Issued by
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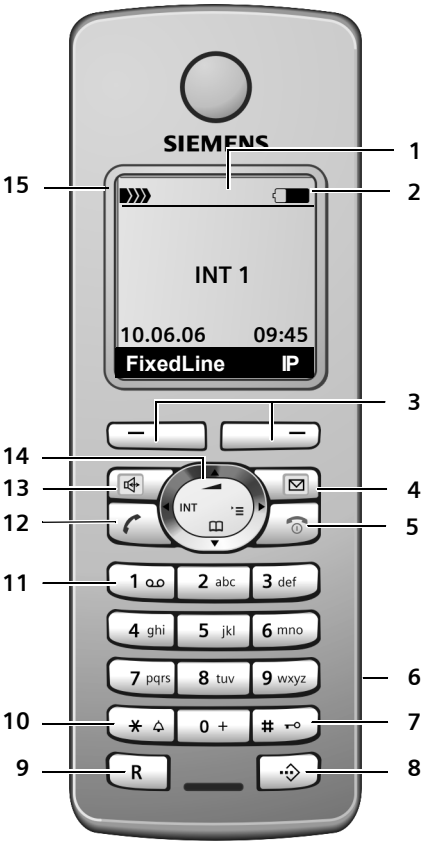
www.siemens.com/gigaset

SIEMENS

Gigaset
S450 IP

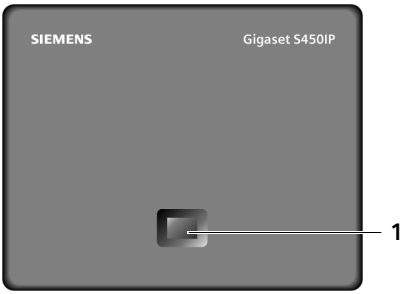
The handset at a glance



Handset keys

1 **Display** in idle status (example)
2 **Battery charge status**
(1/3 charged to fully charged)
flashes: battery nearly empty
flashes: battery charging
3 **Display keys** (page 19)
4 **Message key**
Opens calls and message lists
Flashes: new message or new call
5 **End call key, On/Off key**
End call, cancel function, go back one menu level (press briefly), back to idle status (press and hold), activate/deactivate handset (press and hold in idle status)
6 **Connection socket for headset**
7 **Hash key**
Keypad lock on/off (press and hold, page 19)
Switch between upper/lower case letters and digits for text entry
8 **Call-by-call list key** (not for VoIP)
Open call-by-call list
9 **Recall key** (not for VoIP)
Enter flash (press briefly)
Insert a pause (press and hold)
10 **Star key**
Ringtones on/off (press and hold in idle status)
Open special characters table
11 **Key 1** (press and hold)
Call the network mailbox
12 **Talk key**
Accept a call, open last number redial list (press briefly in idle status), select connection type and start dialling (press briefly/ press and hold after entering the number, page 17)
13 **Handsfree key**
Switch between earpiece/handsfree mode
Lights up: handsfree talking activated
Flashes: incoming call
14 **Control key** (page 19)
15 Signal strength
(low to high)
flashes: no reception

Base station at a glance



Base station key

1 **Paging key**
Lights up: LAN connection active (phone is connected to router)
Flashes:
data transfer to LAN connection
Press **briefly**: start paging
Press and **hold**:
set base station to registration mode

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Safety precautions

Warning:
Read the safety precautions and the user guide before use.
Explain their contents and the potential hazards associated with using the telephone to your children.

Only use the mains adapter supplied, as indicated on the underside of the base station.

Fit only the **recommended rechargeable batteries** (page 38) of the same type!
This means that you must not use any other battery type or non-rechargeable batteries as this could result in significant health risks and personal injury.

Insert rechargeable batteries with the correct polarity, and use them according to this user guide (symbols are attached to the inside or outside of the handset's battery compartment, page 6).

The operation of medical appliances may be affected. Be aware of the technical conditions in your particular environment, e.g. doctor's surgery.

Do not hold the rear of the handset to your ear when it is ringing or when the handsfree function is activated. Otherwise you risk serious and permanent damage to your hearing. The handset may cause an unpleasant humming noise in hearing aids.

Do not install the base station in bathrooms or shower rooms. The handset and base station are not splashproof (page 32).

Do not use your phone in environments with a potential explosion hazard, e.g. paint shops.

If you give your Gigaset to someone else, make sure you also give them the user guide.

All electrical and electronic equipment must be disposed of separately from general household waste using the sites designated by local authorities.
If a product displays this symbol of a crossed-out rubbish bin, the product is subject to European Directive 2002/96/EC.
The appropriate disposal and separate collection of used equipment serve to prevent potential harm to the environment and to health. They are a precondition for the re-use and recycling of used electrical and electronic equipment.
For further information on disposing of your used equipment, please contact your local authority, your refuse collection service or the dealer you purchased the product from.

Note:
If the key block is switched on, even emergency numbers cannot be dialled!
Not all of the functions described in this user guide are available in all countries.

Gigaset S450 IP – More than just a telephone

Your phone lets you make calls both via the fixed network and (cost effectively) via the Internet (VoIP) **without using a PC**.

And your phone can do much more besides:

- **Press a button** each time you make a call to indicate whether you want to make a call via the fixed network or via the Internet (page 17).
- Register up to **six** handsets on your base station. With your base station you can make two calls simultaneously via VoIP, or one call over the fixed network and one call via VoIP.
- Set up a VoIP account with your VoIP provider for each member of your family with their own VoIP phone number (up to four accounts). Together with your fixed network number, your phone can then be reached on up to **five different phone numbers**, which you can assign to individual handsets. If a member of your family is called on their number, only their handset will ring.
- Configure the phone connection for VoIP **without a PC**. Your phone's connection assistant downloads general data about your VoIP provider from the Internet and guides you through entering your personal data (VoIP/SIP account). This makes it easy for you to start using VoIP (page 10).
- If necessary, make any further VoIP settings on a PC. The phone has a Web interface (**Web configurator**) that can be accessed via your PC's Web browser (page 30).
- Assign your own password (**system PIN**) to protect your device and the Web configurator from unauthorised access (page 29).
- Send and receive **SMS messages** via the fixed network (page 23).
- Use **instant messaging** on your handset. Go online and see which of your messenger contacts (buddies) are also online. Chat with your buddies, send and receive text messages, or phone them (page 26).
- Use your phone to obtain information about new **e-mail** messages in your mailbox **without a PC** (page 25).
- Save up to 150 numbers and names in your handset (page 21).
- Download your Outlook contacts from a PC into your handset. Or back up the handset directory on your PC.
- You can programme the keys of your phone with important phone numbers. The phone number is then dialled by simply pressing the respective key (page 21).
- Keep your hands free while making calls. Use the handsfree function on your handset or use a convenient headset (accessory, not included in the scope of delivery).
- Keep your phone completely up to date. Find out about **firmware updates** on the Internet and download them into your phone.
- Use your handset as an alarm clock (page 29).

Your Gigaset S450 IP has a protected operating system that offers **increased security against viruses** from the Internet.

Have fun using your new telephone!

VoIP – Making calls via the Internet

With VoIP (**V**oice **o**ver **I**nternet **P**rotocol), your calls are not made via a fixed connection as in the telephone network, but rather they are transmitted via the Internet in the form of data packets.

You can take advantage of all the benefits of VoIP with your phone:

- You can make cost-effective calls with high voice quality with subscribers on the Internet, the fixed network or the mobile phone network.
- Your SIP provider will give you personal numbers with which you can be reached from the Internet, the fixed network and any mobile phone network.

To be able to use VoIP, you need the following:

- A broadband Internet connection (e.g. DSL) with flat rate (recommended) or volume-based price
- Internet access, i.e. you need a router that will connect your phone to the Internet. You can find a list of recommended routers on the Internet at:

  http://www.siemens.com/gigaset
- Access to the services of a VoIP provider. Open up to four accounts with **one** VoIP provider.

First Steps

Pack contents

The pack contains:

- one Gigaset S450 IP base station
- one Gigaset S45 handset
- one mains adapter for the base station
- one charging cradle incl. mains adapter
- one phone cord
- one Ethernet cable (LAN cable)
- two batteries
- one battery cover
- one belt clip
- one quick guide

Documentation

You will find a detailed description of your Gigaset S450 IP and its Web configurator on the Internet at:

www.siemens.com/gigaset

This complete description is in PDF format. You will need Adobe® Reader® to view these documents. You can find Adobe® Reader® on the Internet at www.adobe.com.

