accessories.
- We recommend that you make a copy or backup of all important settings stored on your SIM card.
- Do not open the device. Only SIM card replacement is allowed. To change the SIM card, see the User's Guide.
- Attention! Keep out of reach of small children who could swallow the SIM card.
- Do not expose the device to extreme environmental conditions. Protect it from dust, moisture, liquid or foreign matter leakage and extreme temperatures.
- Under no circumstances should the voltage on the power connector be exceeded.
- The manufacturer is not responsible for defects caused by using this device in contradiction with the instruction manual!

CONTENTS OF PACKAGE

BGS3 GPRS Terminal / BGS3 GPRS Terminal USB

1. 1 pc BGS3 GPRS Terminal / BGS3 GPRS Terminal USB
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

BGS5 GPRS Terminal JAVA Terminal / EHS5 HSPA JAVA Terminal / EHS6 JAVA Terminal

1. 1 pc BGS5 GPRS JAVA Terminal
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

EGS5 GPRS JAVA Terminal / EGS5 GPRS JAVA Terminal USB

1. 1 pc GS5 GPRS JAVA Terminal / EGS5 GPRS JAVA Terminal USB
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

EES3 EDGE Terminal / EES3 EDGE Terminal USB

1. 1 pc ES3 EDGE Terminal / EES3 EDGE Terminal USB
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

PHS8 HSPA+ Terminal

1. 1 pc PHS8 HSPA+ Terminal
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

PHS8-P HSPA+ Terminal audio

1. 1 pc PHS8-P HSPA+ Terminal audio
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

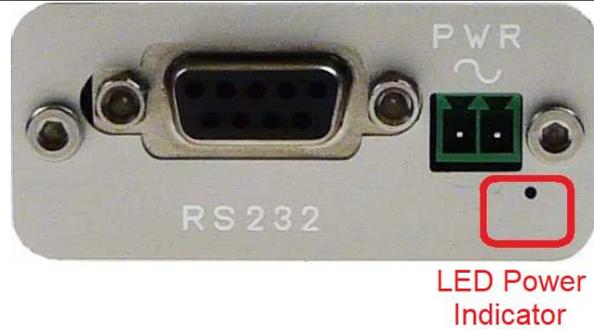
PLS8 LTE Terminal / PLS8 R.2.1 LTE Terminal / PLS8 R.3 LTE Terminal

1. 1 pc PLS8 LTE Terminal
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

ELS61 LTE JAVA Terminal USB

1. 1 pc ELS61 LTE Terminal
2. 1 pc rail mounting bracket DIN 35 mm with a screw
3. 1 pc 2-pin terminal strip MRT9
4. 1 pc Warranty list

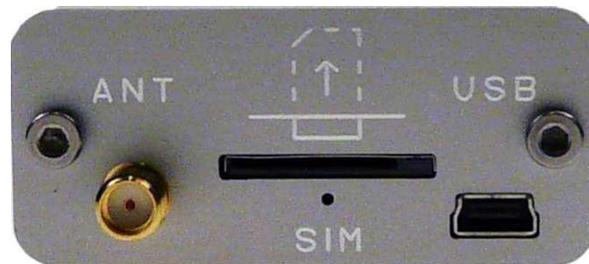
BGS3 GPRS Terminal, EGS5 GPRS JAVA Terminal, EES EDGE Terminal



RS232 – Connector for terminal connection via RS232

PWR ~ – Power connection terminals 8 – 30 V AC/DC (polarity does not matter)

LED power diode – LED diode that indicates the power status, it lights up green when the device is turned on



ANT – Antenna for GSM signal reception

SIM – SIM card slot

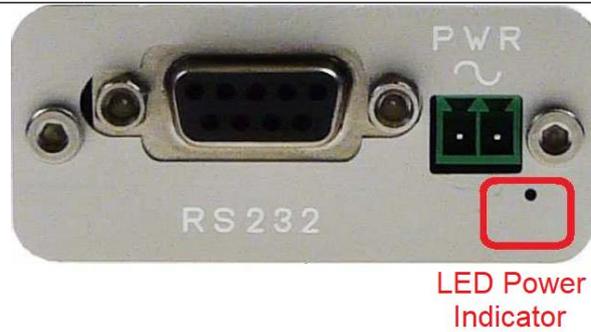
LED diode SIM – 1:1 – terminal not logged into GSM network
 – 1:9 – terminal is registered into GSM network

USB – USB connector for computer connection

– In the case of the terminal with „USB“ in the name, the terminal can also be powered via the USB port

Name	BGS3 GPRS Terminal BGS3 GPRS Terminal USB	EGS5 GPRS Java Terminal EGS5 GPRS Java Terminal USB	EES3 EDGE Terminal EES3 EDGE Terminal USB
GSM module	Gemalto M2M GmbH - Cinterion BGS3	Gemalto M2M GmbH - Cinterion EGS5	Gemalto M2M GmbH - Cinterion EES3
Frequency bands GSM	850/900/1800/1900 MHz	850/900/1800/1900 MHz	850/900/1800/1900 MHz
Communication speed(kbps)	85,6/42,8	85,6/85,6	236,8/236,8
User interface	RS-232, USB	RS-232, USB	RS-232, USB
Operating temperature	-20°C up to +55°C	-20°C up to +55°C	-20°C up to +55°C
Operating temperature	-40°C up to +85°C	-40°C up to +85°C	-40°C up to +85°C
Power voltage	8 – 30 V AC/DC, USB	8 – 30 V AC/DC, USB	8 – 30 V AC/DC, USB
Power consumption	1 W / 3.5 W (receive / transmit)	1 W / 3.5 W (receive / transmit)	1 W / 3.5 W (receive / transmit)
Antenna connector	SMA(f) 50 Ohm	SMA(f) 50 Ohm	SMA(f) 50 Ohm
Dimensions	25 x 54 x 97 mm	25 x 54 x 97 mm	25 x 54 x 97 mm
Mounting	DIN rail 35 mm	DIN rail 35 mm	DIN rail 35 mm
Weight	105 g	105 g	105 g

BGS5 GPRS JAVA Terminal USB, EHS5 HSPA JAVA Terminal, EHS6 JAVA Terminal

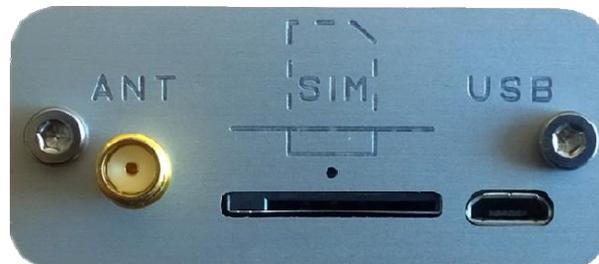


LED Power Indicator

RS232 – Connector for terminal connection via RS232

PWR ~ – Power connection terminals 8 – 30 V AC/DC (polarity does not matter)

LED power diode – LED diode that indicates the power status, it lights up green when the device is turned on



ANT – Antenna for GSM signal reception

SIM – SIM card slot

LED diode SIM – 1:1 – terminal not logged into GSM network
 – 1:9 – terminal is registered into GSM network

USB – USB connector for computer connection

– In the case of the terminal with „USB“ in the name, the terminal can also be powered via the USB port

