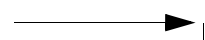**S**

The cordless V.24/RS232 interface for PCs, modems and other equipment

Gigaset M101 Data

Operating instruction

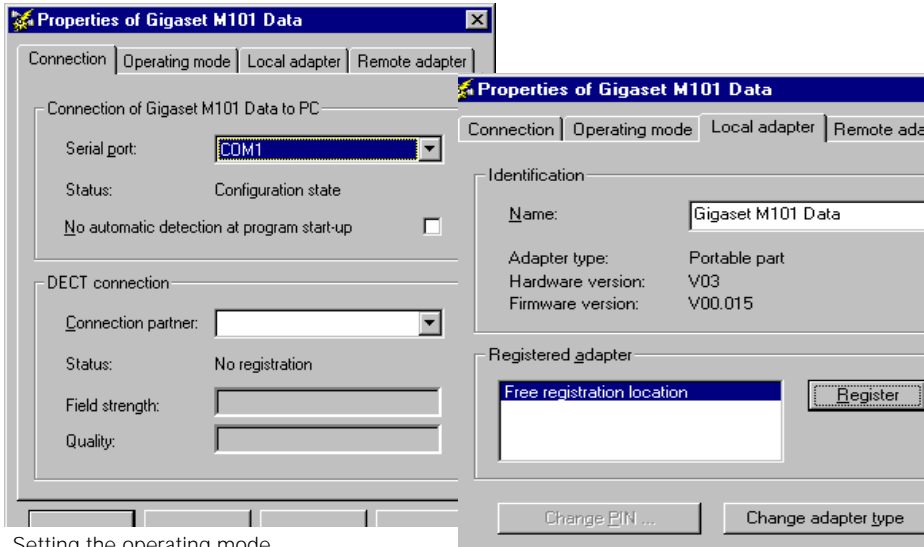Please read the safety precautions outlined in these operating instructions before putting the unit into service.

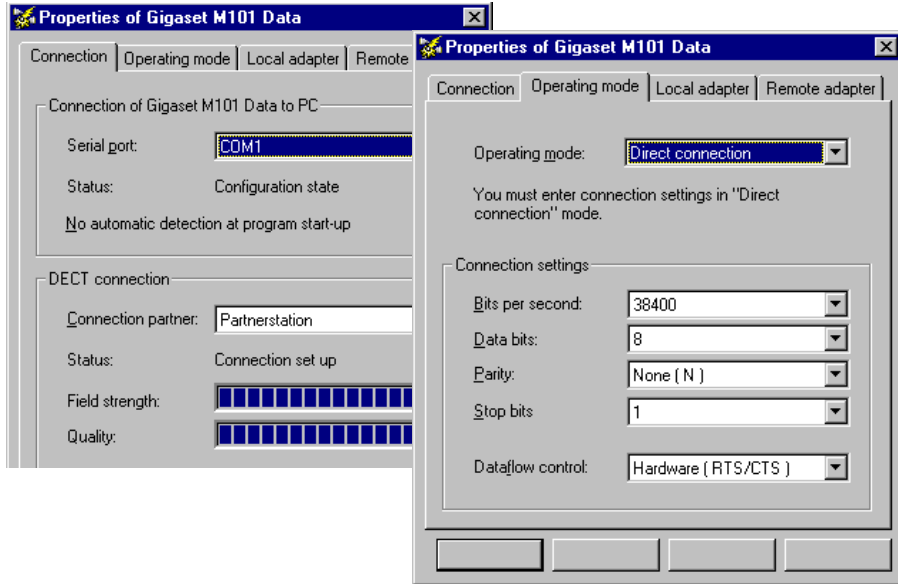ACHTUNG! Schnittkante ggf. auf Titelseite U1 nach außen versetzen wg. Falz-Ausklappseite

The most important menus

Starting the program

🗔 Gigaset M101 Data	▶	🔧 Configuration Gigaset

Registering a Gigaset M101 Data

Properties of Gigaset M101 Data

Connection | Operating mode | Local adapter | Remote adapter

Connection of Gigaset M101 Data to PC

Serial port: COM1

Status: Configuration state

No automatic detection at program start-up   ☐

DECT connection

Connection partner:

Status: No registration

Field strength:

Quality:

Properties of Gigaset M101 Data

Connection | Operating mode | Local adapter | Remote ada

Identification

Name: Gigaset M101 Data

Adapter type: Portable part
Hardware version: V03
Firmware version: V00.015

Registered adapter

Free registration location   Register

Change PIN ...   Change adapter type

Setting the operating mode

Properties of Gigaset M101 Data

Connection | Operating mode | Local adapter | Remote

Connection of Gigaset M101 Data to PC

Serial port: COM1

Status: Configuration state

No automatic detection at program start-up

DECT connection

Connection partner: Partnerstation

Status: Connection set up

Field strength: ▐▐▐▐▐▐▐▐▐▐▐▐

Quality: ▐▐▐▐▐▐▐▐▐▐▐▐

Properties of Gigaset M101 Data

Connection | Operating mode | Local adapter | Remote adapter

Operating mode: Direct connection

You must enter connection settings in "Direct connection" mode.

Connection settings

Bits per second: 38400

Data bits: 8

Parity: None (N)

Stop bits: 1

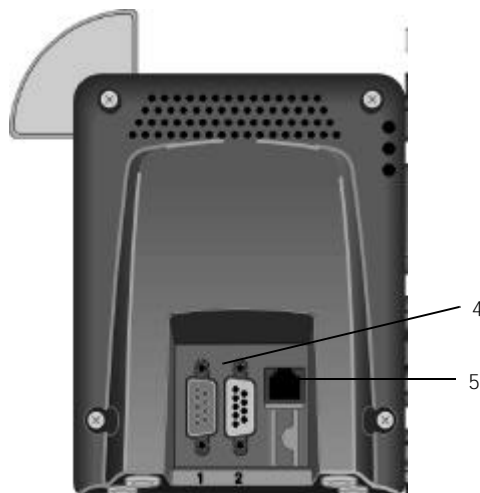Dataflow control: Hardware (RTS/CTS)

Overview

Legend

Front

1. Operating LED,
   illuminated when power supply
   is active,
   see "LEDs and buttons" on page
   19

2. Data LED, illuminated during
   data transfer operations

3. Reset key

1 2 3

Back

4. Port for the V.24/RS232
   cable
   1 = male
   2 = female

5. Mains power supply socket for
   plug-type AC adapter

4

5

Contents

Contents

Updates and news on the Internet

Visit our site at:

www.siemens.com/pc-communication-support

(always under construction)

Approval and conformity

Your Siemens Gigaset M101 Data has been certified by the German Federal Office of Telecommunication Approval (BZT). This equipment has been approved in accordance with the EU directive 91/263/EC Telecommunication Terminals.

This data terminal complies with the requirements of the EU directives:

89/336/EC   EMC Directive

72/23/EC   Low Voltage Directive

and thus carries the CE mark.

