

is dimmed. When viewing the list of attachments, you may select an attachment and choose from the following options:

View — Opens the attachment if there is enough memory and if the message can be opened in the communicator.

Save — Saves the attachment in the Downloaded files folder.

Close — Returns you to the previous screen.

Delete — Removes the open mail message.

Close — Returns you to the Received mail folder.

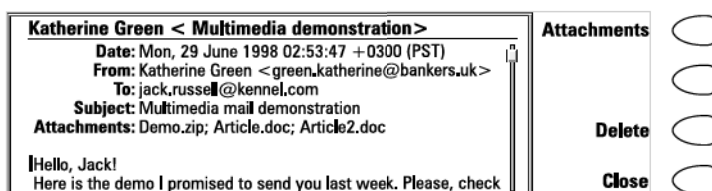


Figure 5

To use the Menu button

If you press the Menu button in an opened mail message, the following options become available:

Reply (include text) — Replies to a mail message and includes the received mail in your reply. If the received mail message is a MIME document, only the first text part is copied to the message and may be edited. Attachments cannot be included in the reply message.

Reply — Replies to a mail message without including the received mail in your reply.

Reply all (include text) — Replies to all the persons who received the mail and includes the received mail in your reply.

Reply all — Replies to all the persons who received the mail without including the received mail in your reply.

Forward — Forwards the received mail and the possible mail attachments.

Find URL — This option searches for a URL address in the message. If there is a URL, you can open a connection to the selected address by pressing **Fetch**.

Hierarchical structure — Shows the hierarchical structure of the mail message.

Print — Prints the message.

Scroll to any of these and press **Select**.

World Wide Web

The Nokia 9110 Communicator supports HTML 3.2, with the exception of some features. SSL, the security protocol, is also supported. See "Glossary" on page 177. SSL provides export grade encryption, which means that it is not secure enough for highly confidential purposes. The WWW browser does not support Java or Java script.

To connect to the World Wide Web, the Internet service must be activated for your SIM card, and you need an account with an Internet service provider.

To open the World Wide Web application, select WWW in the Internet main view, and press **Select**.

To exit the WWW, press **Close** or **Hang up** in the Bookmarks list, which is the main view of the application. This ends the data call and closes the WWW application.

For information on how to create tailored WWW pages for the Nokia 9110 Communicator, see the documents on the CD-ROM.

WWW settings

To change the WWW settings:

- 1 Open the WWW application and press the Menu button.
- 2 Select *Settings*.
- 3 To change a setting, select it and press **Change**.

The WWW settings are:

Autoload images: Yes / No — If set to *Yes*, the communicator automatically fetches the inline JPEG or GIF images on a WWW page. When set to *No*, WWW pages are fetched without images and shown much faster.

Clear cache on exit: Yes / No — Most recently fetched WWW pages are kept in the temporary memory of the communicator, the "cache". If set to *Yes*, the cache, history list and cookie file are automatically emptied after you close the WWW application. If set to *No*, the cache stores as much information as possible. When you restart the WWW application, the most recently stored information is fetched from the cache without making a new data call.

Accept all cookies: Yes / No — Determines whether the cookies functionality is enabled. See "Glossary" on page 177.

Default access point — Defines the Internet access point used as a default in the WWW application.

Proxies — To change the proxy settings, press **Change**.

Internet access point — You can select an IAP to be used for this particular WWW page.

HTTP proxy — The hostname of the HTTP proxy server used with the selected IAP.

HTTP proxy port – The proxy port of the proxy server.

Security proxy – The proxy that is used with SSL secure connections.

Security proxy port – The security proxy port of the proxy server.

No proxy for – You may define domains for which the HTTP proxy is not needed. Domain names are separated with commas, for example nokia.com, edu.fi. You may specify the domains as accurately as you wish.

Bookmarks

The WWW main view shows the Bookmarks list. When you select a bookmark from the list, the name of the Internet access point used for connecting to the bookmark is shown on the top right corner. The date when the bookmark was last fetched is shown beside the name of the bookmark. See figure 6.

Below the Bookmarks list is the address field where you can enter the URL address of the WWW page you want to fetch. If you select a bookmark from the list, the address field shows the URL address of the bookmark.

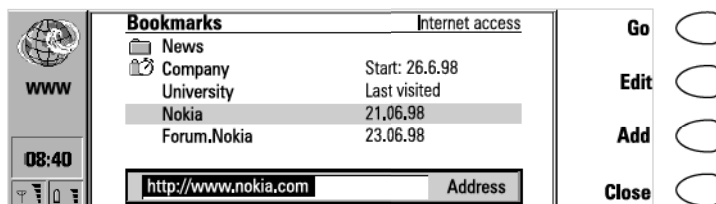


Figure 6

To fetch a WWW page

- 1 Select an entry in the Bookmarks list or enter a URL in the address field.
- 2 Press **Go**.

Tip: To fetch WWW pages stored in the Own texts or Downloaded files folders of the communicator or the memory card, use the prefix "file:/" (note: three slashes) instead of "http:/".

To add a new bookmark

- 1 Press **Add**, or if you want to modify an existing bookmark, press **Edit**.
- 2 Enter the name you want for the bookmark in the *Name* field.

- 3 Enter the URL address of the bookmark, e.g. www.nokia.com, in the *Address* field.

To set advanced bookmark properties

Select *Details* and press **Change**. The advanced settings are:

User name — If a user name is needed to fetch the bookmark, enter your user name here.

Password — If a password is needed to fetch the bookmark, enter your password here.

Internet access selection: Automatic/Manual — If you select *Automatic*, the current or the default IAP is used for this bookmark. If you set this to *Manual*, only the IAP defined in the following setting is used.

Internet access — This setting is available only if the previous setting is set to *Manual*. You can select which IAP to use for the bookmark.

To fetch items with a page already open

You can fetch a WWW page even if you have a page already open:

- 1 Press the Menu button and select *Bookmarks*. A simplified form of the Bookmarks list opens.
- 2 Select an entry in the Bookmarks list or enter the URL in the address field.
- 3 Press **Go**.

To close the Bookmarks list, press **Close**.

To use the Menu button

If you press the Menu button in the Bookmarks list, the following options become available:

History — Contains a list of browsed documents. To fetch a page from the list, select the page and press **Go**. To empty the history list and the cache, press **Clear history**.

Find — You can search for names and addresses in the Bookmarks list.

Open file — You can open files from the Own texts and Downloaded files folders.

Move — You can move the selected bookmark from one folder to another.

Delete — Removes the selected bookmark or bookmark folder.

Create folder — Creates a new bookmark folder.

Import bookmarks — Imports a bookmark file from the Own texts or Downloaded files folder to the Bookmarks list.

Export bookmarks — Converts the bookmark file to the HTML format and saves it to the Own texts folder.

Clear cache — Empties all caches and temporary files.

Settings — Opens the WWW settings. See "WWW settings" on page 97.

To make a smart bookmark

A smart bookmark contains a WWW page which your communicator fetches at certain time. These WWW pages can only consist of text or images, and they cannot be SSL secure.

- 1 Create a new bookmark folder by pressing the Menu button and selecting *Create folder*.
- 2 When the new folder is ready, press **Edit**. The following options become available:

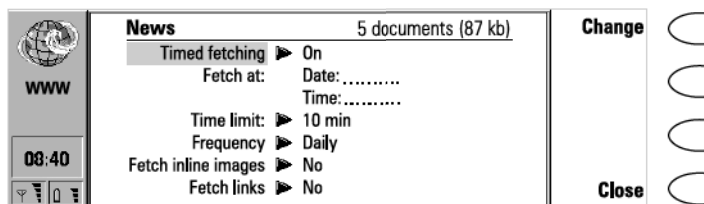


Figure 7

Timed fetching: On/Off— When this is set to *On*, a clock symbol appears in the folder, and the WWW pages in the folder are fetched according to the settings defined below.

Fetch at — You can define the time and date when the pages are fetched. The date and time formats are set in the System settings.

Time limit: None/5/10/30/60 min — You can set a time limit for the fetching process. This way the data call will not last too long and thus become very expensive.

Frequency: None/Daily/Weekly/Working days/Every other week/Monthly — This setting enables frequent fetching of the WWW pages.

Fetch inline images: Yes/No — You can decide whether the inline images in the WWW pages are fetched.

Fetch links: Yes/No — If set to *Yes*, all links to other texts and images in the defined WWW pages are fetched. If set to *No*, only the WWW pages are fetched.

- 3 Press **Close**.
- 4 Select the page(s) you want to fetch with the selection frame and press the Menu button.
- 5 Select *Move* and then choose the folder which you just created. The bookmark(s) will be moved to that folder.

Pages fetched with the smart bookmarks function are stored in a folder cache. To empty the cache, press the Menu button in the smart bookmarks view and

select *Empty folder cache*. If you select *Go*, all the items in the folder are fetched in the folder cache.

Note: WWW pages secured with SSL are never stored in the cache.

To navigate in WWW

- 1 Select a bookmark in the Bookmarks list or enter a URL address into the address field and press **Go**.
- 2 If the WWW page was already recently fetched, the page is fetched from the cache. If not, the page is fetched from the Internet by making a data call to the selected Internet access point.
- 3 Some servers have access restrictions that require a valid user name and password. In this case, you will be asked to enter the user name and password before the WWW page can be fetched. The communicator stores the passwords and user names that you enter to gain access to that domain, and the next time you connect to the same domain, they will be offered automatically.

Note: Stored passwords to individual web sites are removed when the communicator is rebooted.

- 4 When the WWW page is being fetched, the line on top of the display shows the status of the connection, the title of the page, and how many bytes of the page have been received.

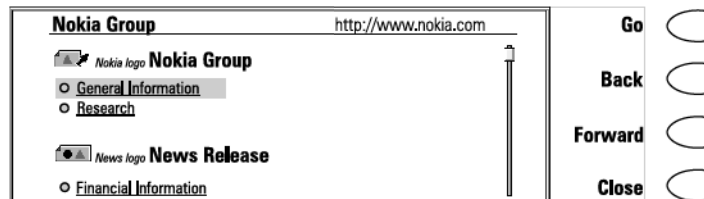


Figure 8

When the page is on the display, use the arrow keys to scroll the view and to choose hyperlinks and hotspots. Each arrow key press selects the nearest hyperlink or hotspot, or moves the view one line up or down. See figure 8.

Tip: To select the next or previous hyperlink on the WWW page, press the **Tab** key or **Shift + Tab**, respectively.

To use the navigation commands

After the WWW page has been fetched, the following commands become available:

Go — If there is a link to another WWW page in the currently open page, select the link with the selection frame and press **Go** to fetch the page. If the selected item is a button for sending or resetting a form, **Go** either sends the form or resets it to default values.

Get image — If the selected item is an inline image icon, the first command changes to **Get image** with which you can fetch the image. If the image is of an unsupported format, the image icon looks broken on the display and cannot be selected.

Change — If the selected item is a selection list, check box or radio button, the first command is **Change**. With **Change**, you can tick the box or button on and off.

If you have a form open, **Change** allows you to attach a file to it. You can select the attachment from the Own texts, Received messages/mail and Downloaded files folders. Press **Open** to open the folder, choose the desired file and press **Select**.

Back — If you have browsed through at least two WWW pages, **Back** allows you to fetch the previous page.

Forward — If you have browsed through at least two WWW pages, and viewed the previous page with the **Back** command, you can fetch the next page by pressing **Forward**.

Close — Returns to the Bookmarks list.

Cancel — Interrupts the fetch operation.

Tip: You can copy text on the WWW page by pressing Ctrl-C. You can then for example open the Notes application, open a new document and paste the copied text into the document by pressing Ctrl-V. You can also print the copied text in the Notes application.

To use the Menu button

When you have a WWW page open and you press the Menu button, the following options become available:

Add bookmark — Adds the current address to the Bookmarks list.

History — Contains a list of browsed documents.

Find — You can search for various items, such as words in the WWW page.

Open file — You can open files from the Own texts and Downloaded files folders.

Bookmarks — Opens the Bookmarks list where you can select a new page to be fetched.

Go off-line — Ends the data call.

Reload — Reloads the current WWW page from the network.

Tip: You can also reload a WWW page by pressing Ctrl-R.

Activate automatic update (Ctrl-U) — With this option the opened WWW page updates itself continuously in every 10, 30 or 60 seconds. This is very convenient for example when browsing stock exchange WWW pages.

Note: The continuous updating disables the *Autodisconnect time* function. Therefore, the data call does not go off-line, which may make the call expensive.

Disable automatic update (Ctrl-U) — Stops the continuous updating of the WWW page.

Save — Saves the page contents or the image to the Downloaded files folder, or adds the address of the page to the Bookmarks list.

Clear cache — Empties all caches and temporary files.

Settings — Opens the WWW settings. See "WWW settings" on page 97.

To view images

Images that are part of the fetched WWW page are called inline images. By default, inline images are not fetched with the WWW page, but will be displayed as icons, unless the option *Autoload images* is set to *Yes* in the WWW settings. To fetch an image, select the image icon and press **Get image**. The communicator is capable of fetching images that are in JPEG or GIF format.

Inline images can also be image maps. An inline image map acts like a hyperlink. A fetched image map contains a cursor that can be moved with the arrow keys. When you press **Go**, the pixel coordinates of the cursor are sent to the server, and the corresponding WWW page is fetched.

Images that are separate documents and not part of a hypertext document are called external images. When an external image is fetched, it is viewed separately from the hypertext document in the image viewer. The commands in the external image viewer are the same as in the fax viewer.

To download add-on software

The WWW application can be used to install applications and plug-ins on your communicator. If you install plug-ins, the WWW application activates them when necessary.

- 1 Go to the WWW page where the add-on software package exists.
- 2 Select the hyperlink that points to the software package.
- 3 Press **Go** to fetch the package. After the software package has been successfully fetched, the software installation view opens.

Press **Install**. If there is sufficient memory available, the software will be installed.

Caution: Beware of viruses. Only install on the communicator software you have obtained from sources that offer adequate protection against viruses.

Terminal

The Terminal application is started in the Internet main view by selecting Terminal and pressing **Select**. The Terminal application is used to connect directly, not via the Internet, to a remote computer by way of a data call.

The Terminal main view shows the defined Terminal connections. The Terminal application is similar to the Telnet application, in that both of them emulate the VT100 terminal display. See figure 10.

To connect with a pre-defined Terminal connection, select the connection and press **Connect**.

To create new or edit existing connections, press **Define**.

To change the settings for incoming data calls, press **Settings**, select the setting and press **Change**. The available settings are:

Local echo for incoming data call — If set to *On*, characters typed from the communicator keyboard are echoed locally to the communicator. If set to *Off*, they are echoed to the remote host computer.

Line end for incoming data call – Defines which character is generated with the Enter key in incoming data. The alternatives are: Carriage return (CR), Linefeed (LF), and Carriage return - Linefeed (CR/LF).

To define Terminal connections

After you have pressed **Define** in the Terminal main view, the defined Terminal connections are shown.

To remove the selected connection, press **Delete**.

To edit existing connections, press **Edit**, or press **New** to define new Terminal connections. The following settings become available:

Figure 9

Connection name – Write the name of the connection. The name can be defined freely.

Phone number – The phone number for accessing the service. The phone number may include spaces and hyphens.

Data bits: 7/8 – Service/host-specific communication parameter.

Parity: None/Odd/Even – Service/host-specific communication parameter.

Stop bits: 1/2 – Service/host-specific communication parameter.