Setting up the handset for use

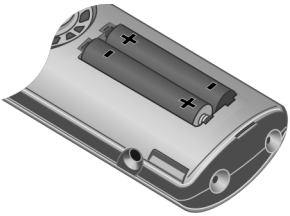
The display is protected by a plastic film. **Please remove the protective film!**

Inserting the batteries

Warning:
Use only the rechargeable batteries recommended by Siemens on page 38! This means that you must not use conventional (non-rechargeable) batteries or other battery types, otherwise serious damage to health and property cannot be ruled out, e.g. the outer casing of the batteries could be destroyed or the batteries could explode. The phone could also malfunction or be damaged as a result of using batteries that are not of the recommended type.

- Insert the batteries the right way round (see figure).

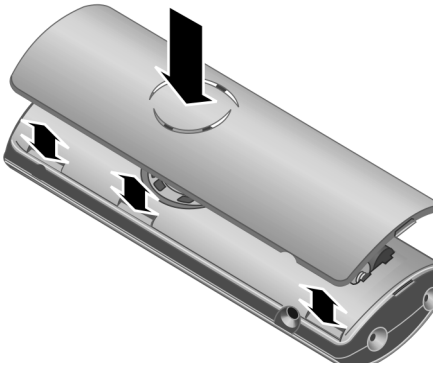
The polarity is indicated in/on the battery compartment.



The handset turns on automatically.
You will hear a confirmation tone.

Closing the battery cover

- First, align the notches on the side of the battery cover with the protrusions on the inside of the housing.
- Then press the cover until it clicks into place.



Opening the battery cover

- If fitted, remove the belt clip.
- Place your finger in the headset socket cavity and pull the battery cover upwards.

Connecting the charging cradle

Connecting up the charging cradle and mounting it on the wall (if required) is described at the end of this user guide.

- To charge the batteries, leave the handset in the charging cradle.

Notes:
- Only place the handset in the charging cradle that is intended for it.
- If the handset has turned itself off because the batteries are flat and if it is then placed in the charging cradle, it will turn itself on automatically.

Initial charging and discharging of batteries

Battery charging is indicated in the top right of the display by a flashing battery icon, or. During handset operation, the battery icon indicates the charge status of the batteries (page 1).

The correct charge status can only be displayed when the batteries are first fully charged **and** discharged through use.

- To do this, leave the handset in the charging cradle without interruption until the battery icon stops flashing in the display (approx. 13 hours).
- Once the batteries are fully charged, remove the handset from the charging cradle and do not put it back again until the batteries are fully discharged.

Note:
After the first battery charge **and** discharge, you may replace your handset in the charging cradle after every call.

Please note:

- Always repeat the charging and discharging procedure if you remove the batteries from the handset and reinsert them.
- The batteries may warm up as they are charging. This is not dangerous.
- After a while the charge capacity of the batteries will decrease for technical reasons.

Note:
You will find explanations for the icons and typographical conventions used in this user guide in the detailed user guide for your Gigaset S450 IP on the Internet at www.siemens.com/gigaset.

Setting the date and time

If the date and time are not yet set on the phone, the display key Time is displayed. You can set the date and time later via the menu → Settings → Date/Time.

- Press Time or open the menu.
- Change multiple line input:

Date:
Enter day, month and year in 6-digit format.

Time:
Enter hours and minutes as 4 digits (e.g. 0 7 1 5 for 7:15 a.m.

Save Press the display key.

The date and time are shown in the handset's idle display (page 1).

Registering the handset to the base station

Your handset is registered to the base station by default.

Instructions on how to register further handsets to the base station and make free internal phone calls is described in the detailed user guide on the Internet at www.siemens.com/gigaset.

Installing the base station

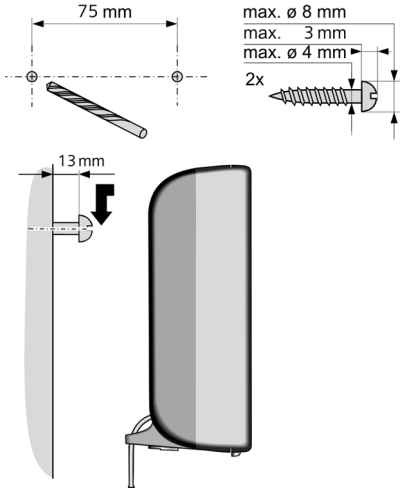
The base station is designed for use in closed, dry rooms with a temperature range of +5°C to +45°C.

- Set up or wall-mount the base station at a central point in the apartment or house.

Please note:

- Never expose the phone to heat sources, direct sunlight or other electrical appliances.
- Protect your Gigaset from moisture, dust, corrosive liquids and vapours.

Wall mounting the base station



Connecting the base station

In order to be able to make calls with your phone via the fixed network and via VoIP, you must connect the base station to the fixed network and the Internet, see Figure 1.

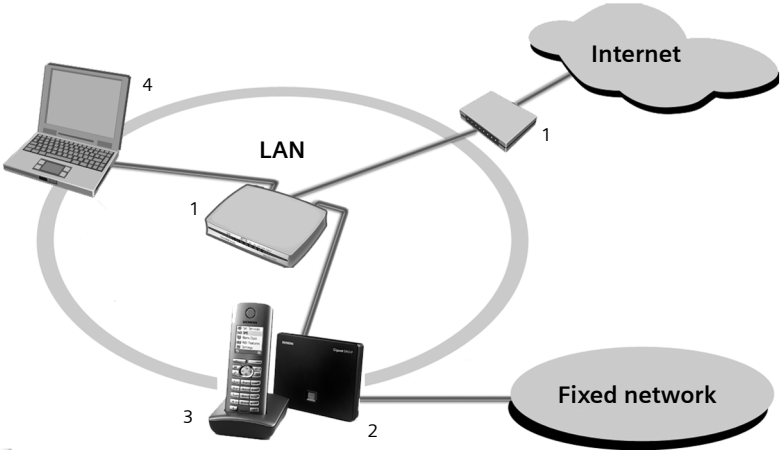


Figure 1 Connecting the phone to the fixed network and the Internet

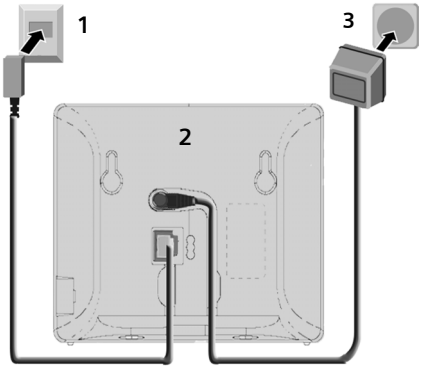
1 Internet connection:
router and modem (illustrated) or
router with integrated modem
2 Gigaset S450 IP base station
3 Gigaset S45 handset
4 PC in LAN

Follow the steps in the order given below:

1. Connect the base station with the phone connection
2. Connect the base station with the mains power supply
3. Connect the base station with the router

Connecting the base station with the fixed network and the mains power supply

▶ **Please first** connect the phone jack and **then** the mains adapter, as shown below.

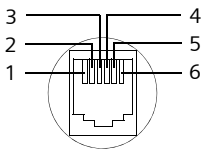


1 Phone jack with phone cord
2 Underside of the base station
3 Mains adapter 230 V

Please note:

- Keep the mains adapter **plugged in at all times** for operation, as the phone does not work without mains connection.
- If you buy a replacement phone cord from a retailer, ensure that the phone jack is connected correctly.

Correct phone jack assignment

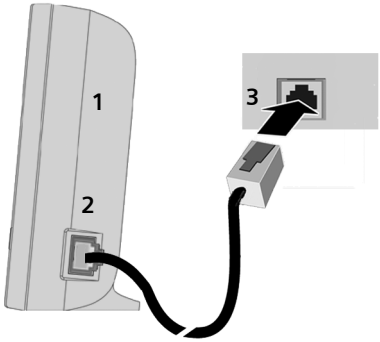


1 unused
2 unused
3 a
4 b
5 unused
6 unused

You can now use your phone to make calls via the fixed network and can be reached at your fixed network number!