Notes on PC and modem operation

> When using a modem, software malfunctions in the PC (e.g. an operating system crash or program errors in the application software) can prevent the cleardown of a modem connection from a telephone line. **You incur connection costs for trunk lines that you seize!** Since your Gigaset M101 Data only replaces a serial cable, malfunctions of this kind can also occur here. If such a problem occurs, check the status of your modem and, if applicable, reset it.
>
> In the case of one-sided interruption of the mains supply or complete interruption of your Gigaset M101 Data's hop, the interface's status lines are reset to the initial status in the partner station within 2 minutes (a modem then clears down the connection).
>
> Whenever possible, operate the station registered as user at your PC (lokale Station), since any malfunctions on the user side can be displayed, for technical reasons, more quickly than at the base, see "LEDs and buttons" on page 19.
>
> Should the graphic or sound card be affected by interference from Gigaset M101 Data, rotate Gigaset M101 Data until the interference is removed.

Notes on Gigaset Repeater

> The Gigaset Repeater **cannot** be used to extend the radio range.
>
> The repeater was designed for use behind Gigaset 2000 base stations.

Introduction

What is a Gigaset M101 Data?

Your Gigaset M101 Data is a cordless V.24/RS232 serial interface consisting of two stations: the lokalen Station and the Partnerstation.

The station connected to the PC is known as the "lokale Station".

The "Partnerstation" is connected to a peripheral device, e.g. a modem.

Radio link

Local station   Partner station
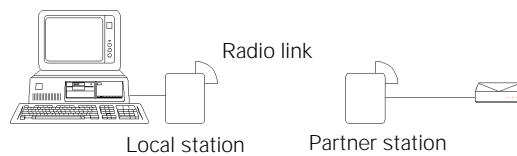
The connection between the PC and the peripheral device is routed via the radio link between the lokalen Station and the Partnerstation.

In addition to both stations, the application features a configuration program.

Of the two stations,

● one is a "Basis" type station; this is usually the Partnerstation,

● the other is a "Teilnehmer" type station; this is usually the lokale Station.

All Gigaset M101 units are "Basis" type stations by default. When the device is configured for the first time, the Gigaset M101 Data connected to the PC automatically switches to a "Teilnehmer" type station. The Teilnehmer station must be registered at the Basis station.

Every Gigaset M101 Data can be operated either as a lokale Station or as a Partnerstation.

Safety precautions

Research has shown that in certain cases, medical equipment can be affected by activated DECT devices. A distance of at least one metre should therefore be maintained between Gigaset M101 Data and the medical equipment. When using cordless telephones in the vicinity of medical equipment, the regulations of the relevant institution must be observed.

Only use the power supply unit supplied (C39280-Z4-C59/C39280-Z4-C168).

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Putting into service

Follow the step-by-step instructions described below for putting the equipment into service:

1. Check the contents of the package

2. Install the configuration program

3. Connect the station

4. Conclude commissioning by performing an initial configuration, see "Initial configuration" on page 11.

Checking the contents of the package

The package contains:	M101 Data	Twin Pack
Gigaset M101 Data	1	2
Plug-type AC adapter C39280-Z4-C59/ C39280-Z4-C168 for mains connection	1	2
Serial 9-pin connection cable for connecting the V.24/RS232 interface	1	2
CD-ROM with the installation program	1	1
Operating instructions	1	1

Important

Before you put the Gigaset M101 Data into service, the peripheral device that you want to operate as a cordless unit (modem, PABX) must be configured at the COM port on the PC side since it is to be used for transferring data. For information on configuration, see the appropriate documentation on the peripheral device and your computer's operating system. This configuration is particularly necessary for plug&play installations, as otherwise errors can occur depending on the installation routine of the connected peripheral unit.

If you want to operate a modem, for example, via the radio link, first connect the modem directly to the PC, configure it, set up a test connection, and then install the radio link. To do this, disconnect the modem from the PC, connect the Gigaset M101 Data and perform the configuration.

When choosing a location for the devices, read the "Notes on installation and operation" on page 20.

Putting into service

Installing the program package

Prerequisites for installation

For installation, you need:

● an IBM-compatible PC with the following configuration:

  – Win 95, Win 98 or Win NT operating system

  – 2 MB free hard disk memory

  – 1 free V.24/RS232 serial interface as
    COM port

● the diskette/CD-ROM containing the installation program

Installation

● Start up the PC and close down any programs active after start-up.

● Disconnect any Gigaset M101 Data units from the power supply and the PC.

● Insert the data carrier supplied in the drive.

● Under *Start*, select *Settings*, then *Control Panel*. Double-click the *Software* icon.

● Select *Install*. The installation program starts. During installation, the message "No Gigaset M101 Data connected". Confirm this message with "*OK*".

● Terminate the configuration program with "*OK*"; this concludes the installation operation.

Check installation is successful

The following errors can occur during installation:

Problem	Result
Insufficient memory	Error message, please try freeing some disk space on your hard drive.
No COM port free at the PC	Error message, setup can be completed.
Installation interrupted by user	All components already installed are removed.
PC crashes during installation	Automatic correction during next attempt.
Installation of a new version	Recognition, warning and installation after confirmation.

If no errors occur, all files are installed in the selected language version and your PC contains a "Gigaset M101 Data" program group. This contains the "Set Gigaset" configuration program, a help function and a text file with current information.

Putting into service

Connecting stations

- To avoid damaging your Gigaset M101 Data and the PC, the V.24/RS232 cable should only be connected when the power supply is switched off.

- Connect a Gigaset M101 Data to the V.24/RS232 interface of the PC (COM port). Some V.24 plugs have a plastic protrusion and cannot be properly arrested. If this is the case, use the cable supplied as an extension.

- Connect both stations to the plug-type AC adapters (C39280-Z4-C59/C39280-Z4-C168) and insert these adapters in 230 V AC 50 Hz sockets.

You can now perform initial configuration, see "Initial configuration" on page 11.

Initial configuration

The purpose of initial configuration is to register the Teilnehmer station at the Basis station. You can only perform initial configuration with the configuration program. The Gigaset M101 Data can be operated at other PCs/operating systems once you have completed initial configuration.

Proceed as follows:

1. Disconnect both stations and the PC from the power supply.

2. Connect one Gigaset M101 Data to the PC.

3. Connect the PC and both Gigaset M101 Data units to the power supply.

4. Start the program "Set Gigaset" at the PC.

5. Select the "Local station" tab.

6. Click the "Register" button.

   The lokale Station is now switched to "Teilnehmer" operating mode. Normally, you must enter the Basis station PIN before registration is possible. In the case of initial configuration, however, you can skip this step since the Basis station has the factory-set PIN "0000". This is automatically set by the program during initial configuration.

7. Press and hold down the black button on the Gigaset M101 Data (Basis station) *not* connected to the PC for approx. 10 seconds until the LEDs indicate by blinking in sequence that the system is ready for registration.

8. Click OK. The registration procedure starts and the message "The Teilnehmer logs on at the required Basis if this is ready for registration. Ensure that the Basis is ready for registration." appears on the screen.

   The two devices are automatically synchronised. An entry is now visible in the "Registered stations" windows.

9. Assign a suitable name to the lokale Station, e.g. "PC".

10. Open the "Partner station" window and assign a name to it, e.g. "Modem". The registered station now also appears in this window.

11. It may be useful to switch the operating mode from "AT commands, local" to one of the two other operating modes. This setting concerns the protocol on the serial interface, especially the speed adjustment. For details, see "Setting the operating mode" on page 14.

12. Close the program with "OK".

In the event of errors and for more information, see "Configuration program options" on page 12.

Configuration program options

Configuration program options

General

You will rarely need the majority of configuration options for the simple implementation of two Gigaset M101 Data units for cordless modem operation. A range of settings is available for future developments.