Local echo: On/Off – If set to *On*, characters typed from the communicator keyboard are echoed locally to the communicator. If set to *Off*, they are echoed to the remote host computer.

Modem initialisation – Enter here a modem initialisation string containing AT commands, if needed. This initialisation string is executed after the string you define in the *Modem initialisation: Custom* option of the Internet settings.

Backspace key: BS/DEL – Defines whether the keyboard backspace key is used as a backspace or delete key.

Line end – Defines which character is generated with the Enter key in the terminal session. The alternatives are: Carriage return (CR), Linefeed (LF), and Carriage return - Linefeed (CR/LF).

Terminal connection

When you have connected to the remote system, the following commands become available:

Press **Keys** to emulate the VT100 special keys, which are not available on the communicator keyboard. The special keys include:

Four function keys: PF1-4. The specific function of these keys depends on the service or program to which you are connected.

All VT100 application keypad keys: numbers 1-9, hyphen, comma, period, enter.

The following VT100 functions: reset terminal, Ctrl-[, Ctrl-], Ctrl-~, Ctrl-?.

The selected special character is entered to the left of the cursor by pressing **Insert**.

The arrow keys can be used for scrolling the view. Scrolling does not affect the cursor position. Pressing any keyboard key returns the view to the cursor position.

Press **Hang up** to close the connection to the host, end the data call and return to the Terminal main view.

To transfer text

The purpose of the text transfer function is to enable you to send text from the communicator to the host computer, or to copy text from the host computer to the communicator. This function can be used, for example, to send pre-written mail messages to the company mainframe computer, or alternatively, copy received mail and then read it later, off line.

To send text to the host computer

- 1 Press **Send text**.
- 2 Open one of the folders shown and select the document you want to send.
- 3 Press **Send**. If you want to stop the sending procedure, press **Stop sending**.

While the text is being sent, the keyboard is inactive.

To copy text from the host computer

- 1 Prepare the text reading application on the host.
- 2 Press **Capture text**. All interaction with the host will be recorded in a file in the Downloaded files folder. Control characters, except line changes, will not be stored.

Press **Stop capture** to end the text capture process.

Telnet

The Telnet application is similar to the Terminal application, in that both of them emulate the VT100 terminal display. See figure 10.

Note: The Telnet application can be installed to your communicator from the CD-ROM included in the sales package.

Once a Telnet connection is established, you must in most cases enter your login name and a password in order to be able to use the services provided by the host computer. The Telnet main view shows all pre-defined Telnet hosts.

To connect to a pre-defined Telnet host, select the host and press **Connect**.

To create new or edit existing connections, press **Define**.

To define Telnet connections

After you have pressed **Define** in the Telnet main view, the defined Telnet connections are shown.

To remove the selected connection, press **Delete**.

To edit existing connections, press **Edit**, and to define new Telnet connections, press **New**. The following settings become available:

Connection name — Write the name of the connection. The name can be defined freely.

Destination host — Enter the connection address. The host is identified by either a numeric IP address or a textual host name. If required, place the name of the destination TCP port after the IP address, separated by a colon (:).

Internet access points — Select an Internet access point from those currently defined. To change the IAP, press **Change** and select a new IAP from the list.

Backspace key: BS/DEL — Defines whether the keyboard backspace key is used as a backspace (*BS*) or delete (*DEL*) key.

Telnet connection

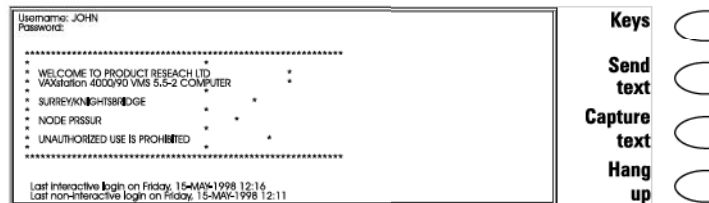


Figure 10

When you have connected to the remote system, press **Keys** to emulate the VT100 special keys, which are not available on the communicator keyboard. The special keys include:

Four function keys: PF1-4. The specific function of these keys depends on the service or program to which you are connected.

All VT100 application keypad keys: numbers 1-9, hyphen, comma, period, Enter.

The following VT100 functions: reset terminal, Ctrl-[, Ctrl-], Ctrl-~, Ctrl-?.

In a Telnet connection, these special keys include the following commands that can be used in the remote systems that support them:

Interrupt— Interrupts the current process on the remote computer.

Skip command output— Prevents the commands from being shown on the display.

Are you there?— Enquires whether the remote system is still running, if the execution of a task seems to take too long.

Select a special character and press **Insert**. The inserted special character sends a control signal to the remote computer; it is not shown on the display.

The arrow keys can be used for scrolling the view. Scrolling does not affect the cursor position. Pressing any keyboard key returns the view to the cursor position.

Press **Hang up** to close the connection to the host, end the data call and return to the Telnet application main view.

Note: The text transfer function is also available in Telnet. See "To transfer text" on page 106.

Text Web

With Text Web you can fetch information from the Internet, using SMS. Such information can include for example flight schedules, weather reports and stock news. You can also access services provided by your network operator and Nokia.

Nokia services

The contents are maintained by Nokia, and they cannot be changed. Nokia updates the contents from time to time.

Operator services

The Operator services allows the network operator to provide various services to the subscribers. The operator-specific items may vary from subscriber to subscriber, and can be updated by the network operator.

To define services

- 1 To define new service access points, press **Settings** in the Text Web main view.
- 2 Press **New** to open an empty service information card, or press **Edit** to modify an existing service. Enter the title of the service, the server number, which is a message centre number, and the service number, which is a phone number.

To fetch information

- 1 In the Text Web main view, scroll to one of the service access points that you have defined and press **Select**.
- 2 Enter in the space provided a keyword that describes the type of information you are looking for. If you press **Get keywords**, you will receive a list of available keywords. **History list** contains keywords that you have used previously.
- 3 To send the keyword, press **Send**. When you receive a reply from the service provider, the TTML browser opens up.

To use the browser

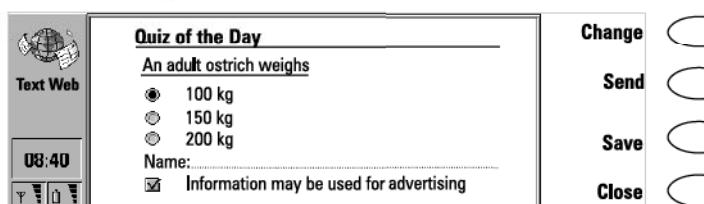
Press the arrow keys on the keyboard to move from one hotspot to another.

To follow a hyperlink, press **Fetch**. With **Change** you can tick off boxes and buttons.

To add the form to the Saved forms list, press **Save** and select *Save form*. To copy the text to the Downloaded files folder, select *Copy text*.

110

To send the form, press **Send**.



The screenshot shows a mobile phone interface. On the left is a vertical sidebar with a 'Text Web' icon, a clock showing '08:40', and some status icons. The main area displays a 'Quiz of the Day' form. The form has a title bar, a question 'An adult ostrich weighs', three radio button options (100 kg, 150 kg, 200 kg), a 'Name:' label followed by a text input field, and a checkbox labeled 'Information may be used for advertising'. To the right of the form are four buttons: 'Change', 'Send', 'Save', and 'Close', each with a circular icon.

Figure 11

Saved forms

Saved forms is a "hotlist" to which you can add items from the other services. It grants you quick access to Internet services.

To open the selected form, press **Open**. The TTML browser opens up with the same commands as above.

To rename a service, press **Rename** in the Saved forms main view. To remove the selected form, press **Delete**.

10. Notes

Notes is used for writing texts and managing various documents stored on the communicator.

Note: When you open a document, the document is opened in the appropriate editor or viewer. The available commands vary according to the editor/viewer.

Folders in the Notes main view are:

Own texts – Written mail, faxes, short messages, notes and memos

Received faxes/ messages/ mail – All received documents

Downloaded files – Documents downloaded with the Internet applications

Document outbox – Documents waiting to be sent

If you have a memory card inserted in the communicator, the memory card icon will be shown at the bottom of the folders list. See figure 1.

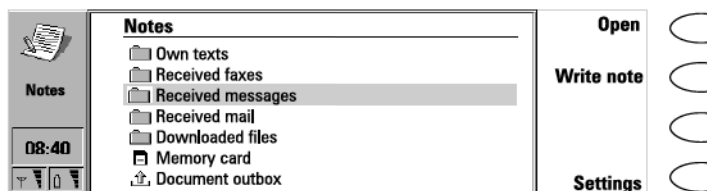


Figure 1

To write a document

- 1 Press **Write note**. The note editor opens.
- 2 Write the document.

To read a document

- 1 Select a folder and press **Open**.
- 2 Select a document from the list and press **Open**.

Note: If the opened document is very large, i.e. dozens of pages long, the time required before the document opens, is longer than with smaller documents.

To print a document

- 1 Open the document.
- 2 Press the Menu button and select *Print*.

For more information, see "Document features" on page 34.

To remove a document

- 1 Select a folder and press **Open**.
- 2 Select a document from the list and press **Delete**.

To make a subfolder

- 1 Select a folder and press **Open**.
- 2 Press the Menu button and select *Create folder*.
- 3 Write down the name of the folder and press **OK**.

To remove a subfolder

- 1 Select the folder under which the subfolder is located and press **Open**.
- 2 Select the subfolder and press **Delete**.

Note: Calendar memos and Contact images are permanent subfolders and thus cannot be removed.

To use the Menu button

When you press the Menu button in an opened folder, the following options become available:

Rename — You can give a new name to the selected subfolder or document. Permanent folders cannot be renamed.

Copy — You can choose a folder into which the selected document will be copied.

Move — You can choose a folder into which the selected document will be moved.

Create folder — You can make a new subfolder.

Copy to sounds — You can add the selected tune to the list of ringing tones.

Transfer via IR — You can copy files to another Nokia 9110 Communicator via the infrared link. The IR port of the receiving device must be activated before the operation. See "Infrared activation" on page 131.

To edit documents

For information about the available editing shortcuts see "Document features" on page 34.

Documents that open in the Notes editor can be directly edited and formatted. To format the text, press **Style**. Choose from the following options:

Font: URW Mono / URW Roman / URW Sans (true type fonts)

Size: 10 / 12 / 14 / 18 / 24 / 36 / User defined (measured in points)

Bold (Ctrl-B): On / Off

Italics (Ctrl-I): On / Off

Underlined (Ctrl-U): On / Off

Justification: Left / Centred / Right / Full

Margins — Opens a new view where you can choose a value for the top, bottom, left and right margins. The unit of measurement is either inches or centimetres, chosen in the System settings, see "System settings" on page 125.

A new style setting affects all new text from the cursor point forward. The margin settings, however, apply to the whole document. If you wish to change the settings permanently, do it in the main view settings, see "Notes settings" on page 115.

Special characters

The special character key, Chr, on the communicator keyboard is used to create characters that are not included on the keyboard. The character key can always be used when you are able to enter characters from the keyboard.

To insert special characters from the character table

- 1 Press and release the Chr key. The character table opens on the display, see figure 2.
- 2 Move the selection frame over the desired character with the arrow keys.
- 3 Press **Insert** to close the character table and to insert the selected character to the left of the cursor.

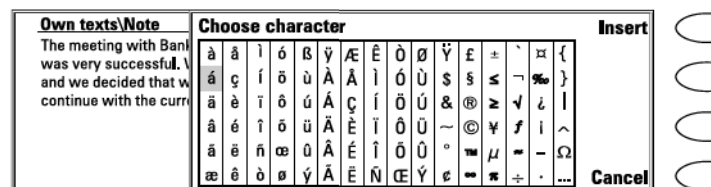


Figure 2

To insert special characters from the keyboard

- 1 Press and hold the Chr key and simultaneously press a key with a special character printed on the key as the third character. The special key will be inserted on the display.

In addition, special characters can be generated using certain unmarked keys, for example, "a" and "e":

- 1 Press and hold the Chr key and simultaneously press a letter key. The first special character is displayed.
- 2 Continue to hold down the Chr key and press the letter key again. The second special character is shown in the place of the first, and so on, until the first character is shown again. The case of the special character is determined by whether Shift or the Caps lock key has been pressed.

To send documents

When you press **Send** in the Notes editor, the following options become available:

Send as fax — You can send the document as a fax. This option opens the fax directory. The sending procedure from this point on is similar to that described in "To send faxes" on page 71.

Send as short message — You can send the document as a short message. The sending procedure is similar to that described in "To send short messages" on page 78.

Send as mail — You can send the document as an e-mail message. The sending procedure is similar to that described in "To send mail" on page 92.

Downloaded files and read-only documents

All downloaded and captured texts can be opened in the Note editor.

Received short messages, received mail and ASCII text files transferred to the communicator are read-only documents. Read-only documents themselves cannot be edited, but an editable copy can be created:

- 1 Open a read-only document. The contents are shown as plain text.
- 2 Press any character key. You will be asked if you want to create an editable copy.
- 3 Press **Create** to close the original file and copy its contents to a new text file. If the original file is in DOS format, it will be removed after an editable copy has been created.
- 4 Edit the new note normally.

The contents of a received fax cannot be converted into text or edited. Opening a fax activates the fax viewer and opening an image activates the image viewer.

Notes settings

You can change the default settings of the note editor by pressing **Settings** in the Notes main view. The settings are valid until they are changed again.

To change the settings, choose a setting and press **Change**.

Font: URW Mono / URW Roman / URW Sans

Size: 10 points / 12 / 14 / 18 / 24 / 36 / User defined

Margins — Opens a new view where you can define values for the top, bottom, left or right margin. The unit of measurement used in this setting is either inches or centimetres, and it can be changed in the System settings.

© 1999 Nokia Mobile Phones. All Rights Reserved.

11. Calendar

In the Calendar application, you can check your scheduled events, keep a list of tasks in the To-do list, set alarms and link memos to events, and book events in other people's calendars.

Tip: In order to optimise the amount of data stored on your communicator and the operation of the Calendar, it is recommended that you regularly remove old calendar events with the Data removal function. See "Data removal" on page 134.

Monthly schedule

The monthly schedule shows the days of the current month in rows according to the number of the week. The week number is shown in the column on the left.

Today's date is shown in a frame (in the figure 1, August 6th).

The currently selected date has a dark background with white digits (August 28th). Use the arrow keys to select another date.

Dates that have scheduled events are marked in **bold** (August 9th).

If the selected date contains scheduled events (as in the figure, August 28th), they are shown in a separate daily events list on the right side of the display. The schedule can be edited by selecting the date and pressing **Day** or the Enter key.

If the whole date has been reserved for an event, the event is shown in the daily events list in **bold** (as "Design conference" in figure 1).

To write yourself reminders of important matters, press **To-do list**.

August 1998							Friday 28.08.1998		Day
Wk	M	T	W	T	F	S			Week
31						1 2			
32	3	4	5	6	7	8 9	07:00 Design conference • Mum's birthday • Call Sarah		
33	10	11	12	13	14	15 16	08:00 Meeting with Jane		
34	17	18	19	20	21	22 23	11:00 Lunch with Andrew		
35	24	25	26	27	28	29 30	18:00 Badminton session		
36	31								

Figure 1

Tip: To add events to the monthly and weekly schedules, just start writing the event description. The Details view opens automatically.

Weekly schedule

The weekly schedule shows the timetable of the selected week.

Today's date is outlined by a square frame (Tuesday 17th in figure 2).

The currently selected time box is shaded (Thursday 19th, 12:00 in figure 2).

