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Gigaset M101 Data

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

How to use this manual

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Operating Instructions

Note

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

How to use this manual

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11. It may be useful to switch the operating mode from "AT commands (PC)" to one of the two other operating modes. This setting concerns the protocol on the serial interface, especially the speed adjustment. ***"Setting the operating mode" on page 20***.

12. Close the program with "OK".

In the event of errors or for further information, see ***"Configuration program options" on page 18***.

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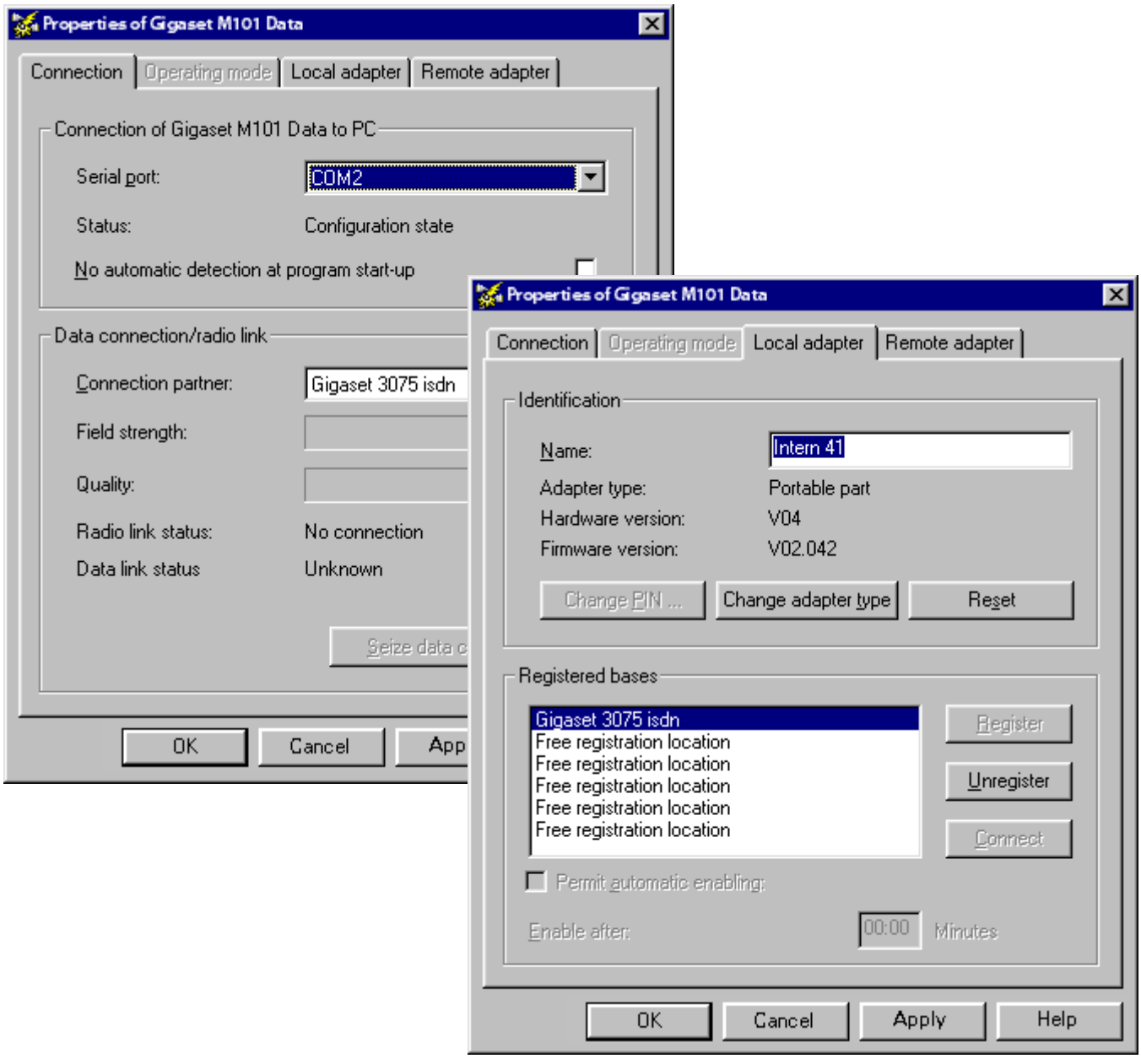
The most important menus

Starting the program

Registering a Gigaset M101 Data



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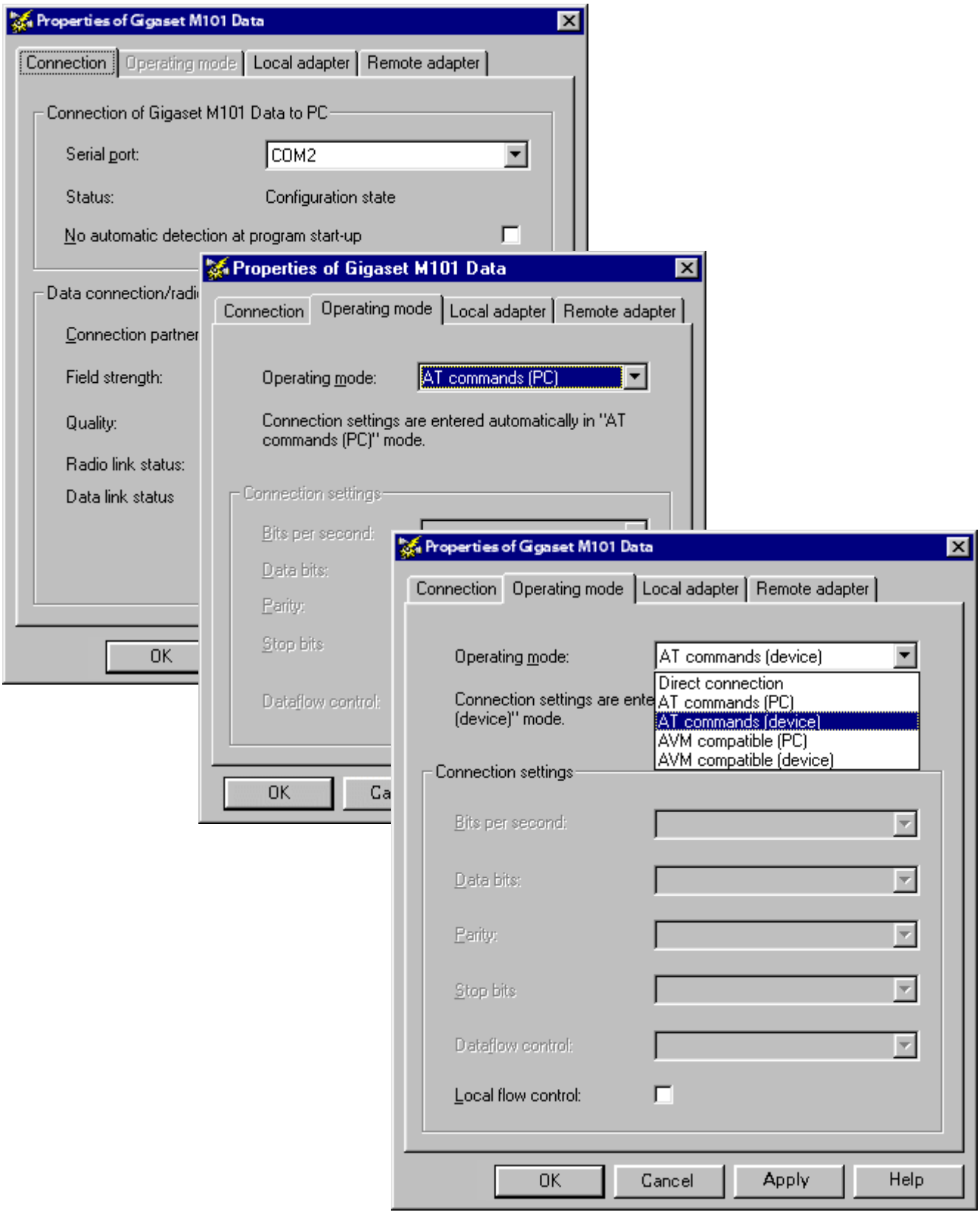
Setting the operating mode



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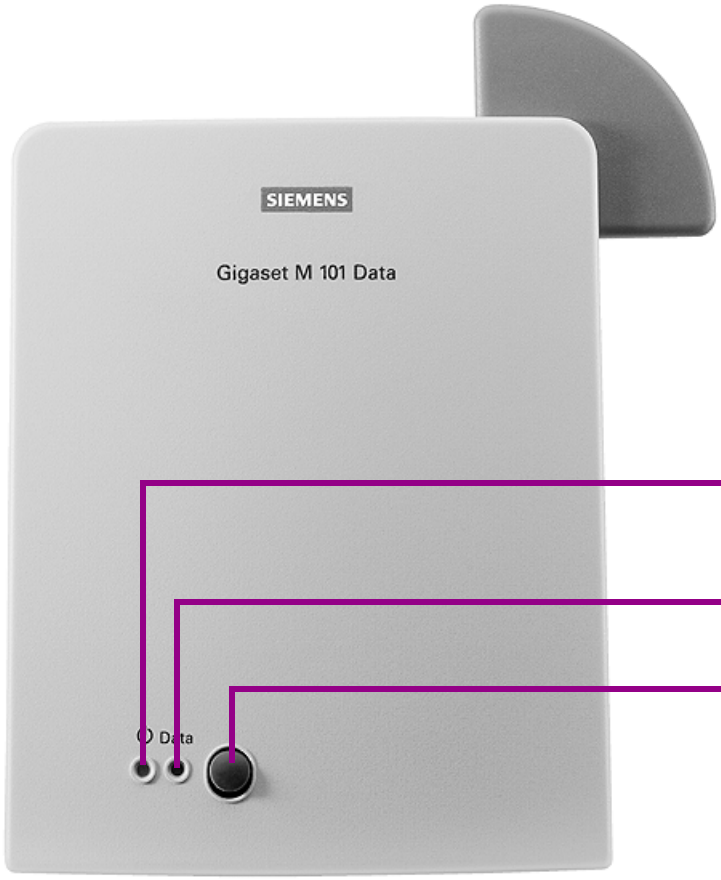
Overview