Connecting the base station with the router

For Internet access you need a router connected to the Internet via a modem (if necessary, this can be integrated in the router).



1 Side view of the base station
2 Network plug (LAN) with network cable
3 Router network plug

As soon as the cable connecting the phone and router is plugged in, the paging key lights up on the front of the base station (page 1).

Making settings for VoIP telephony

Before you can use the Internet (VoIP) to phone any other users on the Internet, the fixed network or the mobile phone network, you need the services of a VoIP provider who supports the VoIP SIP standard.

Precondition: You have registered (e.g. via your PC) with such a VoIP provider and set up at least one VoIP account.

The following phone settings are necessary in order for you to use VoIP. You will receive all information from your VoIP provider.

- Your user name with the VoIP provider, if this is required by the VoIP provider
- Your registration name
- Your password with the VoIP provider
- VoIP provider general settings

The connection assistant will help you with the settings.

Starting the connection assistant

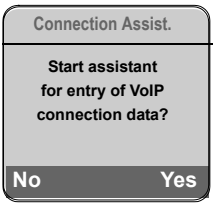
Precondition: The base station is connected to the mains power supply and the router. Your router is connected to the Internet (page 9).

Tip: If VoIP is activated as the default connection for your phone (default setting page 29), the phone will attempt to make a direct connection to the server belonging to your VoIP provider after the connection assistant is closed. If incorrect/incomplete information means that the connection cannot be made, messages will be displayed (page 11).

Note:
Your phone is preconfigured for dynamic assignment of the IP address. In order for your router to "recognise" the phone, dynamic IP address assignment must also be activated on the router, i.e. the router's DHCP server is activated.

As soon as the handset battery is sufficiently charged, the message key ✉ on the handset will flash (around 20 minutes after you have put the handset in the charging cradle). Press the message key ✉ to start the connection assistant.

You will see the following display:



Yes — Press the display key to start the connection assistant. The settings are carried out in several steps.

Enter system PIN (the default setting is "0000").

Note:
The connection assistant will also start automatically if you try to establish a connection via the Internet, before you have made the necessary settings.
You can also call up the connection assistant at any time via the menu (page 13).

Downloading VoIP provider data

The phone establishes a connection with the Siemens server on the Internet. Profiles with general access data for various VoIP providers can be downloaded here.

After a short time the following is displayed:

Select country (press up/down on the control key) and press

OK. The VoIP providers are shown for which VoIP profiles are available.

Select your VoIP provider and press OK.

The necessary general access data for your VoIP provider is downloaded and saved on the phone.

If the data for your VoIP provider is not offered as a download, press the display key ↺.
You can then carry out the following steps as instructed by the connection assistant.
You must then make the necessary settings for the VoIP provider with the Web configurator (page 31). Your VoIP provider will supply you with this data.

Entering user data for your first VoIP account

Enter the VoIP user data for the first VoIP account. Your VoIP provider will supply you with this data.

Using the Web configurator, you can later enter three further VoIP accounts (VoIP phone numbers) set up with the same VoIP provider. Your phone can then (together with your fixed network number) be reached under up to five different phone numbers. You can assign the phone numbers to individual handsets registered with the base station (page 30).

Username:
If this is required by your provider, enter the user name and press OK.

Authent. Name:
Enter the registration name and press OK.

Authent. Password:
Enter password and press OK.

Note:
Please note when making these entries that the VoIP user data is case sensitive. When entering text, the first letter is capitalised as standard. Press and hold the # key if necessary to switch between upper/lower case text and numerical entry.

Completing the VoIP settings

Once you have made all the necessary entries, the message "**Connection data complete**" is displayed. The handset returns to idle status.

If all the settings are correct and if the phone can make a connection to the VoIP server, then the internal name of the handset will be displayed (example):

You can now use your phone to make calls via the fixed network (fixed line) and the Internet! Callers can reach you on your fixed network number and your VoIP number!

Note:
To ensure that you can always be reached via the Internet, the router must be permanently connected to the Internet.

No connection to the Internet/VoIP server

If one of the following messages is displayed instead of the internal name after the connection assistant is closed, then a fault has occurred:

Server not accessible!

The phone has no connection to the Internet.

- Check the cable connection between the base station and the router (the LED on the base station must light up) and the connection between the router and the Internet connection.
- Check whether the phone is connected to the LAN. It might not have been possible to assign an IP address to the phone or the IP address has already been assigned to another LAN subscriber and cannot be changed.

- Find the IP address using the handset menu:
  ➔ Settings ➔ Base ➔ Local Network
- Start the Web configurator with the IP address.
- If no connection can be established, change the settings on the router (activate DHCP server) or the phone's IP address.

Provider registration failed!

◆ Your personal data for registering with the VoIP provider may have been entered incompletely or incorrectly.
- Check your entries for **Username**, **Authent. Name** and **Authent. Password**. Particularly check your use of upper and lower case.
  To do this, open the following menu on your handset:
  ➔ Settings ➔ Telephony ➔ VoIP ➔ Provider Registr.

◆ The server address for the VoIP server has not yet been entered, or has been entered incorrectly.
- Start the Web configurator.
- Open **Settings** ➔ **Telephony** ➔ **Connections** Web page.
- Edit the server address where necessary.

Note:
If port forwarding is activated on your router for the ports that have been registered as the SIP port (Standard 5600) and the RTP port (Standard 5004), then it makes sense to switch off DHCP and assign the phone a static IP address (otherwise you may not be able to hear the other party during VoIP calls):
– Via the handset menu:
  ➔ Settings ➔ Base ➔ Local Network

Or
– Via the Web configurator:
  - Open **Settings** ➔ **IP configuration** Web page.
  - Select **IP address type**.

Please note that the IP address and subnet mask depend on the router's address block. You must also specify the default gateway and DNS server. The IP address for the router is generally entered here.

Menu tree

To open the main menu for your phone, with the handset in idle status, press on the right of the control key: ⊕.

There are two ways to select a function:

Using number combinations ("shortcut")

- Enter the number combination that is in front of the function in the menu tree.
  Example: ⊕ 5 jkl 4 ghi 1 ao for "Set handset language".

Scrolling through the menus

- Scroll to the function with the control key ⊕ (press up and down) and press OK.

1 Messaging

1-1	SMS	**An SMS mailbox (general or private) activated without a PIN**			
		1-1-1	New SMS		
		1-1-2	Incoming (0)		
		1-1-3	Outgoing (0)		
		An SMS mailbox with a PIN or 2-3 mailboxes activated			
		1-1-1	Mailbox	1-1-1-1	New SMS
				1-1-1-2	Incoming (0)
				1-1-1-3	Outgoing (0)
		1-1-2 to 1-1-4	Mailbox 1 Mailbox 2 Mailbox 3	1-1-2-1 to 1-1-4-1	New SMS
				1-1-2-2 to 1-1-4-2	Incoming (0)
				1-1-2-3 to 1-1-4-3	Outgoing (0)
		1-1-5	SMS Service		
		1-1-6	Settings	1-1-6-1	Service Centres
				1-1-6-2	SMS Mailboxes
				1-1-6-3	Notify Number
				1-1-6-4	Notify Type
				1-1-6-5	Status Report

				1-1-6-6	Subscribe to SMS
1-2	E-mail	1-2-1	Inbox (0)		
		1-2-2	Settings	1-2-2-1	Registration
				1-2-2-2	Incoming (POP3)
1-3	Messenger	1-3-1	Buddies		
		1-3-2	User Status	1-3-2-1	Change Status
				1-3-2-2	Info
		1-3-3	Messages		

2 Sel. Services

2-1	VoIP	2-1-6	Call Divert
		2-1-7	Call Waiting
2-2	Fixed Line	2-2-1	Withhold No.
		2-2-2	Send Number
		2-2-3	Call Waiting Off
		2-2-4	Automatic Recall
		2-2-5	Call Divert
		2-2-6	Call Waiting
		2-2-7	Parallel Ringing
		2-2-8	Call Protection
		2-2-9	Unknown Call Rej.
2-3	Ringback Off		