All the events are marked with grey bars according to their start and end times. The bars are thinner if the events of the day overlap (Friday 20th in figure 2).

If the whole day has been reserved for an event, all the time boxes are marked with a dark grey bar (Tuesday 17th in figure 2).

To open the daily or the monthly schedule, press **Day** or **Month**, respectively.

You can use the arrow keys to scroll inside a day in the weekly schedule.

If you scroll to a time box containing an event, the bar across the bottom of the weekly schedule will show the basic details of the event. See figure 2. The numbers to the right of the event description indicate the number of events contained within that time box, e.g. "2/3" means that you are seeing the details of the second of three events.

If a time box contains more than one event, you may view the basic details of each event by scrolling to the time box and pressing the Tab key on the keyboard. The details will be shown on the bar across the bottom of the weekly schedule. To view the previous event, press Shift and Tab.

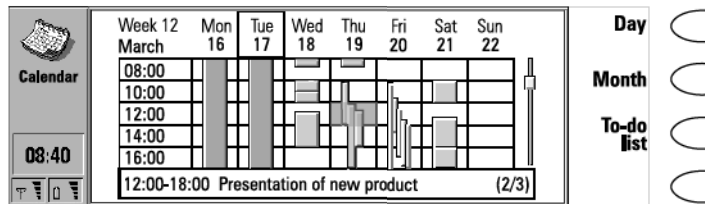


Figure 2

Daily schedule

Open the daily schedule by pressing **Day** in the monthly or weekly schedule. The daily events list displays the schedule for the selected day. The contents of the entries are freely editable.

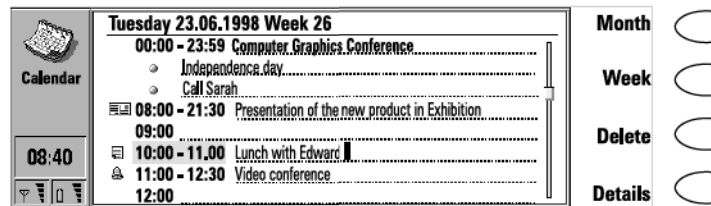


Figure 3

Daily schedule symbols

- Attached alarms
- Calendar bookings
- Attached memos
- Recurring events
- Annual events

The symbols appear in the order of priority before the event description. See figure 3.

To add events

- 1 Move the selection frame over the starting time of the event.
- 2 Type the event on the dotted line. If you want to add an event without a start time, write the event, press **Details** and remove the start time. The event will be shown with a dot in front.

Tip: If the starting time already contains an event, press Enter to create a new row with the same starting time.

To remove events

Select the event and press **Delete**. If you remove or edit recurring events, you will be asked if you want to apply the changes to all or only to the selected event.

To adjust the details of the selected event

Press **Details**. A new view opens, allowing you to adjust the following details:

Description — The description of the event.

Reserve whole day(s) – You can write down the number of days required for the event.

Start:

Date – The date of the event. The default date is that of the selected day. The date format is set in the System settings.

Time – The time when the event starts.

End:

Date – The date when the event ends.

Time – The time when the event ends.

Alarm – Sets an alarm for the selected event. See "Alarms" on page 123.

Frequency – You can define how often the event repeats. The options are *None /Daily /Weekly /Monthly /Annually /Every other week /Working days*.

Repeat until: [date] – You can write down the last date of the recurring event.

Event sent to – Lists all the people to whom you have booked the event. The list shows the status of the sent event:

Accepted or Confirmed – The recipient has accepted the booking.

Discarded – The recipient has rejected the booking.

No reply – No information has been received from the recipient.

Forced – The booking was sent as a reservation.

To attach memos to an event

- 1 Move the selection frame over the desired event and press **Details** in the daily schedule.
- 2 Press **Memo**.
- 3 Write the memo. The following command buttons are available:
 - Send** – You can send the memo as a fax, SMS or mail.
 - Style** – You can format the text.
 - Delete** – Removes the memo.
 - Close** – Links the memo to the selected event.

Memos are stored in the Calendar memos subfolder of the Own texts folder.

To use the Menu button

When you press the Menu button in the monthly, daily and weekly schedules, the following options become available:

To-do list – Opens the To-do list. Available in the daily schedule only.

Pending requests – Opens the list of pending calendar event requests.

Today – Shows the current day.

Next month/week/day (Ctrl-N) – Shows the next month, week or day.

Previous month/week/day (Ctrl-P) – Shows the previous month, week or day.

Settings – Enables you to change the following options:

Booking password – You can set a password to protect your calendar from receiving reservations from anyone except those who have your password. The maximum length of the password is 8 characters. When a password is written in the field, all characters appear as asterisks.

Default alarm – When you set an alarm to an event, the alarm will go off 10 minutes before the scheduled time of the event, unless you specify otherwise here.

Beginning of week – You can select which day is considered to be the first day of the week.

Calendar booking

Calendar booking enables you to send event requests or reservations to other communicators or calendar servers. The difference between an event request and an event reservation is that the recipient may decide whether to accept or discard an event request, but event reservations can only be accepted.

Booking password

Sending event reservations requires that you know the recipient's booking password. If you add the recipient's password to the booking password field of the recipient's contact card, the password is automatically taken from there when you send a reservation.

When you send a reservation with an incorrect password, the recipient's communicator discards the reservation.

You can give your own booking password to those whom you allow to send reservations to your calendar. If you do not set a password, your communicator accepts all reservations.

Define your booking password in the Calendar settings.

Note: The recipient's booking password is not needed when you send event requests.

To make requests and reservations

- 1 Select an event in the daily schedule or write a new one.
- 2 Press **Calendar booking** in the Details view.
- 3 Select whether to send the event as a request or a reservation.
- 4 Press **Transfer via IR** to send the booking to another Nokia 9110 Communicator via the infrared link, or press **Send as SMS** to open the SMS directory where you can select the recipient for the booking. Note

that the recipient must have a phone number in the *Tel(GSM)* field, or, if you are sending the booking to a calendar server, a server number in the *Tel(Server)* field.

- 5 Press **Send** to send the booking.

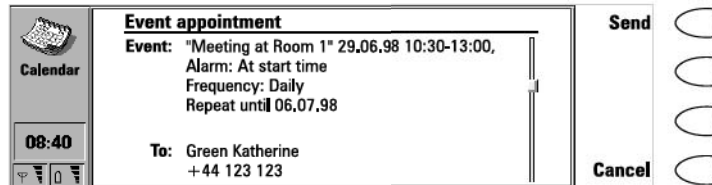


Figure 4

To receive requests

When you receive an event request, a note appears on the display showing the details of the event, and the name or number of the sender. On the left side of the note is your schedule for the day, where you can check whether you have other appointments at the same time.

If you press **Accept** or **Deny**, your communicator sends a reply to the sender informing about your decision. Accepted events are moved to your calendar.

The received request can be dismissed by pressing **Cancel**.

If you press **Hold**, the event request is moved to the Pending requests list to wait for your decision. This list is accessed by pressing the Menu button in the monthly, weekly or daily schedule and selecting *Pending requests*. On the right side of the list is your schedule for the day, where you can check whether you have other appointments at the same time. The commands in the Pending requests list are **Accept** and **Deny**, the function of which is explained above; and **Delete**, which removes the event from the list.

Note: Old events are not removed when new events are added, even if they have the same date and time.

To receive reservations

When you receive an event reservation, a note appears on the display giving the details of the event. When you press **OK**, the reservation is moved to your calendar. If you press **Confirm**, the event is moved to your calendar and a confirmation note is sent to the sender of the reservation.

To cancel bookings

There are two ways to cancel bookings that you have sent:

- 1 Remove the event from your own calendar. Your communicator will check the "Event sent to" list (see "Daily schedule" on page 119) and send a

special SMS to all the participants who share the event, removing the event in their calendars as well. Or,

- 2 Select a participant in the "Event sent to" list and press **Cancel event**. The event is removed from the participant's calendar.

To change a booking that you have sent

Select the event and press **Details**. Make the desired changes. The changes are sent to the calendars of the persons to whom you have sent the booking.

Alarms

To set an alarm to the currently selected event

- 1 Press **Details** in the daily schedule.
- 2 Select the *Alarm* option and press **Change**.
- 3 Select one of the alarm options:
 - None* — No alarm is attached to the event.
 - At start time* — The alarm will sound at the start time.
 - ... minutes before event* — The alarm will go off as set in the Calendar settings unless you specify otherwise here.

Tip: To set alarms that are not related to any calendar event, use the Clock application, see "Clock" on page 138.

You can choose the alarm tone in the System sounds settings of the System application.

An active alarm is indicated by the bell icon in the daily schedule (in the figure 3, the 11:00 event). When the alarm sounds, a note is shown on both displays.

The alarm sound can be turned off by pressing any key. If you have set the communicator to a silent profile in the Telephone settings, only the alarm note will be shown.

Tip: After a calendar alarm has occurred, you can move the message contents of the alarm to the To-do list by pressing **Move to To-do list**.

To-do list

The To-do list is a list of tasks which must be completed eventually, but are not connected to any specific time or day. The entries in the To-do list are

numbered, and they can be given different statuses. High priority entries are shown at the top of the list. See figure 5.

To access the To-do list

- 1 Press the **To-do list** command button in the monthly or weekly schedule.
Or,
- 2 Press the Menu button and select the *To-do list* option in the daily schedule.

To change the status of the selected task

- 1 Press **Priority**. A pop-up box opens.
- 2 Change the status of the entry to *High priority* or *Normal priority*, or mark the task as *Completed*, as the task number four in figure 5.

To write down a new to-do task, press **New**. An empty entry field is added at the end of the To-do list.

To remove the currently selected task from the list, press **Delete**.

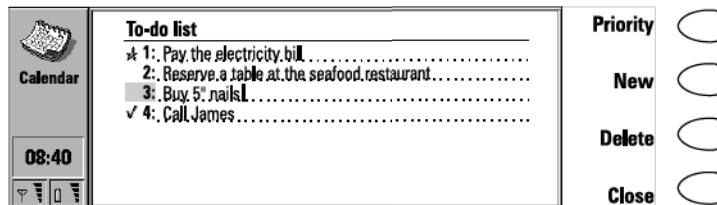


Figure 5

12. System

System contains the following applications: Security, User data, Memory, Infrared activation, Digital camera connectivity, Remote synchronisation, Fax modem, Data removal, Install/Remove software, Backup/Restore, Memory card tool, and About this product.

To start a System application

- 1 Press the System application button.
- 2 Scroll to the application and press **Select**.
- 3 If a System application is active, you must close it by pressing **Close** in the main view of the application before you can start another.

Note: When one of the PC connectivity applications or the fax modem is in use, the communicator consumes more power than normally. To extend the battery operation time, these applications should be closed when they are not used.

System settings

To change the System settings

- 1 Press **Settings** in the System main view.
- 2 Select the setting you want to change.
- 3 Press **Change**.

The System settings include all system-related permanent settings:

System sounds – Covers all the sounds in the communicator. The available settings are:

Default ringing tone – You can select one of the tones in the pop-up box or compose a special ringing tone for your telephone with the Composer application. See "Composer" on page 141. You can also use the sounds you have recorded with the Digital voice recorder as ringing tones. See "Voice recorder" on page 144. If a tone or sound is erased, the default ringing tone Grande valse will replace it.

Alternate ringing tone – If your SIM card supports the alternate line service, you can select a different ringing tone for Line 2. See "Telephone settings" on page 65.

Notification tones: On/Off – Determines whether a sound is heard, for example, when the memory is too low.

Application tones: Calendar alarm, Clock alarm, Received fax, Received SMS, Received mail – For each of these items you can set a specific ringing tone. You would then be able to tell by the tone whether you have received a fax or a short message, for example.

The *None* option allows you to turn the selected tone off, with the exception of the clock alarm. Note that when the phone is turned off, only calendar and clock alarm ringing tones can be heard. This requires, however, that the ringing tones are set through the System settings.

Print settings – You can select the default settings for printing. For more about printing, see "Document features" on page 34.

Connection type – Select whether to use infrared or cable connection.

Header – Set this on if you want to print your name and the date and time of printing on the top of each page.

Paper size – Choose either A4 or Letter.

Default printer – Select the printer used in the cable connection.


Baud rate: 9600/19200/57600/115200 – Select the data transmission rate used in the cable connection.

Flow control: Software/None – You can select whether to let the software control the data flow.

Data bits: 7/8 – Host-specific communication parameter for the cable connection.

Parity: None/Odd/Even – Host-specific communication parameter for the cable connection.

Stop bits: 1/2 – Host-specific communication parameter for the cable connection.

Backlight period – You can set the time period for which the backlight is switched on. The available settings are 15/30/45 seconds/1/2/3/4/5 minutes. The backlight can also be turned off by pressing the  button.

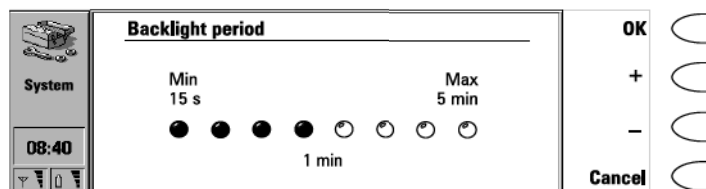


Figure 1

Note: Extensive use of the backlight may drain the battery.

Screen blanker period — You can set the time period after which the display will blank out if the device remains inactive. This feature saves the battery and increases the operation time of the communicator. The time-out period can be from 2 to 15 minutes. The screen blanker cannot be turned off.

Contrast control — The contrast view shows a test picture and a set of commands that can be used to adjust the picture. The + command button increases the contrast. The – command button decreases the contrast. When the setting seems satisfactory, press **OK**.

Preferences — Preferences lets you change date and time formats and the unit of measurement:

Date format: dd.mm.yy / mm.dd.yy / yy.mm.dd. — For example, 22.03.98 / 03.22.98 / 98.03.22.

Time format: 24 hour / AM/PM — For example, 09:35 / 9:35 AM.

Unit of measure — Choose either *Centimetre* or *Inch* as the basic unit of measure.

Security

Note: The predetermined default lock code 12345 is provided in the sales package of the communicator. For security reasons, it is imperative that you change the lock code. Change the code either in the Security options menu of the phone (see "Settings (Menu 4)" on page 159), or via the communicator interface (see "To change the security settings" on page 128). Keep the new code secret and in a safe place, separate from the communicator.

To lock the communicator automatically

- 1 Press **Settings** in the main view of the Security application.
- 2 Select *Autolock period* and press **Change**.
- 3 Enter your lock code at the prompt, and define the autolock period. When the communicator remains inactive for the defined period, it will lock itself.

To lock the communicator manually

- 1 Press **Lock system** in the main view of the Security application.
- 2 If the *Autolock period* is in use, the device will lock immediately. If the *Autolock period* is off, you must enter your lock code before the device is locked.

After the communicator has been locked, it cannot be used until the correct lock code is given. However, incoming voice calls can be answered via the phone, and faxes and short messages are received normally.

Note: When the communicator is locked, it may be possible to make a call via the phone to the emergency number programmed into your phone, e.g. 112 or other official emergency number.

To unlock the communicator

- 1 Enter your lock code in the input field.
- 2 Press **OK**.

To change the security settings

- 1 Press **Settings** in the Security main view.
- 2 Select the setting and press **Change**.
- 3 When you are prompted for a code, enter it and press **OK**.
Choose a new value.

Tip: Most of the security features can also be changed in the Security options menu of the phone. See "Settings (Menu 4)" on page 159.

