C·Pen 200™

USER MANUAL

English

The CE symbol on our products signifies that they have been certified in accordance with the EMC directive 89/336/EEC and the Low Voltage directive 73/23/EEC when applicable. The products fulfill the requirements of the following standards:

EN 50 081-1:1992 Electromagnetic compatibility, Generic Emission Standard.

EN 50 082-1:1992 Electromagnetic compatibility, Generic Immunity Standard.

First edition (May 1999).

This manual is published by C Technologies AB, without any warranty. Improvements and changes to this manual necessitated by typographical errors, inaccuracies of current information, or improvements to programs and/or equipment, may be made by C Technologies AB at any time and without notice. Such changes will, however, be incorporated into new editions of this manual.

All rights reserved

© C Technologies AB, 1999

Part No. AM 251 022 R1A

Printed in Sweden

Contents

INTRODUCTION TO C-PEN 5
Your Personal Digital Assistant 5
Optimum reading conditions 6
User documentation and support 8
Care & Safety 9
PRESENTATION OF THE PEN 10
Parts of the pen 10
Display objects 11
GETTING STARTED 14
Installing the batteries 14
Turning C-Pen On and Off 15
Navigating and selecting 15
READING AND SAVING TEXT 18
Reading text 18
Saving text 20
EDITING TEXT 21
Entering edit mode 21
Edit menu 21
C Write 25
APPLICATIONS 32
Notes 33
C Address 36
Settings 42
Info 47

CONNECTING TO A PC 48
Installing software 48
Connecting C-Pen to a PC 49
Getting help 50
C-Pen Viewer 50
Installing and removing applications 51
Transferring files 51
C Address 52
C Direct 53
C-Pen Edit 54
Closing the connection 54
TROUBLESHOOTING 55
TECHNICAL SPECIFICATIONS 57
INDEX 58
WARRANTY 61
Warranty Information 62

INTRODUCTION TO C-Pen 200

Congratulations - you have just bought yourself a photographic memory! C-Pen is a Mobile Information Collector that reads, remembers, processes and transfers printed text cordlessly to your Windows-equipped PC. C-Pen is in essence an electronic high-lighter that remembers the text that you are marking. Carry it with you wherever you go!

Your Personal Digital Assistant

Make it a habit to bring your portable text collector with you, and you are always ready to read and save text from books, papers, brochures or business cards. You can easily record price-lists, timetables, wine-tips or witty quotes. You don't have to tear out pages any more.

Your saved text files can later be transferred to your PC. It is also possible to use C-Pen to read text directly into a Windows application in your PC.

Powerful features

C Read is the basic function of C-Pen. Move C-Pen over the text, and the text will be placed in C-Pen, where you can save it as a file for later processing.

C Direct	enables you to transfer the read text directly from C-Pen into your PC. The text will be placed at the cursor position in for instance a Word or Excel document.
C Address	is an application in C-Pen for storing and looking up contact information such as addresses, phone numbers and e-mail addresses. **C Address** can be synchronized with Microsoft Outlook and supports the vCard standard.
C Write	gives you the possibility to enter characters by writing with C-Pen as an ordinary pen. This is useful when editing text, entering file names or searching for a contact in **C Address**.

Optimum reading conditions

C-Pen uses *Optical Character Recognition* (OCR) to read text. OCR is the process of turning an image of characters into computer-readable text.

As C-Pen is moved over the text, C-Pen's internal light source illuminates the characters and a camera takes images of the text. During OCR, C-Pen analyzes the images taken by its camera and translates them into text characters.

The OCR quality will depend on the reading conditions. The most common confusions between characters with OCR are:

e → c	l → I	t → c
r+n → m	i → l	c → o

The following conditions affects the quality of the character recognition:

- ***The print quality of the text***
  High-quality printed text produces, of course, maximum OCR accuracy. With lower-quality pages, e.g. fax copies, OCR accuracy may be poorer. You can calibrate C-Pen to optimize its performance under difficult conditions; see **Calibration,** p. 43.

  ! **NOTE**: C-Pen only recognizes machine-printed characters such as laser-printed or typewritten text. C-Pen does not recognize handwritten text.

- ***Position and movement of C-Pen***
  It is important how you hold and move C-Pen over the printed text. Please read the Quick Start folder to learn how to use C-Pen correctly. It is crucial that you follow these instructions in order to get the best results.
- ***The language of the text***
  See **Text Language**, p. 43.
- ***Deformed characters***
  Anything that is not a printed character, and any character distorted by a mark or smudge on the paper could be unrecognizable.
- ***Overlapped characters***
  Characters in the text should not overlap.
- ***Italics and underlined text***
  Italics are, for some fonts, difficult for C-pen to read.

  Underlined text is difficult for C-Pen to read because the underline changes the shape of descenders of the letters q, g, y, p, and j.

- ***Certain colors***
  C-Pen cannot read red or yellow text on a white or red background, or white text on a red background.
- ***Small or large character sizes***
  The size of the characters should be 7–20 points.

User documentation and support

There are different sources to support your use of C-Pen:

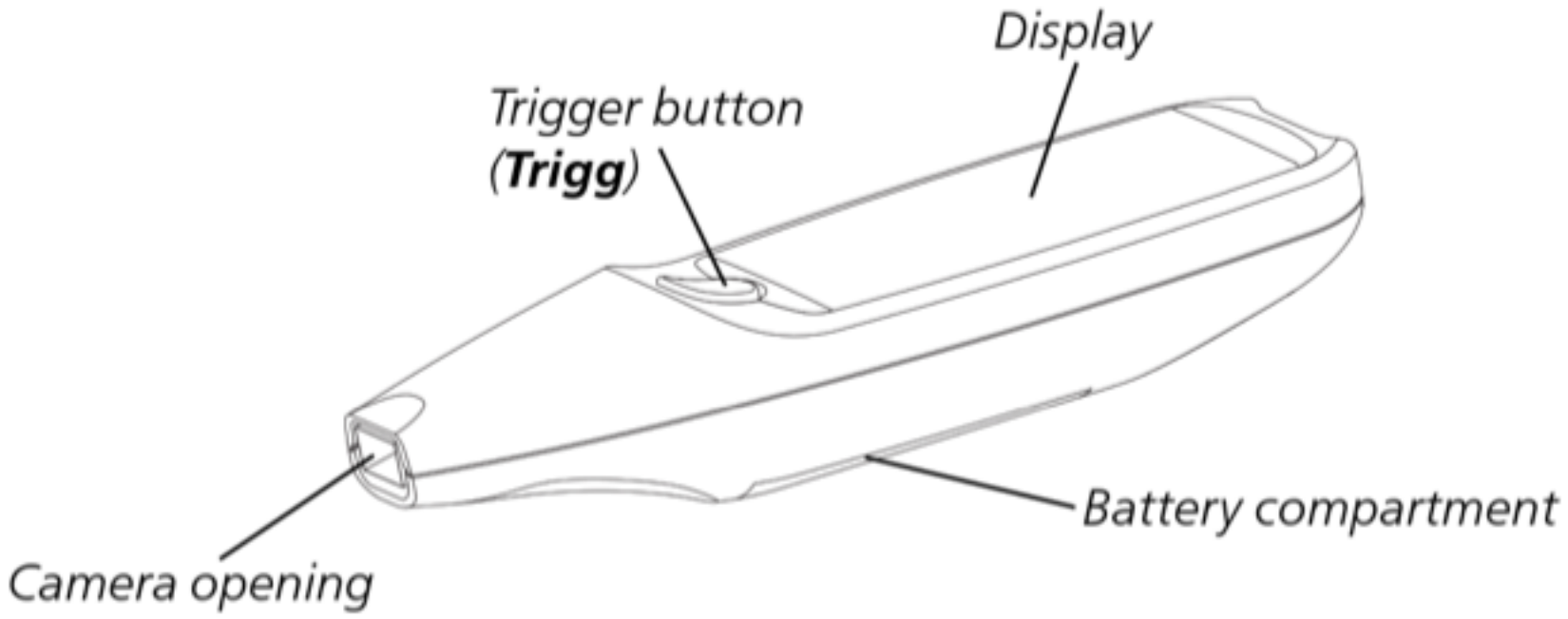
- This *User Manual* contains a description of C-Pen and instructions for reading, editing and saving files. The applications Notes, C Address, C Direct, C Write and Settings are explained. You will also learn how to connect C-Pen to a PC.
- The attached CD contains the C-Pen Windows Software for communication between C-Pen and your PC, as well as a *Readme* file on how to install and configure your computer for infrared communication. The User Manual is available in several languages on the CD.
- When using C-Pen together with your PC, you have access to online help, which is automatically installed on your PC, when you install the C-Pen Windows Software. The help topics are mostly related to the C-Pen Windows Software. Instructions for using C Direct is more thorough in the online help than in this manual.
- Visit our website to get the latest C-Pen news and free software upgrades. On our website you will also find several language versions of User Manual, trouble-shooting and FAQ (Frequently Asked Questions).

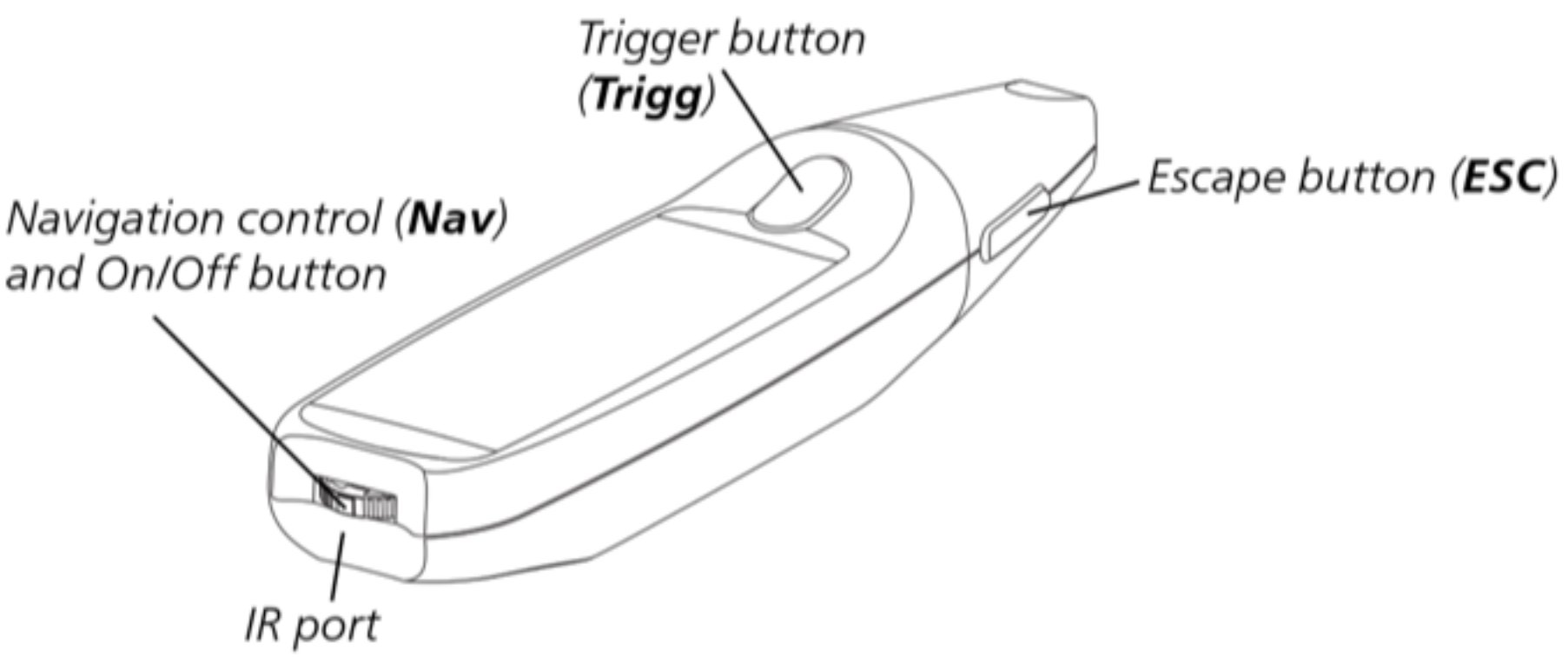
Care & Safety

- Keep C-Pen away from direct sunlight, heat, moisture and dust.
- Do not expose C-Pen to extreme variations in temperature.
- Make sure that the camera opening is free from dust or any other objects.
- Clean C-Pen with a dry cloth. Do not use detergents or other chemicals when cleaning C-Pen.
- Use only 1.5 V AAA batteries of type LR03 (alkaline)
- Make backup copies of your C-Pen files regularly and keep the copies in a safe place.