3 Alarm Clock

4 Add. Features

4-3	Room Monitor

5 Settings

5-1	Date/Time				
5-2	Audio Settings	5-2-1	Ringer Settings	5-2-1-1	Ext. Calls
				5-2-1-2	Internal Calls
				5-2-1-3	All
		5-2-2	Advisory Tones		
5-3	Display	5-3-1	Screen Picture		
		5-3-2	Colour Scheme		
		5-3-3	Contrast		
		5-3-4	Backlight		
5-4	Handset	5-4-1	Language		
		5-4-2	Auto Answer		
		5-4-3	Register H/Set		
		5-4-4	Select Base		
		5-4-5	Reset Handset		
5-5	Base	5-5-1	Calls List Type	5-5-1-1	Missed Calls
				5-5-1-2	All Calls
		5-5-2	Music on hold		
		5-5-3	System PIN		
		5-5-4	Base Reset		
		5-5-5	Add. Features	5-5-5-1	Repeater Mode
		5-5-6	Local Network		
		5-5-8	Software Update		
5-6	Voice Mail	5-6-1	Set Key 1	5-6-1-1	Network Mailb.
5-7	Telephony	5-7-1	Default Line	5-7-1-1	VoIP
				5-7-1-2	Fixed Line
		5-7-2	Connection Assist.		
		5-7-3	Area Code		
		5-7-5	Fixed Line	5-7-5-1	Dialling Mode
				5-7-5-2	Recall
		5-7-6	VoIP	5-7-6-1	Show Stat. on HS

5-7-6-2	Select Provider
5-7-6-3	Provider Registr.

Not all menu items are described in this quick guide. You will find the full description in the detailed user guide for your Gigaset S450 IP on the Internet at www.siemens.com/gigaset.

Making calls with VoIP and the fixed network

Making an external call

External calls are those that are made via the public telephone network (fixed network) or the Internet (VoIP). You determine what type of connection you want to use when you dial.

Notes:
- You can make two parallel external calls on your base station (on two handsets): two calls via VoIP or one call each via VoIP and the fixed network.
- If you use VoIP to make a call to the fixed network, you may also have to dial the area code for local calls (depending on the VoIP provider).
  To avoid always having to enter the area code for local calls, you can also enter the area code in the configuration (with the Web configurator, see page 30). It will then be inserted automatically for local calls.

Selecting the type of connection via the talk key and making a call

/ Enter number/IP address and **briefly press**/**press and hold** the talk key or handsfree key.

A default connection is established on your phone (fixed network or VoIP, page 30).

- Press the talk key or handsfree key **briefly** if you want to make the call via the default connection.
- Press and **hold** the talk key or handsfree key if you want to make the call via the other type of connection.

Note:
If you use a different GAP-compatible handset to the Gigaset S45, all calls will be made via the standard connection, even if you press and hold the talk key . If you want to use the non-default connection to make a call, enter a star (*) at the end of the number.

Selecting the type of connection via display keys and making a call

Precondition: FixedLine and/or IP are assigned to the display keys on your handset (Gigaset S45 default setting).

FixedLine / IP
Press the display key to select the type of connection.

/ Enter number or select number from the directory.

/ Press the talk or handsfree key.

Entering an IP address

Via VoIP you can dial an IP address instead of a phone number.

- Press the star key to separate the parts of the IP address (e.g. 149*246*122*28).
- If necessary, press the hash key to attach the SIP port number of the person you are calling to the IP address (e.g. 149*246*122*28#5060).

Cancelling the dialling operation

You can cancel the dialling operation with the end call key .

Note:
If you have assigned several VoIP phone numbers to your phone, for each handset you can set which VoIP number (account) is to be used for calls (handset send number, page 30).

Ending a call

Press the end call key.

Accepting a call

The handset indicates an incoming call by ringing and by the flashing handsfree key . The display shows the caller's number or name and the receive number the caller is calling (e.g. **for Fixed Line**, **for IP1** etc.).

> **Note:**
> The handset will only indicate calls to receive numbers assigned to the handset (page 30). If no specific receive numbers are assigned, all calls are signalled on all handsets.

You can accept the call by:

- Pressing the talk key .
- Pressing the display key **Accept**.
- Pressing the handsfree key .

If the handset is in the charging cradle and the **Auto Answer** function is activated (page 15), the handset will take a call automatically when you lift it out of the cradle.

Switching between earpiece and handsfree mode

- Press handsfree key to activate/deactivate handsfree mode during a call.

If you wish to place the handset in the charging cradle during a call in handsfree mode:

- Press and hold the handsfree key while placing the handset in the charging cradle. If the handsfree key does not light up, press the key again.

Dialling emergency numbers

The default setting for your phone is that all numbers that are saved as emergency numbers are automatically dialled via the fixed network.

You can deactivate this function via the Web configurator (see dialling plans, page 31) (e.g. if you use the phone without a fixed network). Ask beforehand, however, whether your VoIP provider supports emergency numbers.

Emergency numbers have already been set in your phone. You can use the Web configurator to view these and enter more emergency numbers.

> **Please note:** If you have used Web configurator to deactivate the function **Emergency calls always via fixed line** and then entered an automatic local area code for VoIP calls (Web page **Settings** → **Telephony** → **Dialing Plans**, page 31), then the local area code will also be inserted before emergency numbers if they are dialled using VoIP.

Operating the handset

Activating/deactivating the handset

Press and **hold** the end call key.

You will hear the confirmation tone.

Activating/deactivating the keypad lock

Press and **hold** the hash key.

You will hear the confirmation tone. The icon appears in the display when the keypad lock is activated.

Control key

In this user guide, the side of the control key that you must press in the given operating situation is shown in black. Example: for "press up on the control key".

The control key has the following functions:

When the handset is in idle status

Open directory .

Open main menu.

Open list of handsets.

Adjust the ringtone volume of the handset (page 28).

In lists and menus

/ Scroll up/down line by line.

Open submenu or confirm selection.

Go back one menu level or cancel.

In an input field

You can use the control key to move the cursor **up** , **down** , **right** or **left** .

During an external call

Open the directory.

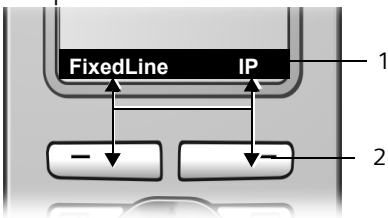
Initiate an internal consultation call.

Adjust the loudspeaker volume for operation in earpiece/handsfree mode.

Display keys

The current display functions are shown in the bottom display line in reversed highlights. The function of the display keys changes depending on the particular operating situation.

Example:



1 Current display key functions are shown in the bottom display line.
2 Display keys

Reverting to idle status

Reverting to idle status from anywhere in the menu:

▶ Press and **hold** the end call key ☎.

Or:

▶ Do not press any key: after 2 minutes the display will **automatically** revert to idle status.

Changes that you have not confirmed or saved by pressing OK, Yes, Save, Send or Save OK will be lost.

You will find more information about operating your Gigaset S45 in the detailed user guide on the Internet at www.siemens.com/gigaset.

Using the directory and lists

The options are:

- Directory, call-by-call list
- Last number redial list
- SMS, e-mail and messenger lists
- Calls list

Directory

You can save up to 150 numbers and names in the **directory**.

▶ Open the directory by **briefly** pressing the key in idle status.

Length of an entry

Number: max. 32 digits
Name: max. 16 characters

Notes:
Always enter the phone number with a dialling code. You will need this if you want to call a fixed network subscriber via VoIP.
Alternatively, you can also specify an area code via the Web configurator that is placed before all numbers dialled without a dialling code.

Saving a number in the directory

→ **New Entry**

▶ Change multiple line input:

Number:
Enter number.

Name:
Enter name.

Annivers.:
Press the display key **Edit** and enter the date, reminder time and type of signal.

Speed Dial:
Select the digit keys for speed dial (0 +, 2 abc to 9 wxyz).
The number is dialled via the non-default connection if you press and **hold** the assigned digit key in idle status.

▶ Save changes with **Save**.

Note:
If you add a star (*) to the end of the number, the number will be dialled via the non-default connection (page 29), even if you briefly press the talk key .

Managing directory entries

→ (Select entry)

▶ Press the display key **View** to view the entry

Or

▶ Press the display key **Options** to open the directory menu.

