Panasonic®

Supplementary Instructions
for GSM/GPRS

This manual contains supplementary instructions regarding the use of the computer. It explains the cases where the operation of the computer differs from that in the Operating Instructions.

Your computer is equipped with GSM/GPRS enabling you to communicate using radio frequencies.

Contents

Illustrations and Terminology in this Manual

NOTE: NOTE provides a useful fact or helpful information.

CAUTION: CAUTION indicates a condition that may result in minor or moderate injury.

Windows 2000   : Information for Microsoft® Windows® 2000 Professional users.

Windows XP   : Information for Microsoft® Windows® XP Professional users.

[Start] - [Run]:   This illustration means to click [Start], then to click [Run].
(For some applications, you may need to double-click.)

● About the abbreviations in this manual, refer to the table on page 13.

● Windows 2000 screens are used in this manual when no specific OS notes are required.

Precautions

Safety Precautions

The following safety precautions must be observed during all phases of the operation, usage, service or repair of any Personal Computer or Handheld Computer incorporating GSM/GPRS modem. Manufacturers of the cellular terminal are advised to convey the following safety information to users and operating personnel and to incorporate these guidelines into all manuals supplied with the product. Failure to comply with these precautions violates safety standards of design, manufacture and intended use of the product. Panasonic assumes no liability for customer failure to comply with these precautions.

When in a hospital or other health care facility, observe the restrictions on the use of mobiles. Switch Personal Computer or Handheld Computer incorporating GSM/GPRS modem off, if instructed to do so by the guidelines posted in sensitive areas. Medical equipment may be sensitive to RF energy.

The operation of cardiac pacemakers, other implanted medical equipment and hearing aids can be affected by interference from Personal Computer or Handheld Computer incorporating GSM/GPRS modem placed close to the device. If in doubt about potential danger, contact the physician or the manufacturer of the device to verify that the equipment is properly shielded. Pacemaker patients are advised to keep their Personal Computer or Handheld Computer incorporating GSM/GPRS modem away from the pacemaker, while it is on.

Switch off Personal Computer or Handheld Computer incorporating GSM/GPRS modem before boarding an aircraft. Make sure it cannot be switched on inadvertently. The operation of wireless appliances in an aircraft is forbidden to prevent interference with communications systems. Failure to observe these instructions may lead to the suspension or denial of cellular services to the offender, legal action, or both.

Do not operate Personal Computer or Handheld Computer incorporating GSM/GPRS modem in the presence of flammable gases or fumes. Switch off the cellular terminal when you are near petrol stations, fuel depots, chemical plants or where blasting operations are in progress. Operation of any electrical equipment in potentially explosive atmospheres can constitute a safety hazard.

Your Personal Computer or Handheld Computer incorporating GSM/GPRS modem receives and transmits radio frequency energy while switched on. Remember that interference can occur if it is used close to TV sets, radios, computers or inadequately shielded equipment. Follow any special regulations and always switch off Personal Computer or Handheld Computer incorporating GSM/GPRS modem wherever forbidden, or when you suspect that it may cause interference or danger.

Road safety comes first! Do not use a Personal Computer or Handheld Computer incorporating GSM/GPRS modem while driving a vehicle. Do not place the computer with GSM/GPRS modem in an area where it could cause personal injury to the driver or passengers. It is recommended to stow the unit in the boot or secure stowage area while driving.

Do not place the computer with GSM/GPRS modem in an area over an air bag or in the vicinity where an air bag may deploy.

Air bags inflate with great force and if the computer with GSM/GPRS modem is placed in the air bag deployment area may be propelled with great force and cause serious injury to occupants of the vehicle.

SOS

IMPORTANT!

Personal Computer or Handheld Computer incorporating GSM/GPRS modem operate using radio signals and cellular networks cannot be guaranteed to connect in all conditions. Therefore, you should never rely solely upon any wireless device for essential communications, for example emergency calls.

Remember, in order to make or receive calls, Personal Computer or Handheld Computer incorporating GSM/GPRS modem must be switched on and in a service area with adequate cellular signal strength.