Front

1. Operating LED,
illuminated when power supply is active,
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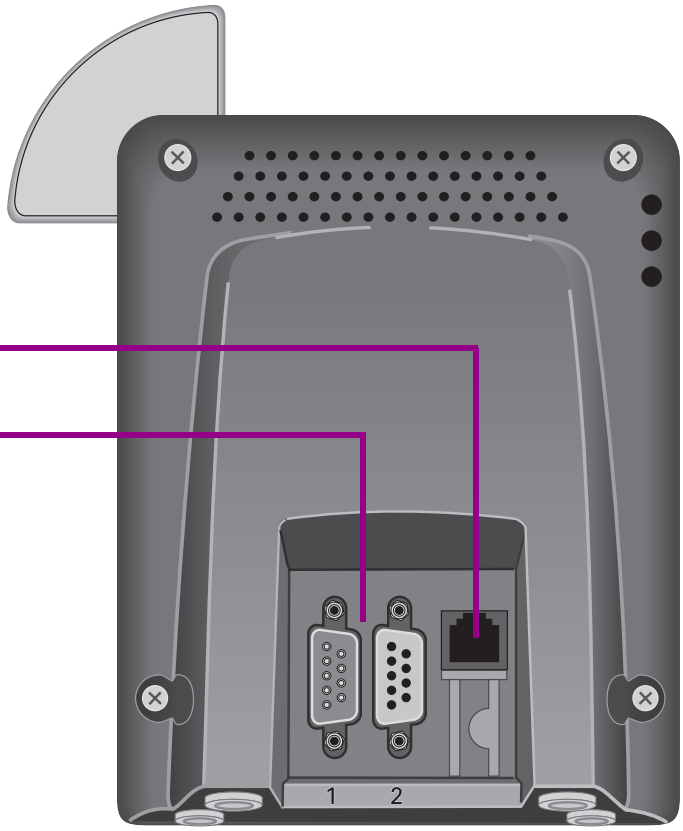
2. Data LED, illuminated during data transfer operations
3. Registration and reset key



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Introduction

What is a Gigaset M101 Data?

Your Gigaset M101 Data is a cordless V.24/RS232 serial interface consisting of two adapters: the **local adapter** and the **remote adapter**.

The adapter connected to the PC is known as the "local adapter".

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

The connection between the PC and the peripheral device is routed via the radio link between the local adapter and the remote adapter.

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

All Gigaset M101 units are "base" type adapters by default. The Gigaset M101 Data connected to the PC automatically becomes a "portable part" type adapter when the device is configured for the first time. The portable part must be registered at the base station.

Of the two adapters,

- one is a "base"; this is usually the remote adapter,
- the other is a "portable part"; this is usually the local adapter.

Every Gigaset M101 Data can be operated either as a local adapter or as a remote adapter.

Meaning of "local adapter" and "remote adapter"

These names are used for identifying the adapters and their role in data communication. The "local adapter" is the adapter that performs all configurations (also for the "remote adapter"). This means that the Gigaset M101 Data setup routine does not have to be installed on the second PC in the case of a direct cable connection.

Meaning of "base" and "portable part"

This is an assignment in the DECT connection (FP = Fixed Part, PP=Portable Part) and refers exclusively to the air interface. A base is the same as a base station in Gigaset telephony. Here, portable part is the same as handset. This is defined, for example, through the registration option. Only one Gigaset M101 Data "portable part" can be registered at a Gigaset M101 Data "base".

Meaning of "(PC)", "(device)"

In the case of **PC**, the Gigaset M101 Data unit connected behaves like a modem/device and "acts" out the function of the PC COM port.

In the case of **device**, the Gigaset M101 Data unit connected behaves like a PC and "acts" out the function of the connected device.

In the case of **AVM compatible**, the special features of the proprietary (company-specific) protocols of other companies, such as AVM are taken into account, the speed settings in this case do not correspond to AT Hayes commands.

Notes on PC 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 remote adapter within two minutes (a modem then clears down the connection).

Whenever possible, operate the adapter registered as **portable part** at your PC (local adapter), since any malfunctions on the portable part side can be displayed, for technical reasons, more quickly here than at the base, ***see "LEDs and buttons" on page 28***.

Notes on Gigaset Repeater

The Gigaset Repeater **cannot** be used to extend the radio range.

The repeater was designed for use in connection with Gigaset 2000/3000 base stations.

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. Deactivate the PC,
3. Connect Gigaset M101 Data to a free COM port
4. Activate the PC
5. Install the configuration program,
6. Conclude commissioning by performing an initial configuration, *see "Initial configuration" on page 15*

Checking the contents of the package

The package contains:	M101Data
Gigaset M101 Data	1
Plug-type AC adapter C39280-Z4-C59/C39280-Z4-C168 for mains connection	1
Serial 9-pin connection cable for connecting the V.24/RS232 interface	1
CD-ROM with the installation program and operating instructions	1

Important information

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 necessary in particular 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, see ***"Notes on installation and operation" on page 30***.

Installing the program package

Prerequisites for installation

For installation, you need:

- an IBM-compatible PC with the following configuration:
  - Win 95, Win 98, Win 2000, Win ME or Win NT 4.0 operating system
  - 5 MB free hard disk memory
  - 1 free V.24/RS232 serial interface as COM port
- the CD-ROM containing the installation program

Installing

- Start the PC and close down any programs active after start-up.
- Insert the data carrier supplied in the drive (autostart).
- If the CD does not start automatically, select **Settings** followed by **Control Panel** in the **Start** menu. Double-click the **Add/Remove Programs** icon. Note: Not necessary for Win ME.
- Select **Install**. The installation program starts. During installation, the message *"No Gigaset M101 Data connected"* appears. Confirm this message with **OK**.
  If a Gigaset M101 Data unit is already connected, this is detected and the configuration program starts.
- Terminate the configuration program with **OK**, this concludes the installation routine.

Checking the success of installation

The following errors can occur during installation:

Problem	Result
Insufficient memory	Error message, try freeing some disk space on your hard drive.
No COM port free at the PC	Error message, setup can be completed.
PC crashes during installation	Automatic correction during next attempt.

If no errors occur, all files are installed in the selected language version and your PC contains a "Gigaset M100 Data" program group. This contains the "Set Gigaset" configuration program, a help function and these operating instructions.

Connecting adapters

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

You can now perform initial configuration, ***see "Initial configuration" on page 15***.

Initial configuration

The purpose of initial configuration is to register the portable part at the base 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.

Registering Gigaset M101 Data at Gigaset 3070isdn/ 3075isdn

Proceed as follows:

1. Install Gigaset M101 Data
2. Switch Gigaset 3070isdn/3075isdn to registration mode (press LED).
3. Start the Gigaset M101 Data configuration program.
4. Select the **Local adapter** tab.
5. Click the **Register** button.

   The local adapter is now switched to **Portable part** operating mode. Normally, you must enter the base station PIN before registration is possible. However, you can skip this step during initial configuration since the base station has the factory-set PIN ("0000"). This is automatically set by the program during initial configuration.
6. Click **OK**. The registration procedure starts and the message "**If the required base is ready for registration, the local adapter logs on. Check that the base is ready for registration.**" appears on the screen.

   The two devices are automatically synchronised. An entry now appears in the **Registered adapter** list.
7. Close the program with **OK**.

   In the event of errors or for further information, see ***"Configuration program options" on page 18***.

Registering Gigaset M101 Data at Gigaset M101 Data

Proceed as follows:

1. Disconnect both adapters 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 **Set Gigaset** program at the PC.
5. Press and hold down the black button on the Gigaset M101 Data (base station) ***not*** connected to the PC. After approx. 10 seconds, the LEDs indicate that the system is ready for registration by flashing in sequence.
6. Select the **Local adapter** tab.
7. Click the **Register** button.

   The local adapter is now switched to **Portable part** operating mode. Normally, you must enter the base station PIN before registration is possible. However, you can skip this step during initial configuration since the base station has the factory-set PIN ("0000"). This is automatically set by the program during initial configuration.
8. Click **OK**. The registration procedure starts and the message "**If the required base is ready for registration, the local adapter logs on. Check that the base is ready for registration.**" appears on the screen.

   The two devices are automatically synchronised. An entry now appears in the **Registered bases** list.
9. Assign a suitable name to the local adapter, e.g. "PC".
10. Open the **Remote adapter** tab and assign a name to it, e.g. "Modem". The registered portable part now also appears in this window.
11. It may be useful to switch the operating mode from "AT commands (PC)" to one of the two other operating modes. This setting concerns the protocol on the serial interface, especially the speed adjustment. For more information, see ***"Setting the operating mode" on page 20***.
12. Close the program with **OK**.

    In the event of errors or for further information, see ***"Configuration program options" on page 18***.

Registering Gigaset M105 Data at Gigaset M101 Data

Proceed as follows:

1. Gigaset M105 Data has been installed.
2. If the M101 is not already in the standard factory setting, make sure that the M101 is set to the type "Base". Take the type display and the switch-over options from the configuration program.
3. Press and hold down the black button on the Gigaset M101 Data (partner station). After about 10 seconds, the LEDs flash alternately to indicate "ready for registration".
4. Start the **Set Gigaset** program on the PC to which the Gigaset M105 Data is connected.
5. Select the **Local station** registration card. The type is **Portable part**.
6. Click the **Register** button and enter the PIN.
7. Click **OK**. The registration procedure starts and the message "**If the required base is ready for registration, the local adapter logs on. Check that the base is ready for registration.**" appears on the screen.

   The two devices set themselves up automatically. There should now be one entry in the **Registered bases** list.
8. Give the local station a suitable name, e.g. "PC".
9. Select the **Remote adapter** registration card and call the partner station, say, "Gigaset M101 Data". In this case too, the registered subscriber is indicated in the window.
10. Select the **Operating mode** registration card and set the operating mode you want. For a direct connection (PC-PC connection) set, say, the following parameters: Bits per second: 115200 - Data bits: 8 - Parity: None (N) - Stop bits: 1 - Protocol: Hardware (RTS/CTS).
11. Quit the program with **OK**.