Name	BGS5 GPRS Java Terminal	EHS5 HSPA Java Terminal	EHS6 Java Terminal
GSM module	Gemalto M2M GmbH - Cinterion BGS5	Gemalto M2M GmbH - Cinterion EHS5	Gemalto M2M GmbH - Cinterion EHS6
Frequency bands GSM	850/900/1800/1900 MHz	850/900/1800/1900 MHz	850/900/1800/1900 MHz
Communication speed(kbps)	85,6/42,8	85,6/85,6	236,8/236,8
User interface	RS-232, USB	RS-232, USB	RS-232, USB
Operating temperature range	-20°C up to +55°C	-20°C up to +55°C	-20°C up to +55°C
Operating temperature range	-40°C up to +85°C	-40°C up to +85°C	-40°C up to +85°C
Power voltage	8 – 30 V AC/DC, USB	8 – 30 V AC/DC, USB	8 – 30 V AC/DC, USB
Power consumption	1 W / 3.5 W (receive / transmit)	1 W / 3.5 W (receive / transmit)	1 W / 3.5 W (receive / transmit)
Antenna connector	SMA(f) 50 Ohm	SMA(f) 50 Ohm	SMA(f) 50 Ohm
Dimensions	25 x 54 x 97 mm	25 x 54 x 97 mm	25 x 54 x 97 mm
Mounting	DIN rail 35 mm	DIN rail 35 mm	DIN rail 35 mm
Weight	105 g	105 g	105 g

PHS8 HSPA+ Terminal, PHS8-P HSPA+ Terminal Audio



- RS232 – Connector for terminal connection via RS232
- + - – Power connection terminals 8 – 30 V DC (polarity must correspond to the engraving)
- GSM – LED is inactive after the device is switched on; function can be set by command AT^SLED (option cannot be saved)
- SIM – SIM card slot
- PWR – LED diode that indicates the power status, it lights up green when the device is turned on

PHS8 HSPA+ Terminal



PHS8-P HSPA+ Terminal Audio



- USB – USB connector for connection to computer
- GSM – Main Antenna for GSM signal reception
- GPS – Antenna for GPS reception
- DIV – Diversity antenna to improve GSM signal
- REP – Speaker output
- MIC – Microphone input

Name	PHS8 HSPA+ Terminal	PHS8-P HSPA+ Terminal Audio
GSM module	Gemalto M2M GmbH - Cinterion PHS8-E	Gemalto M2M GmbH - Cinterion PHS8-P
Frequency bands GSM	900/1800/2100 MHz	800/850/900/1800/1900/2100 MHz
Communication speed(Mbps)	14,4/5,76	14,4/5,76
User interface	RS-232, USB	RS-232, USB
Operating temperature range	-20°C up to +55°C	-20°C up to +55°C
Operating temperature range	-40°C up to +85°C	-40°C up to +85°C
Power voltage	8 – 30 V DC	8 – 30 V DC
Power consumption	1 W / 3.5 W (receive /	1 W / 3.5 W (receive / transmit)
Antenna connector	SMA(f) 50 Ohm	SMA(f) 50 Ohm
Dimensions	25 x 54 x 97 mm	25 x 54 x 97 mm
Mounting	DIN rail 35 mm	DIN rail 35 mm
Weight	110 g	118 g

PLS8 LTE Terminal, PLS8 Rel.2.1 LTE Terminal, PLS8 Rel.3 LTE Terminal



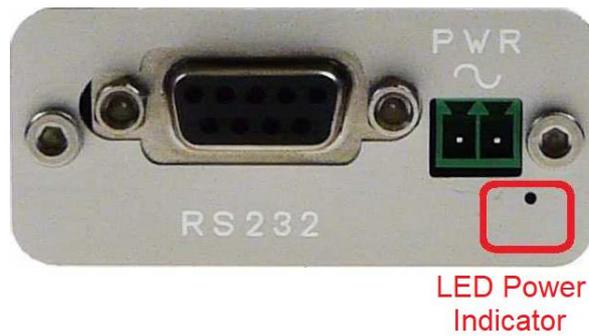
- GSM – LED is inactive after the device is switched on; function can be set by command AT^SLED (option cannot be saved)
- SIM – SIM card slot
- + - – Power connection terminals 8 – 30 V DC PWR (polarity must correspond to the engraving)
- LED power diode – LED diode that indicates the power status, it lights up green when the device is turned on



- USB – USB connector for connection to computer
- GSM – Main antenna for GSM signal reception
- GPS – Antenna for GPS reception
- DIV – Diversity antenna to improve GSM signal

Name	PLS8 LTE Terminal	PLS8 Rel.2.1 / Rel.3 LTE Terminal
GSM module	Gemalto M2M GmbH - Cinterion PLS8	Gemalto M2M GmbH - Cinterion PLS8 Rel.3
Frequency bands GSM	800/900/1800/2100/2600 MHz	800/900/1800/2100/2600 MHz
Communication speed(Mbps)	100/50	100/50
Frequency bands GPS	-	-
User interface	USB	RS-232 / USB
Operating temperature range	-20°C up to +55°C	-20°C up to +55°C
Operating temperature range	-40°C up to +85°C	-40°C up to +85°C
Power voltage	8 – 30 V DC	8 – 30 V DC
Power consumption	1 W / 3.5 W (receive / transmit)	1 W / 3.5 W (receive / transmit)
Antenna connector	SMA(f) 50 Ohm	SMA(f) 50 Ohm
Dimensions	25 x 54 x 97 mm	25 x 54 x 97 mm
Mounting	DIN rail 35 mm	DIN rail 35 mm
Weight	98 g	110 g

ELS61 LTE JAVA Terminal USB



RS232 – Connector for terminal connection via RS232

PWR ~ – Power connection terminals 8 – 30 V AC/DC (polarity does not matter)

LED power diode – LED diode that indicates the power status, it lights up green when the device is turned on



ANT – Antenna for GSM signal reception

SIM – SIM card slot

DIV – Diversity antenna to improve GSM signal

LED diode SIM – 1:1 – terminal not logged into GSM network

– 1:9 – terminal is registered into GSM network

USB – USB connector for computer connection

– In the case of the terminal with „USB“ in the name, the terminal can also be powered via the USB port

Name	ELS61 LTE Terminal USB
GSM module	Gemalto 2M GmbH - Cinterion ELS61
Frequency bands GSM	850/900/1800/1900/2100/2600 MHz
Communication speed(kbps)	100/50
User interface	RS-232 / USB
Operating temperature range	-20°C up to +55°C
Operating temperature range	-40°C up to +85°C
Power voltage	8 – 30 V DC
Power consumption	1 W / 3.5 W (receive / transmit)
Antenna connector	SMA(f) 50 Ohm
Dimensions	25 x 54 x 97 mm
Mounting	DIN rail 35 mm
Weight	102 g