Some networks do not allow for emergency calls if certain network services or phone features are in use (e.g. lock functions, fixed dialing etc.). You may need to deactivate those features before you can make an emergency call.

Some networks require that a valid SIM card be properly inserted in Personal Computer or Handheld Computer incorporating GSM/GPRS modem.

For Europe

Declaration of Conformity (DoC)

$C\mathcal{E}0682$ "Hereby, we and Panasonic Testing Centre (Europe) GmbH (PTC), declares that this Personal Computer is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC.

Hint:

If you want to get a copy of the original DoC of our products which relates to the R&TTE, please contact to our web address: http://doc.panasonic-tc.de

Compliance Notice - **CE Mark**

This equipment is in conformance with the requirements of the European Council Directive listed below:

73/23/EEC   Low Voltage Directive with amendment 93/68/EEC
89/336/EEC EMC Directive with amendments 92/31/EEC and 93/68/EEC

This Notice is based upon compliance of the product to the following standards:
EN60950
EN55022
EN61000-3-2
EN61000-3-3
EN55024
3GPP TS51.010-1: v4.9.0
EN 301 511: v7.0.1
EN 301 489 -1, -7
EN50385

Interface Cable

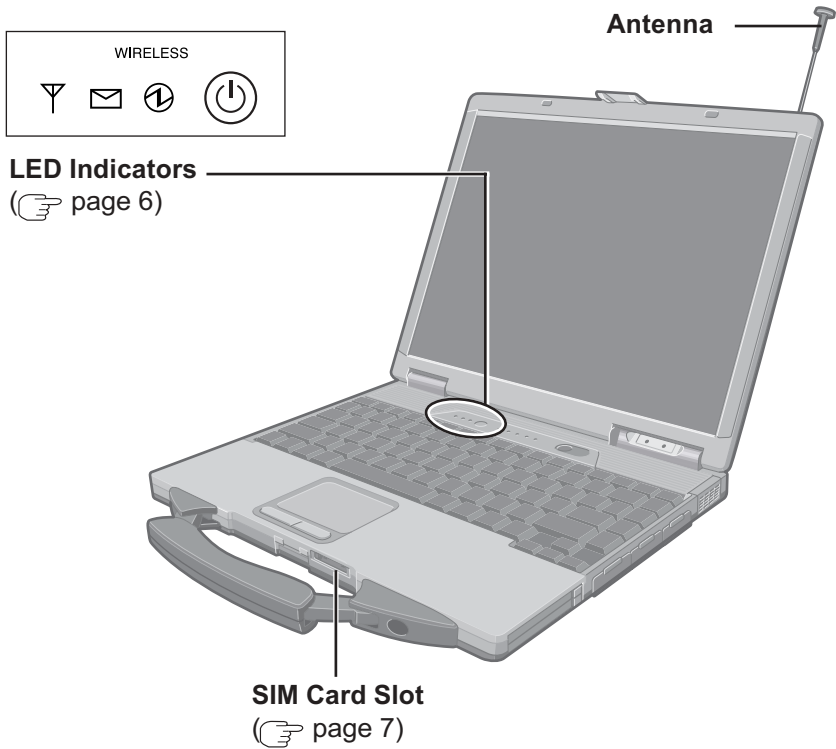Use of an interface cable longer than 3 m (9.84 feet) is not recommended.

Precautions

Radio frequency exposure information

In August 1996, the Federal Communications Commission (FCC) of the U.S. adopted an updated safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated transmitters. The design of this device complies with the FCC guidelines and those standards.

To maintain compliance with FCC RF exposure guidelines, ensure the antenna is at least 1.5 cm from your body when transmitting. Use of non-approved accessories may violate FCC RF exposure guidelines.

Names and Functions of Parts

Except the followings, refer to the Operating Instructions.

WIRELESS

Antenna

LED Indicators
(page 6)

SIM Card Slot
(page 7)

(Appearance may differ depending on specifications.)

Names and Functions of Parts

● LED Description

GSM/GPRS Switch

The GSM/GPRS modem powers up independently from the computer regardless of the computer power status and will remain on when the computer's power is off. This function depends on the setting of the Setup Utility.