PRESENTATION OF THE PEN

Parts of the pen





On/Off	Turns C-Pen on or off, when pressed for one second.
Nav	This button is also used as a control for moving around in menus and texts (turn control left or right) and to select an item or an option (press briefly).
Display	Used to display read text and for communication between C-Pen and the user.

	The orientation of the text on the display can be changed to suit left-handed users. See **System Settings**, p. 45.
IR port	The infrared (IR) port is used for wireless data transfer between C-Pen and a PC that also is equipped with an IR port.
Trigg	To be pressed and held down while reading text.
ESC	Closes menus. The function of **Trigg** and **ESC** can be exchanged to suit your own preference. See **System Settings**, p. 45.

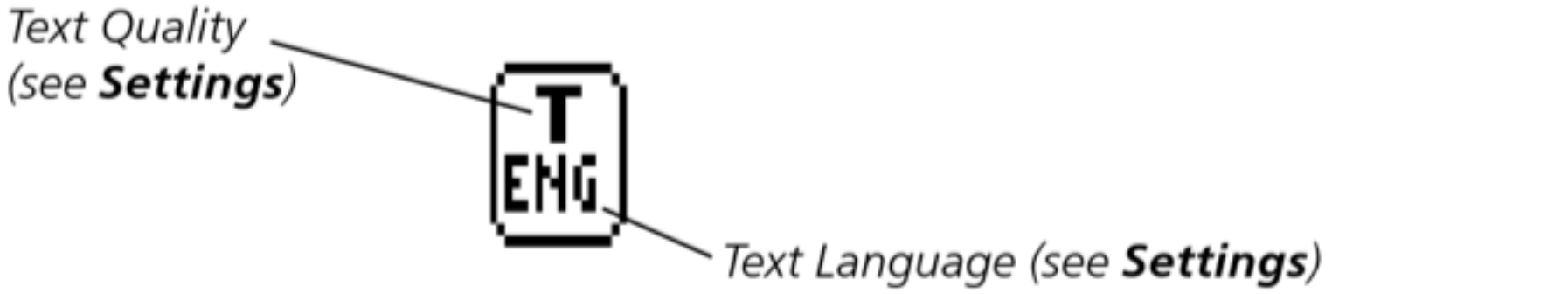
Display objects

C-Pen uses the following display objects to communicate with you:

- status field
- application icon
- menu
- check box
- dialog box
- edit field
- dialog button

Status field

The area on the left side of the display is called the status field. This field displays the text settings (**Text Quality** and **Text Language**). See **Settings**, p. 42.



Application icon

The applications are represented by application icons in the **Main screen**. The applications will all be described in the chapter **Applications**, p. 32.

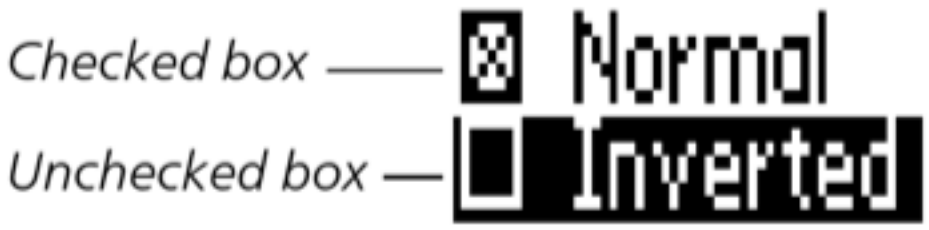
Main screen

Menu

Menus provide different options. A scroll bar indicates if there are more menu items available above or below.

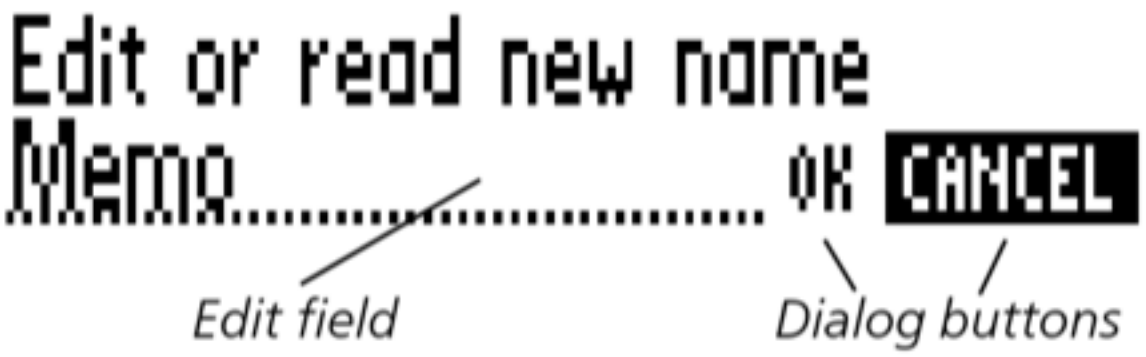
Check box

Check boxes also provide different options. A check box remains checked until you uncheck it.



Dialog box

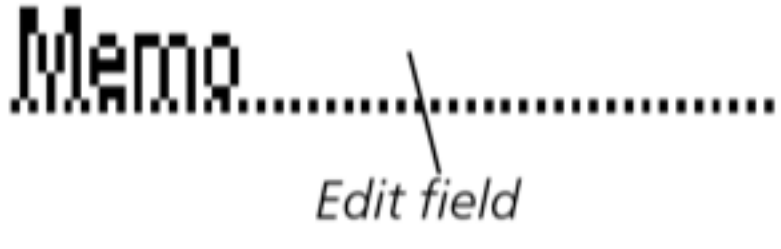
A dialog box appears when you need to enter information or give commands to C-Pen. A dialog box contains one or more objects such as edit fields or dialog buttons.



A dialog box

Edit field

It is possible to enter and edit text in an edit field. An edit field is recognized by its dotted line.



Dialog button

Dialog buttons are used in dialog boxes to give simple instructions to C-Pen.

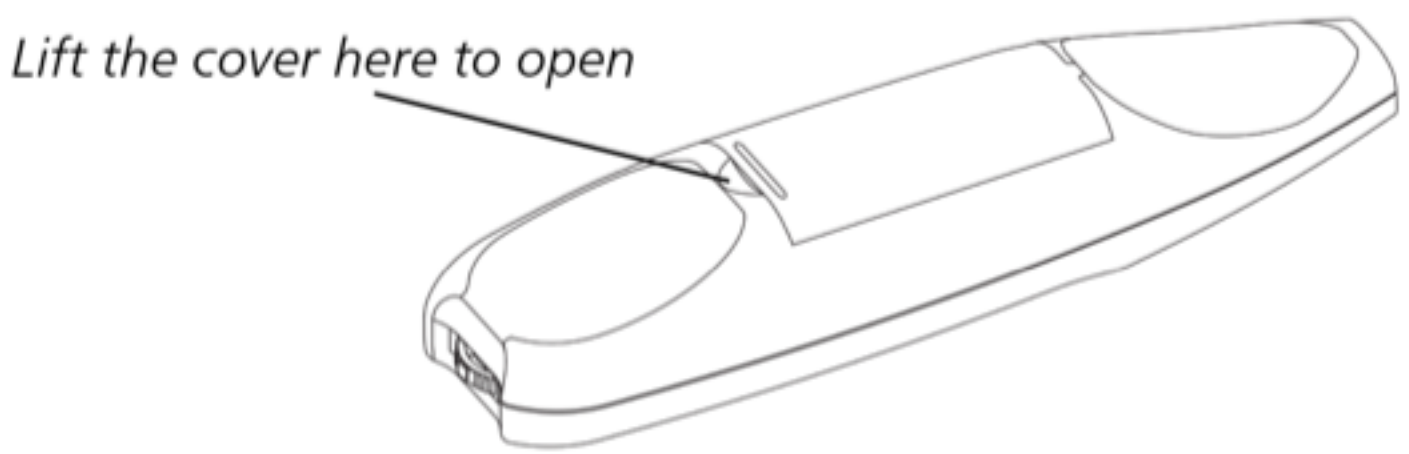
OK YES NO CANCEL SAVE AS

Common dialog buttons

GETTING STARTED

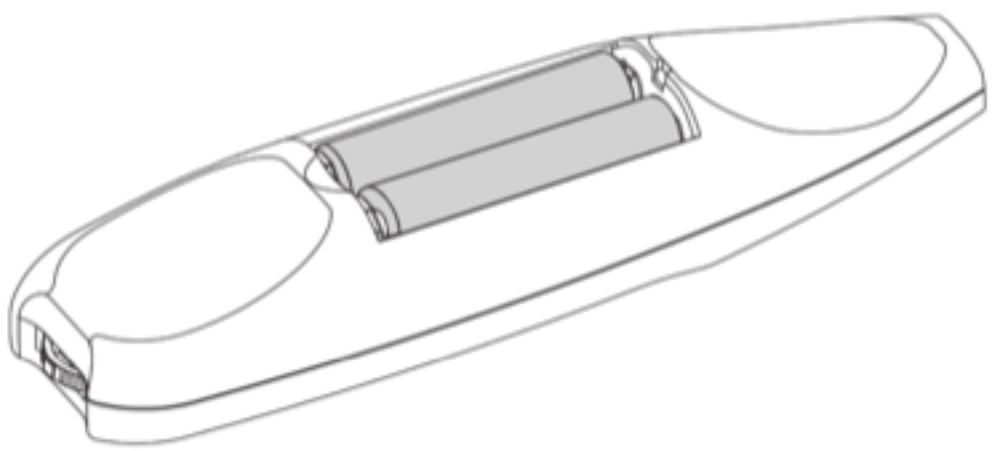
Installing the batteries

1. Remove the battery cover from the rear panel of C-Pen.



2. Insert two alkaline AAA batteries (1.5 V type LR03) as shown below.

! It is imperative to observe the polarity of the batteries. The orientation of the plus and minus ends are shown inside the battery compartment.