Configuration program options

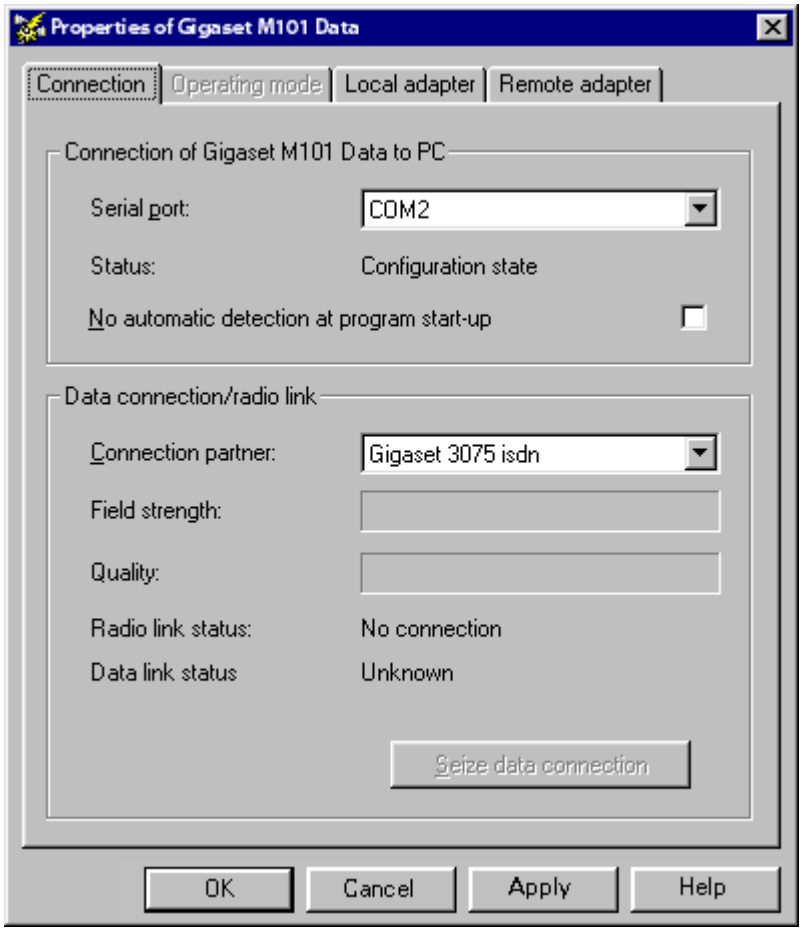
General

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 M100 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 adapter** and **Remote adapter**.

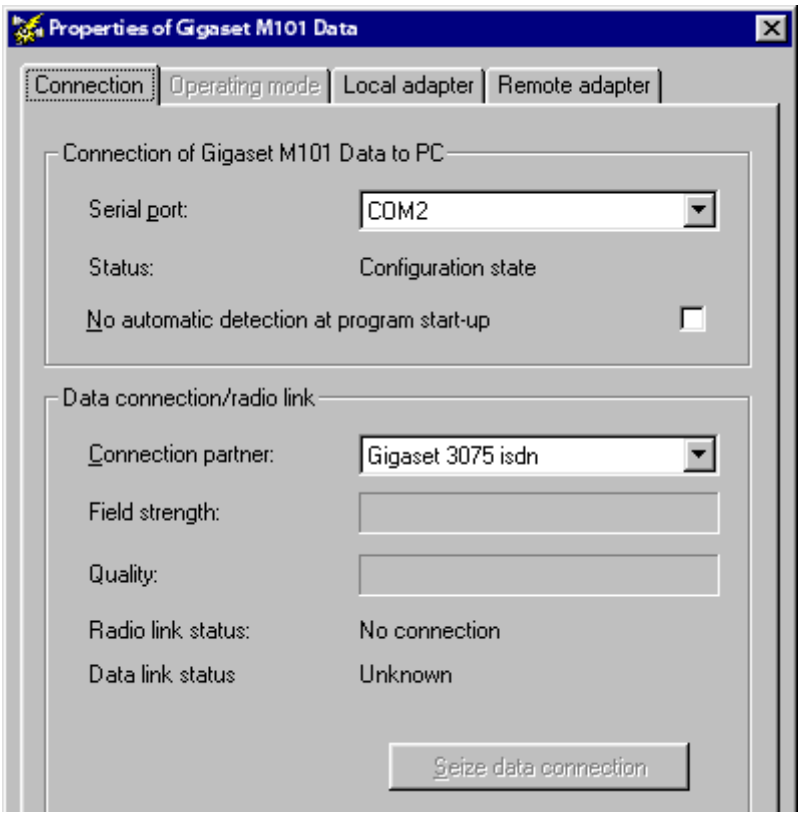


A number of special fields are also provided for special inputs.

"Connection" tab

Upper section: connecting to the PC

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



We recommend leaving the option **No automatic detection at program start-up** deactivated (as shown). The program then checks the existing COM ports and determines where the adapter 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 an adapter or identifies the manually selected interface, it sends it the configuration command via the control lines. This action switches the adapter to configuration status. This is indicated by the **Status** display in the dialog box. Gigaset M101 Data can only be configured under these conditions. Your Gigaset M101 Data will automatically switch the adapter back to operating status at the end of the program.

Lower section: DECT connection

This section indicates whether a radio connection exists and if so, to which remote adapter. It also indicates the quality of the connection.
A remote adapter must be registered before it can be selected here.

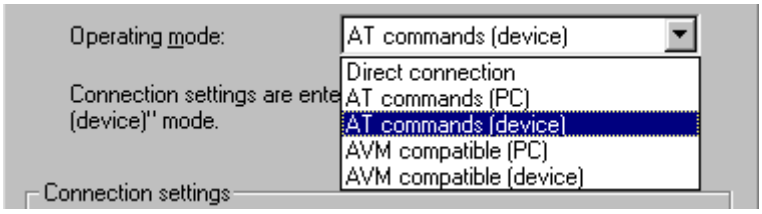
"Operating mode" tab

Important:

If one of the adapters is set to "AT commands (PC)" or "AVM compatible (PC)", the other adapter must switch to the corresponding operating mode "AT commands (device)" or "AVM compatible (device)". If one adapter is switched to "Direct connection", the other adapter must also be switched to this mode. The appropriate switches are performed automatically if you select an operating mode for a 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:

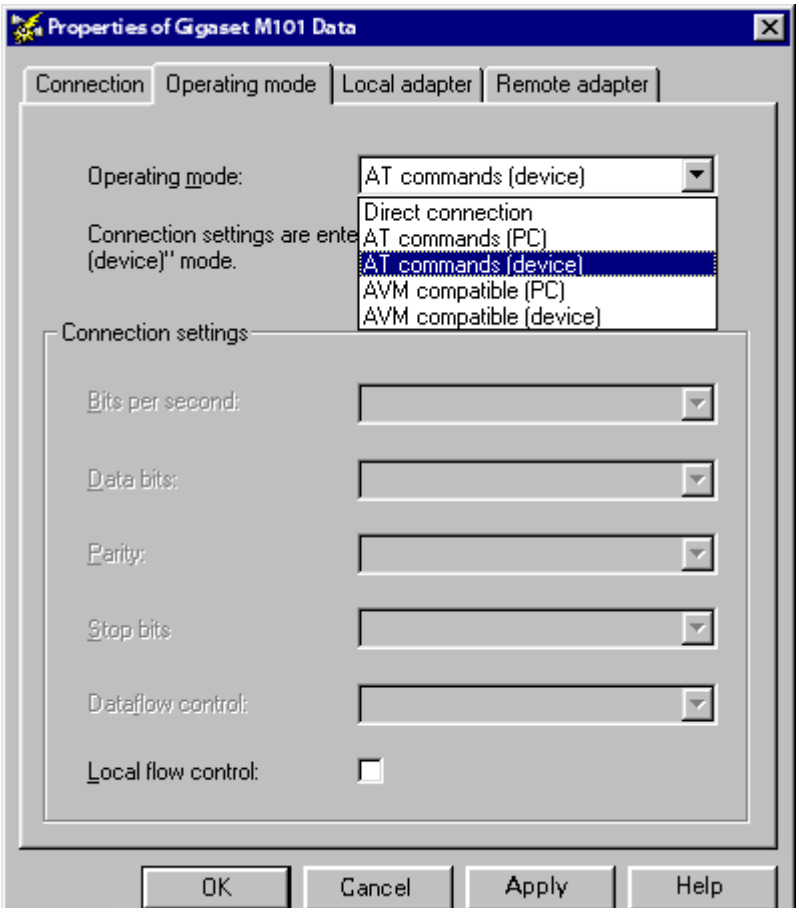
Direct connection	The permanent transmission parameters for the PC's COM port are manually set at the computer without automatic baud rate or data format recognition. This is always useful if the device at the remote adapter does not support baud rate or data format recognition as performed by conventional modems, e.g. in the case of a second PC.
AT commands (PC) ➔ page 9	Automatic recognition of the transmission parameters based on the data from the PC at the local adapter.
AT commands (device) ➔ page 9	Automatic emulation of the transmission parameters based on the values received from the PC at the remote adapter.
AVM compatible (PC) ➔ page 9	Automatic recognition of the transmission parameters in AVM-compatible format based on the data from the PC at the local adapter.
AVM compatible (device)	Automatic emulation of the transmission parameters in AVM-compatible format on the basis values received from the PC at the remote adapter.

Special settings for "Direct connection" mode

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

Use the default settings if you do not want to change any other parameters. In the event of malfunctions, reduce the speed in the **Bits per second** field. 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.