Power On Indication - **Green:**

A green LED will be used to signal when the GSM/GPRS modem has been powered on.

Ring Indication - **Amber:**

The LED will flash when the GSM/GPRS modem has received a ring.

Status Indication - **Green:**

The LED will light while communicating.

Mode	Function
Off	GSM/GPRS modem is off or running in SLEEP or Alarm.
600 ms On/ 600 ms Off	No SIM card inserted or no PIN entered, or network search in progress, or ongoing user authentication, or network login in progress.
75 ms On/3 s Off	Logged to network (monitoring control channels and user interactions). No call in progress.
75 ms On/75 ms Off/ 75 ms On/3 s Off	One or more GPRS contexts activated.
Flashing	Indicates GPRS data transfer: When a GPRS transfer is in progress, the LED goes on within 1 second after data packets were exchanged. Flash duration is approximately 0.5 s.
On	Depending on type of call: Voice call: Connected to remote party. Data call: Connected to remote party or exchange of parameters while setting up or disconnecting a call.

Installing/Removing a SIM Card

Before using GSM/GPRS, set a SIM card to the SIM card slot.

CAUTION

Do not install/remove the SIM card when the GSM/GPRS modem's power is on.

1 **Power off your computer and GSM/ GPRS modem**

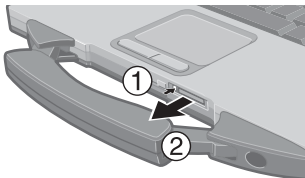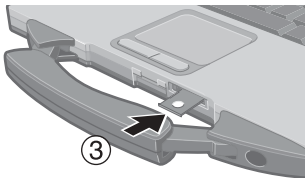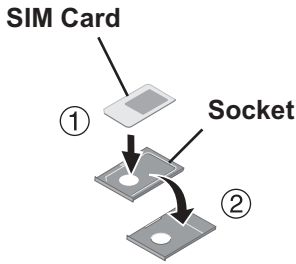**2** ● **Installing a SIM card**

SIM Card

Socket

① Set the SIM card into the socket.

CAUTION

Do not insert the SIM card upside down.

② Turn the socket over.

③ Insert the socket to the SIM card slot.

● **Removing a SIM card**

① Press the button.
② Remove the socket.

③ Remove the SIM card from the socket.

Installing the Software

1 **Turn on or restart the computer.**
Press (**F2**) **while [Panasonic] screen is displayed soon after the computer begins the startup procedure.**
If [Enter Password] is displayed, enter your password.

2 **Select the [Advanced] menu and confirm the followings.**
(☞ page 13)
● The serial port's setting is optimal.
● [On & Off] is selected at [Power SYNC with PC].
If [On & Off] is not set, confirm the power to the GSM/GPRS modem is on.

3 **Save the settings and exit the Setup Utility.**

4 **Set the software disc in the drive, then input [x:\util\drivers\gprs\setup.exe]*1 in [Start] - [Run] and select [OK].**
Follow the on-screen instructions.

*1 "x" is the drive letter. You can change the letter to suit your preference.

When the message on the right is displayed, select [OK].

5 **At [Winmux Driver Setup] screen, select [Start Scan].**
All GSM/GPRS modems installed in the computer will be listed in [Modem List].

6 **Confirm that the check mark is added for the serial port you use and select [Install Driver].**

Installation will start.
(If the message "Digital Signature Not Found" is displayed, select [Yes].)
When the installation is complete, select [OK].

7 **Select [Finish] to restart the computer.**

After the computer is restarted, CheckNet runs automatically.

8 Windows 2000

Select [Start] - [Settings] - [Control Panel] - [Phone and Modem Options] - [Modems].

Windows XP

Select [Start] - [Control Panel] - [Printers and Other Hardware] - [Phone and Modem Options] - [Modems].

9 **Select [Add].**

Installing the Software

10 **Add the check mark for [Don't detect my modem; I will select it from a list], then select [Next].**

11 **Select [Have Disk].**

12 **Input [c:\program files\panasonic\ checknet*1\modem] and select [OK].**

    *1 This indicates the folder where CheckNet is installed in step **4**. This will vary depending on your computer's setup.