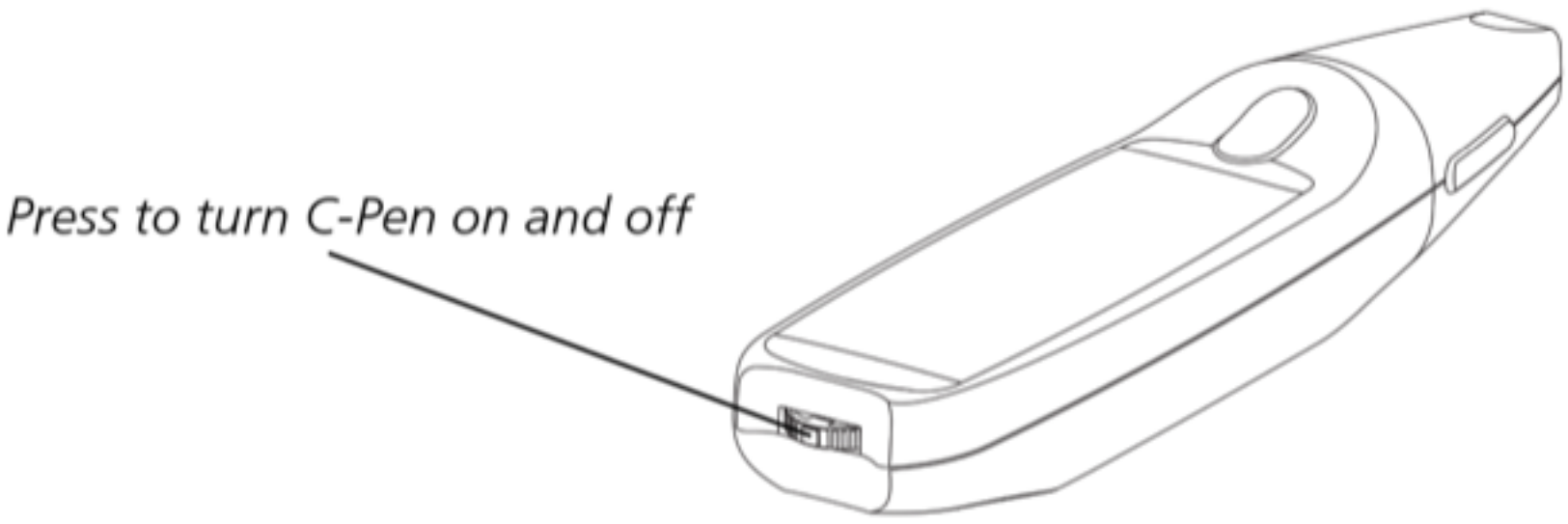
3. Replace the battery cover. You should hear a “click” when it locks.

! Do not dispose of batteries in a fire – there is a danger of explosion. Please, recycle batteries!

Turning C-Pen On and Off

To turn C-Pen on and off, press the **On/Off** button until the display is activated/deactivated.

C-Pen turns off automatically after 4 minutes of non-use. To change the automatic power-off time, see **System Settings**, p. 45.



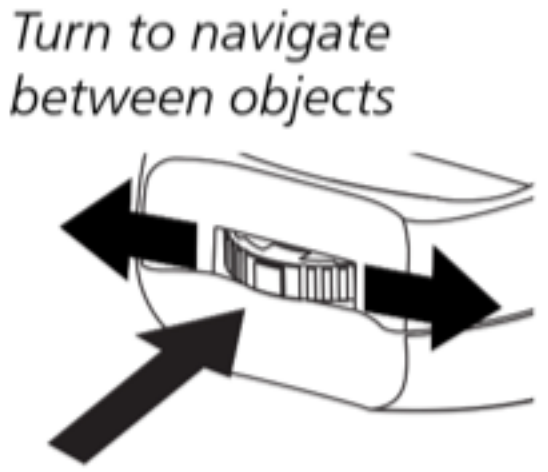
Navigating and selecting

Nav (the navigation control) is used for navigation and to select an object.

Turn **Nav** left or right to navigate between

- menu items
- dialog buttons
- edit fields
- check boxes
- lines or characters in text

As you move between objects, they become highlighted (inverted) one by one.

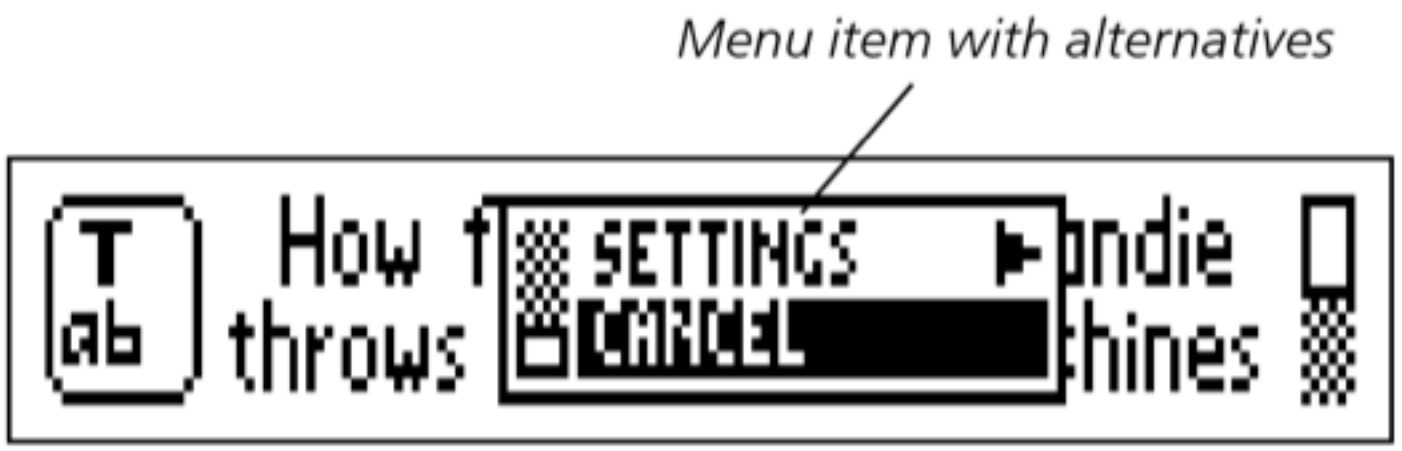


Pressing **Nav** briefly when an object is highlighted is referred to as *selecting* that object.

The result when selecting an object is explained for each situation later in this manual. Below are some general remarks about selecting objects.

Menus

Selecting a menu item marked with a ▸ will display further alternatives in a new menu.



Selecting **CANCEL** will close the menu. Instead of selecting **CANCEL**, you can press **ESC.**

Dialog buttons

In a dialog box you instruct C-Pen how to continue by selecting a dialog button:

OK You accept a suggestion in a dialog box.

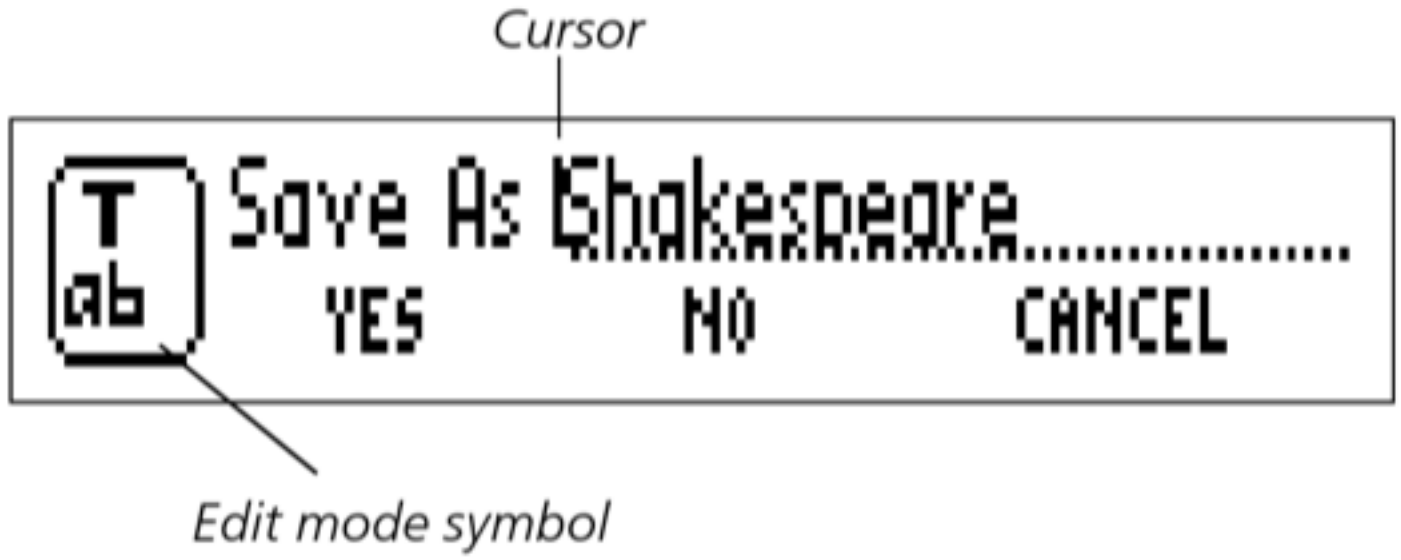
YES Your answer is “Yes” to a question in a dialog box.

NO Your answer is “No” to a question in a dialog box.

CANCEL The dialog box closes and you return to your earlier position. Instead of selecting **CANCEL**, you can press **ESC.**

Edit fields

To be able to edit text in an edit field you have to select it. A cursor will appear in the edit field and the status field shows the edit mode symbol. See **Editing text**, p. 21.