You can use the directory menu to, e.g.:

- Change entries, delete entries, mark entries as a **VIP** (Very Important Person) or send them to other handsets connected to the base station
- Delete the directory or send it to another handset

You will find additional information in the detailed user guide for your Gigaset S450 IP on the Internet at www.siemens.com/gigaset.

Last number redial list

The last number redial list contains the ten numbers last dialled with the handset.

Briefly press the talk key to open the last number redial list.

Opening lists with the message key

You can open the following lists with the message key ✉:

- SMS list

  If **several** mailboxes are set up, several lists are displayed where applicable.
- Incoming e-mail list

  The list is only displayed if there are new messages in the mailbox on the incoming e-mail server.
- Messenger message list

  The list is only displayed on the online handset.
- Network mailbox

  If your network provider supports this function and the network mailbox is set up for fast access via key 1 (page 15).
- Calls list

  You can configure your calls list to include all calls or just missed calls.

  ⊕ → Settings → Base → Calls List Type

Note:
Your calls list will only save calls made to the receiving numbers assigned to your handset (page 30).

An advisory tone sounds as soon as a **new message** arrives in a list. The ✉ key flashes (it goes off when the key is pressed). In idle status, the display shows an icon for the new message.

Icon	New message...
∞	... in network mailbox
	... in calls list
✉	... in SMS, messenger or e-mail list

The number of new entries is shown beneath the corresponding icon.

If you press the ✉ key, the lists containing messages will be displayed (exception: network mailbox). Lists with new messages are displayed in bold.

Opening a list

✉ → If necessary, select the list

⊕ Select entry.

You will find additional information about the lists in the detailed user guide for your Gigaset S450 IP on the Internet at www.siemens.com/gigaset.

Dialling from the directory/list

- Open the directory/list.
- Select entry via ⊕.
- Press and **hold**/**briefly** press the talk key ☎ (page 17).

Note:
You can only dial IP addresses via VoIP.

SMS (text messages)

Your unit is supplied ready for you to send SMS messages immediately.

When an SMS is sent, the base station automatically establishes a connection via the fixed network.

Preconditions:

- Calling Line Identification is enabled for your fixed network connection.
- Your network provider supports SMS in the fixed network (information on this can be obtained from your network provider).
- You are registered with your service provider to send and receive SMS.

Note:
When you call up the SMS menu for the first time, you are automatically registered with accessible SMS centres for which you have entered numbers. You can then receive SMS messages from these SMS centres.
You can enter more SMS centres and use the registration wizard to register with these SMS centres. Please refer to the detailed user guide for your Gigaset S450 IP on the Internet at www.siemens.com/gigaset.

Writing/sending/saving an SMS

→ Messaging → SMS → (mailbox, mailbox PIN)

New SMS	Select and press OK.
	Write an SMS.
Options	Press the display key.
Save	Select and press OK. The message is stored in the draft message list. You can edit and send it later. Open the draft message list: → Messaging → SMS → (mailbox, mailbox PIN) → Outgoing

Or

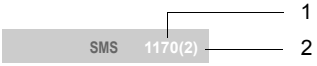
Send	Select and press OK.
SMS	Select and press OK.
/	Select number with area code (even if you are in that area) from the directory or enter directly. If necessary, add the mailbox ID to the **end** of the number.
Options	Press the display key.
Send	Select and press OK.

Note:
You can also send an SMS as a fax or as an e-mail to an e-mail address. You must enter the e-mail address at the **beginning** of the SMS message. For further information, please refer to the detailed user guide on the Internet at www.siemens.com/gigaset.

Linking SMS messages

If an SMS contains more than 160 characters or large image data, it is sent (up to eight messages) and received as a **linked** SMS.

When writing an SMS you will see the following displayed in the top right of the header (example):



1 Maximum number of characters you may still write or add (it is assumed that there are 8 linked SMS messages)
2 Number of SMS messages that have had to be linked for the text written so far.

Please note that linking SMS messages generally results in higher charges.

Receiving/reading an SMS

All received SMS messages are saved in the incoming message list. Linked SMS messages are displayed as **one** message. If this is too long or has not transferred completely, it will be split into individual messages.

New SMS messages are signalled on all Gigaset S45 handsets by the ✉ icon in the display, the flashing message key ✉ and an advisory tone.

Opening the incoming message list

▶ Press message key ✉ and if necessary select mailbox and enter mailbox PIN.

Or

▶ Open menu ➜ ✉ Messaging ➜ SMS ➜ (mailbox, mailbox PIN) ➜ Incoming.

Reading an SMS

▶ Press the display key Read.

Managing SMS lists

Via the options in the incoming/draft message list you can, for example:

◆ Delete individual SMS messages or the entire list

◆ Forward or reply to an SMS

◆ Continue writing and send SMS messages stored in the draft message list.

▶ Select the SMS and press Options.

Notification by SMS

When out and about, you can arrange to be notified about missed calls by SMS.

Storing the notification number

➜ ✉ Messaging ➜ SMS ➜ Settings ➜ Notify Number

▶ Enter the number of a mobile phone or another device with SMS functionality to which the notification is to be sent. (**Warning:** Do not enter your own landline number!)

Activating notification

➜ ✉ Messaging ➜ SMS ➜ Settings ➜ Notify Type

▶ Set On if you want SMS notification.

▶ Save with Save.

Please note that your network provider usually charges for SMS notifications.

You will find further information in the detailed user guide for your Gigaset S450 IP on the Internet at www.siemens.com/gigaset.

E-mail notifications

Your phone will inform you when new e-mail messages have arrived in your incoming e-mail server.

Periodically (approx. every 15 min.) it establishes a connection to the e-mail server and checks whether new messages are present.

New e-mail messages are indicated on all registered Gigaset S45 handsets by an advisory tone and by a flashing message key ✉. The ✉ icon is shown in the idle display.

Preconditions:

- You have established an e-mail account with an Internet provider.
- The incoming e-mail server uses the POP3 protocol.
- You have stored the name of the incoming e-mail server and your personal access data (account name, password) in the phone.

Entering access data for the incoming e-mail server

Entering access data

(◎) → ✉ Messaging → E-mail → Settings → Registration

▶ Change multiple line input:

Username:
Enter user name (account name) (max. 32 characters).

Authent. Password:
Enter password (this is case sensitive).

▶ Press the display key Save.

Entering the incoming e-mail server

(◎) → ✉ Messaging → E-mail → Settings → Incoming (POP3)

▶ Enter the name of the incoming e-mail server (POP3 server).

▶ Select Options → Save and press OK.

Opening the incoming message list

(◎) → ✉ Messaging → E-mail → Inbox

Or, if there are new e-mail messages (the message key ✉ flashes):

✉ → E-mail:

The phone establishes a connection to the incoming e-mail server. The list of e-mail messages stored there is displayed.

The sender's name and e-mail address (single line, abbreviated if necessary) are displayed as well as the date and time.

Viewing the header of an e-mail

(◎) Select e-mail entry.

Subject Press display key.

The subject of the e-mail message (max. 120 characters) is displayed.

↺ Now press the display key to return to the incoming message list.

Viewing the sender's address for an e-mail

(◎) Select e-mail entry.

From Press the display key.

The sender's e-mail address is displayed in full.

↺ Now press the display key to return to the incoming message list.

Messenger

The messenger on your phone makes **instant messaging** possible (immediate message transfer, chatting). The phone supports XMPP messenger (Jabber).

When you go **online** (page 26), you have the following options:

- Display your list of contacts (**buddies**) on your handset. Each buddy's status is shown, e.g. **online** and ready to chat (**state of presence**, see page 26).
- Exchange messages with your buddies. The message key on your handset will flash and a beep will sound to alert you to new messages.
- Call your buddies directly from the buddy list (page 27).

Preconditions for instant messaging:

- You have registered with an instant messaging provider via the Web browser on your PC and have created a buddy list.
- You have saved the messenger server address and your messenger server access data (user ID, password) via the Web configurator on your phone (page 31).

Note:
If your instant messaging provider does not support the messenger client on your phone, open an account with a Jabber server and enter its address using the Web configurator in your phone. Many of these Jabber servers offer gateways to other messenger servers (e.g. AOL, ICQ, MSN, Yahoo!).
You will find a list of Jabber servers and an overview of the gateways to other messenger servers on the Internet at:
http://www.jabber.org.

Establishing a connection, going online

→ Messaging → Messenger

Yes Confirm prompt.