The codes are shown as asterisks. If you are changing a code, you will be prompted for the current code and then the new code twice. The code cannot be changed if the corresponding security feature is not in use. For example, if the PIN code request is set to *Off*, the PIN code cannot be changed.

Pressing **Close** will close the security settings and return to the Security main view.

Security settings

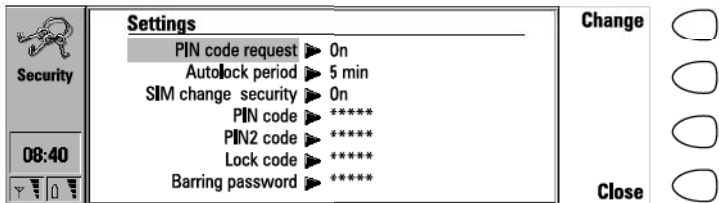


Figure 2

PIN code request: On / Off – If you set the PIN code request on, the communicator requests the code every time the phone is turned on by pressing **Ⓢ**. This setting cannot be changed if the phone is switched off or if there is no valid SIM card inserted.

If you enter the PIN code incorrectly three times in a row, you will need a PUK code to unblock the SIM card. When the SIM card is blocked, you cannot send or receive any documents or calls, except emergency calls. Otherwise, the communicator can be used normally.

Note: Some SIM cards do not allow you to turn the PIN code request off.

Autolock period: Autolock off/1/2/5/15/30/60 minutes – Determines the security time-out period, after which the communicator will lock. The timer is reset by any input, calls, data transfer, printing, etc.

SIM change security: On / Off – When active, every time the phone is switched on this security option checks whether the SIM card in the communicator has been changed. If the SIM card has been changed and the new SIM card has not been used with your communicator previously, the communicator locks itself until the lock code is correctly entered. The communicator recognises five different SIM cards as the owner's cards.

PIN code – This setting allows you to change the PIN code. The changing procedure is described at the beginning of this "Security" section. The new PIN code must be 4 to 8 digits long. Changing the PIN code requires that the PIN code request is set on, the phone is on, and that there is a valid SIM card inserted in the communicator.

PIN2 code – This setting enables you to change the PIN2 code. The PIN2 code is required to access some functions, such as the call cost settings, which must be supported by your SIM card. If you enter an incorrect PIN2 code three times in succession, you will need a PUK2 code to unblock the PIN2 code. The length of the PIN2 code is 4 to 8 digits.

Lock code — This setting allows you to change the lock code. The changing procedure is described at the beginning of this "Security" section. The new code must be 5 digits long.

If you key in an incorrect lock code several times in succession, the communicator must be sent back to the dealer to be unlocked.

Barring password — This setting allows you to change the barring password. The new code must be 4 digits long. To change the password, the phone must be on and within the network coverage, the Call barring service must be activated for your SIM card which must be valid and inserted in the communicator.

If you enter an incorrect barring password three times, the password is blocked and you must ask the network operator for a new password.

Note: Avoid using codes that are similar to emergency numbers to prevent accidental dialling of the emergency number.

User data

The User data card contains your personal information. You can freely edit the information in the *Name*, *Company*, *Job title*, *Address*, *Tel*, *Fax*, *Tel(GSM)*, *Fax(GSM)*, *Mail* and *URL* fields.

The User data will automatically be included in the corresponding fields of the fax cover page in the Fax application. Likewise, the SMS application uses this information when you send your own business card.

When you press **Attach image** in the user data card, you can attach your own picture to the card. The picture must first be stored in JPEG format in the Contact images subfolder of the Downloaded files folder.

Memory

This application shows the amount of available free memory for storing data and installing new software. Press **Details** to open up a list of folders and other data in the communicator. The list shows how much memory each of them takes up, and it is updated each time you press **Details**.

If your memory card is inserted in the communicator, press **Memory card** to check the amount of available memory in the card.

If the memory is getting low, you should remove some documents. Before removing, you can print, fax or mail them, or transfer them to a PC or a memory card.

Infrared activation

If you want to use the PC Suite for Nokia 9110 Communicator program (see "To use the PC Suite" on page 39) with the infrared connection, or if you want to receive data from another device via the infrared, you need to use the Infrared activation application.

Note: A maximum of 20 files can be transferred at a time.

- 1 Make sure that the infrared port of the communicator faces the infrared port of the PC or another device.
- 2 Open the Infrared activation application on the communicator.
- 3 Press **Activate**.
- 4 To end the infrared connection, press **Disable**.

To transfer data between two communicators

- 1 Make sure that the infrared ports of the communicators face each other.
- 2 Open the Infrared activation application on the receiving communicator.
- 3 In the sending communicator, go to the application from where you want to transfer data, and press **Transfer via IR**.

Tip: The infrared link can also be activated by pressing Chr-1 on the communicator keyboard.

Digital camera connectivity

The Digital camera connectivity application enables you to transfer images between your communicator and a digital still camera or another communicator via the infrared connection.

Note: The infrared protocol of the digital camera must be IrTran-P in order to be compatible with the Nokia 9110 Communicator.

When you start the application, press **Image list** to open a list of the images in the Downloaded files folder. However, you can only select image files with the extensions UPF or JPG.

To transfer images from another device to the communicator

The connection to a digital camera or another communicator is always established by the receiving communicator.

- 1 Make sure that the infrared port of your communicator faces the infrared port of the other device.
- 2 Open the Digital camera connectivity application and press **Image list**.
- 3 Press **Receive** to start transferring the selected UPF images from the other device to your communicator.

To transfer images from the communicator to another device

- 1 Open the Digital camera connectivity application and press **Image list**.
- 2 Select the UPF image(s) you want to transfer.
- 3 Make sure that the infrared port of your communicator faces the infrared port of the other device, and press **Send**.

To rename the selected image, press **Rename** and write the new name in the input field. Do not change the extension at the end of the name.

To use the Menu button

When you press the Menu button in the Image list, the following options become available:

Open — Opens the image. You can then zoom in and out as well as rotate the image.

Delete — Removes the image.

Convert to JPEG — Converts the selected image(s) from UPF to JPEG format.

Convert to UPF — Converts the selected image(s) from JPEG to UPF format.

Image information — Presents information about the image. You can also view the information with the Ctrl-i key combination.

Remote synchronisation

To synchronise your calendar data with a PC calendar, use the Remote synchronisation application. With this application, you connect to the PC via the Internet. Note that you need an Internet access point, see "Internet settings" on page 86.

The PC Suite for Nokia 9110 Communicator program must be running on the PC to which you are connecting.

To synchronise calendar data

- 1 Press **Settings** and define the destination host, which is the IP address of the server PC, and select the Internet access point used.
- 2 Press **Start**. A data call is made, and the calendar data is sent from your communicator to the destination host.
- 3 When the synchronised calendar data has been sent back to your communicator, the data call ends.

Fax modem

Before your PC can recognise the communicator as a fax modem, the PC needs to be properly configured. Consult the user's guide of your PC on how to install new modems. PCs with Microsoft Windows 95 or NT 3.51 or higher operating systems can use the modem information file found on the diskette supplied in the communicator sales package. See also the Documentation section on the CD-ROM.

Using the communicator as a fax modem requires that data calls are supported by the network you are using and that this service is activated for your SIM card. Contact your home service provider for details.

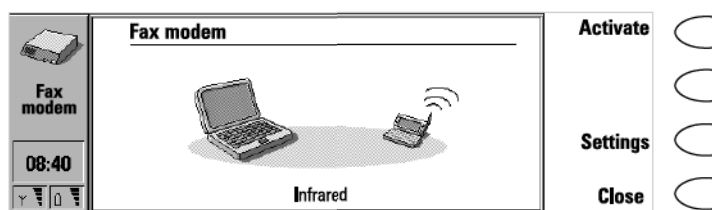


Figure 3

- 1 Press **Settings** and select the connection type. The functioning of a cable connection when the communicator is used as a fax modem is not guaranteed.
- 2 Connect the communicator to the PC via an infrared link as described in "To use the PC Suite" on page 39.
- 3 Wait until the connection is established.
- 4 Press **Activate** in the Fax modem main view. This will change the communicator to a fax modem. When the communicator is used as a fax modem, the call status indicator shows the text MODEM.
- 5 To stop using the communicator as a fax modem, press **Disable**.

The operations of a modem can be controlled by AT commands and S-registers. These commands give the advanced user an opportunity to control all the features of the modem. Should you need to enter the commands manually, consult the documentation of the PC application that you are using. A list of common AT commands based on the ETSI 07.07 standard and supported by the Nokia 9110 Communicator are available in the *atcomm.txt* file on the diskette included in the sales package of your communicator.

When the communicator is used as a fax modem, its normal communication features are disabled. Otherwise, the applications remain functional.

If an active PC connection is idle for longer than 20 minutes, the fax modem is automatically disabled to conserve power. However, when the communicator is connected to an electrical outlet, for example, while charging a battery, the time-out is not active.

Data removal

The Data removal application comes in handy if you want to remove personal information from the communicator, for example, before lending it to someone else. In this way you need not remove data one by one.

- 1 Select what kind of data you want to remove. The removable data is arranged in four groups: *All device data*, *Calendar data*, *Documents*, *Contacts and speed dials*.
- 2 Press **Delete**.
- 3 Before any data is removed, you must enter your lock code. See "Security" on page 127. When removing calendar data, you can choose to remove all calendar data or only events that occur before a given date.

Note: Even if you choose the *All device data* option, your Internet settings will not be removed. If you want to restore your communicator to the same state it was in at the time of purchase, see chapter 15 "Troubleshooting" on page 165.

Install/Remove software

The Install/Remove software application enables you to install new software from a PC to the communicator and later remove the software.

Caution: Beware of viruses! Only install on the Nokia 9110 Communicator software you have obtained from sources that offer adequate protection against viruses.

To use this application, you need to start the Nokia Communicator Server on your PC and connect your communicator to the PC. See "To use the Nokia Communicator Server" on page 46.

Press **Install** and select the software you want to install, or press **Remove** and select the software you want to remove.

The set of applications that were on the communicator at the time of purchase cannot be removed. This is to ensure that the basic functions of the communicator are always available.

Tip: To save the memory space of the communicator, you can install software to a memory card.

Backup/Restore

The Backup/Restore application enables you to make backups of various data on your communicator, and to restore it later. Data is backed up in sets which are stored in separate directories on the PC.

To use this application, you need to start the Nokia Communicator Server on your PC and connect your communicator to the PC. See "To use the Nokia Communicator Server" on page 46.

Select whether to backup *All data*, *Documents*, *Contacts*, or *Calendar* and press **Backup**. A backup directory will be created if necessary.

The restoration procedure is carried out in the same way as the backup operation, except that instead of **Backup** you must press **Restore**. When data is restored, files with similar names in the destination folder will be overwritten.

Note: While the Backup/Restore is in progress, the other applications of the communicator cannot be used. To interrupt the operation, for example, to make an emergency call, press **Cancel** and confirm by pressing **Interrupt**.

To make backups or restore data between a Nokia 9000 Communicator or a Nokia 9000i Communicator and a Nokia 9110 Communicator, see "To transfer data from older communicator models" on page 37.

Tip: While travelling, you can make backups of important documents to a memory card.

Memory card tool

The Memory card tool application can only be started if there is a memory card inserted in the communicator.


With this application, you can format and rename the memory card, and check the condition of the files.

About this product

This application displays information about the Nokia 9110 Communicator.


© 1999 Nokia Mobile Phones. All Rights Reserved.

13. Extras

Press the  button on the keyboard to open the Extras application group, which contains Calculator, Clock, Composer and Voice recorder. With Extras you can also launch applications located on your memory card.

Note: More applications can be installed to your communicator from the CD-ROM included in the sales package.

To start one of the applications, select it and press **Select**.
To close an active application, press **Close**.

Tip: With one Extras application active, you can quickly switch to another by pressing the  button.

Calculator



Figure 1

The Calculator contains an input field at the bottom of the screen, and above it a list where previous calculations, if any, can be seen. The most recent calculations are shown at the bottom of the list.

The list can be scrolled with the arrow keys, and it can be emptied by pressing **Clear list**.

The results of the calculations appear in **bold**. As long as you have not pressed Enter or "=", you can move in the calculation string with the arrow keys and edit the string.

The following characters can be used for the corresponding operations:

Character	Function
Numbers 0 to 9	
. (full stop)	decimal point
+	addition
-	subtraction
*	multiplication
/	division
()	brackets
= or Enter	sum
Esc	clears the entry field

To add functions in the input field

- 1 Press **Functions**.
- 2 Select one of the available categories and press **Select**. You will see a list of functions and you can select the one you want. You can select several functions before returning to the Calculator main view.

To copy calculations in the input field

- 1 Press **Copy** to select and copy a calculation or a result back to the input field for modification or recalculation.
- 2 To copy a calculation, press **Copy calculation**, and to copy a result, press **Copy result**.
- 3 Press **Back**. The selected item will be copied to the input field.

To change the mode of the calculator

When you press the Menu button in the Calculator main view and select *Settings*, you can change the mode of the calculator. Select either *Radians*, *Degrees*, or *Gradients*, and press **OK**.

Clock

The Clock shows the time and date in your home city and country, as well as in several other cities and countries in the world. The Clock also includes an alarm clock.

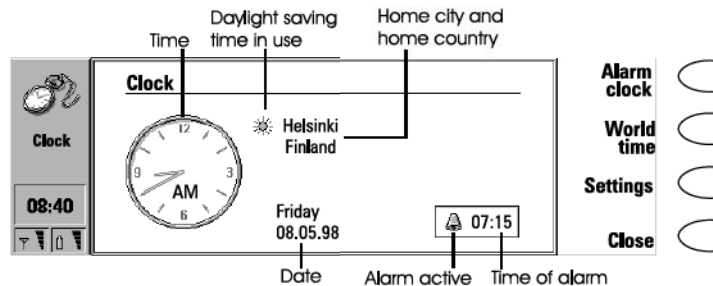


Figure 2

To set an alarm

An alarm can be set to occur within the next 24 hours. Alarms that occur later than this are set in the Calendar application.

- 1 Press **Alarm clock** in the Clock main view.
- 2 Press **+** or **-** to adjust the time shown in the alarm clock display. Each press changes the time by one minute, but if you hold the button down a while longer, the time will start to change in 15-minute steps.
- 3 Press **OK** to accept the set alarm. When an alarm is set, the bell icon and the time of the alarm are shown in the Clock main view.

There can only be one active alarm. If an alarm is already active, the command names are different. A counter on the lower right side of the screen shows how much time remains to the time of the alarm.

Press **Change alarm time** if you want to readjust the time of the alarm.

Press **Delete alarm** to cancel the alarm.

Note: Alarms will occur according to the home city time. When in a different time zone, remember to change the home city.

To turn off the alarm sound

- 1 When the alarm sounds, press any phone or communicator keyboard key to silence it.
- 2 Press the **OK** command button. If you do not press **OK**, the alarm will sound four more times or until you press the **OK** button. However, if the alarm interval is set to zero, the alarm will sound only once. Set the alarm interval in the clock settings.

World time

World time (figure 3) is accessed with the **World time** command in the Clock main view.

The *Home* box shows the name of the currently selected home city, country, time, date and whether daylight saving time is in use.

The *Destination* box shows the same information for the currently selected destination city, as well as the international call prefixes needed to make a call from the home city to the destination city.

The world map shows the currently selected destination city in cross hairs.