Optional Terminal Accessories



Type of accessory	Name	Code
Adapters and voltage sources	Source 12V / 1A, no connector, free end Source 12V / 1A, free end Source 12V / 2,08A, industrial Source 12V / 1,7A, DIN Backup battery 12 V DC/12 V	AM-RT-FPOWER AO-PWR-1201 AO-PWR2512I AM-RT-DPOWER AM-T-BPACK
Data cable	RS232 to USB (converter) RJ45 to RS232 USB to mini USB RS232 to RS232	AM-35T-USRS AM-67-RSRJ45 XAM-75T-USUS XAM-75T-RS02
Antenna GSM / UMTS / LTE	GSM/UMTS Stick 90/180, 2 dBi GSM/UMTS Magnetic 90, 9dBi GSM Mounting, Quad-band And many more...	AO-AGSM-TG09 AO-AGSM-MG9S10 AO-AGSM-CAPS25
Antenna GPS / GLONASS	GNSS (GPS/GLONASS) Magnetic GPS Adhesiv 30, SMA(m) GPS Mounting 32, SMA(m) And many more...	AP-AGNSS-SMA AP-AGPS-30S AP-AGPS-CAP
Optional accessories	DIN Bracket - DIN Rail Mount MRT Connector - Terminal Strip Strip Distribution Box - Complete Set Distribution Box - Enclosure Only Housing lid - metal Housing lid - plastic Mounting kits, caps, goretex membranes And many more...	XWAGO-209120 AM-RT-MPOWER AO-MK67-AC01 GTT-ACC-P016-AC03-M AL-COVER-AC-M GTT-ACC-P007-ACP-M GLBAC-WALLMOU-SECC-M R-14-0016-M

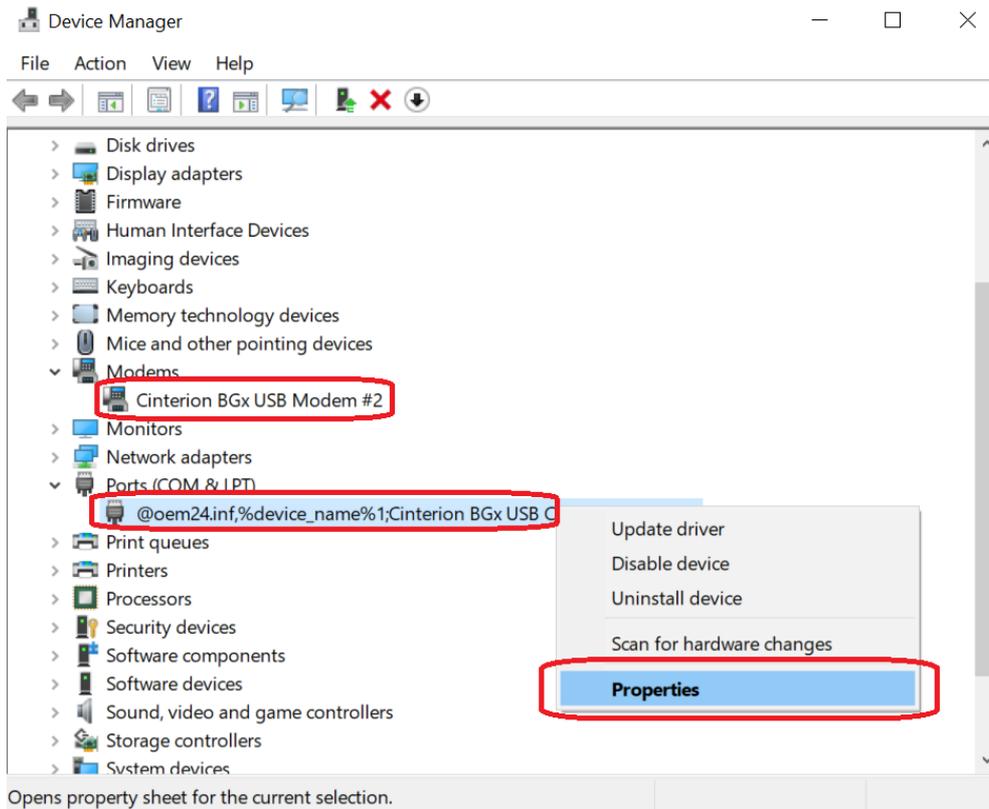
Terminal connection to PC and its operation

This manual is universal for all mentioned terminals and modems. The manual is written with regard to users with basic knowledge of the issue.

- 1) Unpack the device and connect the antenna (s) properly.
- 2) Insert an activated SIM card that has the PIN code and voicemail deactivated.
- 3) Connect the power supply.
- 4) Connect the RS-232 or USB data cable.
- 5) Follow the connection instructions.

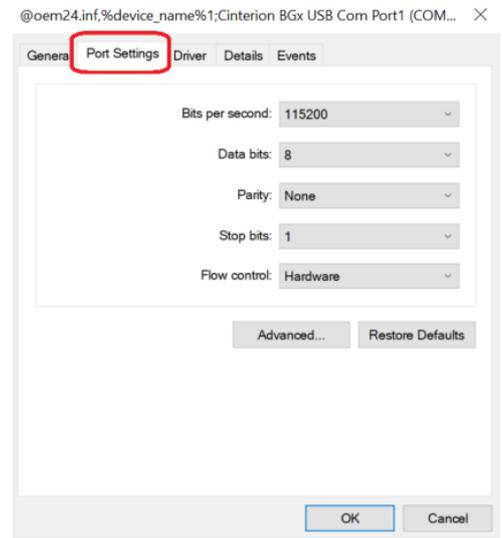
CONNECTION TO PC VIA RS-232

- 1) Connect the serial cable to the terminal and a PC
- 2) In Windows OS go to:
Start -> **Control Panels** -> System -> **Device Manager**.
- 3) In the Ports (COM & LPT) tab
Select the COM port to corresponding to your terminal. Right click the COM port -> Properties -> Port Settings tab



4) Here you can setup the properties:

Bits per second	115200
Data bits	8
Parity	None
Stop bits	1
Flow control	Hardware

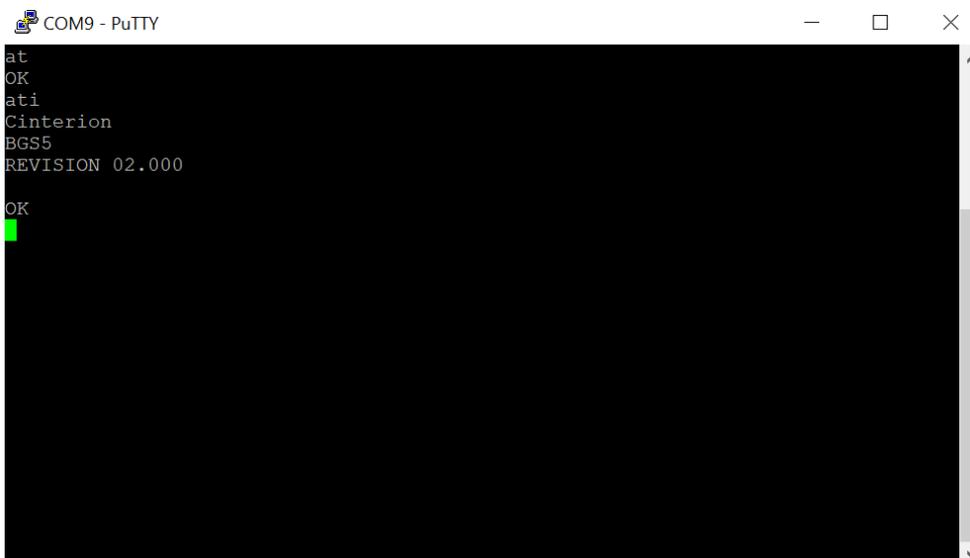
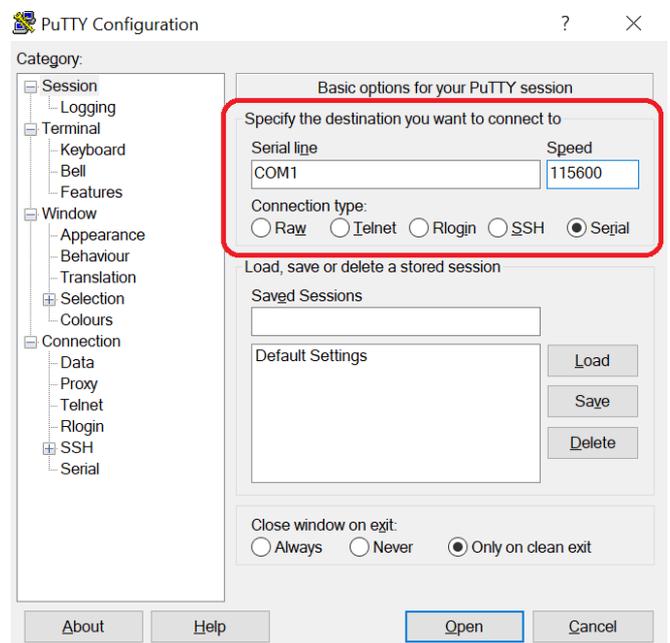


Warning software hyperterminal is not the part of the package! It is also not a part of a regular operating system and must be additionally installed. The recommended software are PuTTY, ZOC terminal etc.

5) If you selected PuTTY, the session options must be same as the ones in the device.

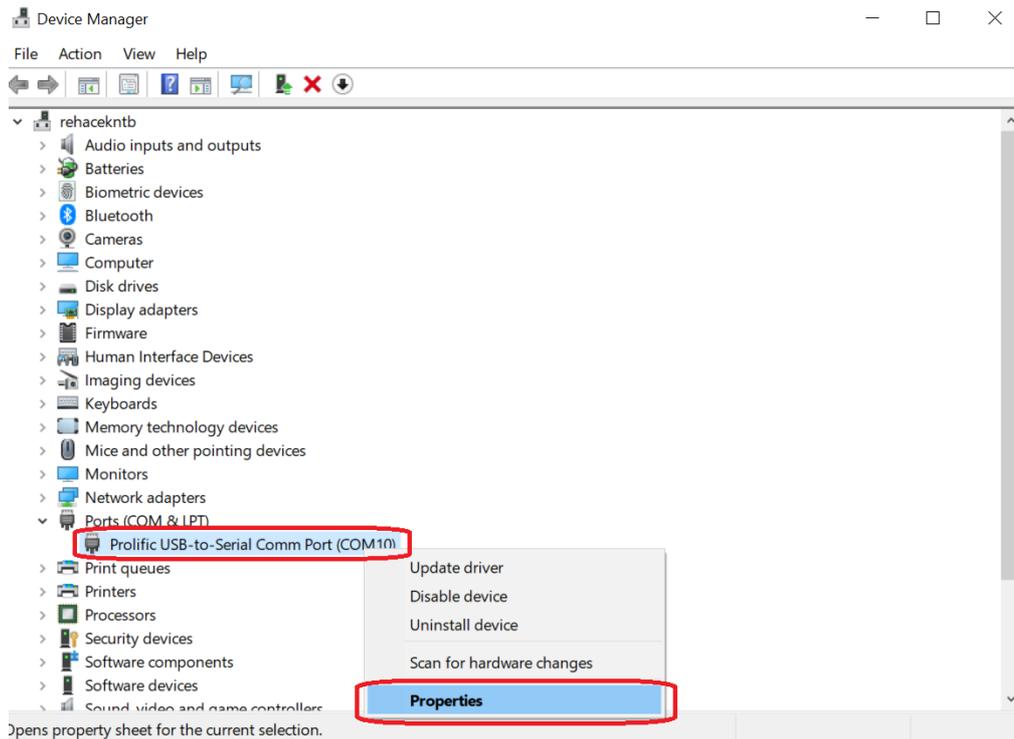
The important part is COM port, which serves for communication with the terminal.

6) After clicking the Open button, you reach the console window. You can now test the correct connection using AT commands AT and ATI. The device responds with OK and its Firmware version.



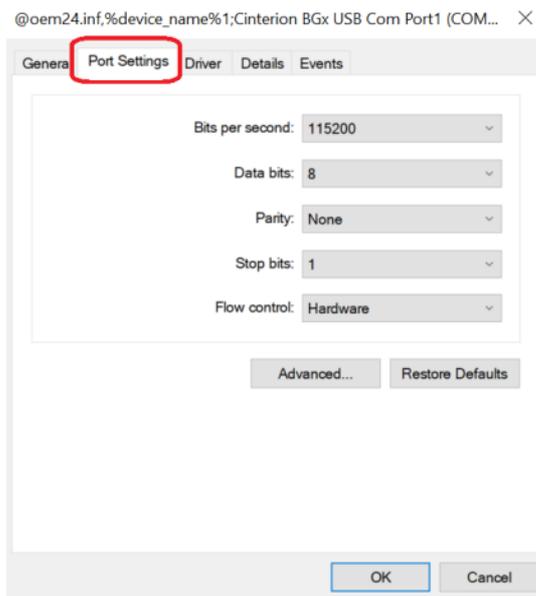
CONNECTING TO PC VIA RS-232 USING A USB ADAPTOR

- 1) Connect serial cable with adaptor for USB to terminal and to PC.
- 2) Install the adaptor's driver
- 3) In Windows OS, go to:
Start -> **Control panels** -> System -> **Device manager**.
- 4) In "Ports (COM & LPT)" tab
Select the COM port to corresponding to your terminal. Right click the COM port -> Properties -> Port Settings tab



5) Setup the following:

Bits per second	115200
Data bits	8
Parity	None
Stop-bits	1
Flow control	Hardware

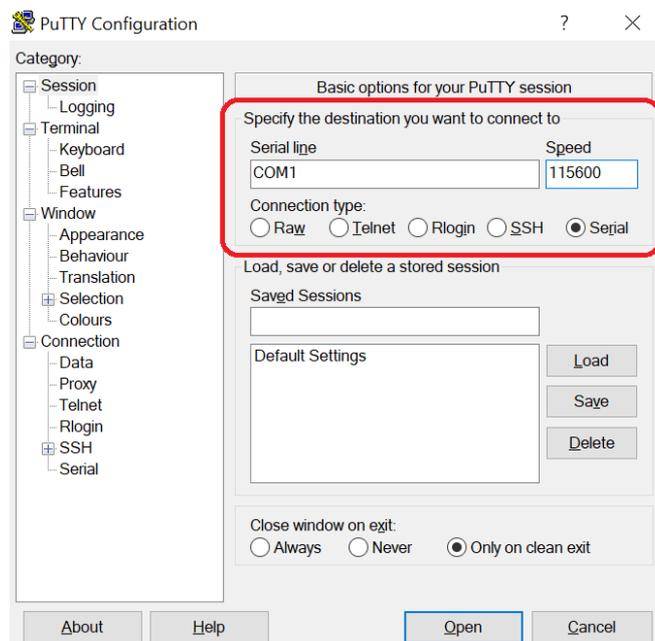


Warning software hyperterminal is not the part of the package! It is also not a part of a regular operating system and must be additionally installed. The recommended software are PuTTY, ZOC terminal etc.