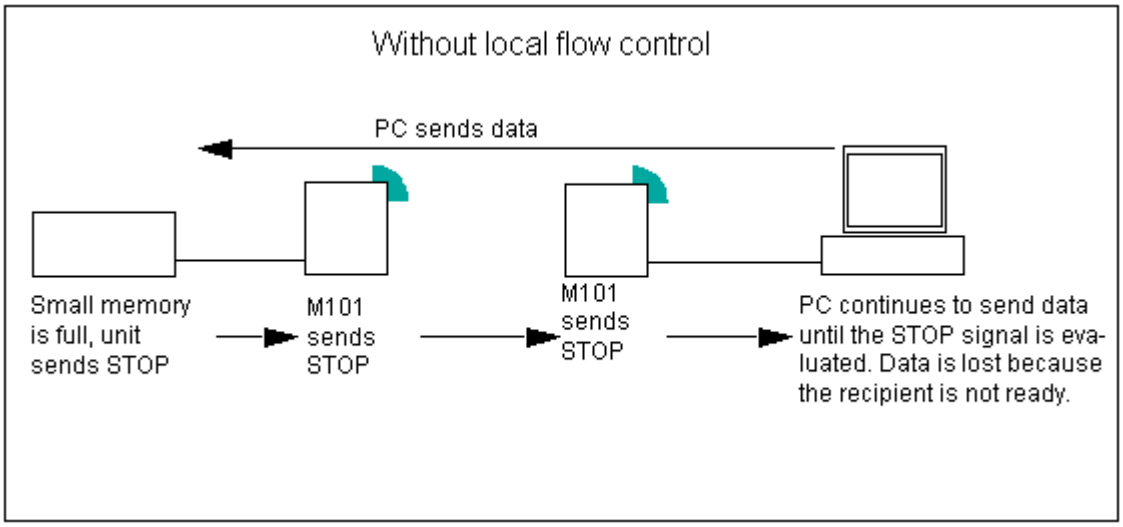
Dataflow control list

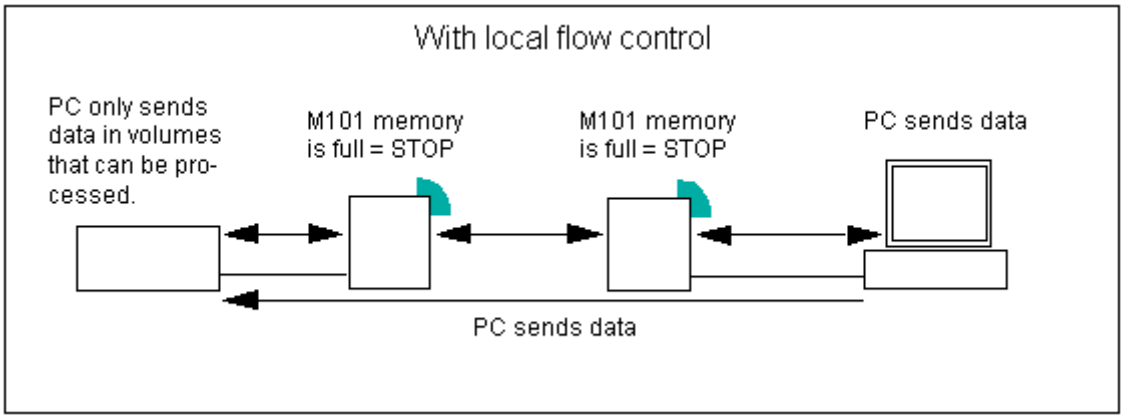
You can set whether the data transmission is controlled by the hardware or software. The usual setting is *Hardware (RTS/CTS)*. RTS means "Request To Send" and CTS means "Clear To Send".

Local flow control check box

Local flow control normally does not have to be activated except when operating low-memory V.24 terminals. Activating local flow control can help in the event of data transmission problems (e.g. sending faxes, operating a serial printer).

When local flow control is active, the Gigaset M101 Data unit connected to the V.24 terminal immediately stops outputting data in the direction of the terminal when a STOP signal is received and saves this data in its own memory. This ensures that the PC only sends data that can be processed by the transmission route (saved). If local flow control is not activated, the V.24 terminal's STOP signal is transferred to the PC. During this time (less than 10 ms), the PC continues to send data. All of this data is output by the Gigaset M101 Data unit in the direction of the V.24 terminal. If the terminal does not have sufficient memory to receive this data, the data is lost.





"Local adapter" tab

Changing the name

The purpose of adapter names is to provide a rapid overview. The local adapter must be called "PC". The remote adapters should, if possible, be named after the peripheral device connected, e.g. "Modem".

Adapter names can be changed by entering or changing a name in the Name field. Names can contain letters and digits as well as blanks. The name must not contain more than 20 characters.

Changing the adapter type

Normally, a portable part is operated at the PC and the base station is operated at the peripheral device. Other constellations, however, are possible in which both adapters are connected to a PC in order, for example, to create a cordless data connection between two PCs. In this case, the adapter type of one of Gigaset M101 Data units must be **base** while the adapter type of the other must be **portable part**. Or you can implement more than one remote adapter in order to control a second PC or the modem alternately. It may also be necessary here to change the adapter type at one of the Gigaset M101 Data units.

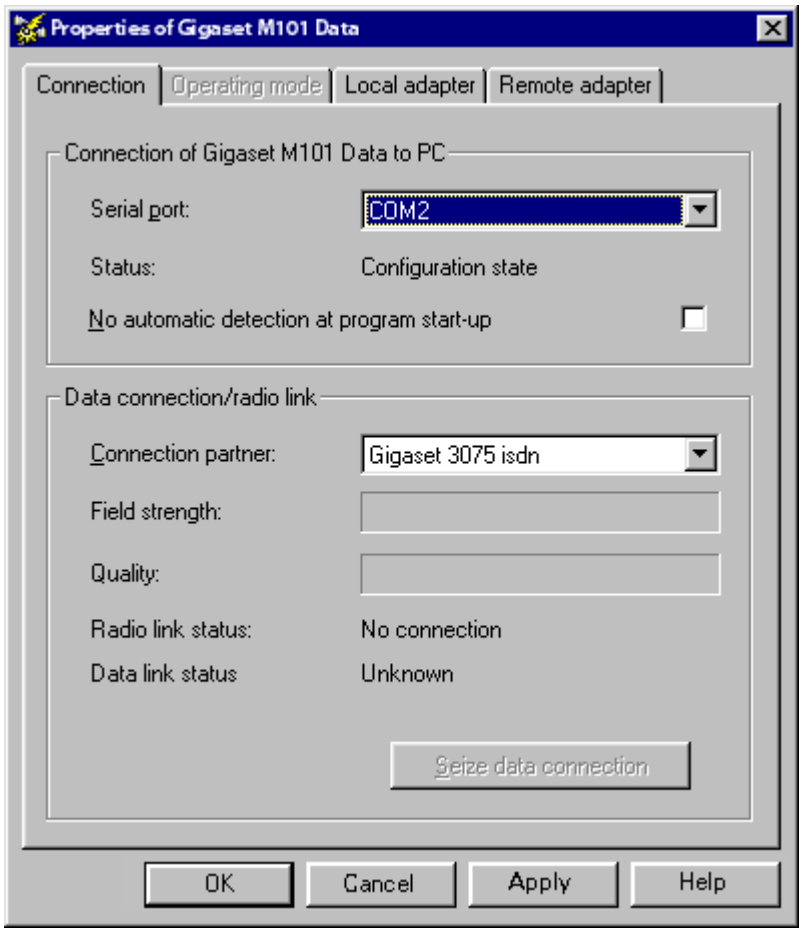
- Ensure that the correct Gigaset M101 Data is connected at the PC.
- Select **Change adapter type**. The change is performed in the background. You can see that it has been performed when the information in the **Adapter type** line changes.

Registering a portable part

Both adapters are powered. One Gigaset M101 Data unit is connected to the PC.

Select the **Local adapter** tab.

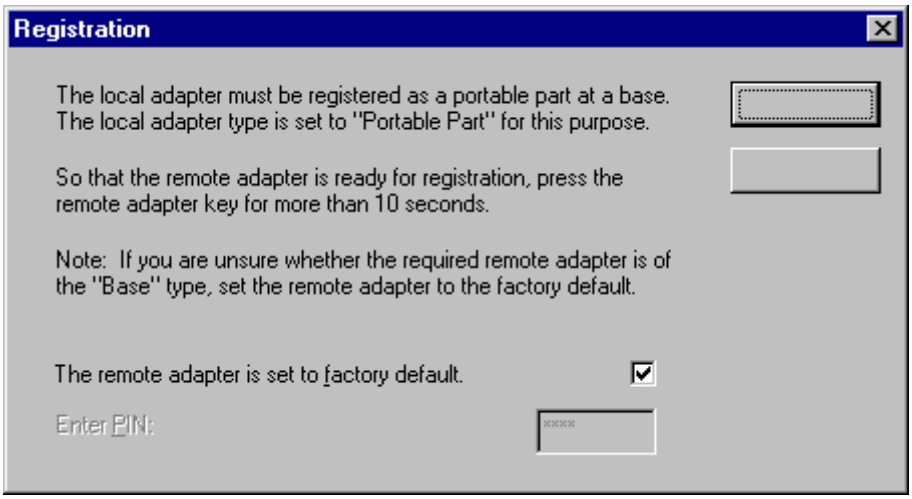
The following dialog box appears:



Up to six registered devices can be entered in the **Registered adapter** window. Depending on the adapter type of the local adapter, **Registered adapter** or **Registered bases** is displayed.

Select a portable part and click **Register**.

The following window appears when the local adapter is a base (factory setting):



Click **OK**.

The portable part now searches for the base station and automatically registers at it.

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

De-registering a portable part

Select the adapter in the window and click **Unregister**.

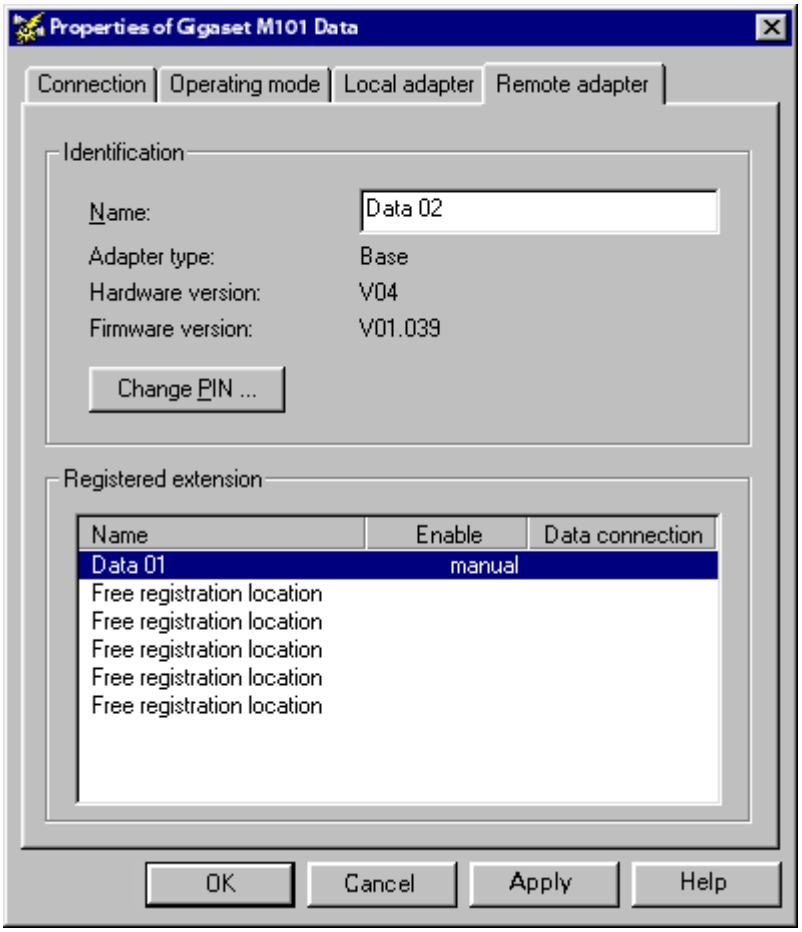
Automatic enabling

The automatic enabling feature eliminates the need to enable the data connection manually. If the V.24 interface is not used for a set length of time (no activity on the V.24 interface and control line DTR = 0), then this is automatically enabled and can be automatically seized by another portable part.