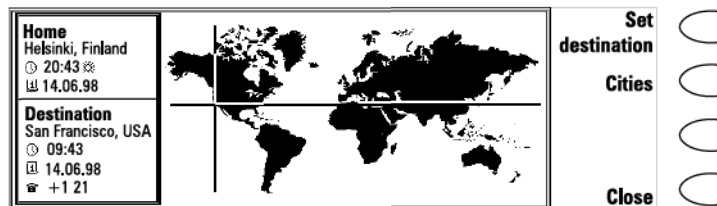


Figure 3

To select the destination city

- 1 Press **Set destination**.
- 2 Select a city from the list by scrolling the list with the arrow keys.
- 3 Press **OK**.

Tip: A quick way to select a city from the list of cities is to type the first letter of the city with the keyboard. The selection frame jumps to the first city starting with that letter.

To edit and add cities

- 1 Press **Cities** in the world time view to open a list of cities.
- 2 To make changes to existing cities, press **Edit city**. The city information is presented in the form of a card with the following fields:

City— The name shown in the list of cities. Can be entered manually.

Country— The name of the country associated with the city. The country name is selected from the list of countries.

Area code— The area code required when calling the city. The area code can be entered with or without a national prefix. Only numbers can be entered.

GMT offset – Indicates by how much the local time differs from the Greenwich Mean Time. Select a value for the offset from a list. The offset can range from -12 to +12 hours.

Set position – Opens a world map view where you can determine the position of the city by moving the cross hairs with the arrow keys. When the city is where you want it to appear, press **OK**.

To create a new city card, press **Add city**.

To remove a city from the list, press **Delete city**. The current home city cannot be removed; you will have to change the home city first.

To change the Clock settings

- 1 Press **Settings** in the Clock main view.
- 2 Select the setting you want to change and press **Change**, or type the new time or date from the keyboard.

Home city – Select the home city by scrolling the list of cities with the arrow keys. When your home city has been selected, press **OK**. If you select a city that is in a different time zone than your current home city, the system time will change.

Time – Enter the new time. The time format is selected in the System settings.

Date – Enter the new date. The date format is selected in the System settings.

Alarm interval: 0/1/2/3/4/5 minutes – Choose the interval between alarms. If you select 0, the alarm will go off only once.

Daylight saving – You can set the daylight saving time of the home city and destination city *On* or *Off*. This setting remains the same even if the home/destination city is changed.

Note: Changing the time or daylight saving time of the home city will also adjust the time of the whole time zone, as well as the system time. If a set alarm is skipped because of a changed time, the alarm will go off immediately.

Composer

The Composer application enables you to create your own, customised ringing tones.

To start the composer for the selected tune, press **Open**.

To compose a new tune press **Compose**.

To play the selected tune, press **Play**. While the tune is being played, the command changes into **Stop playing**.

Note: You can change the phone ringing tone in the Profile settings of the Telephone application or in the System sounds setting of the System application. See "Telephone settings" on page 65 and "System settings" on page 125.

To edit a tune

- 1 Open a tune or press **Compose**. A cursor appears at the bottom of the screen, indicating the currently selected note or rest.
- 2 To create a note or to alter the pitch of the note, press the up or down arrow keys. Each press changes the pitch of the note. A rest will appear after all possible note levels have been scrolled through.
- 3 To move the cursor, press the left or right arrow keys.

Note: To edit the preset tunes that were in the communicator at the time of purchase, press the Menu button and select *Copy*.

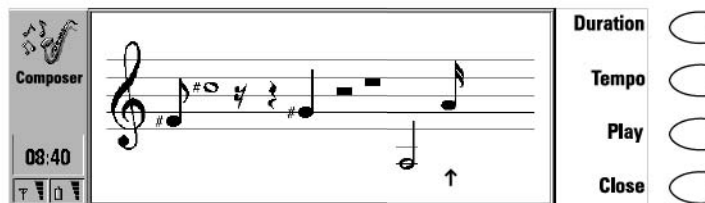


Figure 4

When a composition is being made, the following commands are available:

Duration changes the length of the selected note. Choose a quarter note, half note, whole note, sixteenth note, or eighth note. Press the command button until the value you want is shown.

Tempo opens a pop-up box with a new set of commands. Tempo is measured in beats per minute. To alter the tempo, remove the old value with the backspace key and enter the new value in the input field.

To accept the tempo, press **OK**.

To test the tempo, press **Test**. The tune will be played with the tempo

shown in the entry field.

To use the default tempo 160 beats/min., press **Default**.

Play plays the composition shown on the staff.

To remove a composition, press the Menu button, and select *Delete*.

To restore the tune to what it was before editing, press the Menu button and select *Undo changes*.

Close returns to the Composer main view.

To use shortcuts

While editing, you can use the following shortcuts:

Character	Function
Enter	Plays the tune
: (colon)	Staccato
- (hyphen)	Inserts a rest
Space bar	Inserts an empty column to the left of the cursor.
Backspace	Deletes the selected column containing a note or a rest.
. (full stop)	Lengthens the duration of the note or rest by half

Tip: For quick composing, press the corresponding letter key on the keyboard to generate a note. For example, pressing D generates the note D. When you press Shift and a letter key, a sharp note is generated, e.g. Shift-D generates D sharp.

To use the Menu button

When you press the Menu button in the Composer main view, the following options become available:

Copy – Copies the selected tune.

Delete – Removes the selected tune(s).

Rename – You can write the new name into the input field.

Send as SMS – Opens up the SMS directory where you can select a recipient for the composition(s). To send the composition(s), press **Send**.

When you receive a composition via SMS, a note showing the name or number of the sender and the name of the sent composition will appear on the display.

To add the composition to the list of tunes, press **Accept**. To discard the composition, press **Cancel**.

Transfer via IR — Enables you to send tunes from one communicator to another via the infrared link. The IR port of the receiving device must be activated before the operation. See "Infrared activation" on page 131.

Copy to memory card — Copies the selected tune(s) to the memory card.

Copy from memory card — Copies the selected tune(s) from the memory card to your communicator.

Voice recorder

The Voice recorder allows you to record telephone conversations and voice memos. You can also listen to your recordings and other sound files. The maximum length of a recording is 30 seconds.

Tip: With the Voice recorder you can record sounds and speech and set them as ringing tones. See "Telephone settings" on page 65.

The main view of the Voice recorder shows a list of all the sound files currently stored in your communicator. To open the selected file, press **Open**. **New file** creates a new file into which sound can be recorded. **Delete** allows you to remove the selected file.

When you open a sound file, you will see the length, which is measured in seconds, and the size, which is measured in kilobytes, of the file.

Note: Local laws may apply to recording conversations. Do not use this feature illegally.

To play a recording

- 1 Open the file and press **Play**.
- 2 The **Pause** command temporarily stops the playing of the sound file. To start playing again, press **Continue**.
- 3 To stop playing, press **Stop**.

To record

- 1 Open the file into which you want the sound to be recorded, and press **Record**. If you are recording a telephone conversation, you will hear a tone when the recording starts.

- 2 You can stop the recording for a while by pressing **Pause** and then start again by pressing **Continue**.
- 3 To stop the recording, press **Stop**.

Note: To record sound and speech you need to have the phone turned on and within range of network coverage.

To use the Menu button

When you press the Menu button in the Voice recorder main view, the following commands become available:

Rename — Renames the selected recording.

Copy to memory card — Copies the selected recording to the memory card.

Copy from memory card — Copies the selected recording from the memory card to your communicator.

Note: Sound files that the voice recorder can play have a .WAV extension and support the following audio format: 8, 11, 22 or 44khz, PCM/A-law, Stereo/Mono, 8bit.

© 1999 Nokia Mobile Phones. All Rights Reserved.

14. Phone

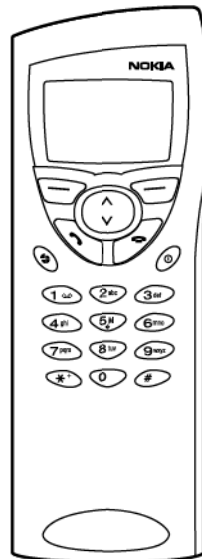


Figure 1

When operating the phone, keys are pressed one at a time. Two keys are never to be pressed simultaneously. The phone keypad is not functional when the device cover is open.

- ① — Switches the phone on and off.
- ↻ — Switches between different profiles. See "Profiles (Menu 3)" on page 158.
- ∨ ∧ — Scroll through menus, submenus or settings. If there are no active calls, the scroll keys can be used to browse through the memory contents. When a call is active, pressing the scroll keys adjusts the volume level.
- 📞 — Dials a phone number and answers a call.
- 📞 — Ends any active call, cancels a dialled call, or clears the display.

© 1999 Nokia Mobile Phones. All Rights Reserved.

- 0 ... 9** — The number and alphabet keys. To call your voice mailbox, press and hold **1**.
- * #** — Used for special purposes in certain functions. If you have subscribed to two phone lines, you can switch between them by pressing and holding **#**.
- — The function of these two selection keys depends on the text shown on the bottom line of the display. See figure 2.

Note: Hold the phone as you would any other telephone with the antenna pointed up and over your shoulder.

As with any other radio transmitting device, do not touch the antenna unnecessarily when the phone is switched on. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

To use the selection keys

When this manual instructs you to press a command key, press the selection key under the command name. For example, pressing **Menu**, i.e. the selection key under the text *Menu*, gains access to the menu functions, and **Names**, i.e. the selection key under the text *Names*, to the search functions. The commands vary according to the situation and previous selection.

The selection must often be confirmed by pressing **OK**. Whenever the **Back** command is shown, it can be used to return to the previous menu level without making any changes.

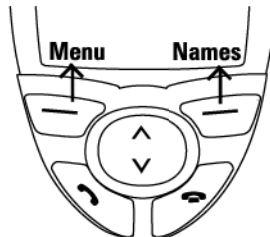



Figure 2

Display indicators


The display indicators inform you about the current operation of the phone. The indicators described below are shown when the phone is ready for use, with no characters entered by the user on the display.

OPERATOR

Indicates in which cellular network the phone is currently used.

 and bar

Indicates the current signal strength at your location. The more bars are visible, the stronger is the signal.

 and bar


Indicates how much charge there is left in the battery. The more bars are visible, the more charge is in the battery.

To make a call

You can make and receive calls only when the phone is switched on, the communicator has a valid SIM card fitted, and it is located in the service area of the cellular network.


Note: In some networks emergency calls to the international emergency number 112 may be made without a SIM card. Check with your network operator. For more information about making emergency calls, see "Emergency calls" on page 175.

- 1 Key in the area code and the phone number of the person you wish to call. If you make a mistake, you can remove the digits one at a time by pressing **Clear** repeatedly, or clear the whole display by pressing and holding **Clear**.
For international calls, start by pressing ***** twice quickly. The international call character **+** appears on the display, which informs the network centre to select the country-specific international prefix. Enter the country code, area code and the phone number.




- 2 Press  to dial the phone number.
- 3 When the phone number disappears and the text *Call 1* is shown, the call is connected.

When a call is active, you can use the **∨** and **∧** keys to lower or raise the volume level of the earpiece.

Note: The microphone and earpiece are on the rear of the device.

- 4 After the conversation, end the call by pressing .

To answer a call

- 1 When you receive a call, the phone gives a ringing tone and the text *Call* flashes on the display. If you have selected a silent profile in Menu 3, only the keypad and display lights will flash.
If the caller can be identified, the caller's name or phone number, and the text *Calling* will be displayed.
- 2 To answer the call, press . You can answer the call even while using the search or menu functions.
If you do not want to answer the call, simply press . The caller will hear the alerting tone change to a busy tone.
- 3 After the conversation, end the call by pressing .

To manage calls


There are a number of functions you can use during a call. To access the functions, simply press **Options**, scroll to the function and press **Select**.

Menu — You can access *Menu*.

Answer — You can answer an incoming call.

Reject — You can reject an incoming call.

Record — You can record your conversation with this option. See "Recorder (Menu 6)" on page 164.

Hold / Unhold — *Hold* allows you to put the current call on hold, so that another call can be made. The original call can be activated again by selecting *Unhold*. If the held call is the only call, you can unhold it by pressing  or the **Unhold** command.

Swap — This function makes a held call active and put a currently active call on hold. You can thus alternate between two calls.

New call — Puts the active call on hold and dials a new phone number.

Send DTMF — Transmits DTMF tones. See "To send DTMF tones" on page 152.

End this call — Ends the active call.

End all calls — Ends both the active and the held call.

Mute / Unmute — Switches the microphone of the communicator off or on. If the communicator is connected to a handsfree car kit, *Mute* also turns off the microphone of the car kit.

Conference — If you have one call active and another call on hold, this option merges them into a conference call.

Conference / One to one — *Conference* includes a new participant in a conference call. During a conference call, *One to one* allows you to converse privately with a selected participant.


Transfer — The voice call transfer enables you to connect two voice calls

together and disconnect yourself from both calls. See "Multiple calls" on page 62. Note that not all network operators support this function.

Data — When you have an alternating call active, this option changes the mode of the call from voice to fax. See "Multiple calls" on page 62.





Voice — When you have an alternating call active, this option changes the mode of the call from fax to voice.

Play last — Plays the last recording made with the recorder. The other party will also hear the recording.




Tip: If you have one active and one held call, press **Swap** to make the held call active and to put the currently active call on hold. In this way, you may converse with one party without ending the other call. You can also press  to swap between the calls if no numbers have been keyed in.

To search for phone numbers

You may fetch phone numbers from memory by the name with which the required phone number was stored. Note that the phone uses memory (SIM or Telephone) which is chosen in the Telephone application by pressing **Menu** and **Select**.

- 1 Press **Names**.
- 2 Key in the name of the person whom you want to call, or the first letter(s) of the name.
- 3 Press **OK**. The name closest to the keyed in characters will appear.
- 4 If the name found was not the one you searched for, scroll through the names with  or  until you reach the correct one.
- 5 To call the person, press . If the person has several phone numbers, scroll the selection frame onto the one you want and press .

To view the phone number stored with the name


- 1 When the desired name is on the display, press **Detail**. The phone number is displayed. If the person has several phone numbers, scroll through the numbers with  or  until you reach the correct one.
- 2 To call the number, press .


To use speed dialling

Speed dialling is a handy way to call frequently-used phone numbers. You can define up to eight speed dial numbers in the communicator memory. For information on how to set speed dials, see "To make contact cards" on page 51.

- 1 Key in the number of the speed dial location where you have stored the






phone number.

- 2 Press . The phone will display the phone number briefly, and then dial it. Speed dialling is not possible during a call.

Note: Number 1 is the speed dial location of your voice mailbox. To call your voice mailbox, press 1 and then , or just press and hold 1.

Last number redial

The communicator stores the last phone numbers you have dialled.

- 1 If there are any characters on the display, clear the display by pressing .
- 2 Press . The last dialled number will appear on the display.
- 3 You can scroll the numbers with  or  until the desired number is displayed.
- 4 Press  to dial the number.

You can also recall recent received calls and recent missed calls, see "Call register (Menu 2)" on page 156.

To send DTMF tones


If you need to send long DTMF strings, it is more convenient to send them via the communicator interface, see "Multiple calls" on page 62.

To send DTMF tones manually

- 1 Make a call to the desired phone number.
- 2 Key in the digits you want to send as DTMF tones. The digits are sent one by one to the network. DTMF tones can be transmitted even when the phone key click is set off.

Keypad lock


The keypad lock prevents the keypad keys being accidentally pressed when the communicator is, for example, in your pocket.

When the keypad is locked, you can answer calls normally by pressing . During a call, the keypad is unlocked and the communicator can be operated in the usual way. After the call, the keypad is automatically locked again.