Starting the configuration program

Under *Start*, select *Programs* followed by Gigaset M101 Data and finally *Set Gigaset*.

The configuration program offers a dialog box entitled *Properties of* Gigaset M101 Data which contains the four tabs **Connection**, **Operating mode**, **Local station** and **Partner station**.
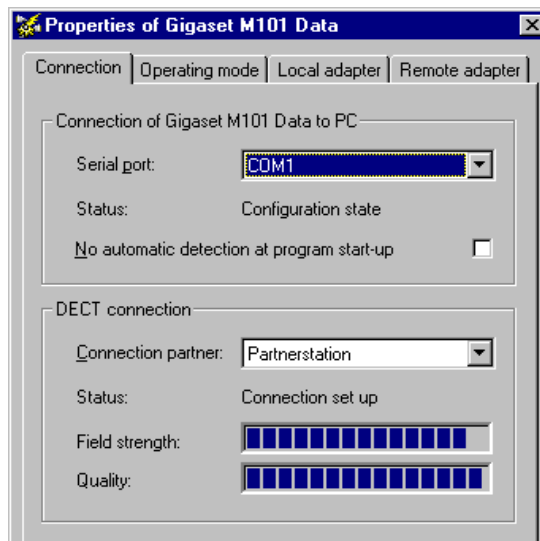
A number of special fields are also provided for special inputs.

The buttons

The following four operating buttons are available for each tab in the dialog box: *OK*, *Cancel*, *Apply* and *Help*. These buttons have the following functions:
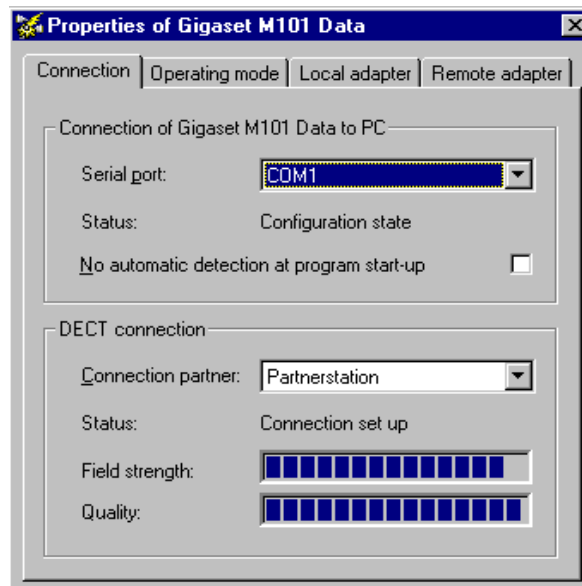
OK	Accept input, close dialog box
Cancel	Reject input, close dialog box
Apply	Accept input, leave dialog box open
Help	Call up the online help function

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Configuration program options

"Connection" tab

Upper section: connecting to the PC

You can set the COM port of the PC at which the lokale Station is connected in the upper section of the tab.

It is easiest to leave the option *No automatic detection* deactivated (as shown). The program then checks the existing COM ports and determines where the station is connected. Manual interface selection is only recommended if there is more than one Gigaset M101 Data unit connected to the PC.

As soon as the program finds a station or identifies the manually selected interface, it sends it the configuration command via the control lines. The station is thus switched to configuration status. This is indicated by the *Status* display in the dialog box. Gigaset M101 Data can only be configured under these conditions. At the end of the program, your Gigaset M101 Data will automatically switch the station back to operating mode.

Lower section: radio connection

This sections indicates whether a radio connection exists and if so, to which partner station. It also indicates the quality of the connection.

A station must be registered before it can be selected here.
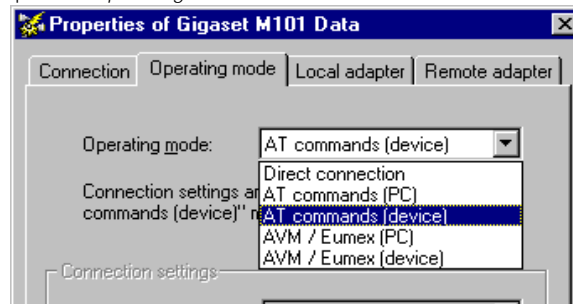
13

Configuration program options

"Operating mode" tab

Important:

If one station is set to "AT commands, local" or "AVM/Eumex commands, local", the other station must switch to the corresponding "AT commands, remote" or "AVM/Eumex commands, remote" operating mode. And if one station is switched to "Direct connection", the other station must also be switched to this mode. The appropriate switches are performed automatically if you select an operating mode for an Gigaset M101 Data unit.

Setting the operating mode

Open the *Operating mode* tab and select one of the five modes:

The three connection types are used for different purposes:

Direct connection	The transmission parameters for the PC's COM port are manually set at the computer without automatic baud rate or data format recognition. This is always useful if the device at the Partnerstation does not support baud rate or data format recognition as performed by conventional modems, e.g. in the case of a second PC.
AT commands lokalen Station (PC) ➜ page 33	Automatic recognition of the transmission parameters based on the data from the PC at the lokalen Station.
AT commands Partnerstation (device) ➜ page 33	Automatic emulation of the transmission parameters based on the values received from the PC at the Partnerstation.
AVM / Eumex lokalen Station (PC) ➜ page 34	Automatic recognition of the AVM / Eumex transmission parameters based on the data from the PC at the lokalen Station.

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Configuration program options

AVM / Eumex Partnerstation (device)	Automatic emulation of the AVM / Eumex transmission parameters based on the values received from the PC at the Partnerstation.

Special settings for "Direct connection" mode

In the *Direct connection* setting, the fields are activated in the lower section of the dialog box: you can set the transmission parameters for the COM port at the PC:

Select the masked-in setting if you have no reason to reject it. In the event of malfunctions, reduce the speed in the Bits per second window. Set your communication software likewise to this value.

In the case of changes, only permitted values are accepted in the individual fields, even for manual inputs.
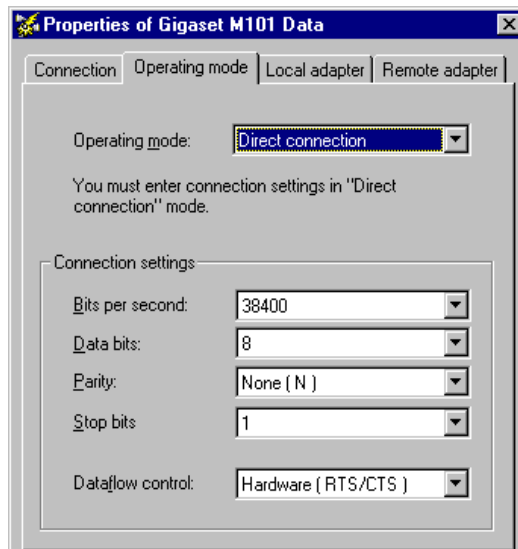
"Local station" tab

Changing a name

The purpose of station names is to provide a rapid overview. The lokale Station must be called "PC". The Partnerstations should if possible be named after the peripheral device connected, e.g. "Modem".

Station names can be changed in the name field in which you change or enter the name. Names can contain letters, digits and blanks. The name must not contain more than 20 characters.