At least one portable part must be registered before the automatic enabling feature can be set. In the window Properties of Gigaset M101 Data, under the tab **Local adapter** click on „Permit automatic enabling: (see "Registering a portable part" on page 24).
Enter the desired number of minutes in the field "Enable after:"

"Remote adapter" tab

This tab is used for configuring the remote adapter that is not connected to the PC. Registration must be performed first so that the two Gigaset M101 Data units can communicate.



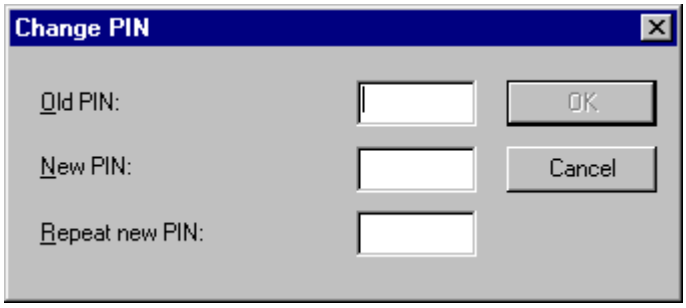
The **Remote adapter** tab is only available after registration on the **Local adapter** tab.

Changing the name

As for local adapter, *see "Changing the name" on page 23*.

Changing the PIN

Click **Change PIN**.



Enter the old PIN (PIN: 1–8 digits, default: 0000) to obtain authorisation to change the PIN and press the tab key.

Enter the new PIN and press the tab key.

Enter the new PIN in the Repeat new PIN 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.

Button functions

Setting a base to registration mode

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

Resetting the device to the factory defaults

For Gigaset 101 Data only:

Press and hold down the black button on the front of the device while the unit is being disconnected from the power supply. Reconnect the power supply keeping the button depressed. LED 2 lights up after 10 seconds. This LED goes out in another 10 seconds indicating that the reset operation was successful. Release the button. The local adapter can be reset via the configuration mask.

LED 1: Gigaset M101 Data status

LED 1 indicates stand-by mode:

LED 1 flashes slowly	The adapter is searching for the partner or has not been registered.
LED 1 flashes quickly	The partner was found, the data connection is not assigned to the transmission route.
LED 1 is constantly lit	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/is lit	Data transfer active

Notes on installation and operation

Place of installation

There must be a 220/230 V AC and 50 Hz power socket nearby.

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 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 base and portable part 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 range for a radio connection between the local adapter and the remote adapter is approx. 300 m outdoors and approx. 50 m indoors.

Temperature and ambient conditions

Gigaset M101 Data is designed for operation in protected rooms with a temperature range from +5 °C to +45 °C and 20 % to 75 % relative humidity.

Do not install the Gigaset M101 Data unit in damp environments, such as a bathroom or laundry room. Do not expose it to direct sunlight or other heat sources, such as radiators.

Why set an operating mode? Technical background

Configuration must always be performed for both M101 units on a V.24 link.

Serial interfaces are more than connectors. They have an integrated dataflow control, control lines, data lines and an adjustable speed function. Serial interface are used to transport data in various formats.

Modems are usually controlled with AT commands or proprietary protocols that they receive via their serial interface. On the basis of these commands, modems can recognise the data format and speed at which the data is transferred. The automatic recognition of transmission parameters

is important and must be emulated by the radio link if a device that understands the AT or AVM-compatible commands and that is used for parameter synchronisation is connected to the remote adapter.

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 transmitted 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 remote adapter, "Direct connection" is selected as the operating mode.

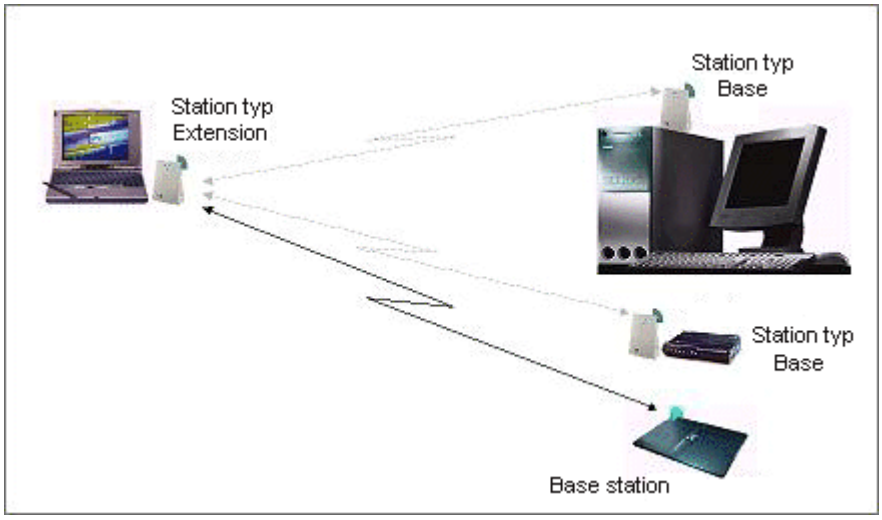
There are **five** possible operating modes for every Gigaset M101 Data:

1. **Direct connection:** this operating mode is implemented for all devices that are not controlled with AT or AVM-compatible commands.
2. **AT commands or AVM compatible (PC):** this is the operating mode for the local adapter. The Gigaset M101 Data unit determines the conditions on the serial interface in the same way as a modem. In addition to the data, the transmission parameters are also transmitted to the remote adapter which then transfers the data to the connected device.
3. **AT commands or AVM compatible (device):** in this operating mode, the remote adapter controls a terminal that understands AT commands.

Tips&tricks, settings

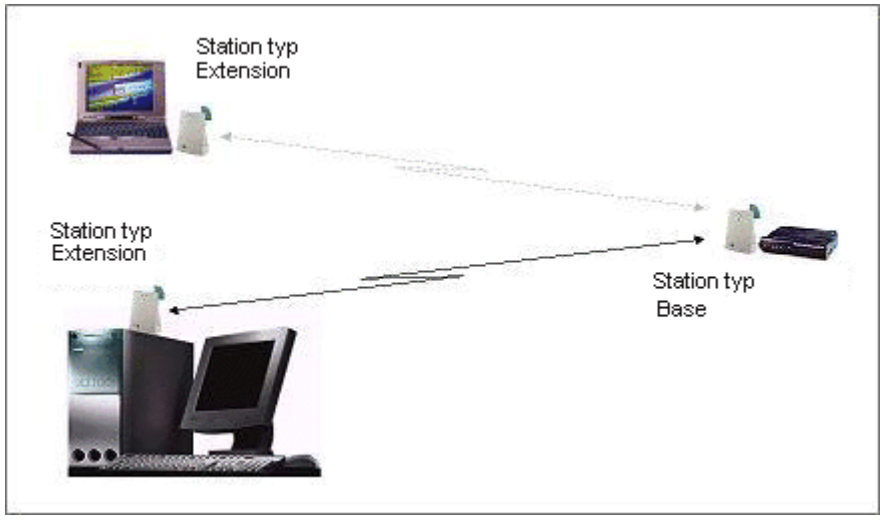
This section describes settings, implementation options and programming methods.

Access to different V.24 terminals from a laptop:



- All terminals (PC, modem, Gigaset 307x) can be accessed from a laptop.
- Only one data connection at a time can ever be set up to a terminal.
- You must select the relevant connection partner in the configuration mask in order to switch between the various terminals. This can be done in the **Connection partner** list in the *Connection* tab (➔ page 19) and via the **Connect** button in the *Local adapter* tab (➔ page 23).
- If Gigaset 307x, for example, is selected as the connection partner, then an incoming call at the modem, for example, cannot be signalled at the laptop. This is not resolved by "permit automatic enabling" feature (➔ page 25).

Sequential access from multiple computers to a terminal (modem-sharing):



- Multiple portable parts (PC, laptop) share a terminal (modem).
- Only one data connection at a time can ever be set up from a "portable part to the terminal".
- Simultaneous access from both portable parts to the modem is not possible.
- If the data connection, for example, is seized by the PC, and the laptop would now like to be able to access the modem, there are two ways in which the laptop can reach the data connection:

  a) the laptop user asks the PC user to manually enable the data connection. This is done by pressing the **Clear down data connection** button in the configuration mask's *Connection* tab (➔ page 19). The data connection can only now be seized by another portable part. This is done at the V.24 interface.

  b) the "permit automatic enabling" feature eliminates the need to manually enable the data connection (➔ page 25). Automatic enabling is configured with the help of the configuration mask in the *Local adapter* tab (➔ page 23). If the V.24 interface is not used for a particular length of time (no activity at the V.24 interface and control line DTR = 0), then it is automatically enabled and can thus be seized by another portable part.

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

The problem that often occurs with PC-PC direct cable connection is incorrect baud rate setting. The following section describes the configuration of a PC-PC direct cable connection at a Win95 system (similar for WIN98).

Before using the actual Gigaset M101 Data unit, application functionality should be checked using a null-modem cable. After the test, remove the null-modem cable and install the cable supplied. This accelerates fault detection and clearance. If this is not possible, the precise configuration is to be examined.

- The Gigaset M101 Data unit can be set to a fixed baud rate (direct connection 115200 bps with HW handshake).