The keypad will be automatically unlocked when the communicator is connected to a car kit. When the communicator is removed from the car kit, without having been switched off, the keypad will be locked automatically again.

To lock the keypad

- 1 Press **Menu** and then the * key within 3 seconds.

While the keypad is locked, the  icon and the **Unlock** command are displayed.

To unlock the keypad

- 1 Press **Unlock** and then the * key within 3 seconds.

Note: When the keypad is locked, calls may be possible to the emergency number programmed into your communicator (e.g. 112 or other official emergency number).

Help

Most menu functions are provided with a help text, which gives a brief description of the displayed function.

To view the help text

- 1 Scroll to the menu function about which you want help.
- 2 Wait for 10 seconds. The first page of the help text will appear. The text scrolls automatically. However, if you want to scroll it manually, press the scroll keys or **More**.
- 3 To exit from the help function, press **Back**.

To use the menus

The phone offers a set of menu functions that allow you to tailor the phone to your particular use. In each menu and submenu, you can check and alter the settings of functions. The menus and submenus can be entered by scrolling the menu or using the appropriate shortcuts.

You can access the menu functions even during a call.

To scroll the menus

- 1 Press **Menu**.
- 2 Press either ∇ or \wedge to scroll the list of menus until you reach the desired menu.
- 3 Press **Select** to enter the menu. If the menu contains any submenus, reach the one you want with either ∇ or \wedge .
- 4 Press **Select**. The selection frame is on the current setting.

- 5 Scroll the list of setting options until the selection frame is on the desired option.
- 6 Press **OK** to select the option. If you do not want to change the setting, you can return to the previous menu level by pressing **Back**.


To use menu shortcuts

All the menus, submenus and settings are numbered. This number is shown in the upper right corner of the display.

- 1 Press **Menu**.
- 2 Key in the number of the main menu under which the desired submenu is located.
- 3 Key in the number of the submenu where the function can be found.
- 4 Key in the number of the desired setting option.

For instance, to change the incoming call alert in the general profile to ring only once (Menu 3-1-2-1-3): press **Menu** to enter the menu facility, **3** to enter the Profiles menu, **1** to select the General profile, **2** to personalise the profile, **1** to modify the alert tones, and **3** to select *Ring once*.

To exit from the menu

- 1 Press  or press and hold **Back**.

Menu structure

The following menu table lists the names of the main menus and their submenus. Third-level menus are not shown here.


Menu	Function	Submenus
MENU 1	MESSAGES Y	1 Received short messages, 2 Info service, 3 Service command editor, 4 Voice messages
MENU 2	CALL REGISTER	1 Missed calls Y, 2 Received calls Y, 3 Dialed calls, 4 Erase recent call lists, 5 Show call duration Y, 6 Show call costs Y, 7 Call cost settings
MENU 3	PROFILES	1 General, 2 Silent, 3 Meeting, 4 Outdoor, 5 Pager, 6 Flight, 7 Headset, 8 Car
MENU 4	SETTINGS	1 Call settings, 2 Phone settings, 3 Security settings, 4 Restore factory settings
MENU 5	CALL DIVERT Y	1 Divert all voice calls, 2 Divert when busy, 3 Divert when not answered, 4 Divert if not reachable, 5 Divert all fax calls, 6 Divert all data calls, 7 Cancel all diverts
MENU 6	RECORDER	

Some menu functions are network services, indicated by the **Y** symbol in the menu table. To use such a function, your network must support it and you must subscribe to it. Note that network services are specific to each SIM card. If you change the SIM card, and you have not obtained the service for the new card, you will not be able to use the service.

Messages (Menu 1)

The Short Message Service (SMS) is a network service. Contact your service provider for details. The phone can be used for listening to voice messages in voice mailboxes and for reading received short messages. However, reading short messages is more convenient via the larger display of the communicator interface. To send short messages, use the SMS application of the communicator.

Received short messages (Menu 1-1)


When you receive a short message, the text *Message received* and the  indicator will be displayed and a tone will sound, unless the communicator is set to a silent profile.

A note is also shown when you receive faxes or mail. To read received faxes or mail, you must use the respective applications of the communicator interface.


- 1 To read the message immediately, press **Read**. To read the message later, press **Exit**.
- 2 Press **Read** again to view the received message.
The messages are listed in the order they were received. To read the second message on the list, press **▼** to select it and then press **Read**.

Once you have read the message, you can press **Back** or **Option**. The options available in the phone are:

Erase — Erases the selected message from the memory.

Use number — Copies the phone number from the message and moves it onto the phone display. You can now call the number with .

Details — Shows the sender's name or number, the date and time the message was sent, and the number of the message centre.

Tip: You can dial the phone number in the message by pressing  while viewing the message.

Info service (Menu 1-2)

This network service allows you to receive short messages on various topics. You may read messages on topics that you have pre-defined on the communicator interface, see "SMS settings" on page 82.

- 1 Press **Select** to view the list of available choices.

- 2 Use ∇ or \wedge to scroll through the choice list. To get a list of messages, press **Read**.

Pressing **Select** gives you the following options:

On – Sets info message reception on.

Off – Turns info message reception off.

Topic index – Fetches a list of available topics from the network.

Read – Shows a list of received info messages. Scroll to the one you want to read and press **OK**.

Language – Sets the language for the messages. Scroll to the desired language and press **Mark**.

Service command editor (Menu 1-3)

In this menu, you can send service requests, such as activation commands for network services, to your service provider. Key in the sequence you want, and press **Send**.

Voice messages (Menu 1-4)

Listen to voice messages (Menu 1-4-1)

When you enter this menu, the communicator dials the phone number stored in menu 1-4-2. If required, key in the access code for your mailbox or answering machine when the connection has been made.

Voice mailbox number (Menu 1-4-2)

The phone number that you enter here will be dialled when you select the Listen to voice messages function in Menu 1-4-1. A voice mailbox can be a network service or your personal answering machine. You may enter a new or edit an existing phone number. The number will be used until you change the number again.

Call register (Menu 2)

In this menu, you can check and erase phone numbers of calls that you have missed (Menu 2-1), received (Menu 2-2) or dialled (Menu 2-3). Note that the Received calls and Missed calls functions are network services which work only in networks that allow you to view the caller's phone number.

Note: The communicator only registers missed calls when the phone is switched on and within network coverage.

Erase recent call lists (Menu 2-4)

Caution: The phone numbers are erased without warning. You cannot undo the operation.

Show call duration (Menu 2-5)

In this menu, you can view the duration of your outgoing and incoming calls and reset the timers.

Last call duration (Menu 2-5-1)

Shows the duration of the last outgoing or incoming call in hours, minutes and seconds, e.g. 00:02:15.

All calls' duration (Menu 2-5-2)

Shows the total duration of all calls made or received with any SIM card that you have used with the communicator.

Received calls' duration (Menu 2-5-3)

Shows the total duration of calls received with any SIM card that you have used with the communicator.

Dialled calls' duration (Menu 2-5-4)

Shows the total duration of calls made with any SIM card that you have used with the communicator.

Clear timers (Menu 2-5-5)

Resets all timers. There is no way to undo the reset operation.

Note: The actual time invoiced for calls and services by your service provider may vary, depending upon network features, rounding-off for billing, taxes and so forth.

Show call costs (Menu 2-6)

This network service allows you to check various call costs. The costs are shown in charging units or units of currency that you have set in Menu 2-7-2. The call cost is shown for each SIM card separately. For these settings you need the PIN2 code. Contact your service provider for more information.

Last call cost (Menu 2-6-1)

Shows the cost of the last, or current, call.

All calls' cost (Menu 2-6-2)

Shows the total cost of all calls made with the current SIM card.

Clear counters (Menu 2-6-3)

Resets all cost counters. Resetting requires the PIN2 code. This service is not available with SIM cards that do not support the PIN2 code. There is no way to undo the reset operation.

Call cost settings (Menu 2-7)**Call costs' limit (Menu 2-7-1)**

This function allows you to limit the total costs of outgoing calls to a specified number of charging units or units of the currency that you have set in Menu 2-7-2. For this service you need the PIN2 code.

Changing the call cost limit also requires the PIN2 code. To turn the limit on, select *On*. Key in the cost limit in charging units or currency units. If you define the limit in currency units, you can press * or # to insert a decimal point.

After the limit has been turned on, the number of the remaining units is shown on the display when in idle mode. When all units have been used, no calls can be made.

To turn the limit off, select *Off*.

Note: In some networks calls to the emergency number programmed into your communicator (e.g. 112 or other official emergency number) may be made even if there are no charging units left.

Show costs in (Menu 2-7-2)

You may select whether the call costs and call cost limits will be displayed in currency or charging units. Contact your network operator for the prices of charging units. Changing the call cost unit requires the PIN2 code.

To show the limits in currency units, select *Currency*, or *Units* to show the limits in charging units. If you selected *Currency*, key in the charging unit price. Use * or # to insert a decimal point. Next, enter the currency name.



Profiles (Menu 3)

The profile settings are used for selecting the operating environment for the communicator, and for modifying the profile features. One profile is always in use.

To set on a profile

- 1 Press **Menu**.
- 2 Scroll with ∇ and \wedge to Profiles and press **Select**.

- 3 Scroll to the desired profile, for example *Meeting*.
- 4 Press **Options**.
- 5 Scroll to *Activate* and press **OK**. The name of the selected profile is shown on the display, except when the general profile is selected.

Tip: A quick way to set on a profile is to press the  key on the phone keypad. Press the key again until the selection frame is on the desired profile. To select the profile, press and hold .

For more information about the different profiles, see "Telephone settings" on page 65.



To change the profile settings

- 1 Go to the Profiles menu and press **Select**.
- 2 Scroll to the desired profile and press **Options**.
- 3 Scroll to *Personalise* and press **OK**. For more information about the various profile settings, see "Telephone settings" on page 65.

Settings (Menu 4)


Call settings (Menu 4-1)

Anykey answer (Menu 4-1-1)

When set on, you can answer an incoming call by pressing any key on the phone keypad, except  or .

Automatic redialling (Menu 4-1-2)

When this function is set on and you call a number that is busy or does not answer, the communicator will attempt to call the number until the call is connected.

Press  to end the call attempts.

Speed dialling (Menu 4-1-3)

When set on, you can dial phone numbers stored in the speed dial locations by simply pressing and holding the assigned speed dial key.

Call waiting (Menu 4-1-4)

Call waiting is a network service. Contact your operator for subscription. See "Telephone settings" on page 65.

Choose *Activate* to enable call waiting, *Cancel* to disable call waiting, or *Status* to show call types with which call waiting may be used.

Own number sending (Menu 4-1-5)

You can set your phone number to be displayed or hidden from the recipient of your call. This function works only in networks that allow you to view callers' phone numbers, provided that this service has been activated for your SIM card. Do not use this function unless it has been activated for your SIM card.

Choose *Preset*, *On*, *Off*, *Next on*, or *Next off*. *Preset* selects the setting, *On* or *Off*, that you have agreed upon with your network operator. When you change the SIM card, the *Preset* setting is automatically selected.

Phone line in use (Menu 4-1-6)

If your network supports this service, you can have two phone lines in your communicator. You can select which line you want to use for making calls. For more information, see "Telephone settings" on page 65.

Phone settings (Menu 4-2)

Clock (Menu 4-2-1)

You can select whether the time is shown on the display.

Cell info display (Menu 4-2-2)

When this function is set on, the phone will indicate when it is using a network cell based on Micro-Cellular Network technology. The setting will remain in effect even if the SIM card is changed or the phone is switched off.

Note: The communicator consumes more power when the Cell info display is on.

Name list (Menu 4-2-3)

When searching for names and numbers, you can select whether to show three names, or one name at a time on the display.

List of own numbers (Menu 4-2-4)

You can store and manage phone numbers assigned to your SIM card. This function is a memory aid, from which you can check your own phone numbers.

Welcome note (Menu 4-2-5)

You can write a message of up to 36 characters which appears on the display when you switch on the phone.

- 1 Scroll to the *Welcome note* setting and press **Select**.
- 2 Key in the message.
- 3 Press **Options** and scroll to *Save* and press **OK**.

Network selection (Menu 4-2-6)

The communicator can be set to select automatically one of the cellular networks available in your area. You may also select the desired network manually in this menu.

When the *Automatic* option is selected, the communicator tries to utilise the network on which it was last registered. Outside of the home network service area, the communicator will select one of the networks that have a roaming agreement with the home network.

In the *Manual* mode, when you pick up a network manually from the network list, the communicator will always attempt to register on that network. If the communicator cannot reach, or loses contact with, the selected network, you are prompted to select another network.

Tip: Network selection comes in handy when you want to select a particular network, e.g. due to lower call charges.

Security settings (Menu 4-3)

The purpose of the security system is to prevent unauthorised use or altering of important settings. In most cases, activating or changing the security options requires the appropriate access code. See "Security" on page 127.

Note: When security features which restrict calls are in use (call diverting, call barring, fixed dialling, closed user group, or system lock), calls may be possible to certain emergency numbers in some networks (e.g. 112 or other official emergency number).

PIN code request (Menu 4-3-1)

On or Off. See "Security" on page 127.

Voice call barring (Menu 4-3-2)

Call barring is a network service; contact your operator for subscription. See "Telephone settings" on page 65.

- 1 Scroll to one of the following barring modes and press **Select**.
All outgoing calls

All international calls
International except to home country
All incoming calls
Incoming calls when abroad
Cancel all barrings

- 2 If you want to take the selected barring mode into use, scroll to *Activate*; if you want to disable the selected barring mode, select *Cancel*, or if you want to check the status of the barring mode, select *Status*, and press **OK**.

Fixed dialling (Menu 4-3-3)

You may restrict your outgoing calls to a pre-determined set of phone numbers, if supported by your SIM card. When the function is set on, you can only call a phone number which is included in the fixed dialling list or which begins with the same digits as a phone number on the list.

You are prompted for the PIN2 code when you try to put Fixed dialling on or off, or if you wish to delete, add or edit any phone number on the fixed dialling list.

If you select *Numbers*, the following options become available: *Search*, *Add entry* or *Erase all*. If you select *Add entry*, you are required to enter your PIN2 code and key in both the name and number you wish to add to the fixed dialling list.

To edit or erase a phone number on the fixed dialling list, select *Search* and key in the name of the person, or the first letter(s) of the name. Press **OK** and **Detail** to view the number. Select **Options**, enter your PIN2 code and you are given the choice of either *Edit* and *Erase*.

Note: The SIM card contents cannot be accessed if the Fixed dialling is on.

Closed user group (Menu 4-3-4)

This network service allows you to set the communicator to accept calls to and from a selected group of people. For details on creating a user group and activating this service, contact your network operator. You may be a member of up to 10 user groups.

Select one of the following options:

Preset — Uses a user group that the SIM card owner has agreed upon with the network operator.

On — Uses a particular user group. Calls can be made to or received from the members of the selected group only.

Off — Calls can be made and received in the normal way. You can use this option only if you are entitled to do so.

SIM change security (Menu 4-3-5)

The same settings can be found in the Security settings. See "Security" on page 127.

Change access codes (Menu 4-3-6)

In this submenu, you can change the lock code, the PIN code, the PIN2 code and the barring password. See "Security" on page 127.

The access codes may only include the digits 0 to 9.

System lock (Menu 4-3-7)

To lock the communicator, press **Select** and enter your lock code. The communicator locks immediately. Even if you remove and replace the battery and switch on the phone, the communicator will remain locked.

To unlock the communicator, press **Unlock** and enter the lock code.