Check boxes

To mark an alternative in a list of check boxes, navigate to the alternative of your choice:

Execute the change by selecting the alternative. The checkbox becomes checked:

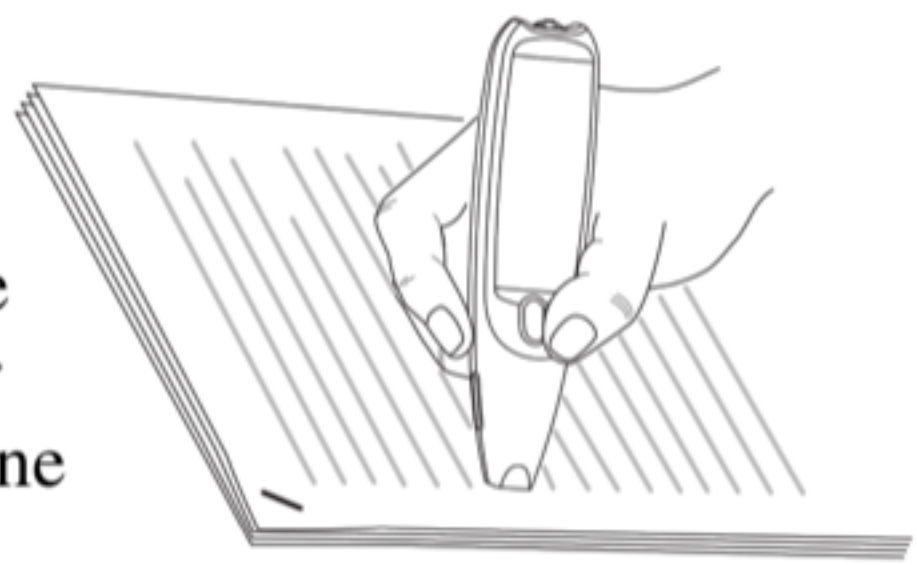
READING AND SAVING TEXT

Please follow the instructions in this chapter in order to get the best results from your C-Pen. Take a few minutes to learn how to use C-Pen correctly. (See also **Optimum reading conditions**, p. 6)

Reading text

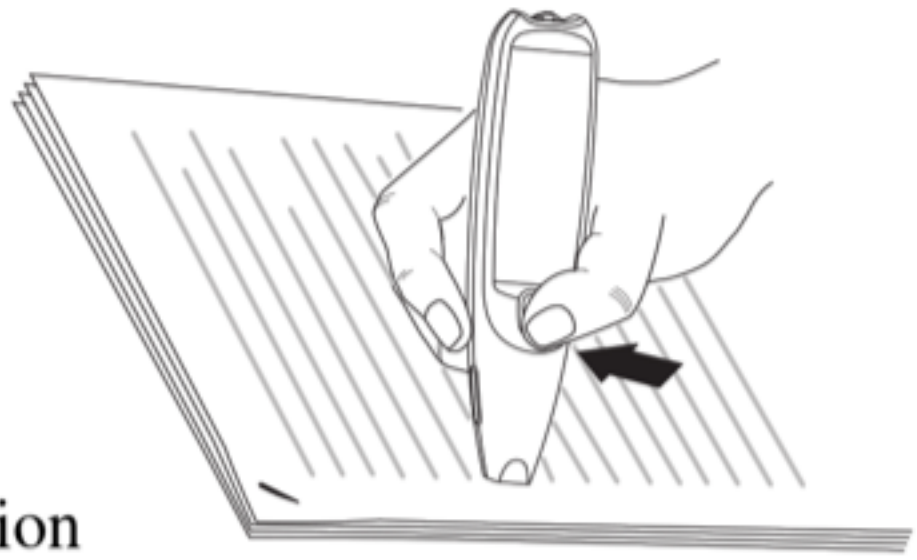
To read a line, follow the steps below.

1. Turn C-Pen on. Make sure that the text settings are set to the appropriate values. The text settings are **TEXT QUALITY, TEXT LANGUAGE** and **READ MODE**. There is also a possibility to calibrate C-Pen for best performance. Refer to **Settings**, p. 42, to read about the different settings and how to modify them.
2. Place C-Pen over the first character you want to read. Hold C-Pen with the pen tip flat against the surface. Aim at the center of the line. C-Pen reads one line at a time.

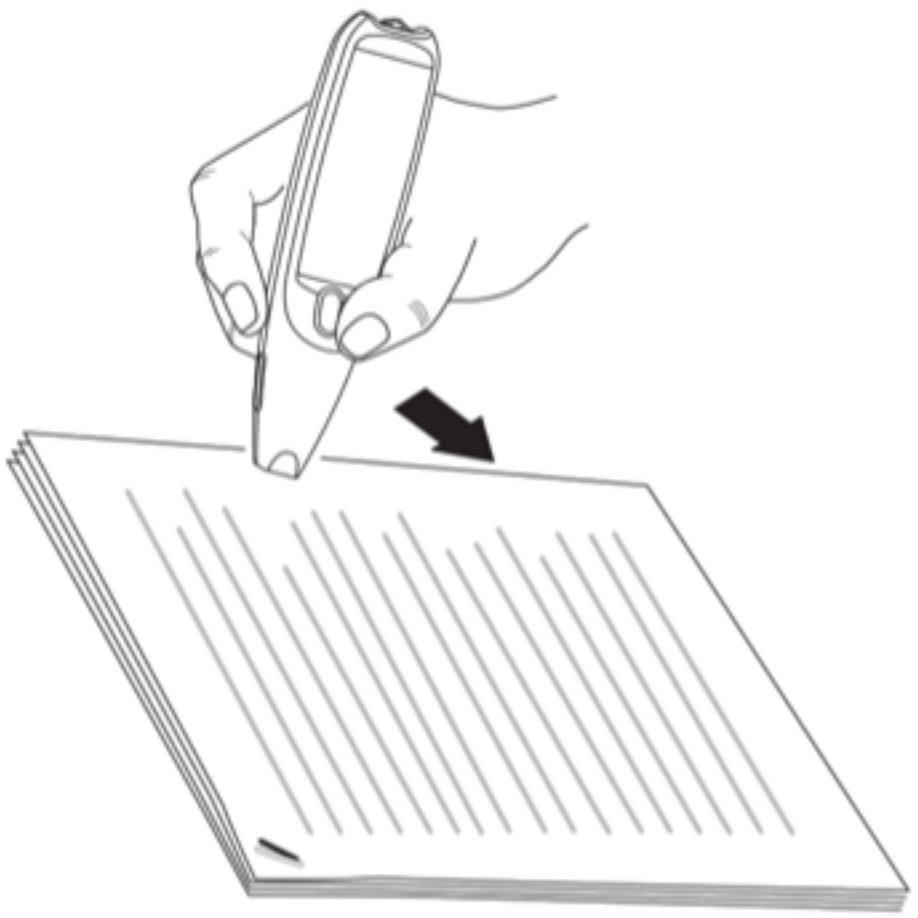


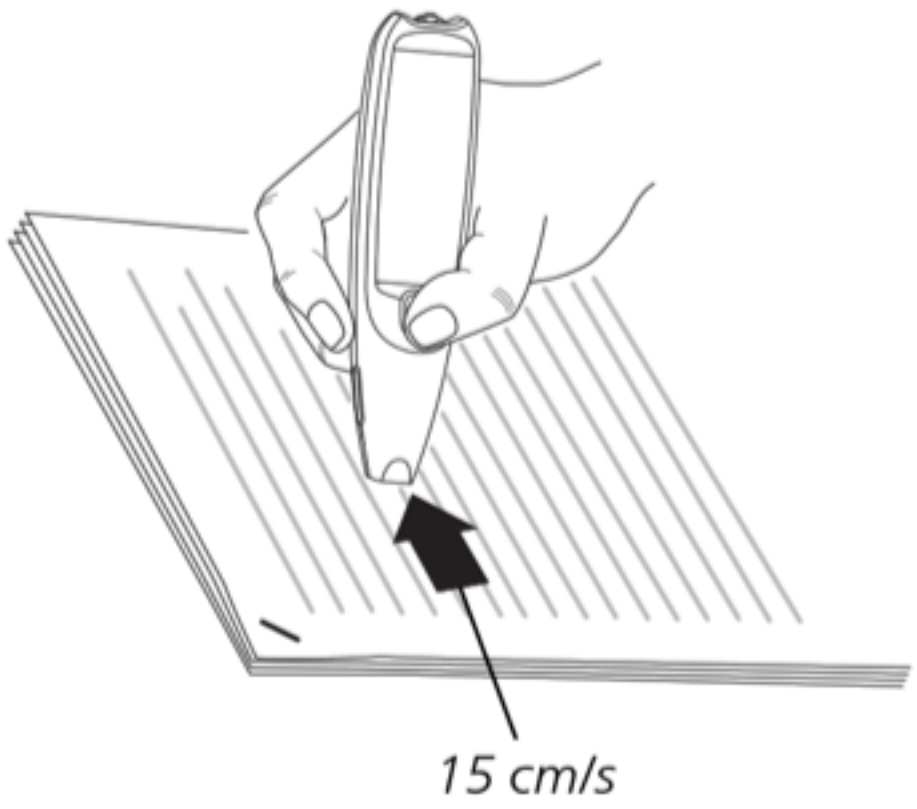
3. Press and hold **Trigg**.

NOTE: If **Trigg** is pressed and held for more than two seconds and C-Pen is not moved, C-Pen will enter calibration mode, see p. 43.



4. Move C-Pen over the line of text. Keep **Trigg** pressed as you move C-Pen over the text.





5. Release **Trigg** at the end of the line.

The **Text screen** will appear.

Text screen

The read text is placed in a new text file in **Notes**; see p. 33. You can also create a new, empty text file by selecting **NEW...** and then **FILE** in **Notes,** before you start reading.

! **NOTE:** You can move C-Pen either left-to-right or right-to-left over the text.
You can read up to 15 cm/second.

Reading another line

Read the second line the same way you read the first. A space or a line break is inserted between the lines (see **Read Mode**, p. 43). You can also insert a line break by clicking **Trigg** once.

The last line is highlighted (inverted), i.e. white text on a black background. To cancel the last line, press **ESC** briefly.

Deleting a line

To delete any of the read lines, do in the following way:

1. Place the cursor (the flashing triangle) in front of the line and press **Nav**. The **Text menu** opens (see p. 35).
2. Scroll through the menu items until you find **SELECT** and press **Nav**. The line becomes highlighted.
3. Press **ESC** briefly. The line disappears.
4. Press **Nav** to open the **Edit menu** (see p. 21) and select **QUIT EDITING**. You are ready to read a line again.

Saving text

Press **Nav** to open the **Text menu** (see **Notes**, p. 33) and choose **EXIT**. The **SAVE AS** dialog box appears. Choose **YES** if you want to save the text, **NO** if you want to discard the text or **CANCEL** if you want to return to the text. The dialog box also contains an edit field with a suggested file name. You can change the file name before you save the file; see **Editing text** on the following pages.

EDITING TEXT

To be able to edit text in a text file or in an edit field you have to enter edit mode.

Entering edit mode

You enter edit mode in different ways depending on your starting-point. You can enter edit mode in the **Text screen** or in edit field.

Entering edit mode in the Text screen

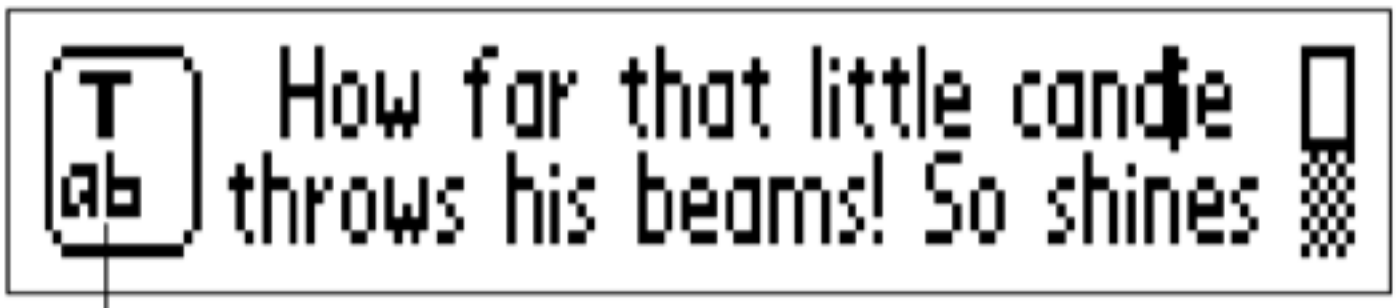
Press **Nav** in the **Text screen** to open the **Text menu**. Select **EDIT** to enter edit mode. You can now edit text either by using the **Edit menu** (see below) or by using **C Write** (see p. 25).