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Configuration program options

Changing a station type

Normally, a Teilnehmer station is operated at the PC and the Basis station is operated at a peripheral device. Other constellations, however, are possible in which both stations are connected to another PC, in order to create a cordless data connection between two PCs. In this case, it may be useful to change the type of a station. Or you can implement more than one Partner-station in order to control a second PC or the modem alternately. It may be necessary to change the station type in the case of a Gigaset M101 Data.

● Ensure that the correct station is connected locally.

● Select *Change station type*. The change is performed in the background. You can see that this has been performed when the information in the *Station type* line changes.
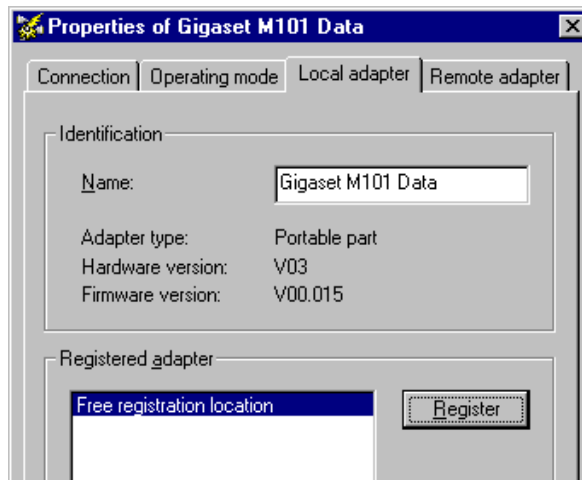
Configuration program options

Registering an Teilnehmer station

Both stations are powered. A Gigaset M101 Data is connected to the PC.

Select the Local station tab.

The following dialog box appears:

An existing registered device in the "Registered stations" window must first be deleted. This is done in the "Partner station" tab, see "Resetting the device to the factory default" on page 19. Once deleted, "Free registration location" appears in the window.

Click *Register*.

The following window appears when the base station has been set to the factory default:

Click *OK*.

17
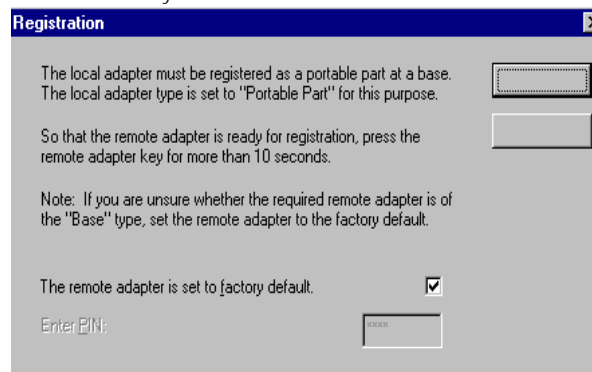
Configuration program options

The Teilnehmer station now searches for the Basis station and automatically registers at it.

If registration is not possible (Basis station not in "logon mode" or not powered, incorrect PIN), the system will indicate the necessary steps for resolving this problem.

De-registering a Teilnehmer station

De-registration is only possible by resetting the Gigaset M101 Data unit to the factory default, see "Resetting the device to the factory default" on page 19.

"Partner station" tab

This tab is used for configuring the Partnerstation that is not connected to the PC. The registration must be performed first so that the two Gigaset M101 Data devices can communicate: the "Partner station" tab only becomes operational after registration on the "Local station" tab.
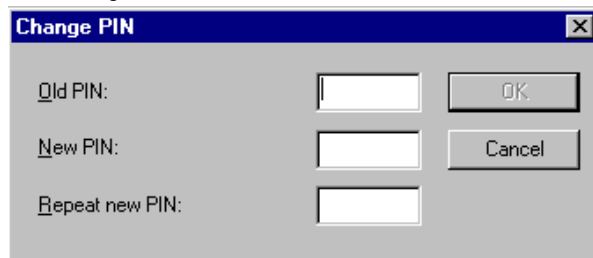
Changing the name

As for lokalen Station, see "Changing a name" on page 15.

Changing the PIN

Check whether the correct station is addressed. Only Basis stations have PINs.

Click Change PIN...

Enter the old PIN to obtain authorization to change the PIN and press the tab key.

Enter the new PIN and press the tab key.

Enter the new PIN in the confirmation field and click *OK*.

The PIN is changed if the new PINs entered are identical and if the correct old PIN is entered. Otherwise, a warning appears..

LEDs and buttons

There are two LEDs and a black button on the front of the Gigaset M101 Data unit.

Both button functions

Setting a Basis to logon mode

Press the button on a powered base-type device for 10 seconds. The two LEDs blink in sequence, thus indicating that the device is in logon mode. Logon mode is automatically deactivated after successful logon or after 10 minutes: the blinking stops.

Resetting the device to the factory default

Press and hold down the button on the device that has been disconnected from the mains. Connect the device to the power supply while holding the button down. LED 2 lights up after 10 seconds. This LED goes out in another 10 seconds indicating that the reset operation has been successful. The button can then be released.

LED 1: Gigaset M101 Data status

LED 1 indicates stand-by mode:

LED 1 blinks	The station is searching for the partner or has not been registered.
LED 1 is constantly illuminated	The partner was found, the transmission route is on stand-by.

LED 2: data transfer

LED 2 indicates the status of the transmission route on the V.24/RS232 interface:

LED 2 off	No data transfer
LED 2 flickers	Data transfer active

What happens if...

If a malfunction occurs, check the following points:

● Both stations are powered.

● The cable connections to the connected devices are fully inserted and screwed in.

● The stations are not too far apart and are there are no large parts of buildings in between.

● Registration was successful.

● The lokalen Station operating mode is "AT commands, local" or "AVM/Eumax commands, local".

   or:

● The lokalen Station operating mode is "Direct connection" *and* you have set the direct connection transmission parameters in your communication software.

If the malfunction still occurs after checking all the above points, reset both Gigaset M101 Data units to the factory defaults, see page 19.

If the malfunction persists, call the hotline at 0180 5 333 220.

Internet: www.siemens.de/gigaset

Notes on installation and operation

Place of installation

There must be a 220/230 V AC 50 Hz power socket in the vicinity.

The Gigaset M101 Data should not be installed in the immediate vicinity of other electronic devices, such as hi-fi systems, office equipment or microwave ovens, otherwise there is a risk of mutual interference.

Place the Gigaset M101 Data unit on a level, non-slip surface. The device feet do not normally leave any unsightly marks. However, in view of the many different varnishes and polishes currently used for furniture, the possibility of marks being left cannot be ruled out.

Radio communication between Basis and Teilnehmer is based on the DECT standard. The Gigaset M101 Data complies fully with the relevant European directives. Should you nevertheless experience sound or picture distortion with your satellite signal receiving equipment, please get in touch with your dealer to have it tested for shielding faults.

Depending on the ambient conditions, the maximum radio range between the local station and the Partnerstation is approx. 300 m outdoors and approx. 50 m indoors.

What happens if...