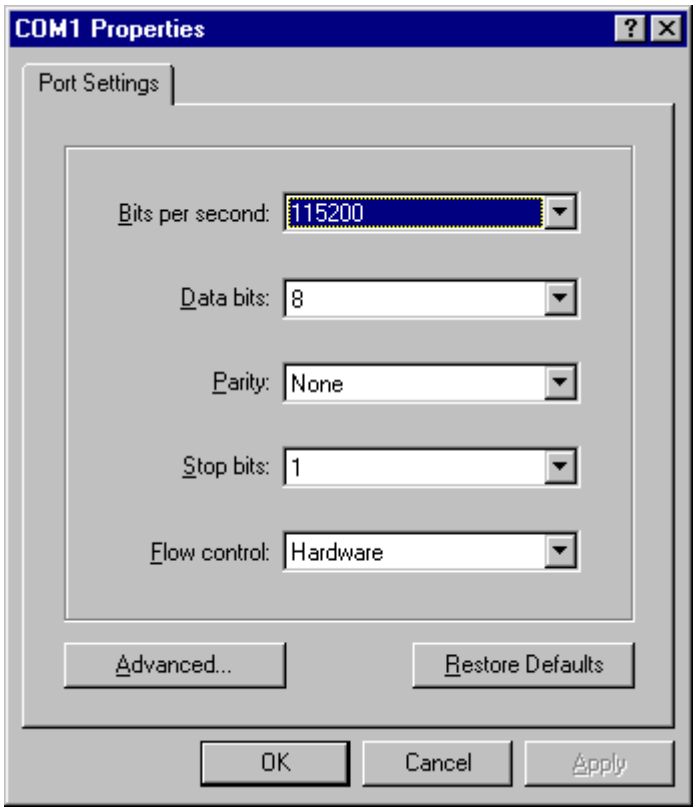
Setting the direct connection to the correct baud rate

1. Open the terminal program

First of all, open a terminal program (e.g. Win95 HyperTerminal via Hypertrm.exe) at both PCs and ensure that the correct COM port is being accessed.

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

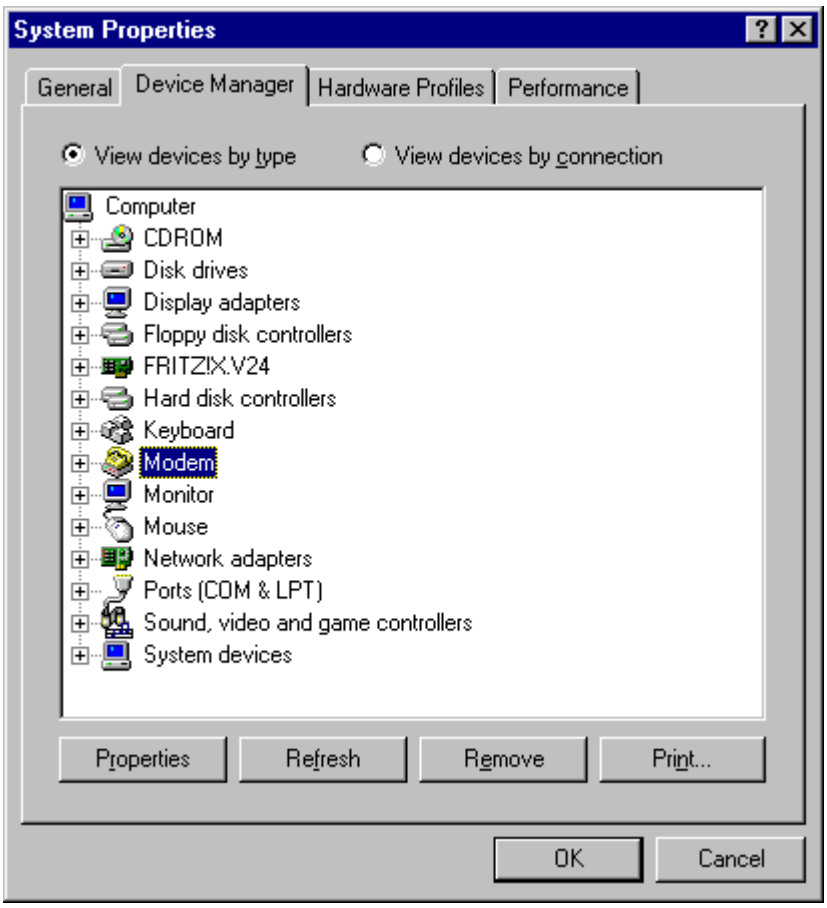
Then set the port speed:



The baud rate (max. 115200) and HW handshake (default setting) are set in this mask. If you can now transfer data from one PC to another, proceed with the second step.

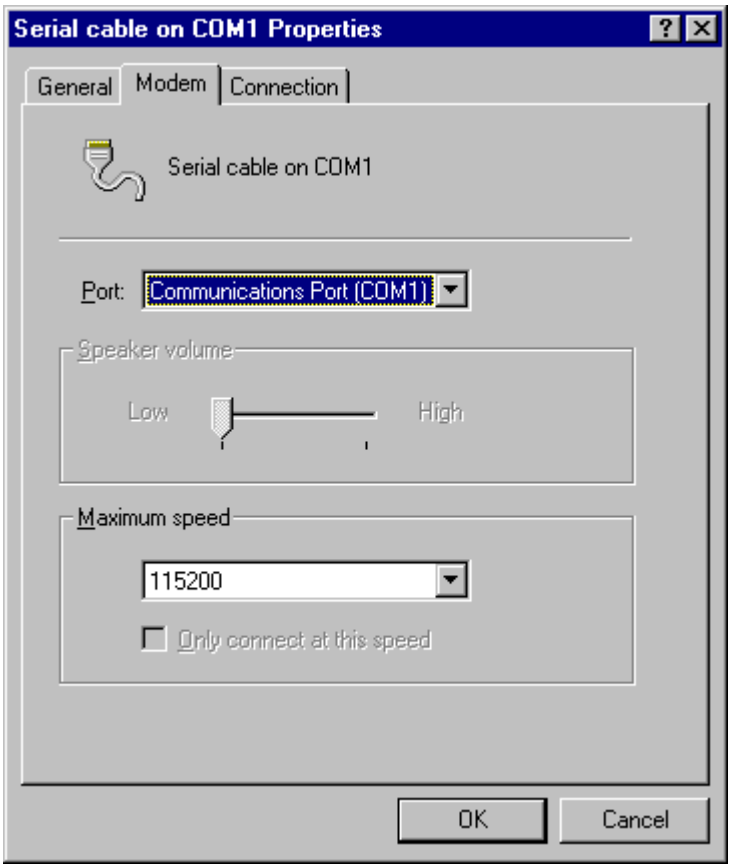
2. Set the direct cable connection parameters

Exit the terminal program at one of the PCs. Under the Win95 Start menu, select **Settings** > **Control Panel** and open the window **Control Panel** window. Double-click the **System** icon (you should now see the **System Properties** window). Select the **Device Manager** tab. Find the **Modem** icon in the folder.



Double-click the 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 another subfolder.

This **Modem** tab contains the setting for the maximum speed. This should be set to 115200 bps.



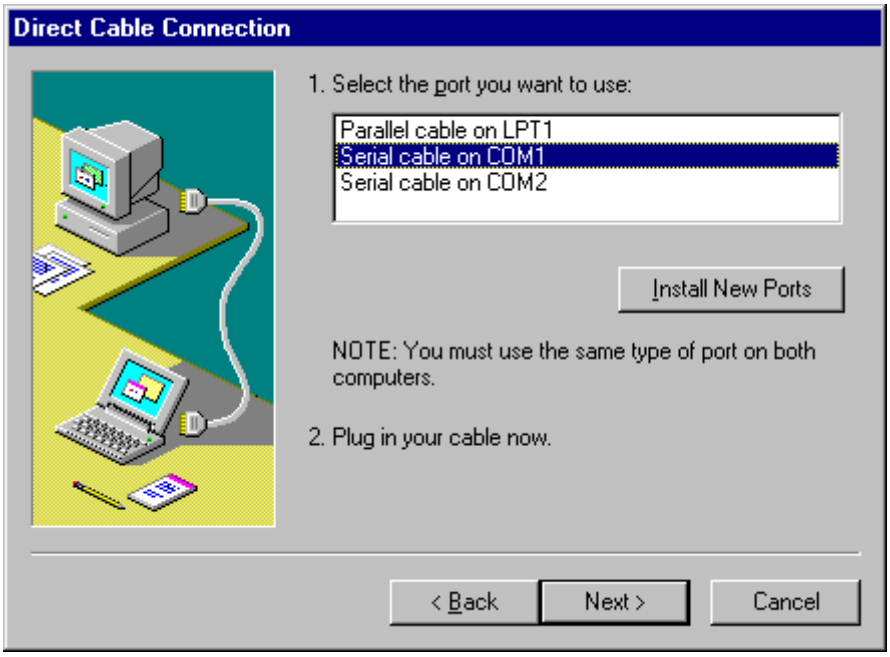
Activate **Hardware** under Use flow control in **Connection** > **Advanced**. Click **OK** to exit each window.

3. Test the baud rate setting

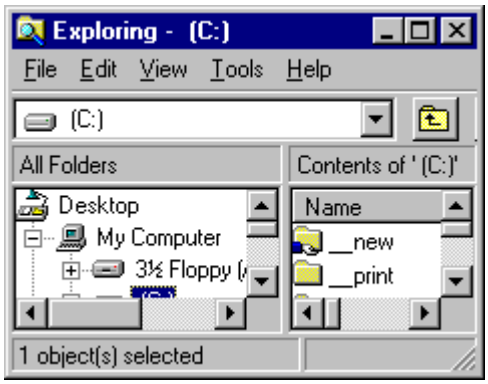
   Open the **direct cable connection** program under **Start** > **Programs** > **Accessories**.

   If this icon is missing, you may have to reinstall the appropriate software from the Win 95 system CD.
   To do this, select **Control Panel**, **Add/Remove Programs**, **Windows Setup**, **Communications**, **Details**, **Direct Cable Connection**.