13 **Select your GSM/GPRS modem in the list and select [Next].**

To confirm the model number of your GSM/GPRS modem, run CheckNet and select [About]. (☞ checknet.pdf "Operating Instructions for using GSM/GPRS")

14 **Select "Selected ports" and select the com port for Virtual Port 1.**

You can confirm the port number in [Device Manager]*1 - [Multi-port serial adapters] - [Serial Multiplexer] - [Port Settings].

    *1 **Windows 2000** :

in [Start] - [Settings] - [Control Panel] - [System] - [Hardware]

Windows XP :

in [Start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware]

15 Select [Next].
If the message "Digital Signature Not Found" is displayed, select [Yes].

16 Select [Finish].

17 Making extra settings for GPRS modem.

① Select your GSM/GPRS modem and select [Properties] in [Phone and Modem Options] - [Modems].

② In [Advanced], enter the extra initialization commands as follows. (checknet.pdf "Operating Instructions for using GSM/GPRS")

AT+CGDCONT=<cid>,<pdp type>,<apn>
<RETURN>
Example: <cid>:1, <pdp type>:ip, <apn>:internet.t-d1.de

AT+CGDCONT=1,ip,internet.t-d1.de
<RETURN>

(Note that the APN shown here represents the German network provider T-D1 and needs to be replaced with the APN address supplied by your own network provider.)

③ Select [OK].

11

Installing the Software

Uninstalling the Software

● CheckNet

Use the following menu.

<kbd>Windows 2000</kbd> : [Start] - [Settings] - [Control Panel] - [Add/Remove Programs]

<kbd>Windows XP</kbd> : [Start] - [Control Panel] - [Add or Remove Programs]

● Wireless module multiplex driver

Select [Device Manager][*1]-[Multi-port serial adapters]-[Serial Multiplexer] and uninstall the driver.

[*1] <kbd>Windows 2000</kbd> : in [Start] - [Settings] - [Control Panel] - [System] - [Hardware]

<kbd>Windows XP</kbd> : in [Start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware]

Appendix

Setup Utility

The following parameters have been added in [Advanced] menu of the Setup Utility.

Wireless Modem	Disable	Enable	Auto		
I/O IRQ 1*1	3F8/IRQ4 338/IRQ10*2	2F8/IRQ3	3E8/IRQ7	2E8/IRQ5	
I/O IRQ 2*1	3F8/IRQ4 338/IRQ10*2	2F8/IRQ3	3E8/IRQ7	2E8/IRQ5	
Power SYNC with PC	Independent	On & Off	Off Only		

*1 This item is displayed only when [Wireless Modem] is set to [Enable].

*2 This item is displayed only for the model with a smart card slot.

Abbreviations

APN	Access Point Name
CID	Context Identity
GPRS	General Packet Radio Service
GSM	Global System of Mobile Communication
IP	Internet Protocol
PDP	Packet Data Protocol
PIN	Personal Identification Number
PLMN	Public Land Mobile Network
PPP	Point to Point Protocol
QoS	Quality of Service
SIM	Subscriber Identity Module
TCP	Traffic Control Protocol

Specifications

Type		Compliant with ETSI GSM phase 2/2+ standard
Class		PCS1900 Class 1 (1 W)
SIM		Internal SIM card (3 V only)
RF Specification	Transmit	PCS1900 (1850 MHz to 1910 MHz)
	Receive	PCS1900 (1930 MHz to 1990 MHz)
Data Features	Data	asynchronous transparent & non-transparent 300 bps/ 1200 bps / 1200/75 bps / 2400 bps/ 4800 bps / 9600 bps / 14400 bps
	Fax	facsimile group 3, Class 2
	SMS	MT/PP(Mobile Terminating Short Message Service, Point to Point) MO/PP(Mobile Originating Short Message Service, Point to Point) CB (Cell Broadcast Short Message Service)
Voice Feature		HR (Half rate) FR (Full rate) EFR (Enhanced full rate)
Interface		AT Commands (GSM 07.07)
GPRS	Multi-Slot	Class 10
	Mobile Station	Class B

Memo