Temperature and ambient conditions

The Gigaset M101 Data is designed for operation in protected rooms with a temperature range from +5°C to +45°C.
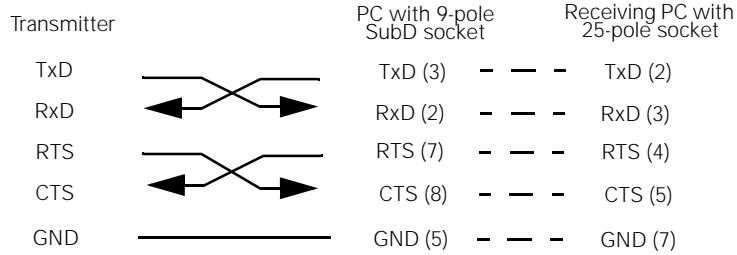
Do not set up the Gigaset M101 Data in damp environments, such as a bathroom or laundry room. Do not expose it to direct sunlight or other heat sources, such as radiators.
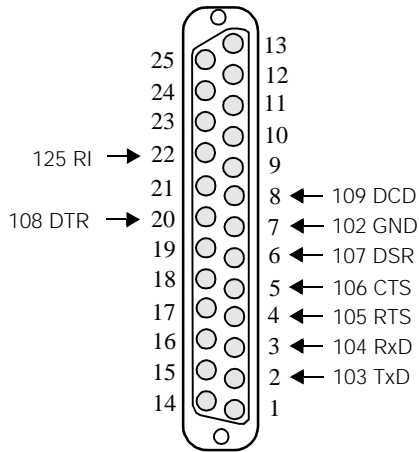
Technical data

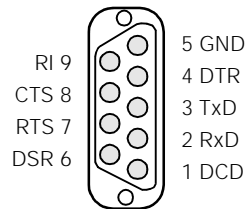|	
Standard:	DECT = **D**igital **E**nhanced **C**ordless **T**elecommunications
Number of channels:	120 duplex channels
Radio frequency range:	1880 MHz to 1900 MHz
Duplex system:	Time division multiplex, 10 ms frame length
Channel spacing:	1728 kHz
Modulation:	GFSK
Voice coding:	32 kbit/s
Transmitted power:	10 mW, average rating per channel
Range:	up to 300 m outdoors, up to 50 m indoors
Power supply:	Base station 220/230 V ~/ 50 Hz (plug-type AC adapter)
Power consumption (base station):	Stand-by mode: approx. 3 W Data transfer mode: approx. 5 W
Permissible ambient conditions for operation:	+5 °C to +45 °C 20% to 75% relative humidity
AC power plug:	TSV 6/6 (housing), Euro plug (plug-type AC adapter)
V.24/RS232 port:	9-pin Sub-D male/female
Standards complied with:	DECT in accordance with CTR 6 Electrical safety in accordance with EN 60950

The V.24 interface

Name	Based on CCITT	Meaning	Std. Pin Assign.	
			25-pin	9-pin
DCD	109 = Data Carrier Detect	Data carrier signal	8	1
CTS	106 = Clear To Send	Clear to send signal	5	8
DSR	107 = Data Send Ready	Data send ready	6	6
DTR	108 = Data Terminal Ready	Data terminal ready	20	4
GND	102 = Signal Ground	Signal ground	7	5
RTS	105 = Request To Send	Request to send	4	7
RxD	104 = Receive Data	Receive data	3	2
TxD	103 = Transmit Data	Transmit data	2	3
RI	125 = Ring Indicator	Incoming call	22	9

Transmitter   PC with 9-pole SubD socket   Receiving PC with 25-pole socket

Transmitter		PC with 9-pole SubD socket		Receiving PC with 25-pole socket
TxD		TxD (3)	– – –	TxD (2)
RxD	⤬	RxD (2)	– – –	RxD (3)
RTS		RTS (7)	– – –	RTS (4)
CTS	⤬	CTS (8)	– – –	CTS (5)
GND	—	GND (5)	– – –	GND (7)

25-pin plug based on CCITT

```
                 13
        25       12
        24       11
        23       10
125 RI →  22      9
        21       8 ← 109 DCD
108 DTR → 20      7 ← 102 GND
        19       6 ← 107 DSR
        18       5 ← 106 CTS
        17       4 ← 105 RTS
        16       3 ← 104 RxD
        15       2 ← 103 TxD
        14       1
```

9-pole SubD socket

```
              5 GND
RI 9          4 DTR
CTS 8         3 TxD
RTS 7         2 RxD
DSR 6         1 DCD
```

Pin no.	Signals to:	
	Socket 1[*]	Socket 2[**]
1	DCD receive	DCD transmit
2	RxD	TxD
3	TxD	RxD
4	DTR	DSR
5	GND	GND
6	DSR	DTR
7	RTS	CTS
8	CTS	RTS
9	RI receive	RI transmit

[*] male
[**] female

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Why set a mode? Technical background

Serial interfaces are more than plug-in connections. They have an integrated data flow control, control lines, data lines and an adjustable speed function. Serial interfaces are used for transporting data in various formats.

Modems are usually controlled with AT commands or company-specific protocols commands that they receive via their serial interface. On the basis of these AT or AVM/Eumex commands, modems can recognise the format and speed at which the data is transmitted. The automatic recognition of transmission parameters is important and must be emulated by the radio link if a device that understands these commands is used for parameter adjustment and is connected to the Partnerstation.

A cordless extension cable between a PC and, for example, a modem must detect the transmission parameters to be used at the PC interface for communication between this interface and the modem. On the modem side, the functions generated by the PC must also be created for the serial interface.

On the radio link, data is transferred according to a radio protocol that has nothing to do with the serial interface.

If a device which cannot detect transmission parameters in the same way as a modem is connected to the Partnerstation, "Direct connection" is selected as the operating mode.

There are thus five possible operating modes for each Gigaset M101 Data:

1. Direct connection: this operating mode is implemented for all devices that are not controlled with AT or AVM/Eumex commands.

2. AT or AVM/Eumex commands, local: this is the operating mode for the lokale Station: the local Gigaset M101 Data determines the conditions on the serial interface in the same way as a modem and transmits data as well as information to the Partnerstation on the transmission parameters to be used for entering this data in the terminal.

3. AT or AVM/Eumex commands, remote: in this operating mode, the Partnerstation controls a terminal that understands the AT commands.

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**Tips & tricks, settings**

Tips & tricks, settings

This section describes settings, implementation options and programming methods.

Operating from a local station with two remote stations:

Please note that

● Only one connection can be active.

● Only one "Teilnehmer" station type can be registered at a base that is ready for registration.

● The station type for Gigaset M101 Data units is set to "Basis" by default.

Perform registration as described in the section "Initial configuration" on page 11.

Teilnehmer **1** — **COM**

Basis **2** **3**
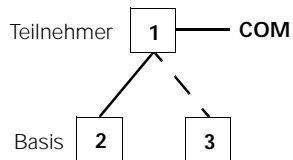
The Gigaset unit connected to the PC is called "Gigaset 1" and is the lokale Station. It is now an Teilnehmer station type and your Gigaset 2 (Partnerstation) is a Basis. Configure the transmission parameters that are required for a connection between Gigaset 1 and Gigaset 2.

Basis **1** — **COM**

Basis **2** **3**

Change to the Local station tab and click *Change station type*, your Gigaset 1 is now a base.

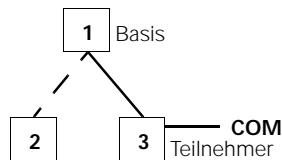Exit the configuration program and connect Gigaset 3 to the COM port.

1 Basis

2 **3** — **COM** Teilnehmer
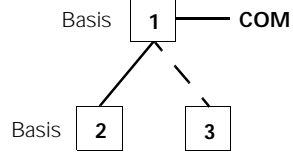
Now start the "*Gigaset M101 Data > Set Gigaset*" configuration program and switch to the Local station tab. Click *Change station type*. Gigaset 3 is now an "Teilnehmer".