Entering edit mode in an edit field

Press **Nav** when the edit field is highlighted to enter edit mode. You can now edit text either by using the **Edit menu** (see below) or by using **C Write** (see p. 25).

Edit menu

When you are in edit mode a cursor appears and the edit mode symbol is shown in the status field.



Edit mode symbol

In edit mode you move the cursor one character at a time by turning **Nav**. Move the cursor to a position where you want to edit the text. Press **Nav** to open the **Edit menu**.

The items in the **Edit menu** are:

QUIT EDITING Leaves the edit mode in the **Text screen**.

DONE	Leaves the edit mode in an edit field.
CHANGE	Changes the character to the right of the cursor.
INSERT ▸	Inserts new characters at the cursor's position.
CUT	Cuts a selection (available only if characters have been selected)
COPY	Copies a selection (available only if characters have been selected).
PASTE	Pastes a cut or copied selection (available only if a selection has been cut or copied).
DELETE	Deletes a character or a selection.
SELECT ▸	Highlights characters or a whole text.
SETTINGS ▸	Sets the text settings of the text you are reading.
CANCEL	Closes the edit menu.

Some of the menu items are explained more in detail below:

Change

Place the cursor to the left of the character you want to change and select **CHANGE** from the menu.

Turn **Nav** to select the new character from the character set and then press **Nav**.

The character set

Insert

Move the cursor to the place where you want the insertion and select **INSERT** from the menu. You can choose between inserting a space, a line break, a character or multiple characters.

Select **CHARACTER** in the insert menu to insert one character. Then turn **Nav** to select a character from the character set and press **Nav**. The character set closes automatically after the insertion.

To insert more than one character, select **MULTIPLE CHARACTERS**. Turn **Nav** to select a character from the character frame and press **Nav**. The character set remains on the display and you can continue inserting characters. When you are finished, press **ESC** to return to the text you are editing.

Select

Use the **SELECT** command to edit more than one character at a time. Then select **CHARACTERS** and turn **Nav** to mark multiple characters. Press **Nav** and choose **CUT**, **COPY** or **DELETE** from the menu.

If you select **ALL,** the whole text will be selected.

Delete

Place the cursor to the left of the character you want to delete and select **DELETE** from the menu.

If you have selected text, the whole selection will be deleted, see **Select** above.

Settings

You can change text settings here. More detailed explanations of the settings can be found in **Settings**, p. 42. The text settings are

- **TEXT LANGUAGE:** Select the language of the text you are reading.
- **C WRITE FEEDBACK:** Mark the checkbox if you want the **C Write** visual feedback to be on. See p. 25.
- **READ MODE:** Select Continuous or Separate lines.
- **TEXT QUALITY:** Select Normal or Inverted.
- **CALIBRATION:** Select **DEFAULT SETTING** if your C-Pen is calibrated and you want to revert to the factory setting.

Quit Editing

Quit edit mode by selecting **QUIT EDITING**.

C Write

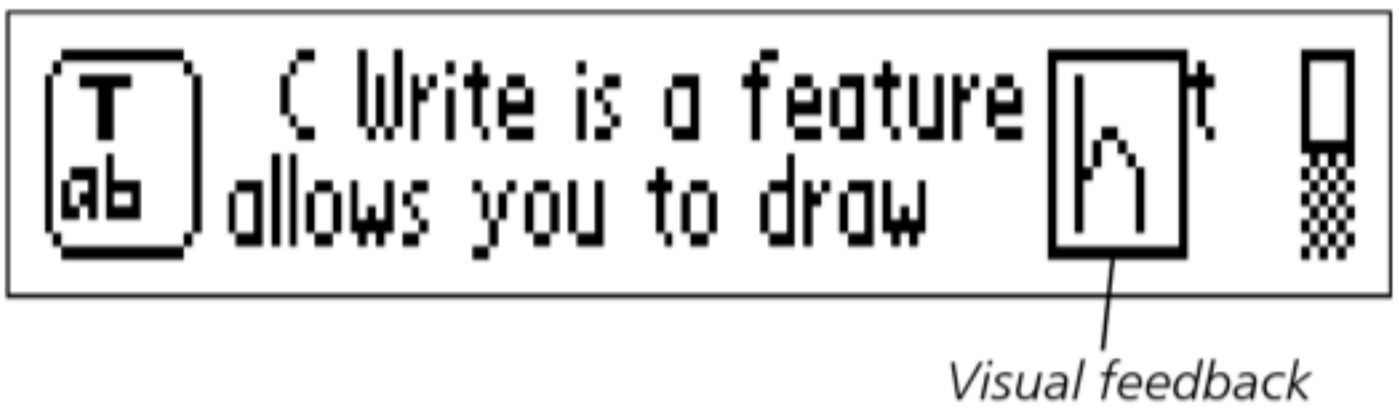
C Write is a feature that allows you to draw characters by using C-Pen as an ordinary pen. C-Pen can track its own movement over a surface and recognize the movement as a letter, digit or a symbol. Using **C Write** is an alternative to using the character frame when inserting characters in a text.

To be able to use **C Write**, the surface you "write" on must have a distinct pattern. A printed text is the best choice.

Use **C Write** in the following way:

1. Enter edit mode
2. Position the cursor
3. Place C-Pen against a text surface
4. Press and hold **Trigg**
5. Form a letter (see **C Write Prototypes,** p. 28)
6. Release **Trigg**

When you release **Trigg** an image will briefly turn up, showing the letter shape as perceived by your C-Pen. You do not have to wait for this image to disappear to write your next letter.



This visual feedback can be switched on/off in **Settings**. Select **C WRITE FEEDBACK**. A dialog box appears where you can check or uncheck the feedback utility.

Basic rules when using C Write

- In order to obtain maximum accuracy when writing with **C-Pen,** your characters should resemble the prototypes on the following pages as much as possible.
- A character must be drawn in *one single stroke*.
- The dot indicates the starting point of the stroke.
- The height of the character should be 1 - 4 cm.
- **Trigg** must be pressed *before* you start writing.
- It is important that the pen tip is in contact with the surface while you are writing.
- The writing surface must have a distinct pattern, such as a printed text. Solid colors or simple repetitive patterns (lines, squares, grids) should be avoided.

Capital letters

When you enter edit mode the status field will look like this:

*The edit mode symbol shows the **C Write** Lowercase icon*

The edit mode symbol indicates that **C Write** will generate lowercase letters.

In order to write a capital letter, you have to write the shift sign first (see **C Write Prototypes**). Only the first letter will be a capital. The status field will reflect this choice.

***C Write** Capital letter icon*

If you write two shift signs, **C Write** will enter Caps Lock mode. All letters will be capitals until you write a shift sign again.

C Write Caps Lock mode icon

Symbols

Press **Trigg** briefly to enter symbol mode. The status field displays the Symbol mode icon.

C Write Symbol mode icon

Write one of the symbols in the symbol table. You are automatically brought back to normal mode. If you want to quit symbol mode without writing a symbol, you have to write a backspace sign.

C Write Prototypes

Letters, digits and shift

Shift	Space	Backspace	New line	
Aa	Bb	Cc	Dd	Ee
Ff	Gg	Hh	Ii	Jj
Kk	Ll	Mm	Nn	Oo

Pp	Qq	Rr	Ss	Tt
Uu	Vv	Ww	Xx	Yy
Zz				
1	2	3	4	5
6	7	8	9	0

Special characters

Çç	Ææ	Øø			

Accents and umlauts

Write the letter first and then the accent or umlaut.

Example: ä = a +

¨	˚	ˆ	´	`	˜

Symbols

Enter symbol mode by pressing **Trigg** briefly.

.	,	:	;	/	\

(	)	[	]	{	}
-	+	*	$	@	“
#	_	<	>	?	¿
!	¡	£	§	ß	%

APPLICATIONS

C-Pen's application icons are shown in the **Main screen**. You can move between the icons by using **Nav**. Press **Nav** to start an application.

Main screen

Move between the icons with ***Nav***

Notes contains text files. See p. 33.

C Address is an address book, where you can store business cards and search for contact information. It can be synchronized with Microsoft Outlook. See p. 36 and 52.

Settings contains parameters you can change such as power-off time and reading options. See p. 42.

Info contains information about your C-Pen's serial number, OS version number, free memory space, etc. See p. 47.

C Direct contains information on how to transfer text from C-Pen directly into a Windows program by means of infrared communication. See p. 53.

Notes

Notes contains the text files you have read and saved. Enter **Notes** by selecting the **Notes** icon in the **Main screen**.

Inside **Notes**, move between items using **Nav**.

Your list of text files starts here

Creating a new file or folder

Selecting **NEW...** will open a dialog box:

Select **FILE** to create a new file.

> **!** You do not have to do this command to create a file. A new file will automatically be created whenever you start to read with C-Pen (except when you already are in the **Text screen**). New text files will be placed in **Notes**.

Select **FOLDER** to create a new folder. A dialog box appears.

Select the edit field to give the folder a name.

Use your C-Pen to read a name or press **Nav** to enter edit mode. To save the folder, select **OK**. The folder is placed in **Notes**.

If you want to save a file within a specific folder, you must create the file by opening the folder, selecting **NEW...** and then selecting **FILE** in the dialog box.

The Command menu

The **Command menu** contains commands for handling texts. Open the menu by selecting a text file.

The options in the **Command menu** are:

*Press **Nav** to open the **Command menu***

OPEN	Opens the selected file.
RENAME	Renames the selected file. A dialog box with an edit field appears.
DELETE	Removes the selected file.
PROPERTIES	Displays the file size of the selected file. If the file is created on a PC and transferred to C-Pen, the creation date will be shown as well.
CANCEL	Closes the **Command menu**.

The Text menu

In the **Text screen** you move the cursor line by line with **Nav**. You can insert a new line at the cursor position (the flashing triangle) by reading a new line with C-Pen.

Press **Nav** if you want to edit the text, change text settings or stop working with the text. Pressing **Nav** opens the **Text menu**.

*Press **Nav** to open the **Text menu***

The items in the **Text menu** are:

EXIT Closes the text. If the text has been changed you are prompted to save it before it is closed. Select **SAVE AS...** if you want to save the changed file with a new name.

EDIT Enters edit mode. See p. 21.

SETTINGS Opens the text settings of the text you are reading. See **Settings**, p. 42.

SELECT Highlights a read line/word. When using this command, you automatically enter edit mode.

CANCEL Closes the **Text menu**.

C Address

C Address is an application in C-Pen for storing and looking up contact information such as addresses, phone numbers and e-mail addresses to people and organizations you communicate with.

Start **C Address** by selecting the **C Address** icon in the **Main Screen**.

Main screen

The **C Address main screen** will open:

C Address main screen

Below the menu items **EXIT**, **NEW...** and **FIND** you will find your contacts in a list.