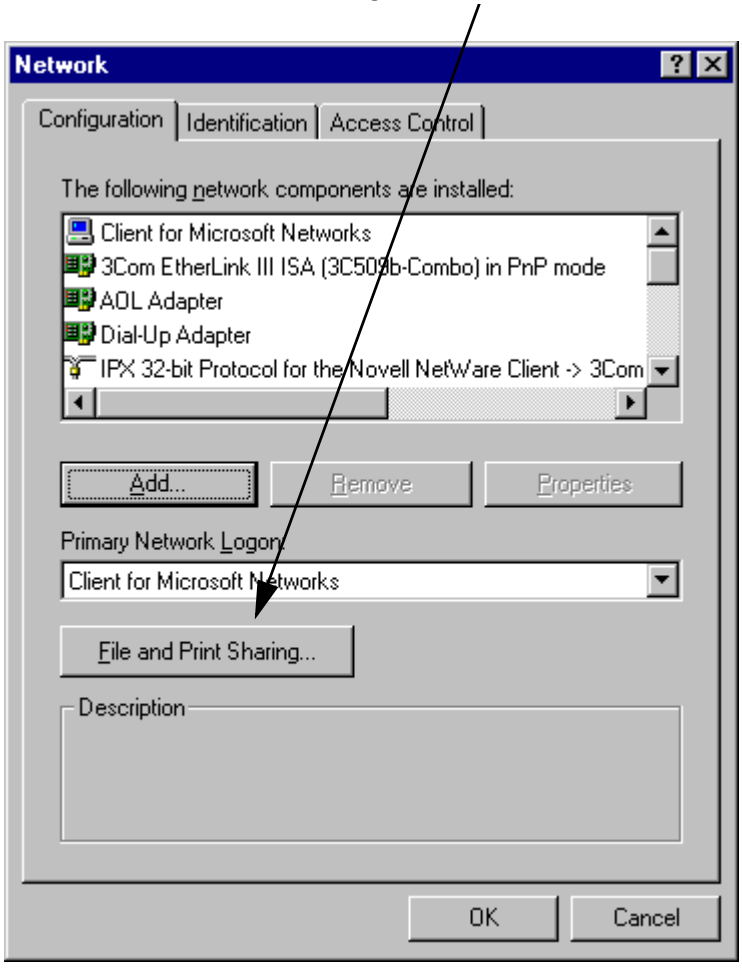
Select **Change** and activate **Guest**. Then enter the interface, e.g. **Null-Modem Cable at COM 1**.



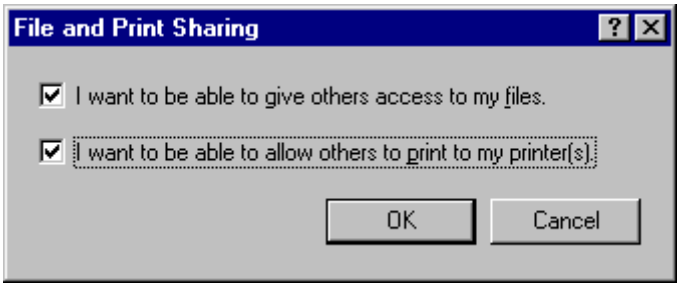
To enable access by the other PC, the host (controlling party) and guest (accessing party) as well as the file and print sharing option must be activated.



Click File and Print Sharing in the sub-window.

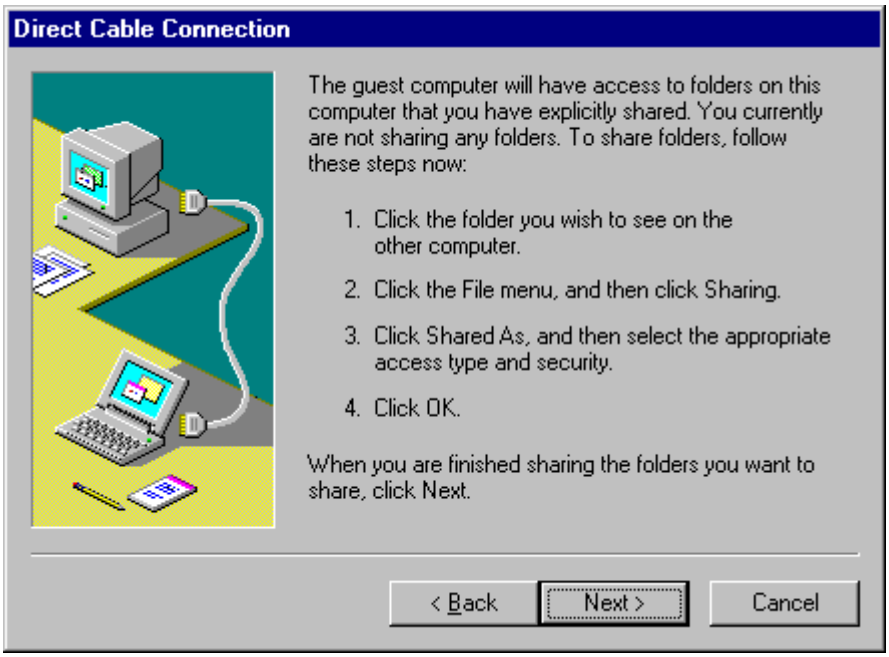


Set the parameters here. If a change was made, new drivers are loaded and Windows must be restarted.



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

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



If file/printer sharing has not yet been activated, start to activate it, see *"Sharing files" on page 40*.

In the final window, select **Finish** and click **OK** to answer the questions. A window entitled **Direct Cable Connection** with the status **Accessing %1!s** should now appear.

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

If this is the case, repeat the steps already described at the other computer.

If the Client message does **not** appear, please try the following:

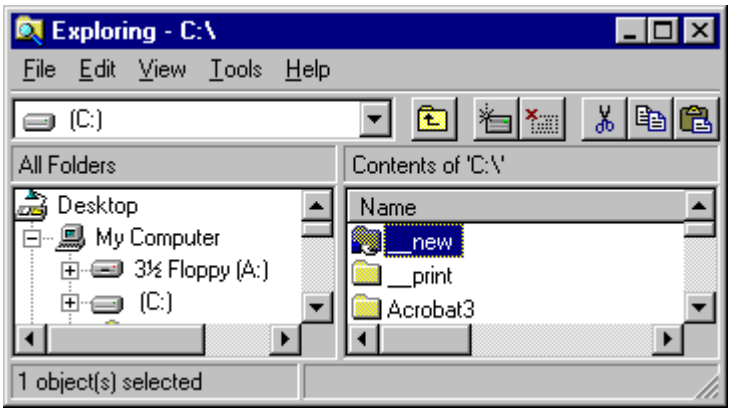
- Close the **Direct Cable Connection** window.
- Open the Task Manager by pressing **<CTRL> <ALT> <DEL>**. If you see a task called *Rnaapp*, select it and end it by clicking *End Task*.
- Repeat steps 2 and 3.

If this is unsuccessful, the problem may have a different source.

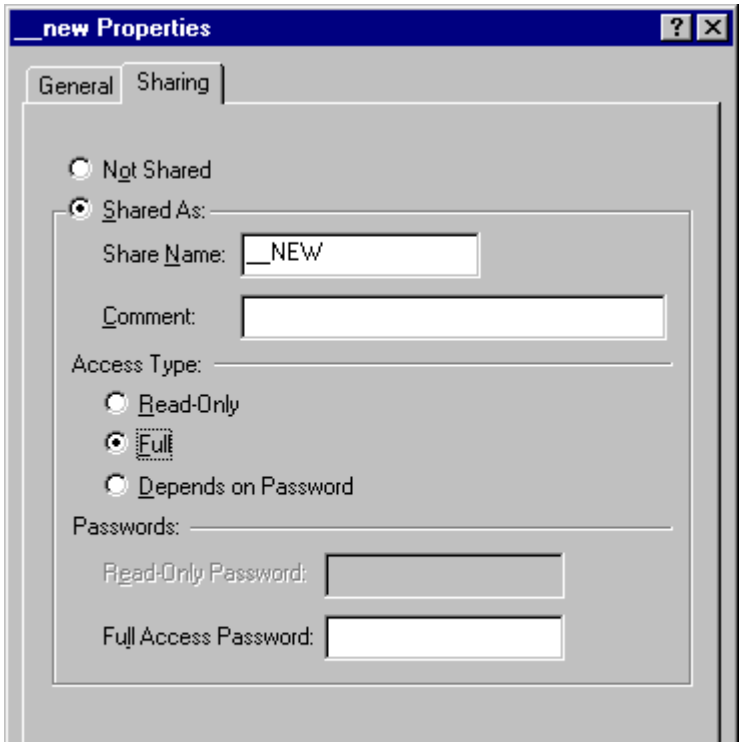
Sharing files

Since the Windows information 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.

Start the **Explorer**:



Select the relevant folder and the click **File**[1] > **Properties**. The following window containing the tabs **General** and **Release** appears:

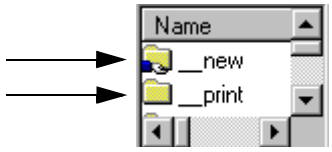


Assign the other PC user access rights to the files on your hard disk, or where applicable, activate password protection.

Files that support sharing are identified as follows:

shared

not shared



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


Examples of PC-PC direct cable connection problems

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 computers. Do not forget that one PC must be set as the host and the other as the guest. Access to files should also be enabled 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, provided the data transfer is transparent and not performed on a company-specific basis (exception: AVM compatible) or with AT Hayes commands.

However, the two Gigaset M101 Data units used must first have been configured and registered at a Windows 95/98/2K/NT system. Please ensure that the Gigaset M101 Data unit is connected to the correct device when programming the modem connection. To do this, we recommend that you place a sticker marked modem or PC, for example, under the Gigaset M101 Data unit so that the correct device is connected later.

What happens if...

If a malfunction occurs, check the following points:

- Both adapters are powered.
- The cable connections to the connected devices are fully inserted and screwed in.
- The adapters are not too far apart and there are no large parts of buildings in between (see *"Place of installation" on page 30*).
- Registration was successful.
- The local adapter operating mode is set to **AT command (PC)** or **AVM compatible (PC)**.

  Or:

- The local adapter operating mode is set to **Direct connection** ***and*** you have set the direct connection transmission parameters in your communication software.

If the malfunction still occurs, reset both Gigaset M101 Data units to the factory defaults, see *"Resetting the device to the factory defaults" on page 28*.

If the malfunction persists after checking all the above points, call the hotline at 0180 5 333 220.