Restore factory settings (Menu 4-4)

You can reset the settings of the menu functions to their original values. When you activate this setting, you will be prompted for your five-digit lock code. This function will not affect stored phone numbers and names, access codes, earpiece volume setting, call timers, cost counters, selected application tones or short messages.

Call divert (Menu 5)

The call divert network service allows you to direct your incoming voice calls to another phone number when you do not want to be disturbed, or when the phone is switched off or outside the network coverage area. The call diverting functions are described in more detail in "Telephone settings" on page 65.

- 1 Scroll to one of the following divert options and press **Select**:

Divert all voice calls
Divert when busy
Divert when not answered
Divert if not reachable
Divert all fax calls
Divert all data calls
Cancel all diverts

- 2 Scroll to **Activate**. You will be asked for the phone number to which you wish to divert the incoming calls.

The *Cancel* option sets the divert mode off. *Status* shows what kind of calls are being diverted.

Recorder (Menu 6)

With the Recorder you can record your telephone conversations and voice memos, and listen to them. The maximum length of a recording is 30 seconds. See also "Voice recorder" on page 144.

Note: Local laws may apply to recording conversations. Do not use this feature illegally.

To record your own speech

- 1 In the Recorder menu, press **Select**.
- 2 Scroll to *Record* and press **Select**.
- 3 To stop the recording, press **Stop**.

To record your Telephone conversation

- 1 When you have an active call, press **Record**. When the recording starts, you will hear a tone.
- 2 To stop the recording, press **Stop**.

To record your telephone conversation when you have more than one call

- 1 If you have for example one call active and another on hold, press **Options**.
- 2 Scroll to *Record* and press **Select**. When the recording starts, you will hear a tone.
- 3 To stop the recording, press **Stop**.

To play a recording

- 1 In the Recorder menu, press **Select**.
- 2 Scroll to *List* and press **Select**.
- 3 Scroll to the recording you want to listen to, press **Options** and then **Play**.

To play a recording when you have an active call

- 1 Press **Option**.
- 2 Scroll to *Play last* and press **Select**. Or, if you want to play an older recording, follow the steps above. The other party will also hear the recording.

15. Troubleshooting

Tip: Club Nokia Careline answers questions and offers instructions over the phone. You can visit <http://club.nokia.com> to find the Club Nokia Careline phone numbers. See also the Accessories guide for further information on Club Nokia Careline.

You can also visit Nokia Wireless Data Forum at <http://www.forum.nokia.com> for information and support material related to the communicator.

1. Phone or communicator interface does not start; both displays remain blank

Make sure that the battery is properly installed and charged.

Make sure that the contacts on the battery and the charging stand are clean.

The battery charge may be too low for operation. Check the display and listen for the low battery warning tones. Charge the battery as described in "Battery" on page 27. If the NOT CHARGING message is displayed, the charging is suspended. In that case, check that the temperature of the battery is not above +45°C (+113°F). Wait for a while, disconnect the charger, connect it again and retry. If charging still fails, contact your local Nokia dealer.

2. Power comes on, but the phone does not work

Reboot the communicator by removing the battery and replacing it again.

Try charging the communicator. If you see the battery charging indicator on the phone but the phone does not work, contact your local Nokia dealer.

Check the field strength indicator: you might be outside the network service area. See the answer to problem number 6.

Make sure that the telephone service is activated for your SIM card.

Check if there is an error message on the display after switching on. If so, contact your local dealer.

Check that the SIM card is correctly installed, see "First start-up" on page 17.

3. Communicator interface does not activate or applications stop responding

Close the cover and open it again. If this does not help, close the cover and remove the battery. Replace the battery and open the cover again. Wait while the communicator performs a self-test and starts.

Try charging the communicator.

See also problem 4.

4. Internal memory or system errors

Sometimes, for example, removing the battery in mid-operation may cause errors in the file system of the communicator. If you receive internal memory or system error messages and/or reboot prompts, or if the device does not respond to commands normally, resetting the communicator helps you recover from most of these problems. Try the reset operations in the order they have been listed: if checking the file system does not help, try removing temporary files, or format the file system.

To reset the communicator

- 1 Close the cover.
 - 2 Remove the battery.
 - 3 Remove the memory card if inserted.
 - 4 Place the connector end of the battery in the battery cavity, but do not press the other end in place yet. Do not let the battery slip from its place. The connector end is the one with the four metal strips.
 - 5 Open the cover.
 - 6 Press and hold down the required key combination (see below in this topic 4) and simultaneously push the battery end of the communicator down, so that the battery clicks into place. Hold down the keys until you see progress messages or a confirmation prompt on the display.
 - 7 In some cases you must confirm the action by pressing a command button.
- After the reset, the communicator will reboot and start normally.

To check the file system

Symptoms: The Memory application in the System application group shows too much (over 2 megabytes) or too little memory, even if you have just removed some documents, or the communicator applications crash when opening a document.

Key combination: Shift-Tab-left arrow

Caution: If there are problems in the file system, the corrupted files will be removed. If there are no problems, this operation does not affect any documents or settings.

To remove temporary files

Symptoms: The communicator is in a reboot cycle or a note saying that an .ini file is corrupted is displayed.

Key combination: Shift-Tab-right arrow

Caution: All temporary files will be removed. The Document outbox will be cleared, the default application settings restored, but for example, the SMS message centre number, Internet access point and Remote mailbox settings will be lost.

Stored documents will not be affected.

To format the file system

Symptoms: The communicator is in a reboot cycle or does not boot up.

First, check that your battery is not empty.

Key combination: Shift-Tab-F

Caution: Formats the file system. All data you have entered will be lost. This operation will restore your communicator to the state it was in at the time of purchase.

Remember that backed up data can be restored in all cases.


If these measures do not help, contact your local dealer.

5. Cannot make or receive calls

Make sure that the phone is not off. Close the cover and switch on the phone.

If you get the message INVALID SIM CARD, your SIM cannot be used in the communicator. Contact you dealer or network operator.

Check the status of your call barrings and diverts, see "Telephone settings" on page 65.

The phone may be busy: data or fax is being sent or received, or the communicator is being used as a fax modem. Wait for the data/fax transmission to end, or drop the call by pressing the  key on the phone keypad.

6. Call quality is poor

Your location may not allow better call quality. This problem may occur especially in a moving car or train. Move to a location where the radio signal reception is better. See "Facts about cellular data transmission" on page 14.

Reception is usually better above ground level, outdoors and while stationary. Sometimes even moving the communicator slightly will improve reception. You can also try using the communicator in the handsfree mode, see "Handsfree mode" on page 61. Remember to turn the antenna to an upright position.

7. Cannot divert or bar voice, fax or data calls

You may have not subscribed to the service in question, or it is not supported by the network, or the message centre number and the number to which you want to divert your calls may be missing or incorrect.

Fax diverts and barrings are set in the settings of the Fax application. Data barring is set in the Internet settings. Data calls cannot be diverted.

8. Cannot select a contact


If you cannot select a contact in the Telephone, Fax, SMS or Mail directory, the contact card does not have a telephone number, fax number, wireless phone number or an e-mail address. Add the missing information to the contact card in the Contacts application.

9. Cannot send or receive faxes, short messages or mail

Make sure that you have subscribed to these network services.

The phone may be off, or the communicator is low on memory. See problem 16.

The number format you use may be invalid, or the called number has not answered within 10 tries, or you are calling to a wrong phone number.

The phone may be busy: data or fax is being sent or received, the communicator is being used as a fax modem. Wait for the data/fax transmission to end, or drop the call by pressing the  key on the phone keypad.

Fax/data barrings or fax diverts may be active. Fax barrings/diverts are set in the settings of the Fax application, data barrings are set in the Internet settings.

Fax reception: Your SIM card may not have a fax number.

Mail reception: Your SIM card may not have a phone number for data connections. Contact your service provider.

Mail sending: You have not subscribed to a remote mailbox service, or the mail server delivering your mail does not comply with the SMTP protocol. Contact your e-mail service provider. If you are using the *Upon request* sending option, mail must be sent in the Document outbox, see "To send mail" on page 92.

If you have problems sending mail with attachments, select **Cancel Sending** and try again. If this does not help, try the key combination Shift-Tab-right arrow. Some mail attachments can take up a significant amount of memory and therefore freeing some memory by deleting something from your communicator memory might also help.

Short message sending: You have not subscribed to the Short Message Service or the message centre number is missing or incorrect. Contact your service provider.

The reason for failure may also depend on the network: the network does not support SMS, fax, or data/mail; the network is out of order or busy; the field strength is not adequate for sending.

10. Cannot establish a Terminal or Internet connection

The Internet, Mail, WWW, or Terminal settings and configurations may be missing or incorrect. Check your Internet access point configurations in the Internet main settings. Contact your Internet service provider for the correct settings. See "Internet settings" on page 86.

If you receive internal error messages, remove and replace the battery and try again. If the problem persists, see problem 4.

If you receive service provider error messages when connecting to your Remote mailbox, contact your remote mailbox service provider. Your Remote mailbox may contain corrupted mail messages or the mail server settings may be incorrect.

11. Infrared problems

The communicator may be connected to a PC, laptop, printer, digital camera, wireless phone or another communicator via the infrared link.

If you are using the PC Suite for Nokia 9110 Communicator program on your PC, or if you want to receive data from another communicator or a digital camera, you will have to start the Infrared activation application on your communicator before the connection is made. See "Infrared activation" on page 131.

If you are using the Nokia Communicator Server program on the PC, the infrared connection is established automatically when you use one of the PC connectivity applications of the communicator.

The PC to which you want to establish the connection must have an IrDA compatible infrared port; installed and activated IrDA drivers; and Microsoft Windows 95. For more information on IrDA drivers and their use in Windows 95, contact Microsoft.

For further information, see the Documentation section on the CD-ROM in the sales package of the communicator.

12. Printing problems

If you are using the infrared connection, the infrared port of the printer must be compatible to the IrDA standard. See "Document features" on page 34.

If you fail to establish an infrared connection, transfer the file to a PC and use the PC to print the document. Alternatively, you can fax the document to the nearest fax machine. See "To send faxes" on page 71.

Check that your printing settings are correct, see "System settings" on page 125.

You may be using an incorrect printer driver, see "Document features" on page 34.

13. PC connectivity problems

Make sure that the correct PC connectivity program is installed and running on your PC. See chapter 4 "Computer connectivity" on page 39.

Check the cable or infrared connection used. If you use an infrared connection, the IR ports must be facing each other.

Check that you are using the correct COM port.

14. Fax modem problems

When you use the communicator as a fax modem, make sure that the communicator and the PC use the same baud rate. If you use the infrared connection, the baud rate is set automatically. If you use the cable connection, set the baud rate in the Fax modem settings. For the PC, the baud rate is set in the connectivity software of the PC.

If you use the cable connection, fully compatible operation with all PC fax and terminal software cannot be guaranteed. Consult your dealer. If you have problems with your PC fax software, use the infrared connection.

If you have problems establishing a data connection with the remote modem, try fixing the data transmission rate by using an AT command. Common AT commands based on the ETSI 07.07 standard and supported by the Nokia 9110 Communicator are listed in the *atcomm.txt* file on the diskette supplied with the communicator. For information on how to use the AT commands, consult the documentation of the telecommunication or fax application that you use on your PC.

15. Access code problems

The lock code is included in the sales package of the communicator. If you forget or lose the lock code, contact your communicator dealer.

If you forget or lose a PIN or PUK code, or if you have not received such a code, contact your network operator.

For information about Internet or Terminal passwords, contact your Internet service provider.

16. Low on memory

If you notice that the memory of your communicator is getting low, or you receive a warning note about insufficient memory, check the Memory application.

- 1 Press **Details** to see what kind of data takes up most memory. See "Memory" on page 130.
- 2 Make a backup of all important data.
- 3 Remove items which use a lot of memory, such as documents, received faxes, or old calendar data, either manually or with the Data removal application. See "Memory" on page 130. Or you can transfer the items to your memory card.

Note: Downloaded images, received faxes, and recordings may take up significant amounts of memory space.

17. Distorted characters in Terminal

If the data bits/stop bits/parity settings are different from those defined to the data service by the operator, characters may look distorted on the display.

18. ISDN connection

If you use an ISDN connection, go to the Internet settings and select *Internet access*. Select the access point you use or define a new one. In the *Advanced settings*, go to *Modem initialisation*. Enter the AT command AT+CBST=71 on the dotted line.

16. Care and maintenance

Your Nokia 9110 Communicator is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfil any warranty obligations and to enjoy this product for many years.

When using your communicator, battery, charger OR any accessory:

Keep it and all its parts and accessories out of small children's reach.

Keep it dry. Precipitation, humidity and liquids contain minerals that will corrode electronic circuits.

Do not use or store it in dusty, dirty areas. Its moving parts can be damaged.

Do not store it in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

Do not store it in cold areas. When the communicator warms up (to its normal temperature), moisture can form inside the communicator, which may damage electronic circuit boards.

Do not attempt to open it. Non-expert handling of the device may damage it.

Do not drop, knock or shake it. Rough handling can break internal circuit boards.

Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it. Wipe it with a soft cloth slightly dampened in a mild soap-and-water solution.

Do not paint it. Paint can clog the device's moving parts and prevent proper operation.

Use only the supplied or an approved replacement antenna. Unauthorised antennas, modifications or attachments could damage the communicator and may violate regulations governing radio devices.

If the communicator, battery, charger or any accessory is not working properly, take it to your nearest qualified service facility. The personnel there will assist you and, if necessary, arrange for service.

© 1999 Nokia Mobile Phones. All Rights Reserved.

17. Important safety information

Traffic safety

Do not use a communicator while driving a vehicle. If using a communicator, park the vehicle first. Always secure the communicator in its holder; do not place the communicator on the passenger seat or where it can break loose in a collision or sudden stop.

The use of an alert device to operate a vehicle's lights or horn on public roads is not permitted.

Remember road safety always comes first!

Operating environment

Remember to follow any special regulations in force in any area and always switch off the phone of your communicator whenever it is forbidden to use it, or when it may cause interference or danger.

When connecting the communicator or any accessory to another device, read its user's guide for detailed safety instructions. Do not connect incompatible products.

As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position (held to your ear with the antenna pointing over your shoulder).

Do not point the infrared beam at anyone's eye or allow it to interfere with other infrared devices.

Electronic devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your communicator.

Pacemakers: Pacemaker manufacturers recommend that a minimum separation of 20 cm (6 inches) be maintained between a hand-held wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research. Persons with pacemakers: Should always keep the communicator more than 20 cm (6 inches) from their pacemaker when the phone is switched on; Should not carry the communicator in a breast pocket; Should use the ear opposite the pacemaker to minimise the potential for in-

terference.

If you have any reason to suspect that interference is taking place, switch off the phone of your communicator immediately.

Hearing aids: Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider.

Other medical devices: Operation of any radio transmitting equipment, including communicators, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off the phone of your communicator in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Vehicles: RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles (e.g. electronic fuel injection systems, electronic anti-skid (anti-lock) braking systems, electronic speed control systems, air bag systems). Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted facilities: Switch off the phone of your communicator in any facility where posted notices so require.

Potentially explosive atmospheres

Switch off the phone of your communicator when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Users are advised to switch off the phone when at a refuelling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include below deck on boats; chemical transfer or storage facilities; vehicles using liquified petroleum gas (such as propane or butane); areas where the air contains chemicals or particles, such as grain, dust or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

Vehicles

Only qualified personnel should service the communicator, or install the communicator in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty which may apply to the unit.