- 6) If you selected PuTTY, the session options must be same as the ones in the device.

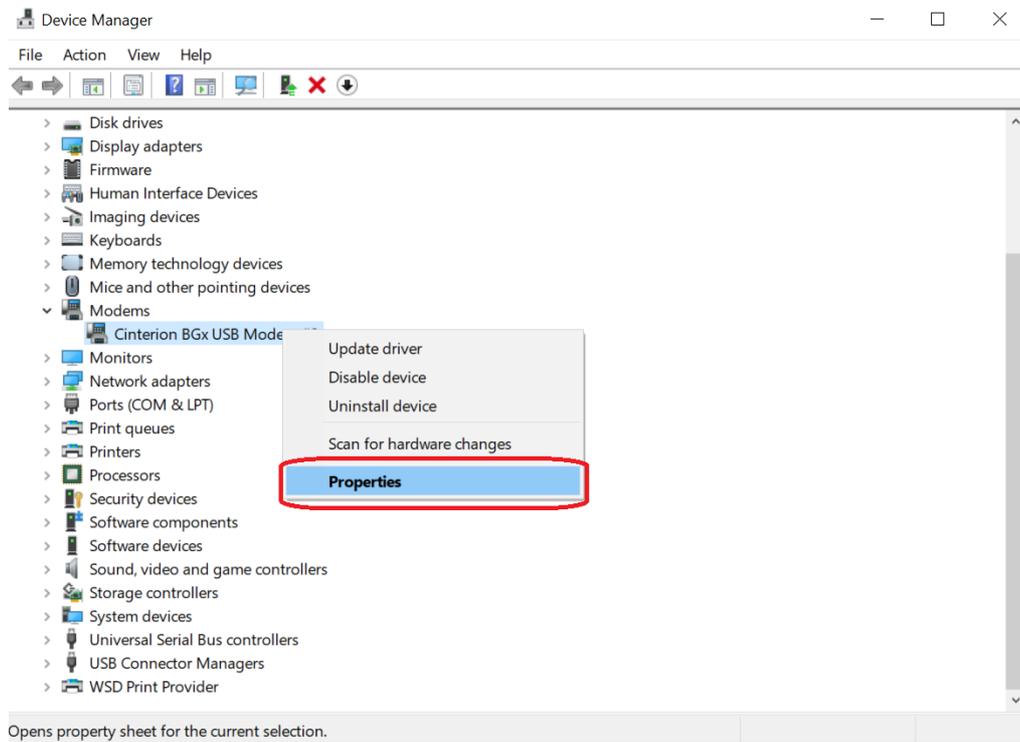
The important part is COM port, which serves for communication with the terminal.

- 7) After clicking the Open button, you reach the console window. You can now test the correct connection using AT commands AT and ATI. The device responds with OK and its Firmware version.



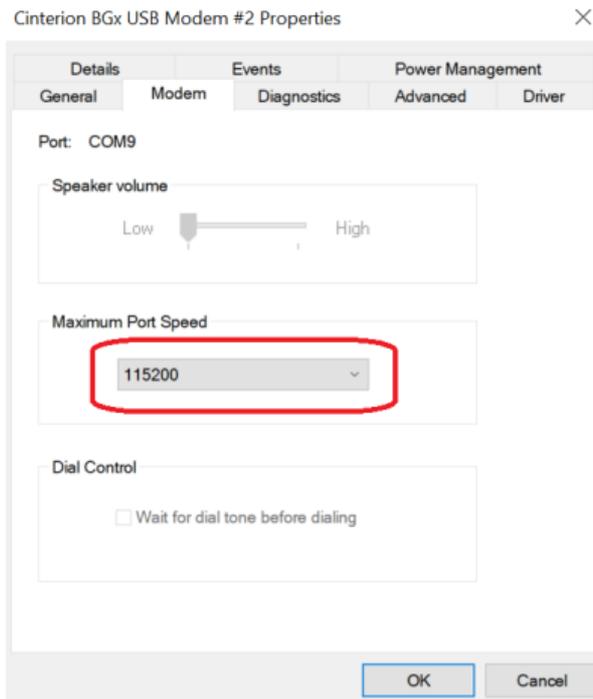
CONNECTION TO PC VIA USB

- 1) Connect the USB cable to the terminal and to PC.
- 2) **Install the drivers for your terminal.**
If you do not have a driver in your disposal, you can request it at hotline@sectron.cz
- 3) In Windows OS, go to:
Start -> **Control panels** -> System -> **Device manager**.
- 4) This step depends on your device. The following example shows steps for connecting to BGS5 terminal. The steps should still be similar with slight variations.



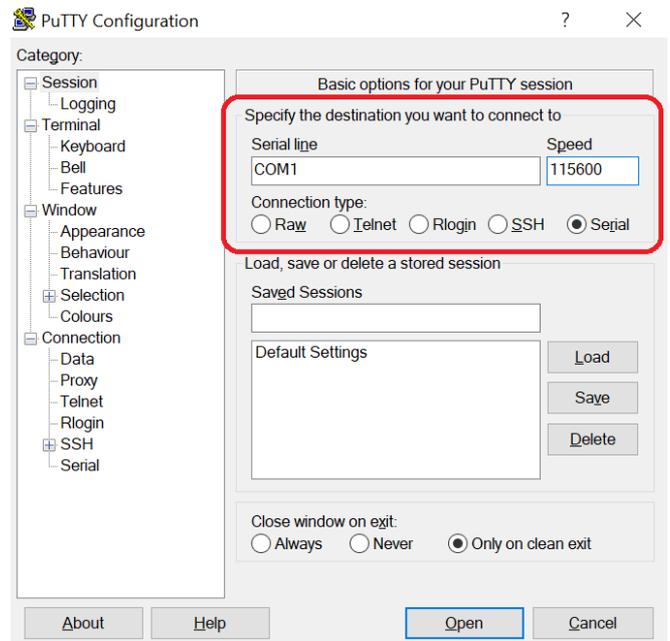
5) Checking the parameters.

Change the COM port speed can be done in properties -> Modem -> Maximum Port Speed. Set up the port speed 115200.



Warning software hyperterminal is not the part of the package! It is also not a part of a regular operating system and must be additionally installed. The recommended software are PuTTY, ZOC terminal etc.