If you are online, the messenger submenu is displayed on the screen. You can open your buddy list, send and receive messages and call buddies.

Notes
- Only one of the handsets connected to the base station can go online.
- An external call for your handset interrupts the chat, but you remain online. Once the call is ended or rejected, you can resume your chat.

Opening the buddy list and chatting

Precondition: You are Online.

→ Messaging → Messenger → Buddies

Select a buddy.

In the buddy list, the buddies are sorted according to their status (see below). Status is displayed by the colour of the icon:

1. Online / Ready for chat (**green**)
2. Away / Extended Away / Do not disturb (**orange**)
3. Offline / Invisible (**red**)

If the buddy's status changes, the buddy list is updated. If a buddy changes to Online / Ready for chat status, a message is displayed.

Checking information about buddies

Info Press the display key.

Chatting to buddies

Chat Press the display key.

▶ Write and send your message (page 27).

Receiving messages

Precondition: You are Online.

New messages are signalled by the message key flashing, a beep sounding and the icon being displayed in the idle display.

The messages are stored in the Messenger: message list.

Opening the message list

→ Messenger: (2)

Or:

→ Messaging → Messenger → Messages

Reading the message

- Press to select the message.
- Press the display key Read.

You have the following options:

Delete — Delete the message.

Or:

Answer — Reply to the message (page 27).

The message list is deleted as soon as you go offline.

Writing/sending messages

Precondition: You have pressed Chat in the buddy list or Answer when reading a buddy message.

- Enter the message.
- Select Menu → Send and press OK.

The message is sent to the buddy.

- Press OK to return to the buddy or message list.

Note:
You cannot reply to info messages (special provider information).

When writing a message, you can activate/deactivate predictive text, select the input language for predictive text or delete the text via Menu.

Calling a buddy

Precondition:

- The messenger server supports calls via vCard and the buddy's vCard contains a phone number.
- You have selected a buddy from the buddy list or the message list

Briefly press/press and **hold** the talk key (page 17).

The first number found in the vCard is selected.

Disconnecting, going offline

→ Messaging → Messenger → User Status → Change Status

- Select Offline status and press OK.
- Confirm the security prompt with Yes.

The messenger message list is deleted. The buddy list is no longer available.

Handset/base station settings

The handset and base station are preconfigured, but you can change these settings to suit your individual requirements. You will find the relevant functions in the submenus
→ Settings and → Alarm Clock (page 13).

The base station settings are carried out using a registered Gigaset S45 handset.

Changing the handset display keys

You can assign different functions to your handset's display keys. The change is handset-specific.

- In idle status, press and **hold** the right or left display key (e.g. FixedLine).

The list of possible key assignments is opened.

Select a function and press OK.

The handset returns to idle status. The labelling for the display key has changed (e.g. Messgr. if Messenger is selected).

Adjusting the loudspeaker volume

You can set the loudspeaker volume for handsfree talking to five different levels and the earpiece volume to three different levels. You can only make these adjustments during a call. The handsfree talking volume can only be adjusted when this function is set.

You are conducting an external call.

Open menu.

Select volume.

Save — Press display key if necessary to save the setting permanently.

If is assigned with another function, e.g. toggling:

Options — Open menu.

Volume — Select and press OK.

Configure setting (see above).

Setting ringtones

Set the volume and melody depending on the type of signalling required.

→ Settings → Audio Settings → Ringer Settings

Ext. Calls / Internal Calls / All — Select and press OK.

- Change multiple line input:

Set volume (1–6).

Scroll to the next line.

Select melody.

Save — Press the display key to save the setting.

In idle status, you can also open the Ringer Settings menu by pressing **briefly**.

Activating/deactivating the ringtone

You can deactivate the ringtone on your handset before you accept a call or when the handset is in idle status; the ringtone can be deactivated permanently or just for the current call. The ringtone cannot be re-activated while an external call is in progress.

Deactivating the ringtone permanently

Press the star key and hold until you can no longer hear the ringtone.

The icon appears in the display.

Re-activating the ringtone

Press and **hold** the star key.

Deactivating the ringtone for the current call

Silence Press the display key.

Activating/deactivating advisory tones

→ Settings → Audio Settings → Advisory Tones

▶ Change multiple line input:

Key Tones: / Confirm.:
Select On or Off.

Battery:
Select On, Off or In Call. The battery warning tone is only activated/deactivated and only sounds during a call.

▶ Save changes with Save.

Setting the alarm clock

Precondition: The date and time have already been set (page 7).

Activating/deactivating the alarm clock and setting the wake-up time

→ Alarm Clock

▶ Change multiple line input:

Activation:
Select On or Off.

Time:
Enter the wake-up time in 4-digit format.

Melody:
Select melody.

Volume:
Set the volume (1-6).

▶ Save changes with Save.

You will see the icon.

When the alarm clock rings ...

Alarm repeat after 5 minutes

Snooze Press the display key or any key.

After the second repetition the wake-up call is deactivated for 24 hours.

Deactivating the alarm clock for 24 hours

OFF Press the display key. The wake-up call is deactivated.

Changing the system PIN on the base station

You can change the base station's 4-digit default system PIN ("0000") to a 4-digit system PIN known only to yourself.

→ Settings → Base → System PIN

Enter the current system PIN and press OK.

Enter the new system PIN.

Scroll to the Re-enter PIN: line.

Now re-enter the new system PIN and press OK.

For security reasons, "****" is displayed instead of the system PIN.

Press and **hold** (idle status).

Setting default connection

You can make settings according to whether you want to make calls via VoIP or fixed network by default (press talk key **briefly**).

→ Settings → Telephony → Default Line

VoIP / Fixed Line
Select and press OK (☑ = on).

Checking the base station MAC address

In idle status:

[◀▶] [5 jkl] [5 jkl] [9 wxyz] [2 abc] [0 +]

The base station MAC address is displayed.

[⊸] Press and **hold** (idle status).

Web configurator

The Web configurator is the Web interface for your handset. It allows you to make the settings for your phone's base station via your PC's Web browser.

Preconditions:

- A standard Web browser is installed on the PC, e.g. Internet Explorer version 6.0 or higher, or Firefox version 1.0.4 or higher.
- The phone and PC are connected to each other via a router.

Connecting the PC to the Web configurator

- Launch the Web browser on your PC.
- Enter the phone's IP address into the address field of the Web browser, e.g. http://192.168.1.2.
- Press the return key.

A connection is established to the phone's Web configurator.

> **Note:**
> You can check the phone's current IP address on the handset:
> [◀▶] → Settings → Base → Local Network

De-registering

In the menu bar at the top right of every Web page in the Web configurator, you will see the Log Off command. Click on Log Off to de-register from the Web configurator.

Web configurator functions

Menu tree

- Home (Function overview)
- Settings
  - IP configuration
  - Telephony
    - Connections
    - Number assignment
    - DTMF
    - Dialing Plans
    - Directory
  - Messaging
    - Messenger
    - E-Mail
  - Miscellaneous
- Status (Information about the phone)
  - Device

Settings

With the Web configurator on your phone you have the following options:

- **IP configuration**

  Configure your phone access to the local network (IP address, gateway to the Internet).

  Especially if you assign your phone a static IP address, you must enter the gateway and DNS server via the Web configurator. That is usually your router.

- **Telephony → Connections**

  Configure your phone for VoIP.

  Download your VoIP provider's general access data from the Internet onto your phone or enter the data yourself.

  Enter the personal access data of up to four VoIP accounts (VoIP phone numbers) with this VoIP provider.

  Activate/deactivate these VoIP phone numbers as required.

  The phone registers with the VoIP server using the activated VoIP phone numbers and can be reached under these numbers.

- **Telephony → Number assignment**

  Assign each registered handset its own VoIP phone numbers as send and receive numbers (page 30).

  State which handsets are to ring when calls are made to your fixed network number.

- **Telephony → DTMF**

  DTMF signalling is required e.g. to check and control some network mailboxes.

  Specify how DTMF signals are to be transmitted for VoIP. In RTP packets (such as voice data) or in SIP info packets.

  Ask your VoIP provider which DTMF signalling is supported.