Check regularly that all wireless phone equipment in your vehicle is mounted and operating properly.

Do not store or carry flammable liquids, gases or explosive materials in the same compartment as the communicator, its parts or accessories.

For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including both installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Switch off the phone of your communicator before boarding an aircraft. The use of wireless telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network and may be illegal.

Failure to observe these instructions may lead to suspension or denial of telephone services to the offender, or legal action or both.




Emergency calls

IMPORTANT!

The Nokia 9110 Communicator, like any wireless phone, operates using radio signals, wireless and landline networks as well as user-programmed functions which cannot guarantee connection in all conditions. Therefore you should never rely solely upon any wireless phone for essential communications (e.g. medical emergencies).

Remember, to make or receive any calls the phone must be switched on and in a service area with adequate signal strength. Emergency calls may not be possible on all wireless phone networks or when certain network services and/or phone features are in use. Check with local service providers.

To make an emergency call

- 1 If the device cover is open, close the cover.
- 2 If the phone is not on, switch it on by pressing the  key. Some networks may require that a valid SIM card is properly inserted in the communicator.
- 3 Press and hold the  key for several seconds to ready the phone for calls, and to end possible active data or fax calls.
- 4 Key in the emergency number for your present location (e.g. 112 or other official emergency number). Emergency numbers vary by location.
- 5 Press the  key.

If certain features are in use (call barring, fixed dialling, closed user group, system lock, keypad lock, etc.), you may first need to turn those features off before you can make an emergency call. Consult this document and your local cellular service provider.

When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your communicator may be the only means of communication at the scene of an accident - do not cut off the call until given permission to do so.

To use this manual

The wireless phone described in this manual is approved for use in the GSM networks.

A number of features included in this manual are called network services. They are special services provided by wireless service providers. Before you can take advantage of any of these network services, you must subscribe to the service(s) you require from your home service provider and obtain instructions for their use. You can then activate these functions as described in this manual. The manual activation commands for various services are not presented in this manual (e.g., using the * and # characters for activating or deactivating services). The Nokia 9110 Communicator, nevertheless, is capable of handling commands given in that form. For these commands, please consult with your service providers.

WARNING! This apparatus is intended for use when supplied with power from a Lithium-ion battery and chargers ACP-9E, ACP-9X and ACP-9A. Other usage will invalidate any approval given to this apparatus and may be dangerous.

Use only batteries, chargers, and accessories approved by the communicator manufacturer for use with this particular communicator model. The use of any other types will invalidate any approval or warranty applying to the communicator, and may be dangerous.

For availability of approved accessories, please check with your dealer.

When you disconnect the power cord of any accessory, grasp and pull the plug, not the cord.

Glossary

A AT commands

Operations of a fax modem can be controlled by AT commands. These commands give the advanced user an opportunity to control all the features of the modem. A list of common AT commands based on the ETSI 07.07 standard and supported by the Nokia 9110 Communicator are available in the *atcomm.txt* file on the diskette included in the sales package of your communicator.

B Barring password

The barring password is a 4-digit code needed to change fax and voice call barrings, see "Telephone settings" on page 65. The password is not located in your communicator or SIM card, but in the network. You obtain the password from your network operator when you subscribe to the call barring service.

C Cookies

Cookies are little pieces of information, given by the server to you, to store information about your visits to a web site. When you accept cookies, the server is able to evaluate your use of the web site; what you are interested in, what you want to read, etc.

D Domain name and Host name

The terms "domain name" and "host name" are sometimes, slightly inaccurately, used as synonyms. In a fully qualified domain name, e.g. *www.forum.nokia.com*, the first part of the name is the name of the host, and the following parts are names of domains to which the host belongs. Each host name corresponds to a certain IP address. Host names are used because they are easier to remember than IP addresses.

DTMF (Dual Tone Multi-Frequency) tones

DTMF tones are the tones you hear when you press the number keys on the phone keypad. DTMF tones allow you to communicate with voice mailboxes, computerised telephony systems, etc.

H Hotspot

A WWW page may contain hotspots, such as selection lists, text entry fields, and reset/submit buttons, which enable you to input information into the World Wide Web.

HTML (Hypertext Markup Language)

A language used to define the appearance and content of WWW documents.

HTTP (Hypertext Transfer Protocol)

A document transfer protocol used in the WWW.

Hyperlink

Hyperlinks are used to move from one WWW page to another.

I IAP (Internet Access Point)

The point where your communicator connects to the Internet by way of a data call. An Internet access point can be provided, for example, by a commercial Internet service provider or by your own company.

Images, inline, external

Images within a fetched WWW page are inline images. Larger images are often placed as external images and have to be viewed separately.

IMAP4 (Internet Mail Access Protocol, version 4)

A protocol used for accessing your Remote mailbox.

IP (Internet Protocol) address

All computers and other devices connected to the Internet using the Internet Protocol have their own individual addresses. The address consists of four numbers separated by points: for example, 131.227.21.167.

L Lock code

The lock code is a five-digit code needed to lock and unlock the communicator. The lock code is also required when you change certain settings. You will find the lock code on a sticker in the sales package of your communicator. Keep it secret and in a safe place, separate from the communicator.

M MCN (Micro-Cellular Network) technology

Microcells are used for increasing the capacity of wireless networks in urban areas.

MIME (Multipurpose Internet Mail Extensions)

A standard Internet format which permits including multiple mail objects in a single message. The mail objects can be, for example, formatted multifont text messages and non-textual elements, such as images and audio fragments.

P**PIN (Personal Identity Number) code**

The PIN code protects your phone from unauthorised use. The PIN code is supplied with the SIM card. If the PIN code request is set on, the code is required each time the phone is switched on. The PIN code must be 4 to 8 digits long.

PIN2 code

The PIN2 code is supplied with some SIM cards. The PIN2 code is required to access certain functions supported by the SIM card. The length of the PIN2 code is 4 to 8 digits.

Plug-in

A plug-in is add-on software that can be downloaded from the WWW. The communicator uses plug-ins to display a document that the WWW application itself cannot show.

POP3 (Post Office Protocol, version 3)

A common mail protocol that can be used for accessing the Remote mailbox.

PPP (Point to Point Protocol)

A common networking software protocol which enables any computer with a modem and a phone line to connect directly to the Internet.

Protocol

A formal set of rules that govern how data is transferred between two devices.

Proxy

In some networks, the connection between the WWW and the site you want to connect to is blocked by a firewall. The firewall protects the network from unauthorised external access. A proxy is an intermediary program that enables access through the firewall. A proxy can also serve as a network cache to speed up the fetching process.

PUK (PIN Unblocking Key) code

The PUK is an 8-digit code supplied with the SIM card. The code is required when you want to change a disabled PIN code. If you enter an incorrect PUK code ten times in succession, the SIM card is rejected and you cannot make or receive any calls, except emergency calls. When the SIM is rejected, you will need a new SIM card.

You cannot change the PUK code. If you lose the code, contact your network operator.

PUK2 code

The PUK2 code is supplied with some SIM cards. The code is required when you want to change a disabled PIN2 code. If you enter an incorrect PUK2 code ten times in succession, you will not be able to access the functions which require the PIN2 code. To use these functions again, you will need to obtain a new SIM card from your network operator.

You cannot change the PUK2 code.

S SIM (Subscriber Identity Module) card

The SIM card contains all the information the cellular network needs to identify the network user. The SIM card also contains security-related information.

SMTP (Simple Mail Transport Protocol)

An Internet protocol governing the transfer of electronic mail.

SSL (Secure Socket Layer)

A security protocol that prevents eavesdropping, tampering, or message forgery over the Internet. Documents using SSL are identified with the prefix HTTPS.

T TCP Port

Identifies the data port of the destination computer.

TCP/IP (Transmission Control Protocol/Internet Protocol)

A protocol that governs data communication in the Internet and in the TCP/IP networks.

U URL (Uniform Resource Locator)

Link information required by the WWW to connect to a given WWW host computer. The URL usually starts with *http://* followed by *www*. For example, the Nokia Wireless Data Forum home page can be found at *http://www.forum.nokia.com*. URLs are often referred to with phrases like "Home page location," "Site location," "can be found at..."

V Voice mailbox

A voice mailbox is a network service or a personal answering machine where people can leave you voice messages.

Index

181

Index

A

- Alarms
 - Calendar 123
 - Clock 139
- Alternate phone line service 160
- AT commands 133, 177
- Autolock 129

B

- Backlight
 - Settings 126
 - Turning on 31
- Barring password 130
- Battery 27
 - Charging 27
- Booking events 121
 - Cancelling and changing bookings 122
- Business cards 81

C

- Cable connection 40
- Cache 97
 - Emptying 103
- Calendar
 - Adding events 119
 - Alarms 123
 - Booking password 121
 - Cancelling and changing bookings 122
 - Memos 120
 - Receiving bookings 122
 - Sending bookings 121
- Caller groups 66

© 1999 Nokia Mobile Phones. All Rights Reserved.

Calls

- Alternate lines 160
- Alternating calls 64
- Answering 60, 150
- Answering a waiting call 64
- Anykey answer 159
- Automatic redialling 159
- Barring 68, 161
- Closed user group 162
- Conference call 63, 150
- Diverting 68, 163
- Fixed dialling 162
- Making a call 59, 149
- Making a new call 63, 150
- Making an emergency call 175
- Poor call quality 14, 167
- Putting on hold 150
- Recording conversation 61, 150, 164
- Showing costs 157
- Showing duration 157
- Switching between calls 62
- Transferring 64, 150
- Waiting call 69, 159

Chr key 113

Cities

- Changing home city 141
- Editing and adding 140
- Selecting destination city 140

Cleaning the communicator 171

Clock settings 141

Codes

- Lock code 130
- PIN code 129
- PIN2 code 129
- PUK code 179
- PUK2 code 180

Composing tunes 141

Conference call 63

- Contact card
 - Adding fields 51
 - Attaching an image 53
 - Creating 51
 - Customising fields 52
 - Setting an individual ringing tone 52
 - Template 50
- Contact groups
 - Creating 55
- Contrast control 127
- Costs 60

D

- Date format 127
- Delivery reports 83
- Diverting calls 68
- Document outbox 36
- Documents
 - Printing 112
 - Reading 111
 - Read-only documents 114
 - Sending 114
 - Transferring via IR 112
 - Writing 111
- Downloaded files
 - Installing 104
 - Opening 114
- DTMF tones
 - Sending 64, 152
 - Special characters 54
 - Storing 54

E

- Emergency calls 175

F

Fax

- Adding a logo 75
- Adding a signature 75
- Barring 75
- Cover page settings 74
- Diverting 75
- Forwarding 71
- Printing 74
- Receiving 73
- Sending 72
- Setting sending time 75
- Writing 71

Fixed dialling 162

Flight profile

- Setting on 69

Folders

- Creating 112
- Removing 112

Font 113

Formatting the file system 167

G

General log 56

H

Handsfree mode 61

Help

- Application help 32
- General help 32
- Phone 153

I

Images

- Contact images 53
- Transferring 131
- WWW images 103

Import/Export

- Calendar 46
- Contacts 46

Indicators 22

Individual log 56

- Info service
 - Reading 155
 - Settings 83, 156
- Infrared connection
 - Connecting to a communicator 131
 - Connecting to a PC 40
 - Connecting to a printer 35
- Internet
 - Access requirements 85
 - Autodisconnect time 87
 - Data call barring 87
 - Defining an access point 86

K

- Keyboard 24
- Keypad 147

L

- Lock code 130
- Locking
 - Communicator 127, 163
 - Keypad 153
- Logs 56

M

- Mail
 - Adding a signature 92
 - Adding attachments 93
 - Fetching 94
 - Fetching attachments 91
 - Font 90
 - Forwarding 96
 - Opening attachments 95
 - Printing 96
 - Reading 95
 - Remote mailbox 94
 - Removing messages 95
 - Replying 96
 - Sending 92
 - Sending upon request 93
 - Timed fetching 92
 - Writing 92
- Margins 113

- Memory
 - Cache 97
 - Details 130
 - SIM memory 54
- Memory card 32
 - Inserting 32
- Menu button 31
- Message centre number 82
- Messages
 - Info messages 83, 155
 - Short messages 77, 155
- Multiselection 33

N

- Network
 - Selecting 161
 - Settings 67
- Nokia CareLine contact card 49, 117
- Nokia Communicator Server
 - Installing 46
- Nokia Wireless Data Forum 165
- Notes
 - Sending 114
 - Writing 111

O

- Own number sending 67, 160

P

- Passwords
 - Barring password 130
 - Booking password 121
 - Internet password 88
 - Mail password 91
 - WWW password 99, 101
- PC connectivity
 - Cable connection 40
 - Infrared connection 40
- PC Suite for Nokia 9110 Communicator
 - Installing 40
- PIN code 129
- PIN2 code 129

- Printing 35
 - Cable connection 36
 - Documents 112
 - Faxes 74
 - Infrared connection 35
 - Mail messages 96
 - Settings 126
 - SMS messages 80
 - Profiles
 - Modifying 65, 159
 - Setting on 158
 - PUK code 179
 - PUK2 code 180
- R**
- Read-only documents
 - Opening 114
 - Received communication note 37
 - Receiving
 - Fax 73
 - Mail 94
 - SMS 79
 - Recorder
 - Playing a recording 144, 164
 - Recording 144, 164
 - Remote mailbox 89, 94
 - Resetting the communicator 166
 - Ringling tones
 - Alternate ringing tone 125
 - Composing 141
 - Recording 144
 - Selecting 125
 - Sending 143
 - Setting individual tones 52
 - Settings 66

- Safety information
 - Electronic devices 173
 - Operating environment 173
 - Traffic safety 173
 - Vehicles 174
- Screen blanker 127
- Search field 21, 49
- Selection frame 20
- Sending
 - Documents 114
 - DTMF tones 64
 - Mail 92
 - SMS 78
- Service cards 80
- Shortcuts 34
- Signal strength 15
 - Indicator 23, 149
- SIM card
 - Installing 17, 32
 - Viewing contents 54
- SMS
 - Forwarding 80
 - Receiving 79, 155
 - Replying 80
 - Sending 78
 - Setting message centre number 82
 - Writing 78
- Special characters 113
- Speed dialling
 - Settings 53
 - Using 151
- Standard messages 80

T

- Telnet
 - Defining connections 107
 - Special keys 108
- Terminal
 - Defining connections 105
 - Special keys 106
- Text Web
 - Defining services 109
 - Fetching information 109
- Time format 127
- Tones
 - Adding ringing tones 112
 - Application tones 126
 - Composing 141
 - Notification tone 126
 - Recording 144
 - Ringing tones 66, 125
 - Sending 143
 - Silencing 65
- Transferring
 - Calls 64
 - Data from other handheld devices 51
 - Text (Telnet, Terminal) 106

U

- Unit of measure 127
- Unlocking
 - Communicator 128, 163
 - Keypad 153

V

- Voice mailbox
 - Calling 69, 148, 152, 156
 - Setting number 69, 156
- Volume
 - Adjusting loudspeaker 61
 - Communicator key click 66
 - Phone key click 66
 - Ringing tone 66

190

Index

W

- Welcome note 160
- World time 140
- World Wide Web
 - Access requirements 97
 - Adding bookmarks 98
 - Copying text 102
 - Creating a bookmark folder 99
 - Downloading software 104
 - Fetching a page 98
 - Following a hyperlink 102
 - Navigation commands 102
 - Saving a page 103
 - Saving the HTML format 99
 - Timed fetching 100
 - Viewing images 103

Z

- Zoom button 31