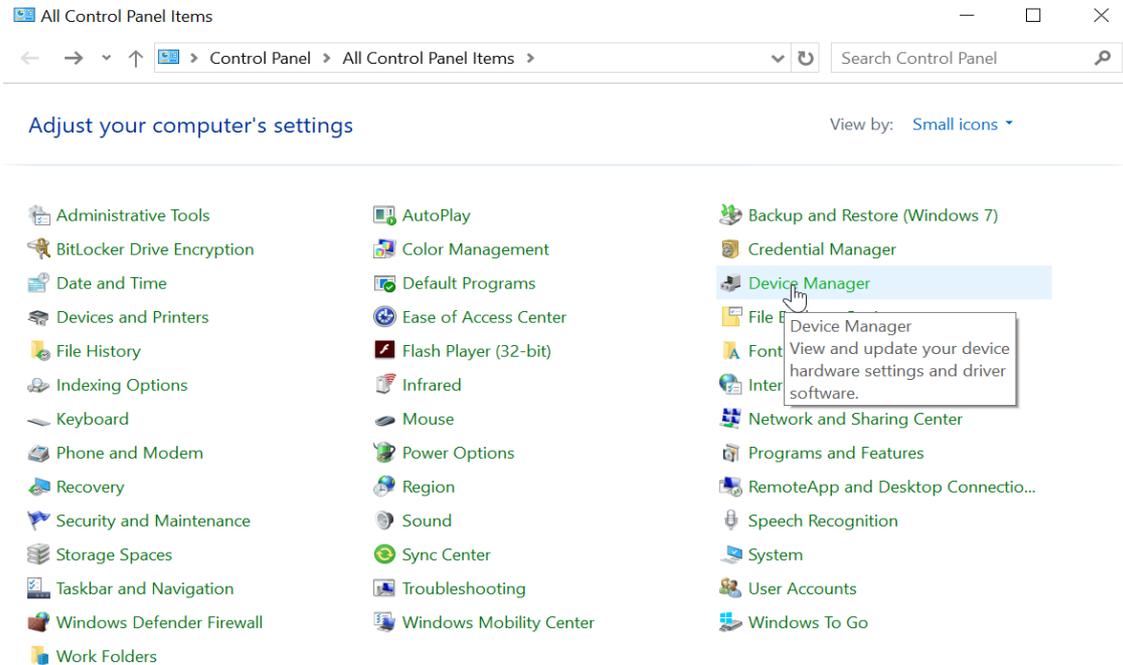
- 6) If you selected PuTTY, the session options must be same as the ones in the device.
The important part is COM port, which serves for communication with the terminal.
- 7) After clicking the Open button, you reach the console window. You can now test the correct connection using AT commands AT and ATI. The device responds with OK and its Firmware version.



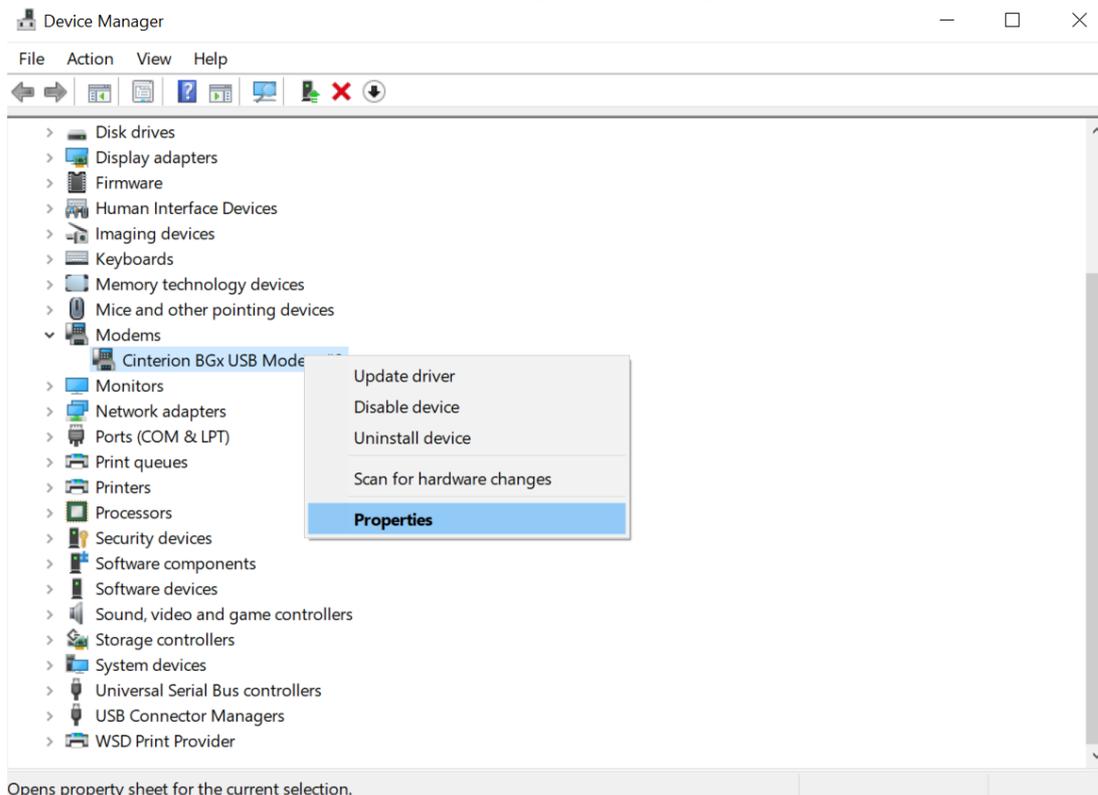
Using the terminal as modem

A quick guide for how to use the data connection of the terminal to connect to the internet. For this type of connection, a data-enabled SIM card. Please contact your operator for more information if necessary.

- 1) Now go to start -> control panels -> device manager.

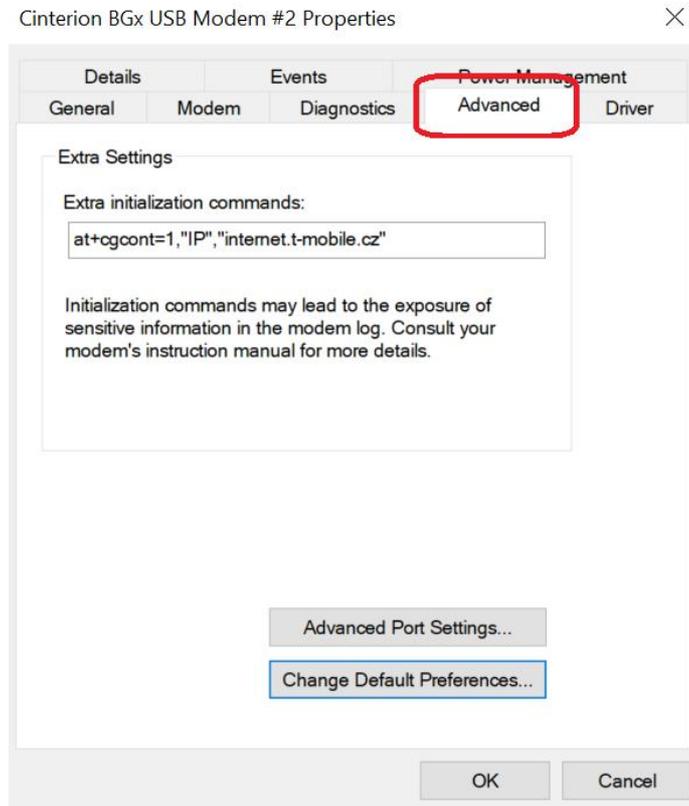


- 2) In the Modems tab, select the corresponding modem -> right click -> properties