- **Telephony → Dialing Plans**

  You can activate and deactivate the following dialling plans:

  – For VoIP calls, an area code is automatically attached in front of all numbers that do not start with 0. Specify this dialling code.
  – Stored emergency numbers are always dialled via the fixed network. The stored emergency numbers are displayed. You can enter a phone number of your own.

- **Telephony → Directory**

  Store your outlook contacts in a tsv file on your PC and load this onto your handset. The contacts are copied to the handset directory.

  Back up the directories for your handsets on a PC.

- **Messaging**

  Enter the access data for your messenger server and your e-mail server.

  You can specify a resource name your phone should use to log on to the messenger server as well as a priority for message delivery. If you are online and using more than one device, any message from a buddy will be sent to the device that has the highest priority.

- **Miscellaneous**

  State whether you wish to receive information about new firmware versions on the Internet.

  For the following firmware update you can specify the server/PC that is to make the update, and if required load new firmware onto the phone.

  View the VoIP status codes on the handset to diagnose problems with VoIP connections.

You will find the description of the Web configurator in the detailed user guide for your Gigaset S450 IP on the Internet at www.siemens.com/gigaset.

Appendix

Care

- Wipe down the base station and handset with a **damp** cloth (no solvents) or an antistatic cloth.

Never use a dry cloth. This can cause a build up of static.

Contact with liquid ⚠

If the handset has come into contact with liquid:

- **Switch the handset off and remove the batteries immediately.**
- Allow the liquid to drain from the handset.
- Pat all parts dry, then with the battery compartment open and the keypad facing down place the handset in a dry, warm place **for at least 72 hours** (**not** in a microwave, oven etc.).
- **Do not switch on the handset again until it is completely dry.**

When it has fully dried out, you will normally be able to use it again.

Questions and answers

If you have any questions about using your phone, visit us at www.siemens.com/gigasetcustomercare at any time. You will also find a list of common problems and possible solutions in the detailed user guide.

Please address any questions about the DSL and cable connection to your Internet provider.

FCC / ACTA Information

Warning: Changes or modifications to this unit not expressly approved by Siemens Cordless Products could void the FCC authority to operate the equipment. This includes the addition of any external antenna device.

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the bottom of the base station is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network nust comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (*e.g.*, 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance, that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you belive it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service. If you experience trouble with this telephone system, disconnect it from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

If trouble is experienced with this equipment, for repair or warranty information, please contact Siemens Customer Care, Tel. 1-888-777-0211. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved. This equipment is of a type that is not intented be repaired by the Customer (user).

This telephone system may not be used on coin service provided by the telephone company. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information. Privacy of communications may not be ensured when using this phone.

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

This telephone system equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Some cordless telephones operate at frequencies that may cause interference to nearby TV's and VCR's; to minimize or prevent such interference, the system base should not be placed near or on top of a TV or VCR; and, if interference is experienced, moving the base farther away from the TV or VCR will often reduce or eliminate the interference.

However, there is no guarantee that interference will not occur in a particular installation. If this telephone system does cause harmful interference to radio or television reception, which can be determined by turning the system off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the base station and receiver.
3. Connect the base station into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio TV technician for help.

Notice for Direct Inward Dialing ("DID")

ALLOWING THIS EQUIPMENT TO BE OPERATED IN SUCH A MANNER AS TO NOT PROVIDE FOR PROPER ANSWER SUPERVISION AS A VIOLATION OF PART 68 OF THE FCC'S RULES.

Notice to Hearing Aid Wearers:

This phone system is compatible with inductively coupled hearing aids.

Power Outage:

In the event of a power outage, your cordless telephone will not operate. The cordless telephone requires electricity for operation. You should have a telephone that does not require electricity available for use during power outages.

Notice:

The installation of the base unit should allow at least 8 inches between the base and persons to be in compliance with FCC RF exposure guidelines.

For body worn operation, the portable part (handset) has been tested and meets FCC RF exposure guidelines. Use with an accessory that contains metal parts may not ensure compliance with FCC RF exposure guidelines.

Notice to telephone company service:
If you need service from your telephone company, please provide them with the information

- Facility interface Code (FIC)
- Service Order Code (SOC)
- Universal Service Order Code (USOC) Jack

as indicated on the label on the bottom side of the base station.

Industry Canada Certification

Operation is subject to the folowing two conditions (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network, protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier.

Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together.

This precaution may be particularly important in rural areas

NOTE: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

This product meets the applicable Industry Canada technical specifications.

The Ringer Equivalence Number is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all devices does not exceed five.

Safety precautions

Before using your telephone equipment, basic safety instructions should always be followed to reduce the risk of fire, electric shock and injury to persons.

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall telephone jack and power outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use damp cloth for cleaning.
4. Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement or near a swimming pool.
5. Place this product securely on a stable surface. Serious damage and/or injury may result if the unit falls.
6. Slots or openings in the cabinet and the back and bottom are provided for ventilation, to protect it from overheating. These openings must not be blocked or covered. This product should never be placed near or over a radiator or heat register, or in a place where proper ventilation is not provided.
7. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
8. Do not place objects on the power cord. Install the unit where no one can step or trip on the cord.
9. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
10. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in the risk of fire or electric shock. Never spill liquid of any kind on this product.
11. To reduce the risk of electric shock or burns, do not disassemble this product. Take it to a qualified service center when service is required. Opening or removing covers may expose you to dangerous voltages, dangerous electrical current or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
12. Unplug the product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a.) When the power cord is damaged or frayed.
b.) If liquid has been spilled into the product.
c.) If the product has been exposed to rain or water.

d.) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and may require extensive work by a qualified technician to restore the product to normal operation.
e.) If the product has been dropped or physically has been damaged.
f.) If the product exhibits a distinct change in performance.

13. Avoid using a telephone (other than a cordless type) during a thunderstorm. There may be a remote risk of electrical shock from lightning. Therefore we suggest a surge arrestor.

14. Do not use the telephone to report a gas leak in the vicinity of the leak.

15. Emergency/911 numbers may not be dialed if the keypad is locked.

BATTERY SAFETY PRECAUTIONS

To reduce the risk of fire, injury or electric shock, and to properly dispose of batteries, please read and understand the following instructions.
CONTAINS ALKALINE NICKEL METAL HYDRIDE BATTERY. BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY. DO NOT DISPOSE OF IN MUNICIPAL WASTE.

1. Only use the batteries specified for use with this product.
2. DO NOT USE ALKALINE NICKEL CADMIUM OR ALKALINE LITHIUM BATTERIES, or mix batteries of different sizes or from different manufacturers in this product. DO NOT USE NONRECHARGEABLE BATTERIES.
3. Do not dispose of the batteries in a fire; the cells may explode. Do not expose batteries to water. Check with local codes for special disposal instructions.
4. Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. The electrolyte may be toxic if swallowed.
5. Exercise care in handling the batteries in order not to short the batteries with conducting materials such as rings, bracelets, and keys. The batteries or conducting material may overheat and cause burns or fire.
6. Charge the batteries provided with, or identified for use with, this product only in accordance with the instructions and limitations specified in the user's manual. Do not attempt to charge the batteries with any means other than that specified in the users manual.
7. Periodically clean the charge contacts on both the charger and handset.

Customer Care Warranty for Cordless Products
To obtain Siemens Customer Care Warranty service, product operation information, or for problem resolution, call:
Toll Free: 1-888-777-0211
9:00 a.m. – 8:00 p.m. Central Standard Time seven days a week

www.siemens.com/gigasetcustomercare

Limited Warranty

This limited, non-transferable warranty is provided to the original purchaser. The product is warranted to be free from defects in materials and workmanship under normal installation, use, and service for period of one (1) year from the date of purchase as shown on the purchaser's receipt.

Our obligation under this warranty is limited to repair or replacement (at our option) of the product or any part(s), that are defective, provided that the product is returned to Siemens during the warranty period. A copy of the dated purchase receipt must accompany products returned. In the absence of a purchase receipt, the warranty period shall be one (1) year from the date of manufacture. Repair or replacement of the product is your sole and exclusive remedy.

If the product is repaired, reconditioned component parts or materials may be used. If the product is replaced, we may choose to replace it with a new or reconditioned product of the same or similar design. The repaired or replacement product will be warranted for either (a) 90 days or (b) the remainder of the original one (1) year warranty period, whichever is longer. Batteries are warranted to be free from defects at the time of purchase.