Press the black button on Gigaset 1 (station type currently Basis) for 10 s. The LEDs start to blink alternately, the base is ready for registration.
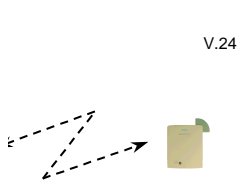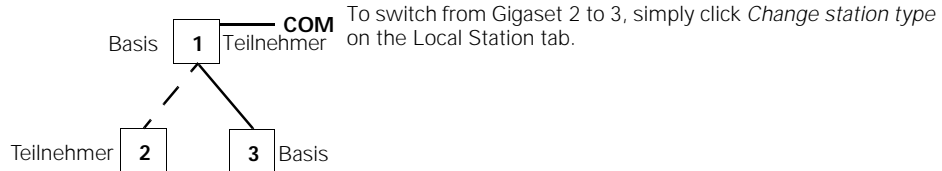Click *Register*, enter the PIN (factory default "0000") and click *OK*. You have now registered Gigaset 3 (as an **extension**) at Gigaset 1 (the **base**).

Configure the transmission parameters that are required for a connection between Gigaset 3 and Gigaset 1. Exit the configuration program.

Connect Gigaset 1 to the COM port at the PC that you want to use for bothway operation.

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To switch from Gigaset 2 to 3, simply click *Change station type* on the Local Station tab.

PC with

configuration program

Switch
the connection
by changing the
station type

Gigaset
M101

PC - PC direct cable connection: via RS232/V.24 interface

The problem that often occurs with PC - PC direct cable connections is incorrect baud rate setting. The following section describes how to configure a PC - PC direct cable connection at a Win95[1] system.

Before using the actual Gigaset M101 Data, application functionality should be checked using a null-modem cable[2]. This accelerates fault detection and clearance. If this is not possible, the precise configuration should be observed.

● Gigaset M101 Data can be set to a fixed baud rate (direct connection 115,200 bps with HW handshake).

1 similarly for WIN98
2 after the test, remove the null-modem cable and use the cable supplied

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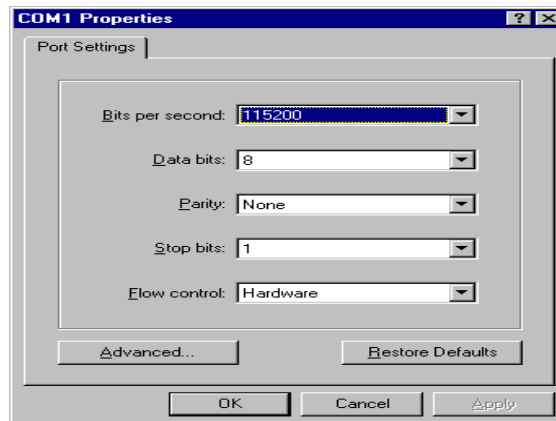**Setting the direct connection to the correct baud rate**

1. Open the terminal program

    The first step is to open a terminal program on both PCs
    (e.g. Win95 HyperTerminal via Hypertrm.exe) and to ensure
    that the correct COM port is being accessed,

    Set up a direct connection via COMx (COM 1 is selected in
    the example).

    Then set the interface speed:

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The baud rate (max. 115,200) and HW handshake (default setting) are set in this mask. If you are able to transmit data from one PC to the other, proceed now to the second step.

2. Set direct cable connection parameters

Exit the terminal program at one of the PCs. Select *Settings > Control Panel* in the Start list under Win95 to open the *Control Panel* window. Click the *System* icon (you should now see the *System Properties* window). Select the *Device Manager* tab. This folder contains a *Modem* icon;
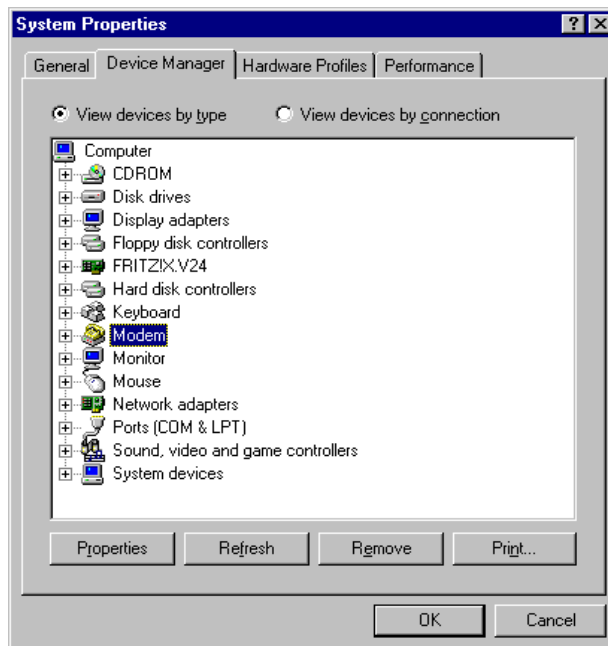
double-click this icon to expand the branch. The setting *Null-modem cable at COMx* should be available. Select the appropriate COM port for your configuration and double-click it to open a further subfolder.

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You will find maximum speed setting in the *Modem* tab; this should be set to 115,200 bps.
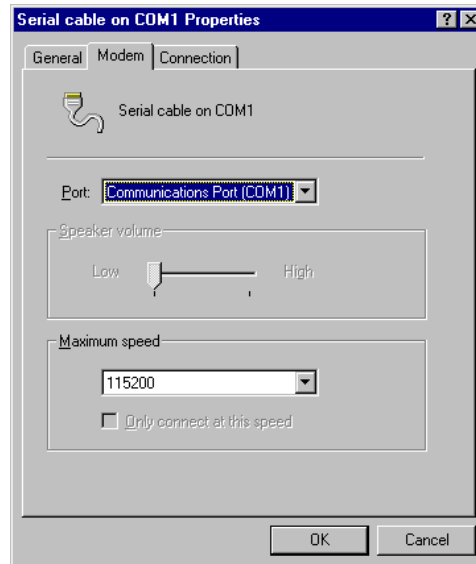
Activate *Hardware* under *Use flow control* in the *Settings - Advanced* tab. Click *OK* to exit each window.

3. Test the baud rate setting

    Open the direct cable connection program via
   *Start > Programs > Accessories*.

    If this icon is missing, you may have to reinstall the appropriate software from the Win 95 system CD.
    This can be done by selecting *Control Panel, Add/Remove Programs, Windows Setup, Communications, Details, Direct Cable Connection*.