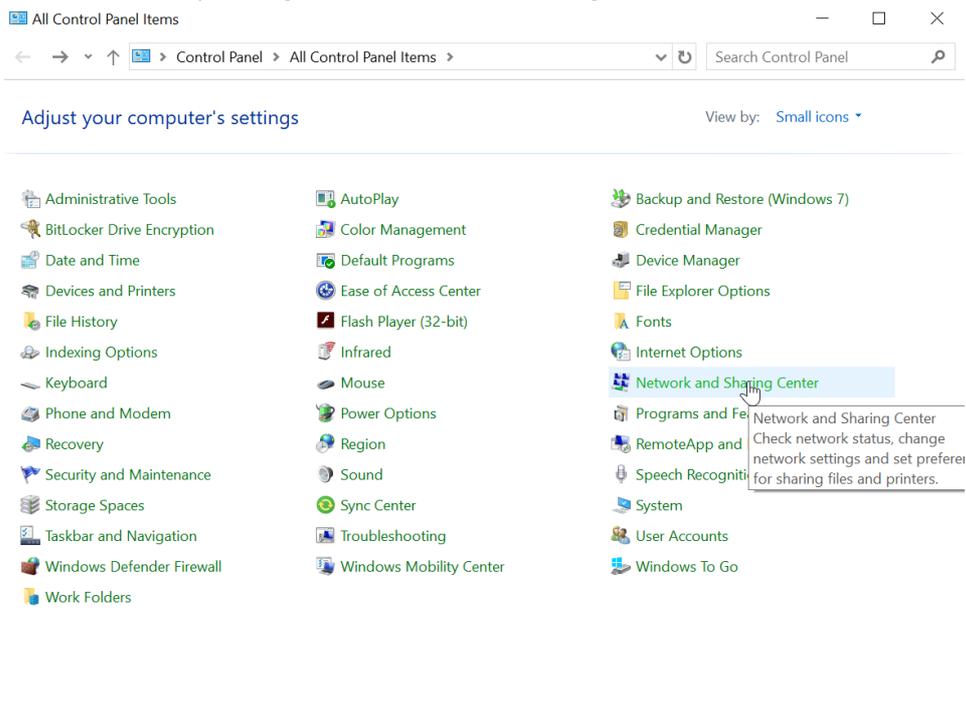


- 3) In the advanced tab, put the following to Extra initialization commands:
at+cgdcont=1,"IP","internet.t-mobile.cz"

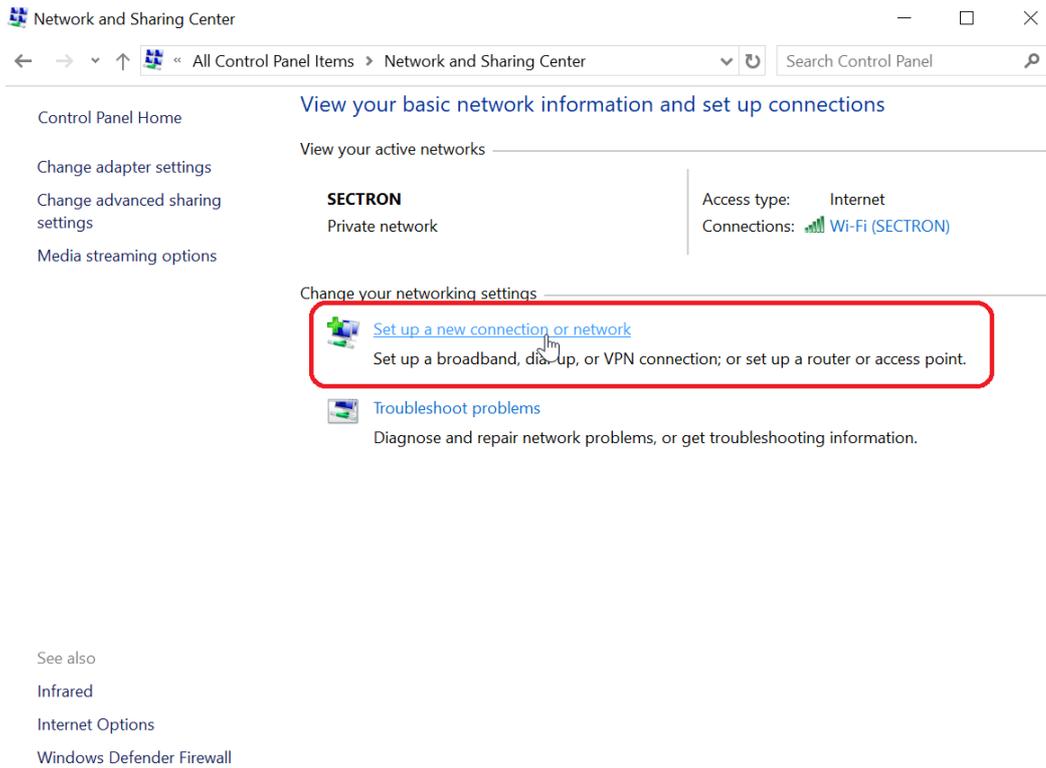
In case of using a SIM card from an operator other than T-Mobile, use **"internet"** instead of **"internet.t-mobile.cz"** or check the web page of your operator for more information. **ATTENTION! It is necessary for this part to be typed in correctly!** Confirm using the OK button.



- 4) Next, in control panels go to Network and Sharing Center.