EXCLUSIONS: This warranty does not cover (a) the adjustment of customer-operated controls as explained in the appropriate model's instruction manual, or (b) the repair of any product, which has been altered or defaced. This warranty shall not apply to the cabinet or cosmetic parts, antenna, buttons, batteries, or routine maintenance. This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of SIEMENS including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, damage from leaking batteries, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, incorrect line voltage, fire, floor or other Acts of God, or normal wear and tear.

This warranty shall be void if the product is damaged as a result of defacement, misuse, abuse, neglect, accidents, destruction, or alteration of the serial number, improper electrical voltages or currents, repair, alteration or maintenance by any person or party other than our authorized service facility or any violation of instructions furnished by us.

The warrantor is not liable for incidental or consequential damages resulting from the use of this product, or arising out of any breach of this limited warranty. (As examples, this excludes damages for lost time, lost calls or messages, cost of having someone remove or re-install an installed unit if applicable, travel to and from servicer. The items listed are not exclusive, but are for illustration only.)

This warranty is also void if this product is removed from the country in which the original purchaser purchased it, if it is used in a country, which it not registered for use, or if it is used in a country for which it was not designed. Due to variations in telephone systems and communications laws, this product may be illegal for use in some countries. We assume no responsibility for damages or penalties incurred resulting from the use of this product in a manner or location other than that for which it is intended.

THIS ONE-YEAR LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED IN DURATION TO THE ONE-YEAR DURATION OF THIS WRITTEN LIMITED WARRANTY. EXCEPT AS EXPRESSLY SET FORTH HEREIN, WE DISCLAIM ANY LIABILITY FOR DAMAGES ARISING FROM OWNERSHIP, USE, OR LOSS OF USE OF THE PRODUCTS, LOSS OF TIME, INCONVENIENCE, INJURY TO CUSTOMER OR ANY OTHER PERSON, OR DAMAGE TO CUSTOMER PROPERTY CAUSED BY THE PRODUCT, LOSS OF REVENUE OR PROFIT, OR DAMAGES FOR ANY FAILURE TO PERFORM. IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES EVEN IF WE ARE ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL SIEMENS' LIABILITY EXCEED THE COST OF REPAIRING OR REPLACING THE DEFECTIVE PRODUCT AS PROVIDED HEREIN, AND ANY SUCH LIABILITIES WILL TERMINATE UPON EXPIRATION OF THE WARRANTY PERIOD.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

This limited warranty is the sole and exclusive warranty provided for the product. This limited warranty is valid only in Canada and the United States (excluding all U.S. territories and protectorates). This limited warranty gives you specific legal rights, and you may also have other rights, which vary from state to state or province to province.

If you want to learn more about Siemens Gigasets, or for technical assistance with your Gigaset, visit our web site at http://www.my-siemens.com or, please call (888) 777-0211, or for TDD access (888) 777-0209.

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Specifications

Recommended batteries

(Valid at the time of going to press)

Nickel-metal-hydride (NiMH):

- Sanyo Twicell 650
- Sanyo Twicell 700
- Panasonic 700 mAh "for DECT"
- GP 700 mAh
- Yuasa Technology AAA Phone 700
- VARTA Phone Power AAA 700 mAh
- GP 850 mAh
- Sanyo NiMH 800
- Yuasa Technology AAA 800

The handset is supplied with two recommended batteries.

Handset operating times/charging times

The following information relates to batteries with a capacity of 650 mAh.

Standby time	approx. 170 hours (7 days)
Talktime	approx. 13 hours
Charging time	approx. 6 hours

The operating and charging times apply only when using the recommended batteries.

Note:
When the display backlight is switched on, the standby time of the handset is reduced to approx. 30 hours.

Base station power consumption

Depending on current status, around 2.5 W.

General specifications

Interfaces	Fixed network, Ethernet
No. of channels	60 duplex channels
Radio frequency-range	1880–1900 MHz
Duplex method	Time multiplex, 10 ms frame length
Channel grid	1728 kHz
Bit rate	1152 kbit/s
Modulation	GFSK
Language code	32 kbit/s
Transmission power	10 mW, average power per channel
Range	up to 300 m outdoors, up to 50 m indoors
Base station power supply	230 V ~/50 Hz
Environmental conditions in operation	+5 °C to +45 °C; 20% to 75% humidity
Dialling mode	DTMF (touch tone dialling)/DP (dial pulsing)
Flashing time	250 ms
Codecs	G711, G726, G729AB with VAD/CNG
Quality of Service	TOS, DiffServ
Protocols	DECT, GAP, SIP, RTP, DHCP, NAT Traversal (STUN), HTTP

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  http://www.gnu.org/copyleft/lesser.html
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  http://www.siemens.com/developer/s450ip

For further information and Internet links to the source text of the free software, see the Online Support pages on the Internet at:

www.siemens.com/gigasetcustomercare

If it is not already supplied with the product, you can request the source text, including copyright notices, from Siemens. There is a charge to cover the cost of copying and postage. Please submit this request by e-mail or fax to the following address or fax number within 3 years of purchasing this product. Please state the exact device type plus the version number of the installed device software.

Small Parts Dispatch Com Bocholt

E-mail: kleinteileversand.com@siemens.com

Fax: 02871 / 91 30 29

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[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

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This license, the Lesser General Public License, applies to some specially designated software packages—typically libraries—of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a defacto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the

free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms.A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and sepa-

rate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.

Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessories, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6.

Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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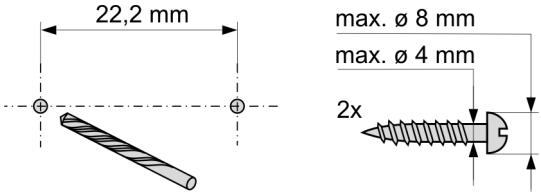
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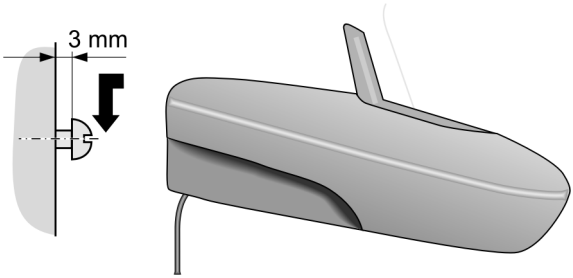
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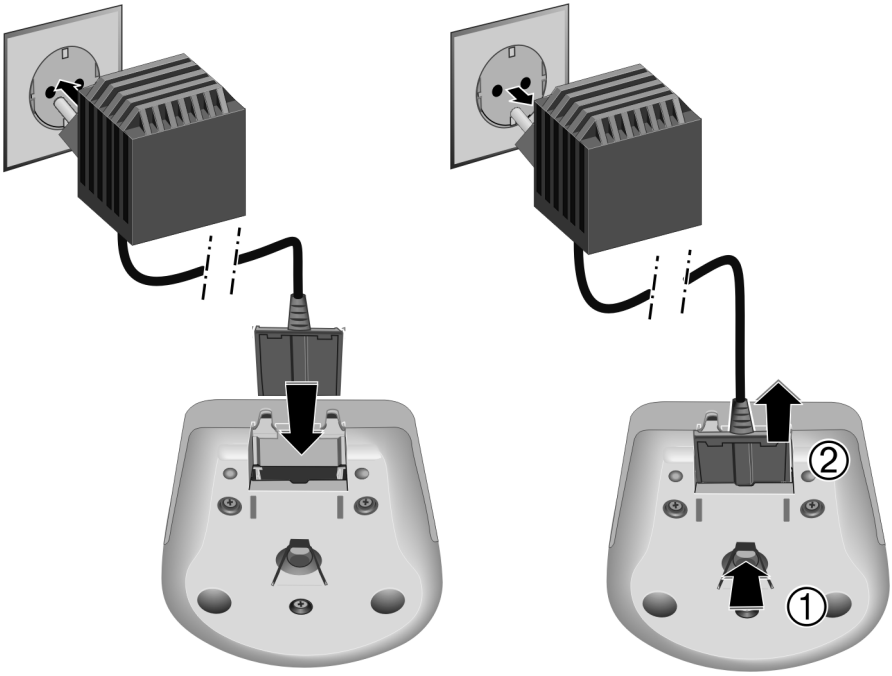
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