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Select *Modify* under *Settings* and activate *Guest*. Enter the port, e.g. " *Null-Modem Cable at COM 1*".
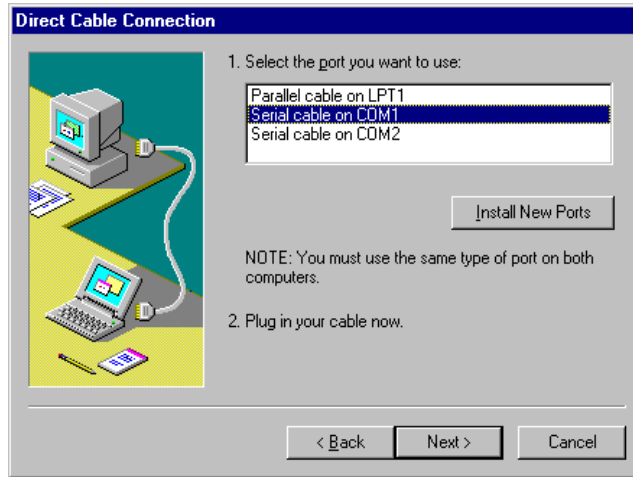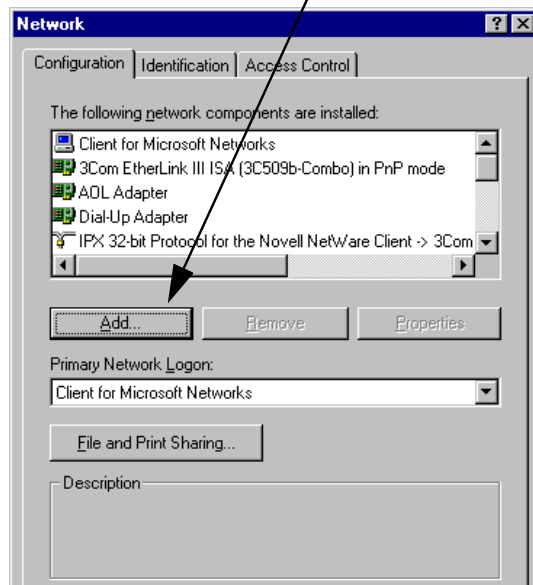
To enable access by the other PC, the host (controlling) and guest (accessing), as well as the file and print sharing option must be activated.
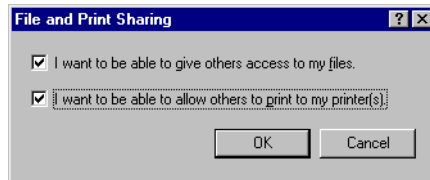
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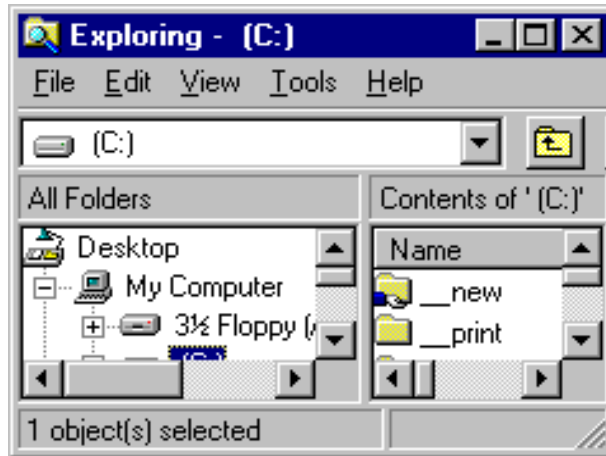
Tips & tricks, settings

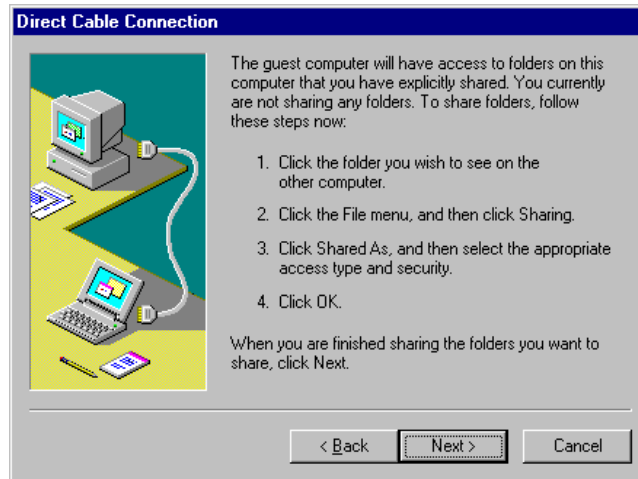Click File and Print Sharing in the sub-window.

Set the parameters here. If a modification was made, new drivers are loaded and Windows must be restarted.

If file and print sharing was already activated, the computer does not need to be restarted. Otherwise, restart your computer.

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If the computer was not restarted, the following window appears:

If file/printer sharing has not yet been activated, you can activate this feature, see "Sharing files" on page 32.

> In the final window, select *Finish* and click *OK* to answer the questions. You should now see a window titled Direct Cable Connection with the status *Accessing %1!s.*

> The message *CLIENT* should appear a number of times in the terminal program of the connected PC.

If this is not the case, repeat this procedure on another PC.

If the message *Client* does <u>not</u> appear, try the following:

● Close the Direct Cable Connection window

● Activate the task manager via *<CTRL> <ALT> <DEL>*. Select the task " *Rnaapp*" and end it by clicking *End Task*.

● Repeat step 2 and step 3.

If this is unsucessful, the problems may have a different source.

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Sharing files

Since the Windows information given in the previous mask is somewhat confusing, and since no references are made to the File Manager/Explorer, here is the correct procedure. Once file sharing has been activated and the PC restarted, you can release files for processing by the other PC via the File Manager/Explorer.

To do this, start up Windows Explorer
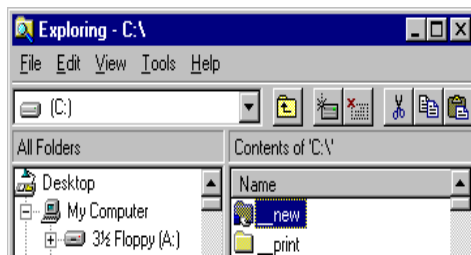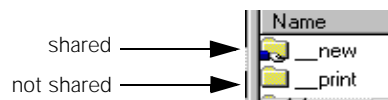

Select the appropriate folder and then click *File*[1] > *Properties*. The following mask containing the tabs *General* and *Sharing* appears:
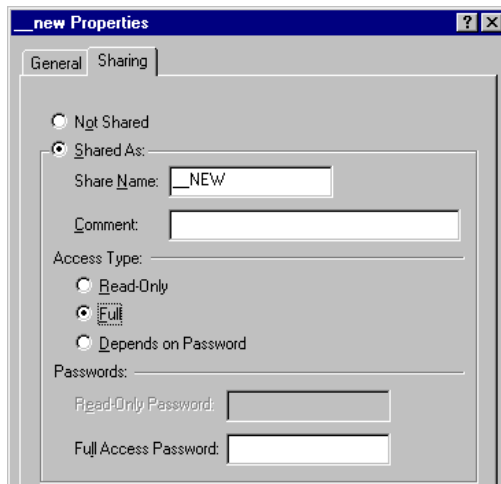
Assign rights for the other PC users on your hard disk or set a password to prevent access.

Files that support sharing are identified as follows:

shared

not shared

1 Error in Windows help: the *Properties* submenu is not described.

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PC - PC direct cable connection problems: examples

Other modem drivers installed continue to operate at the same COM port (special ISDN TA drivers, CAPI modem drivers or similar software are often the cause of the problem).

Once successfully put into service, you can start up the direct cable connection at both PCs. Remember that one PC must be set as host and the other as guest. Access to files should also be released via the settings Network/File and Print Sharing. Finally, the subfolders to be accessed by the guest must be released via the Explorer.

MAC and other operating systems

In general, Gigaset M101 Data can be implemented at every RS232/V.24 interface if data transfer is performed transparently and not on a company-specific basis (exception: AVM and Eumex) or with AT Hayes commands.