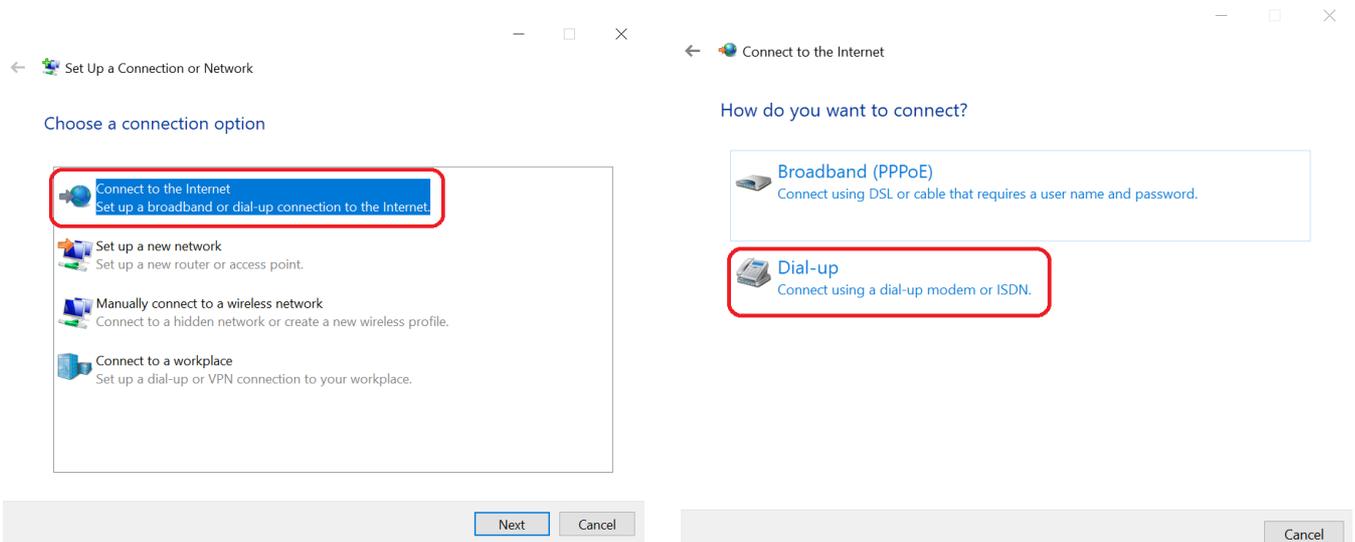


5) Select Set up a new connection or network



The screenshot shows the Windows Network and Sharing Center. The title bar reads "Network and Sharing Center". The breadcrumb navigation shows "All Control Panel Items > Network and Sharing Center". The main heading is "View your basic network information and set up connections". Under "View your active networks", there is a section for "SECTRON Private network" with "Access type: Internet" and "Connections: Wi-Fi (SECTRON)". The "Change your networking settings" section contains two links: "Set up a new connection or network" (highlighted with a red box) and "Troubleshoot problems". Below this, under "See also", are links for "Infrared", "Internet Options", and "Windows Defender Firewall".

6) Connect to the internet -> Dial-up



The first screenshot is the "Set Up a Connection or Network" wizard. It has the title "Set Up a Connection or Network" and the heading "Choose a connection option". There are four options listed: "Connect to the Internet" (highlighted with a red box), "Set up a new network", "Manually connect to a wireless network", and "Connect to a workplace". The "Next" and "Cancel" buttons are at the bottom.

The second screenshot is the "Connect to the Internet" wizard. It has the title "Connect to the Internet" and the heading "How do you want to connect?". There are two options: "Broadband (PPPoE)" and "Dial-up" (highlighted with a red box). The "Cancel" button is at the bottom.

- 7) Here, enter the following Dial-up phone number: ***99***1# (dependent on the operator)**. User name and password can stay blank unless your operator/provider says otherwise. You can also fill in the connection name.

← Connect to the Internet

Type the information from your Internet service provider (ISP)

Dial-up phone number: [Dialing Rules](#)

User name:

Password:

Show characters

Remember this password

Connection name:

Allow other people to use this connection
This option allows anyone with access to this computer to use this connection.

[I don't have an ISP](#)

- 8) Click the Connect button

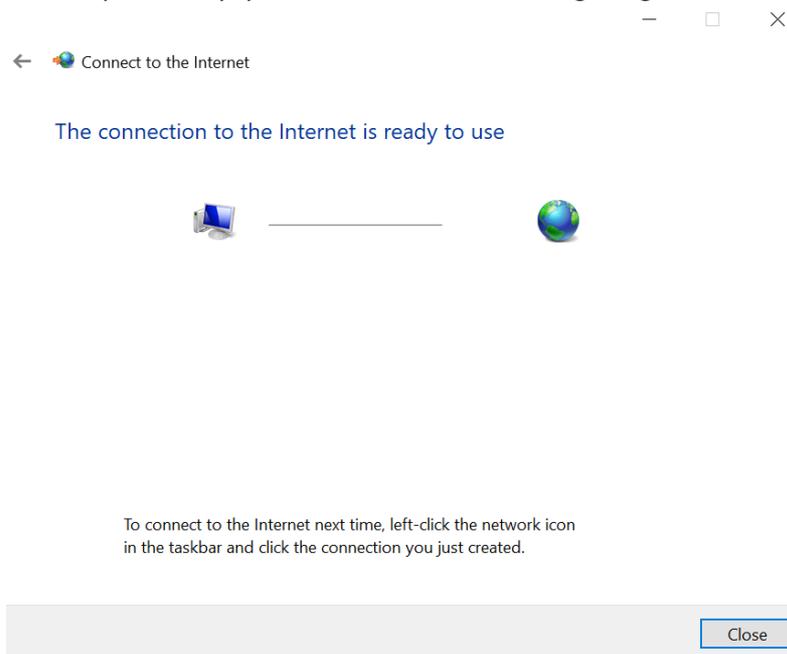
← Connect to the Internet

Connecting to BGS5 - Test...

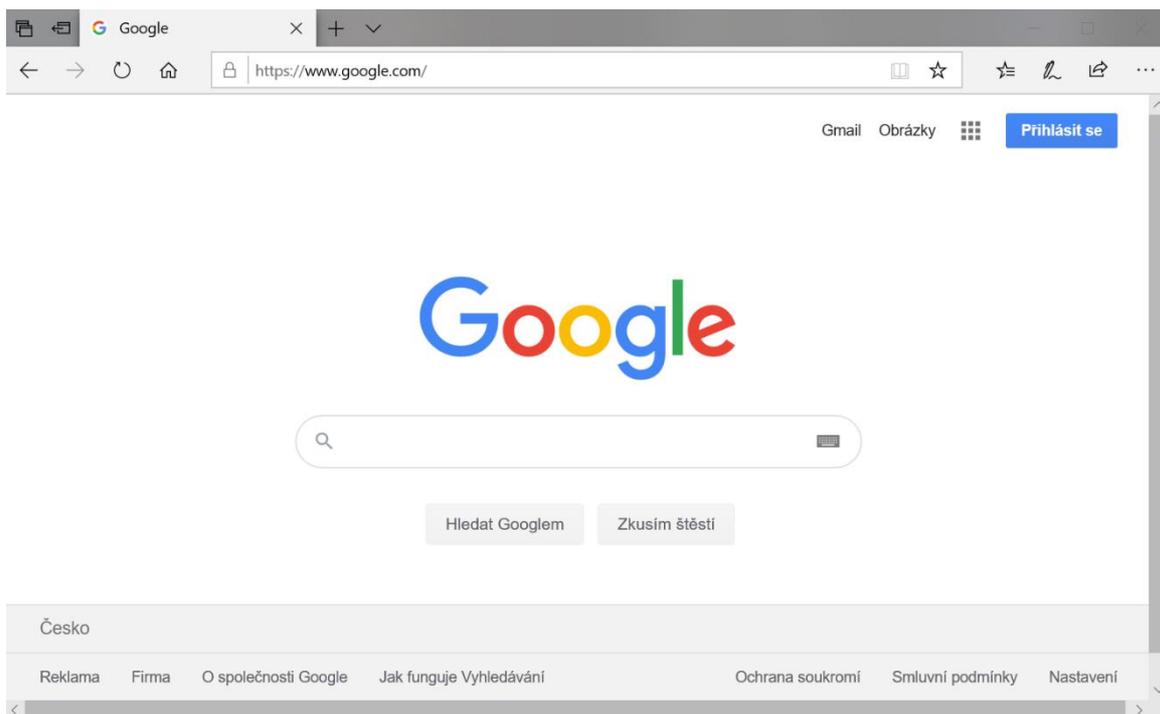
—————

Dialing *99***1#...

9) If everything was setup correctly, you should see the following image:



10) Successful connection to the internet



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