Contact list

Enter a new contact

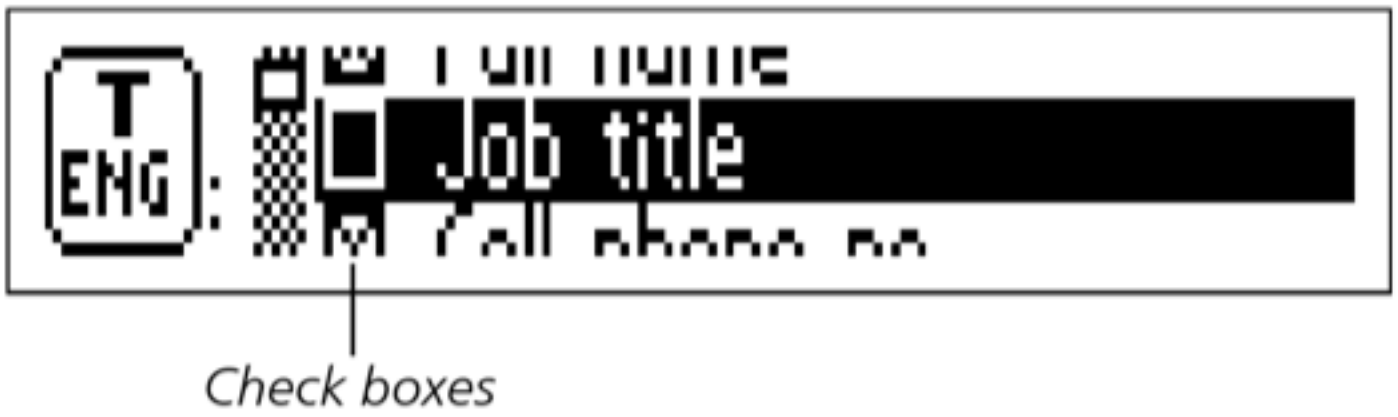
To enter a new contact, select **NEW...** in **C Address main screen**. The **Contact edit screen** will open:

Contact edit screen

In the **Contact edit screen,** turn **Nav** to go to the first field, called **First name**. Read the first name of your contact with your C-Pen, for instance from a business card or a telephone list. Redo the reading if you are not satisfied or turn **Nav** to move to the next field, **Last Name**. Read the last name to this field, and then move to the next field called **Full name**. The name in this field will later be suggested as your contact file name. Continue reading text into the following fields in the same way.

You can always move to any field you want by turning **Nav**. If you want to redo a reading with C-Pen, just go to the field that you want to change and read again. Enter edit mode if you want to edit the content of the field (see p. 21).

You can change the choice of contact details (addresses, phone numbers, e-mail addresses etc.) in **OPTIONS**. Select **OPTIONS** and scroll through the options. Check or uncheck the boxes according to your personal preferences. When you are finished, select **OK** or just press **ESC**.



Check boxes

You can discard the information you have entered in a contact file by selecting **CANCEL**. Select **YES**, when a dialog box appears, asking if you want to discard all changes.

Selecting **TOP** at the end of the field list brings you to **SAVE & CLOSE**.

Select **SAVE & CLOSE** when you are finished . The **Save As** dialog box appears. The suggested file name is the name you entered in the **Full name** field. If this field is empty or unchecked the suggested file name will be "**Last name**, **First Name**". You can edit the file name or you can read a file name with your C-Pen.

A file name must not be longer than 64 characters. Invalid characters like '\' or '.' will be replaced with a blank space. If the file name already exists, a number suffix will be added to the file name, for instance 'John Mill (1)' if 'John Mill' already exists.

Select **YES** to save the contact file. A new contact is added to your contact list.

The contact menu

The **Contact menu** contains options for working with contact files. Open the menu by selecting a contact in the contact list.

Contact menu

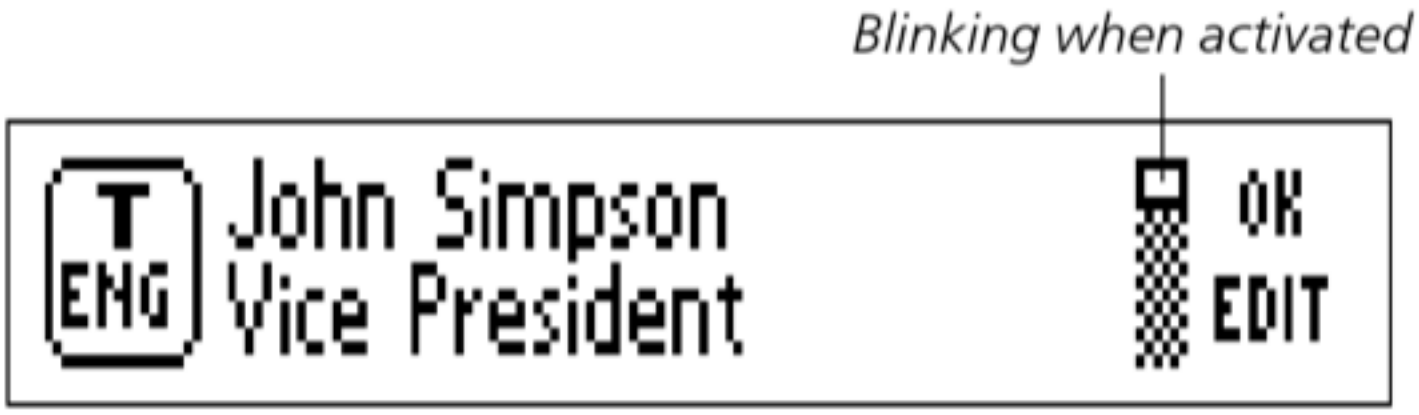
The options in the **Contact menu** are:

VIEW	Lets you view the information you have entered about a contact.
EDIT	Lets you edit the information you have entered about a contact.

DELETE	Deletes the contact file.
TOP	Brings you to the top of the **C Address main screen** (**EXIT**).
CANCEL	Closes the **Contact menu**.

View a contact

Select **VIEW** to view a contact. The contact information is presented in the **Contact view screen**. At opening the scroll bar rectangle is blinking, which indicates that the scroll bar is active, and you are able to scroll through all contact information.



Contact view screen

To select **OK** or **EDIT**, first press **Nav** to deactivate the scroll bar – the rectangle stops blinking – then turn **Nav** to go to the buttons.

Edit a contact

There are two ways to edit a contact:

1. Select a contact in the contact list. Then select **EDIT** in the **Contact menu**.

2. Select **EDIT** in the **Contact view screen**.

In both cases the **Contact edit screen** will open, displaying the stored information in the fields. You can move between the fields by turning **Nav.** If you want to change the content in a field, you can read a new field text with C-Pen or edit the text in the usual way.

Find a contact

To find a contact, navigate to the **C Address main screen** and select **FIND**. The **Find contact screen** will open. Enter the search text either by using **C Write** or inserting characters from the character set.

Find contact screen

If the **Search all fields** check box is checked, *all* information stored in **C Address** will be searched in order to find matching text.

If the check box is not checked only names will be searched, (**First name**, **Last name** and **Full name**).

Select **FIND** to start the search. The **Find contact screen** closes and a contact list containing only the contacts with matching information will be displayed. You can select these files, just as you do in the contact list.

Search result

Select **DONE** to close the screen and return to the **C Address main screen**.

If no matching text is found, a dialog box appears telling you "Nothing found". Select **OK** to go back to the **Find Contact screen**.

Delete a contact

Select a contact in the contact list and select **DELETE**. A dialog box asks you to confirm that you are sure. Select **YES**. The contact is now deleted.

Exit C Address

You can exit **C Address** from the **C Address main screen** by selecting **EXIT** or by pressing **ESC**.

Settings

Settings contains the parameters controlling C-Pen. Enter **Settings** from the **Main screen** by selecting the **Settings** icon. You can also enter text settings from the **Text menu** (p. 35) and the **Edit menu** (p. 21). A list of the available settings appears.

To modify a setting:

1. Select the setting from the settings list. A dialog box appears.
2. Turn **Nav** to highlight the setting value. Press **Nav** to modify.
3. Turn **Nav** to change the value and press **Nav** to confirm.
4. Select the OK button to close the dialog and save the changed setting.
5. Exit **Settings** by selecting **Exit** at the top of the **Settings** list.

The following settings are available:

- Text Language
- Read Mode
- Text Quality
- Calibration (available from the Text menu and Edit menu)
- C Write Feedback
- System Settings

Text Quality, Text Language and **Read Mode** are referred to as **text settings**. You must use these text settings in order to achieve the optimal OCR.

Text Language

Select the language of the text you want to read from the list of check boxes. If you read text containing numbers only, select **Numbers Only** as language.

Read Mode

This setting indicates how C-Pen should format the readings. The read modes are:

CONTINUOUS TEXT: A space is inserted between two separate readings with C-Pen. Suitable when you read a complete paragraph which will be used in a document on your PC.

SEPARATE LINES: Each reading starts on a new line.

Text Quality

Use this setting to indicate if the printed text is normal or inverted

NORMAL: Black text on white background.

INVERTED: White text on black background.

Calibration

C-Pen's reading ability can be adjusted to the contrast between the text and its background in the following way:

1. Hold C-Pen with the pen tip flat against the surface.
2. Press **Trigg** for two seconds without moving C Pen.
3. A progress indicator appears on C-Pen's screen.

4. Move C-Pen over the text, in circles or back and forth. Continue to move C-Pen until the progress bar has reached the end.
5. A message shows up to indicate that the calibration is ready:

During the calibration process, C-Pen will find the appropriate balance of black and white for the particular surface.

When your C-Pen is calibrated the **Text Quality** icon in the status field changes appearance:

The calibration overrides the factory setting. The calibration is not saved when C-Pen is turned off. If you want to revert to the factory setting without turning C-Pen off, choose **CALIBRATION** under **Text menu/SETTINGS** or **Edit menu/SETTINGS**:

Select **CALIBRATION** and a dialog box appears:

In the calibration dialog box, select **DONE** to go back or **DEFAULT SETTING** to revert to the factory setting. If you press the scan button (**Trigg**), a calibration will start.

You can do a calibration whenever you use C-Pen. This method increases C-Pen's reading ability if the text is not black and/or the background is not white. Inverted text must still be set in **Text Quality**. Remember that red text is not possible to read. If the calibration does not improve the reading accuracy, return to the default setting.

C Write Feedback

Check the box if you want to enable the visual feedback facility in **C Write**.

System Settings

PIN CODE You can control the access of your C-Pen by a four-digit PIN code. Enter the PIN code setting to enable or disable your PIN (Personal Identification Number).

When the dialog box opens, the zero in the first position is blinking. Turn **Nav** to select the first digit in your PIN. Then press **Nav** to go the next position. Continue in the same way. When you have reached **OK**, press **Nav** and confirm the PIN in a new dialog box.