If you are in Austria and your unit

- is connected to a single connection, contact the Siemens hotline at 01/1707-5004
- is connected to a telephone system, contact the relevant installation company, e.g. Siemens Nebenstellenanlagen in Vienna, NÖ, Bgld. Telephone: 01/1705

Siemens Service should only be contacted if problems develop with the device. Your specialist dealer will be happy to answer any questions concerning unit operation. Contact your network operator/provider for questions concerning telephone connection.

Internet: www.siemens.de/gigaset

Support

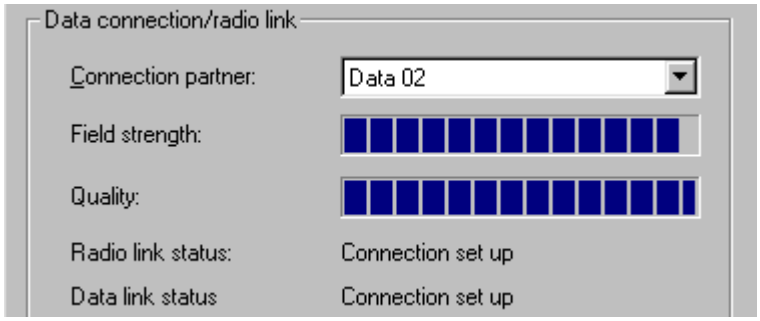
Updates and news on the Internet

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 signal runtime delays which are required for switching to radio mode.

Class 2 mode, on the other hand is less sensitive. Nevertheless, interference can still occur here due to a bad radio link. If you have problems with this setting, start the configuration program and check the transmission quality under **Connection** and improve the quality of the connection by moving the Gigaset M101 Data unit slightly.



Configuration management

Fault	Cause	Solution
Message from configuration program: "Data adapter not 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 uses an RS422 interface. In RS232 mode, this interface does not receive the DTR signal that is required by the configuration program for detecting the Gigaset M101 Data unit.	Configure Gigaset M101 Data at an IBM-compatible PC for this application with the appropriate parameters and then install it downstream of an Apple Macintosh.
Message from configuration program: Registration not possible.	The base station may not have been ready for registration or the radio connection was temporarily affected by "external influences".	Repeat registration with a base that is ready. The PIN must be entered for this (factory setting: "0000"). See ***"Registering a portable part" on page 24***.
PIN entered is rejected	The PIN entered does not match the valid PIN.	If you forgot the current PIN, reset the Gigaset M101 Data unit to the factory defaults. The preset PIN is "0000". See ***"Resetting the device to the factory defaults" on page 28***.

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.	*See "PC-PC direct cable connection: via RS232/V.24 interface" on page 34*.
Fax function is not working.	SW and modem simulate a Class1 fax.	Class 1 fax mode is not supported by Gigaset M101 Data for technical reasons. Gigaset M101 Data supports Class 2 fax mode.
	Find out about additional settings in the modem manual or description of your fax software. (The AT command AT+FCLASS=? is useful, provided this is supported by the modem. If the modem's answer string contains a 2, then your modem supports Class 2 fax mode).	
Programs that use DCD (Data Carrierer Detect) are not working properly.	The DCD output at the local adapter is controlled by the DCD input at the remote adapter.	Use a null-modem cable at the remote adapter.
The modem parameter request function is not working or is not correct. For example, under Win 95 with <Start><Control Panel><Modems><Diagnostics><More Info>	Windows does not follow the AT Hayes conditions.	None
	Technically specified time delay that are not supported by the modem's driver software.	None
Data transmission with Xmodem is very slow.	Xmodem operates in half-duplex mode. The transmitting unit waits for acknowledgement after each data package. The signal delay (20–30 ms per data block at 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

Problems with the hardware (PC, modem, ISDN-TA.)

Fault	Cause	Solution
PABX (telecommunications system) cannot be configured via a Gigaset M101 Data.	The PABX configuration is not compatible with AT Hayes.	Configure Gigaset M101 Data in direct mode (e.g. with 9600,8,N,1).
	At the system, the baud rate conversion is switched with an internal command string 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 can be used under **AOL**.	No appropriate modem profile is available.	Tests have shown that an operational X.75 connection is set up with the modem profile "ISDN ELSA TLV34 X.75 64.000".
Heliowatt timers cannot be programmed.	Incorrect protocol set.	Set Gigaset M101 Data to 300 bps direct connection. Dataflow setting: none
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 RVS-COM software.	Commands that are not compatible with Hayes are transferred with the connection.	Set Gigaset M101 Data to direct connection 115000 bps, ***See "PC-PC direct cable connection: via RS232/V.24 interface" on page 34***
Faxes are distorted when sent with **ELSA Microlink 56k** and WinFax 8.0 software.	Incorrect driver set for voice functions under WinFax 8.0.	During installation, WinFax 8.0 requires a modem driver for voice functions. The Generic driver /Rockwell Fax/voice driver is to be used here according to ELSA AG.

Miscellaneous

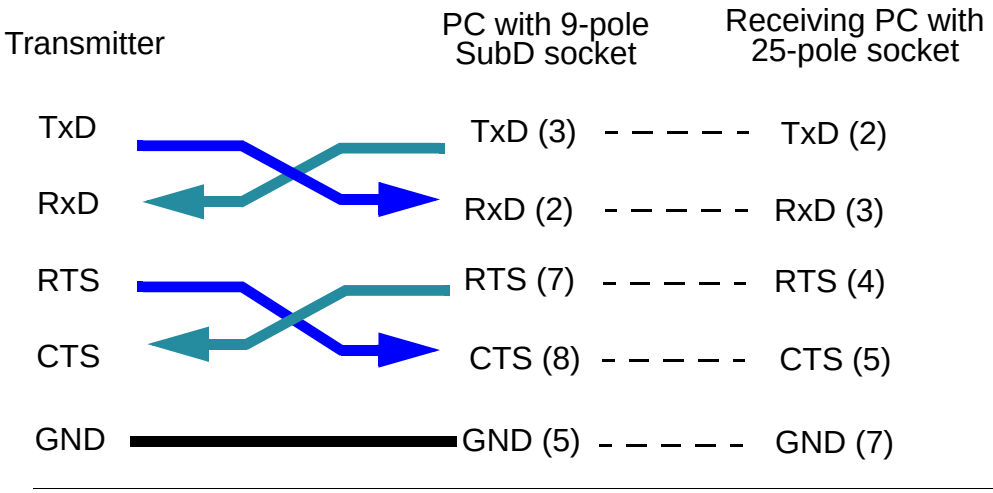
Fault	Cause	Solution
Monitor fault when Gigaset M101 Data is active (e.g. slight flickering or moiré effect).	DECT HF wanted signals is influencing the monitor.	Move Gigaset M101 Data along the longitudinal axis until the interference disappears. Move Gigaset M101 Data further away from the monitor.
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 the 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.

Technical data

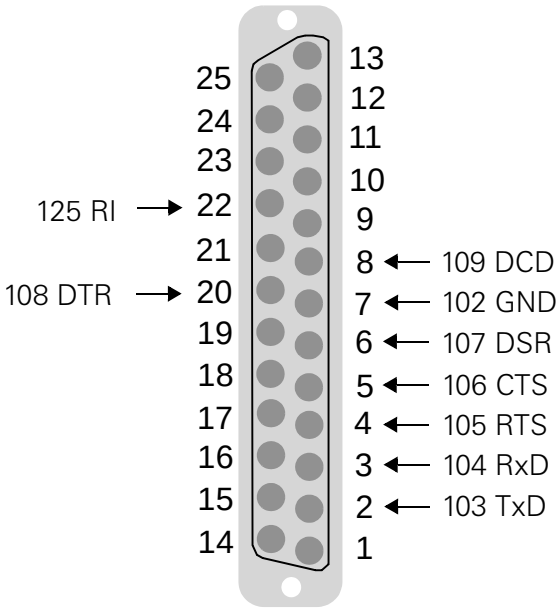
Standard:	DECT =**D**igital **E**nhanced **C**ordless **T**elecom-munications
Number of channels:	120 duplex channels
Radio frequency range:	1880 MHz to1900 MHz
Transmitted power:	10 mW, average rating per channel
Range:	up to 300 m outdoors, up to 50 m indoors
Power supply:	220/230 V ~/ 50 Hz (plug-type AC adapter)
Power consumption:	Stand-by mode: approx. 4 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

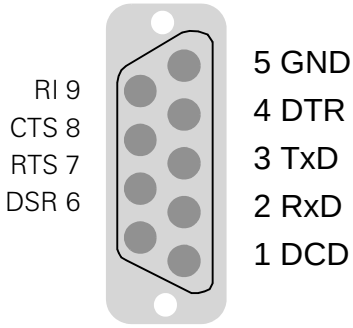
Name	Based on CCITT	Meaning	Std. PIN assign.	
			25-pin	9-pin
DCD	109 = Data Carrier Detect	Data carrier signal	8	1
CTS	106 = Clear To Send	Clear to send signal	5	8
DSR	107 = Data Send Ready	Data send ready	6	6
DTR	108 = Data Terminal Ready	Data terminal ready	20	4
GND	102 = Signal Ground	Signal ground	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



25-pin plug based on CCITT



9-pole SubD socket



Pin no.	Signals to:	
	Socket 1[a]	Socket 2[b]
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

a. male

b. female

Safety precautions

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

Medical equipment can be affected by DECT devices.

Gigaset M101Data can cause unpleasant humming in hearing aids.

Do not install Gigaset M101Data in bathrooms or showers.

Do not operate Gigaset M101Data in environments where there is risk of explosion.

Do not forget to include the operating instructions and CD when passing on Gigaset M101Data to a third party.

Gigaset M101 Data is designed for operation in your country as indicated on the underside of the unit. Special country-specific features have been implemented. Your specialist dealer or network provider will be happy to answer any questions with regard to differences in public telephone networks.
The compliance of the unit with the basic requirements of the terminal directive is certified by the CE symbol.

We, Siemens AG, declare, that the above mentioned product is manufactured according to our Full Quality Assurance System certified by CETECOM ICT Services GmbH with the registration number "Q810820M" in compliance with ANNEX V of the R&TTE-Directive 99/05/EC. The presumption of conformity with the essential requirements regarding Council Directive 99/05/EC is ensured.

Senior Approvals Manager

CE 0682

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