However, both Gigaset M101 Data units must first be configured and registered at a Windows 95/98/NT system. When programming a modem connection, ensure that the Gigaset M101 Data unit is connected to the correct device. To do this, we recommend that you place a sticker, e.g. marked modem or PC, under the Gigaset M101 Data unit so that the correct device is connected later.

Meaning of "lokale Station" and "Partnerstation"

These designations are used for assigning names and indicating stations in data traffic. "Local station" refers to the station that undertakes all configuration operations (also for the "Partnerstation"). This means that in the case of a direct cable connection, Gigaset M101 Data setup does not have to be installed on the second PC.

Meaning of "Basis" and "Teilnehmer"

This is an assignment in DECT radio engineering (FP = fixed part, PP=portable part) and only applies to the air interface. "Base" is a Gigaset telephone base station. In this case, "Teilnehmer" refers to a mobile unit. This is defined, for example, through the registration option. Only one Gigaset M101 Data "Teilnehmer" can be registered at a Gigaset M101 Data "Basis".

Meaning of local, remote

When **"local"** is set, the Gigaset M101 Data connected behaves like a modem/device and performs the PC COM port function.

When **"remote"** is set, the Gigaset M101 Data connected behaves like a PC and performs the function of the connected device.

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When **"AVM/Eumex"** is set, the special features of the AVM proprietary (company-specific) protocol are taken into consideration. In this case the speed settings are not compliant with AT Hayes commands.
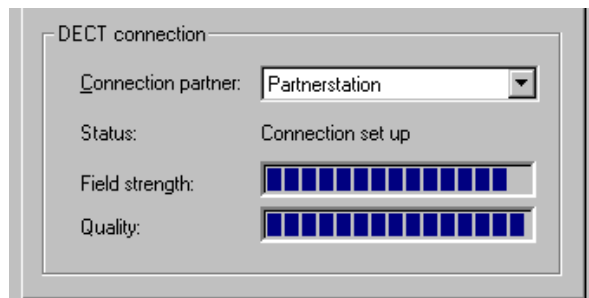
Support

Updates and news on the Internet

www.siemens.com/pc-communication-support

Notes on sending faxes directly from the PC

You may encounter problems if your PC program uses Class 1 fax mode. Class 1 does not support any delays in signal runtimes which are necessary for switching to radio mode.

Class 2 mode, on the other hand, is not as sensitive as Class 1. However, interference can still occur due to a bad radio link. If you have problems with this setting, start the configuration program and check the transmission quality under *Connection*. This can be changed by moving the Gigaset M101 Data unit slightly.

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Configuration management

Fault	Cause	Solution
Configuration program displays the message "A Gigaset M101 Data could not be found".	The COM port used is being used by another program.	Close the application that is using the COM port.
Configuration on an Apple Macintosh with "Virtual PC" is not working.	The Mac interface is an RS422 interface. In RS232 mode for this interface, the DTR signal required by the configuration program to detect the Gigaset M101 Data is missing.	Configure Gigaset M101 Data correctly at an IBM-compatible PC and the install it downstream of the Apple Macintosh.
Configuration program displays the message "Could not register at the base".	The base may not have been ready for registration or there was temporary interference on the radio link due to "external influences".	Repeat registration at a base that is ready for registration. To do this, enter the PIN (factory default "0000"). See "Registering an Teilnehmer station" on page 17.
The PIN entered is rejected.	The PIN entered does not match the valid PIN.	If you have forgotten the current PIN, reset the Gigaset M101 Data unit to the factory default. The default PIN is "0000". See "Resetting the device to the factory default" on page 19.

Problems with application programs:

Fault	Cause	Solution
PC-PC direct cable connection under WIN95 cannot be configured or is not working.	Baud rate not correctly set.	For information, see "PC - PC direct cable connection: via RS232/V.24 interface" on page 25.
Fax function is not working.	SW and modem simulate a Class1 fax.	Class 1 fax mode not supported for technical reasons by Gigaset M101 Data. Gigaset M101 Data supports Class 2 fax mode.
	For information on additional setting options, see the modem manual or fax software description. (The AT command AT+FCLASS=? is useful, providing this is supported by the modem. If there is a 2 in the answer string, your modem supports Class 2 fax mode)	
Programs that use DCD (Data Carrierer Detect) are not working properly.	The DCD output of the local station is controlled by the DCD input of the remote station.	Use the null-modem cable at the remote station.

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Fault	Cause	Solution
The modem parameter request function is not working or is not correct. For example, under Win 95 with <Start><Settings><Control Panel><Modem Properties><Diagnostics><Details>	Windows is not respecting the AT Hayes conditions.	None
	Technically specified time delays that are not supported by the modem's driver software.	None
Data transmission with Xmodem is very slow.	Xmodem is operating in half-duplex mode. After every data package, the transmitting page waits for acknowledgement. The 20-30 ms signal delay per data block on the DECT interface significantly reduces the transmission speed.	Use another transmission protocol, e.g. Zmodem.
Laplink 7.0 is not working.	Data transmission is switched during transmission. AT Hayes commands are not used for this.	None

Hardware problems (PC, modem, ISDN TA.):

Fault	Cause	Solution
PABX (telecommunications system) cannot be configured via a Gigaset M101 Data.	PABX configuration is not compatible with AT Hayes .	Configure Gigaset M101 Data in direct mode (e.g with 9600,8,N,1).
	In the case of the system, the baud rate is switched with an internal command set that is not compatible with AT Hayes.	None
ELSA TagGo2000 / ISDN configuration not possible.	----------------------------	Configure the modem with a directly connected serial cable.
The **ELSA TanGo 2000** terminal adapter cannot be used under **AOL**.	No appropriate modem profile is available.	Tests have shown that an operative X.75 connection is set up with the modem profile "ISDN ELSA TLV34 X.75 64,000".
Timers such as "**Heliowatt**" cannot be programmed.	Incorrect protocol set.	Set Gigaset M101 Data to 300 bps direct connection. Data flow setting: without.
The **ACER ISDN T30** terminal adapter cannot be operated under **AOL** with the initialisation string specified in the manual.	The initialisation string is incorrect.	The character "/" must be replaced by a "~".
The Hagenuk **Speed Dragon** terminal adapter cannot be used with the software RVS-COM.	Commands that are not compatible with Hayes are transferred with the connection.	Set the Gigaset M101 Data to 115,000 bps direct connection, see "PC - PC direct cable connection: via RS232/V.24 interface" on page 25

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Fault	Cause	Solution
Faxes are distorted when sent with **ELSA Microlink 56k** and WinFax 8.0 software.	Incorrect driver for voice functions set under WinFax 8.0.	During installation, WinFax 8.0 requires a modem driver to be selected for voice functions; the Generic / Rockwell Fax/Voice driver is to be used here according to ELSA AG.

Miscellaneous

Fault	Cause	Solution
Monitor fault when Gigaset M101 Data is active (e.g. slight flickering or moiré effect).	DECT HF wanted signal is influencing the monitor.	Move Gigaset M101 Data along the longitudinal axis until the interference disappears. Move Gigaset M101 Data further away from the monitor.
A slight humming can be heard in the loudspeakers connected to the sound card when Gigaset M101 Data is active.	DECT HF wanted signal is demodulated by the analog components of the sound card or the amplifiers of active speakers and thus produces a humming sound.	Move Gigaset M101 Data along the longitudinal axis until the interference disappears. Move Gigaset M101 Data further away from the sound card/loudspeakers.

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