	If PIN-code is enabled, you must enter the PIN each time C-Pen is turned on. After three unsuccessful attempts, C-Pen will turn off. You get three attempts each time you start C-Pen. **Warning!** If you start C-Pen by selecting **DISABLE PIN CODE** in the start up dialog box, all data in C Pen will be lost! You can change or disable your PIN code by selecting **PIN CODE** in **System Settings**.
CONTRAST	Display contrast. Select the bar and turn **Nav** to change display contrast.
MENU LANGUAGE	The language that C-Pen uses in its menus and dialog boxes. Select the desired menu language in the list of check boxes.
POWER OFF TIME	The time of inactivity in minutes before C-Pen turns off automatically.
RIGHT/LEFT-HANDED	A right/left-handed option. Check **RIGHT** or **LEFT** to orientate the text on the display for right- or left-handed use. Select **OK** and press **Nav**.
EXCHANGE TRIGG/ESC	An option to exchange the functions of **Trigg** and **ESC**. Unchecked box means normal use, see figure p. 10.

Info

Info contains a list of help and information topics.

EXIT	Exits **Info**.
GETTING STARTED	Gives instructions on performing a successful reading. Press **Nav** or **ESC** to close the topic.
TROUBLESHOOTING	Gives solutions to common problems. Press **Nav** or **ESC** to close the topic.
SUPPORT	Contains support addresses to C Technologies. Press **Nav** or **ESC** to close the topic.
ABOUT C PEN	Contains OS version number, HDB version number and serial number. You should know these numbers if you contact C Technologies for support. You can also see the amount of free memory space. Select the scroll bar and turn **Nav** to scroll through the information. To close the topic, deactivate the scroll bar by pressing **Nav** or **ESC**, then select **OK** or press **ESC**.

CONNECTING TO A PC

C-Pen can be connected to a PC by Infrared (IR) communication. A working IR connection with a PC is required to install and remove applications in C-Pen. To enable this communication certain hardware and software must be installed and configured properly on your PC. The following is required:

1. IR port. Laptop computers often have a built-in IR port. Refer to your computer's manual to find out whether your computer is equipped with an IR port and if so, where it is located. Most desktop computers do not have a built-in IR port. In this case you must use an external IR adapter. Refer to your retailer if you don't have an IR adapter.
2. Infrared drivers for Windows 95 (included on the C-Pen Windows Software CD). If you use Windows 98 or Windows NT, please read the ReadMe file on the C-Pen Windows Software CD.
3. C-Pen Windows Software. This software is installed using the C-Pen Windows Software CD.

Installing software

The Infrared drivers and the C-Pen Windows Software are installed when you run the installation programs on the CD. Infrared drivers are possibly already installed on your computer.

Infrared hardware on laptops can be configured in many different ways. Please refer to the ReadMe file on the C-Pen Windows Software CD before installing infrared

software on a laptop. If you have questions and the ReadMe file does not help, please refer to C-Pen Windows Software Help or your laptop retailer or manufacturer.

To install C-Pen Windows Software:

1. Put the C-Pen Windows Software CD into your computer's CD-ROM drive and the installation program will start automatically.
2. If the installation does not start, open the Start menu in the Windows taskbar, select Run and type d:\setup.exe, where d: is the drive letter for your CD-ROM drive.
3. To install C-Pen Windows Software, click on Install C-Pen.

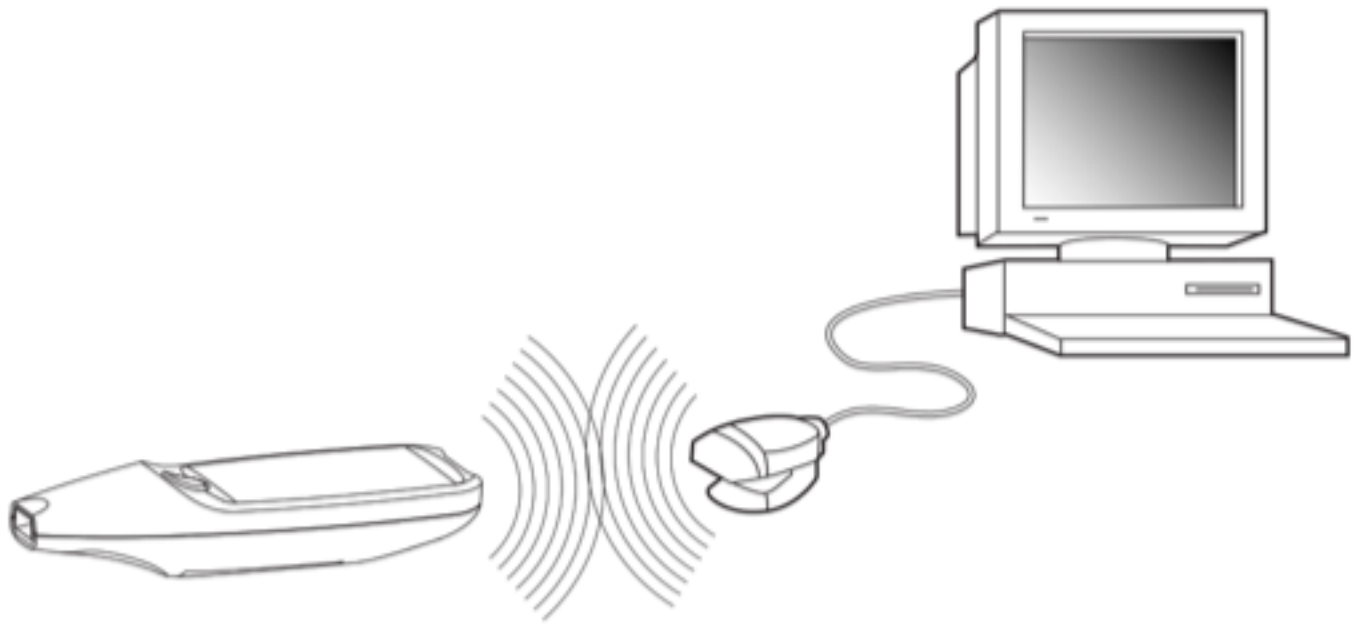
If no Infrared drivers are installed on your computer, click on Install Infrared to install these (Windows 95 and 98 only).

The installation program also enables you to view the C Pen Demo, which demonstrates how you should use C Pen for best results. To play the demo, click on Demo.

To open the ReadMe file, click on ReadMe.

Connecting C-Pen to a PC

To connect C-Pen to your PC, position C-Pen so that it is aligned with the PC's IR port as shown in the figure.



When C-Pen is within range of the computer's IR port, an IR icon will appear in the status field on C-Pen's display. On most laptops the built-in IR port - a red or black glossy square - is found on the back or side of the computer.

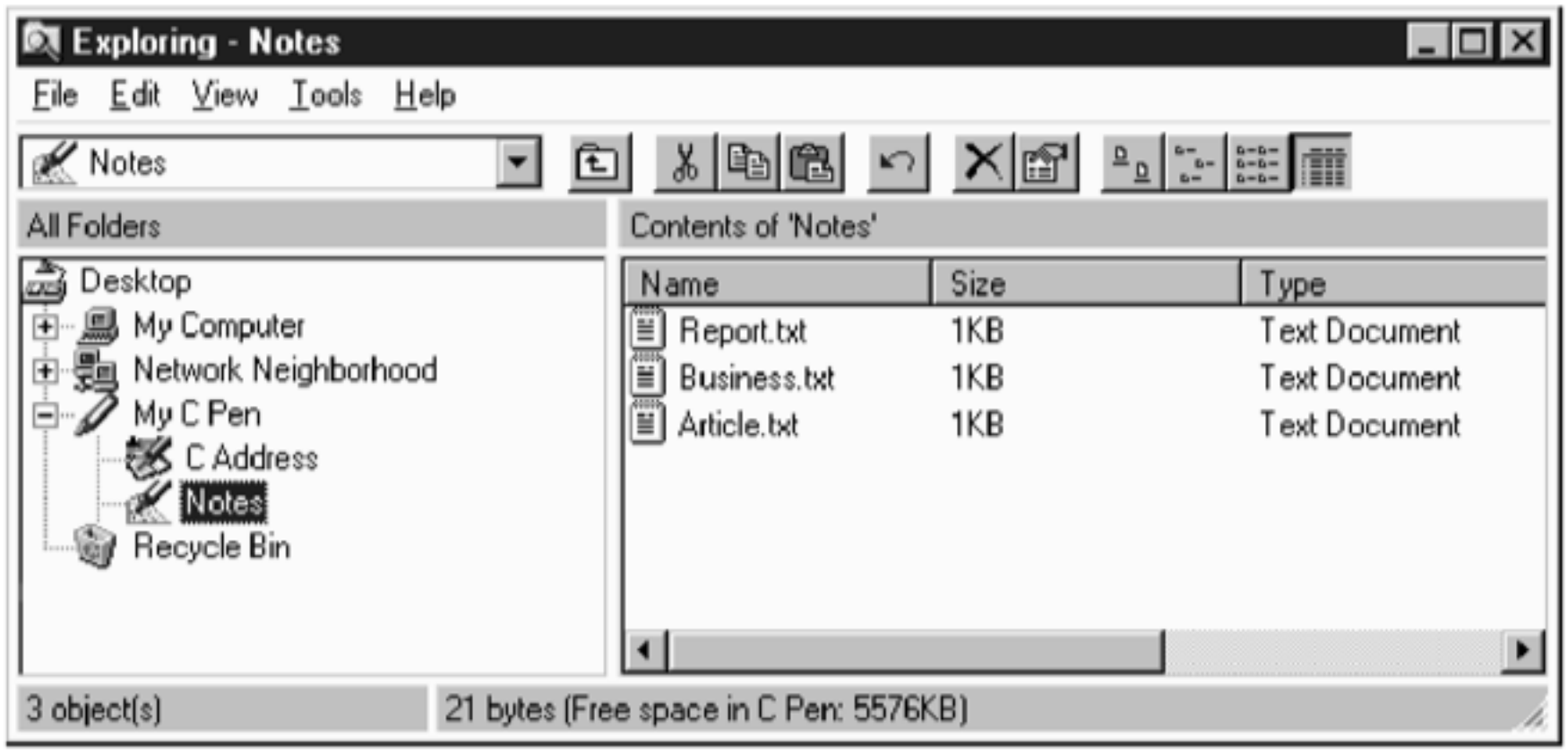
The installation program has placed the C-Pen icon (My C-Pen) on your computer's desktop. Double-click on the icon to connect to C-Pen.

Getting help

To get more detailed help using C-Pen Windows Software, first open C-Pen Viewer (by double-clicking on My C-Pen) and from the *Help* menu select *C-Pen Help Topics*. You can also press F1 on your keyboard to enter C-Pen Windows Software Help.

C-Pen Viewer

Open C-Pen Viewer by double-clicking on My C-Pen. C-Pen Viewer enables you to browse the contents of your



C-Pen Viewer

C-Pen. The user interface looks like Windows Explorer and you will recognize the applications from the **Main screen** in C-Pen. Use C-Pen Viewer to open and browse files in your C-Pen , to create new folders and to remove applications from your C-Pen.

Installing and removing applications

The applications in your C-Pen can be removed and new ones installed. To install a new application in C-Pen simply double-click on the ".car" file (C-Pen Archive) from anywhere on your computer and the installation will begin. You need to turn C-Pen off and on again to complete the process.

To remove an application from C-Pen select the application in C-Pen Viewer and choose **Uninstall C Pen Application** from the **File** menu and follow the instructions on the screen. You need to turn C-Pen off and on again to complete the process.

Transferring files

Transfer files between C-Pen and the PC the same way as when working with a floppy disk or a hard drive. In C-Pen Viewer, find the file you want to transfer (e.g. a text file in **Notes**) and drag the file to a folder on your PC.

When transferring files from the PC to C-Pen, remember that each application accepts only its own kind of files. **Notes**, for example, may only contain text files.

C Address

C Address, the C-Pen address book, is available in C-Pen Viewer on your PC. Double-clicking on **C Address** in C-Pen Viewer presents the address files stored in C-Pen, listed by their contact name.

The address files are stored as vCard files (*filename*.vcf) and can be opened by a vCard viewer such as Netscape Communicator or Microsoft Outlook/Microsoft Outlook Express on your PC by double-clicking on it and then clicking **Yes** in the dialog. Please note that this will open a copy of the file and that your changes will be saved on your hard drive, not in C-Pen.

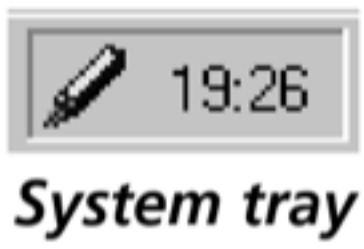
To put an edited address file back into C-Pen, simply drag it from a folder on your PC and drop it into the **C Address** application in C-Pen Viewer. Note that the dropped file cannot have the same name as an existing file in C Address. If it does, you are prompted to change its name or replace the existing file in C-Pen.

It is possible to synchronize your address files in **C Address** with those in Microsoft Outlook (but not Microsoft Outlook Express). Simply click your right mouse button on the **My C-Pen** icon on the PC desktop and the option **C Address Sync** will appear. Selecting it will start an easy-to-use application allowing you to specify the extent of synchronization. Please note that this application only works if you have Microsoft Outlook installed on your computer.

C Direct

C Direct gives you the opportunity to enter text from your C-Pen at the cursor position in Windows programs.

To activate **C Direct** place C-Pen in front of the IR port on your PC, click the right mouse button on the C-Pen icon (My C-Pen) and select **C Direct** from the context menu. The **C Direct** icon will appear in the system tray in the lower right corner of your screen. The system tray holds icons of frequently used functions in Windows e.g. volume control and time.



System tray

The display on your C-Pen will show “C Direct”.

When you read text now with C-Pen, it will appear as usual on the display. To transfer the text to the active application in Windows, direct C-Pen’s IR-eye towards the IR port of the PC. The text will disappear from C-Pen’s display and be transferred to the cursor position in the active Windows application.

The easiest way to control **C Direct** is from the **C Direct** icon in the system tray in Windows. By clicking the icon, you can choose **Connect**, **Disconnect** or **Exit C Direct**. To activate **C Direct** you can simply double-click the icon. For more information on how to use **C Direct**, please refer to the C-Pen Windows Software Help.

C-Pen Edit

C-Pen Edit is a simple text editor that lets you edit files stored in C-Pen directly, without having to first move them to your PC.

C-Pen Edit can communicate directly with your C-Pen to open and save files. If you are using **C-Pen Edit** and open a file from C-Pen, it can be saved either to your hard drive or directly back into C-Pen. The same applies when you open a file from your hard drive.

C-Pen Edit provides basic text editing, such as cut, copy, paste, find and replace. If you double-click on a text file in **Notes** in C-Pen Viewer, it is automatically opened in **C-Pen Edit**.

Closing the connection

Close the connection between your C-Pen and your PC by selecting *Disconnect C-Pen* from the File menu in C-Pen Viewer or simply by closing the C-Pen Viewer window.

TROUBLESHOOTING

Problem: C-Pen will not turn on.

Solution: The batteries might be depleted. Replace the batteries.

You must press the On/Off button for one second.

Problem: The text on the display does not match the text you are reading.

Solutions: Make sure you have chosen the correct **Text Language** in **Settings**. See p. 43.

Make sure that you have chosen inverted text if the text is white on black background, or normal text if you have black text on white background. See **Read mode** in **Settings**, p. 43.

Make sure that you hold C-Pen so that the pen tip is flat against the surface of the text you are reading. If you have an angle between the nose and the surface, C-Pen will take incorrect pictures of the text.

Calibrate your C-pen to the present contrast between the printed text and its background. See **Calibration**, p. 43.

Reset the calibration to the factory setting. See **Calibration**, p. 44.

Problem: A dialog box with the message "Nothing read" appears.

Solution: You must keep **Trigg** pressed as you move C-Pen over the text.

You must hold the pen tip flat against the surface before you press **Trigg**.

Problem: The infrared communication to the PC does not work.

Solutions: Make sure that you have an external IR receiver installed on your stationary PC. If you have a portable PC, it is normally equipped with a built-in IR receiver.

Check Infrared under the Control panel in Windows 95/98.

Problem: C-Pen turns itself off too quickly.

Solution: Enter **System Settings** (p. 45) and increase Power-off time.

Problem: I am left-handed and the text on the display is upside-down.

Solution: See **RIGHT/LEFT-HANDED** in **Settings**, p. 45.

Please refer to the C-Pen Windows Software Help for a more extensive troubleshooting section.

TECHNICAL SPECIFICATIONS

Size:	140x35x24 mm
Weight:	80 g (including batteries)
Display:	2 rows
Processor:	Intel© StrongARM™ 100 MHz
Memory:	512 kB RAM 2 MB flash memory,
Battery lifetime:	3–4 weeks normal use
Reading speed:	15 cm/s
Character sizes:	7–20 points

INDEX

A

Application 32
Application icon 12

B

Battery 14
Battery compartment 10

C

C Address 6, 32, 36, 52
  C Address main screen 36
  Contact edit screen 36
  Contact list 36
  Contact menu 38
  Delete a contact 41
  Edit a contact 39
  Enter a new contact 36
  Find a contact 40
  Find contact screen 40
  Options 37
  Saving a file 38
  Synchronizing address files 52
  vCard files 52
  View a contact 39
C Direct 6, 32, 53
C Write 6, 25
  Basic rules 26
  C Write Feedback 25, 45
  C Write Prototypes 28
  Capital letters 26
  Symbols 27
C-Pen Edit 54
C-Pen Viewer 50
Calibration 43
  Default setting 45
Camera opening 10
Character set 23
Check box 12, 17
Command menu 34
Connecting to a PC 48
Contact list 36
Contact menu 38
Contrast 46
Creating a folder 33
Cursor 17, 21, 35

D

Dialog box 13
Dialog button 13, 16
Display 10
Display object 11

E

Edit field 13, 17
Edit menu 21
  Change 23
  Delete 24
  Insert 23
  Select 24
  Settings 24
Edit mode 21
Edit mode symbol 17, 21

Editing text 21
C Write 25
Edit field 21
Edit menu 21
Edit mode symbol 21
Entering edit mode 21
Text screen 21
Escape button (ESC) 10, 11
Exchange Trigg/ESC 46

F

File
Creating a new file 33
Delete 34
Open 34
Properties 34
Rename 34

I

Info 32, 47
Infrared (IR) communication 48
Infrared driver 48
Installing
Applications 51
Batteries 14
Software 48
Inverted text 43
IR icon 50
IR port 10, 11, 48, 50

L

Language, setting 43
Line break 20, 43

M

Main screen 12, 32
Menu 12, 16
Menu items 12
Menu language 46

N

Navigating 15
Navigation control (Nav) 10, 15
Notes 32, 33
Command menu 34
Creating a new file or folder 33
List of text files 33
Text menu 35

O

OCR 6
On/Off button 10, 15

P

Pin code 45
Power off time 46

R

Read Mode 43
Reading conditions 6
Reading text 18
Deleting a line 20
Line break 20
Text screen 19
Removing applications 51
Right/Left-handed 46

S

Saving text 20
Scroll bar 12
Selecting 15
Settings 32, 42
  C Write Feedback 45
  Calibration 43
  Read Mode 43
  System Settings 45
  Text Language 43
  Text Quality 43
Status field 12
Support 8, 47
Synchronizing address files 52
System Settings 45
  Contrast 46
  Exchange Trigg/ESC 46
  Menu language 46
  Pin code 45
  Power off time 46
  Right/Left-handed 46

T

Technical specifications 57
Text, inverted 43
Text Language 43
Text Language icon 12
Text menu 35
Text Quality 43
Text Quality icon 12, 44
Text screen 19, 21
Text settings 24, 42
Transferring files 51
Trigger button (Trigg) 10, 11
  Exchange Trigg/ESC 46
Troubleshooting 47, 55
Turning on/off 15

W

Warranty 61

WARRANTY

C Technologies AB warrants that this product is free from defects in materials and function at the time of original purchase and for a period of one year from that date. When the name C Technologies is mentioned in the following text, it means, unless otherwise stated, C Technologies AB (reg. number 556532-3929), its subsidiaries and retailers.

If, during the warranty period, any defect in the product arises due to a deficiency in materials or function, C Technologies pledges to, at C Technologies' option, either repair or replace the defective product with the same or an equivalent model.

C Technologies, however, takes no responsibility for:

1. Damage caused during shipping, by accidents, malicious damage, modification, incorrect usage, force majeure or any cause beyond the control of C Technologies, including but not limited to lightning, water, fire, public disturbances, riots, strike, war or other similar conflicts.
2. C Technologies is not responsible for damage (including but not limited to direct or indirect personal injury, lost profits, fall in production, losses of or alterations to processed information or any other incidental or consequential damages) caused by the product or the usage of the product or because the product cannot be used.
3. Deficient maintenance or a repair performed by unauthorized persons.
4. Incompatibility due to technological developments.
5. Defects caused by external equipment or abnormal wear.
6. Defects caused by normal wear and tear.
7. Damage caused by the usage of inappropriate battery.
8. Damage arising in connection with or as a consequence of upgrading with additions to or alterations of the product, using software or hardware not produced by or approved in writing by C Technologies.

If your C-Pen product requires warranty service you should return the product to the dealer/retailer from whom it was purchased. The product must be packed in original packaging or with sufficient care so as to avoid shipping damage. The original purchaser must be able to show proof and date of purchase with receipt/invoice from point of purchase in order for this warranty to be valid.

Repair or exchange does not extend or renew the warranty period. Exchanged defective parts become the property of C Technologies. When the warranty period has expired, the warranty of exchanged/replaced parts also ceases.

This product is not to be regarded as having defects in materials or function if it must be rebuilt in order to be modified in accordance with national or local technical safety regulations in a country other than one that the product was meant to be used in.

C Technologies reserves all rights to the product, its hardware, software and trademark. Whoever buys or uses the product has no right to alter, disassemble, reverse engineer or in any other way use any part of the hardware or software in the product, except in the way and for the purposes permitted by law.

This warranty does not affect the purchaser's rights against the dealer arising from the sales/purchase contract, nor the purchaser's legal rights according to existing, mandatory rules in applicable laws.

If there are no such applicable laws or mandatory rules, the purchaser's rights are limited to those which are stated in this warranty. C Technologies shall not be liable for any incidental or consequential damages for breach of any expressed or implied warranty of this product.

Warranty Information

Serial number:

CT number:

Date:

Customer:

Address:

Dealer:

Address: