

Chapter 9.

Using Barcode Reader

9.1 Setting Barcode Reader

9.2 Scanning and Reading Barcode
labels



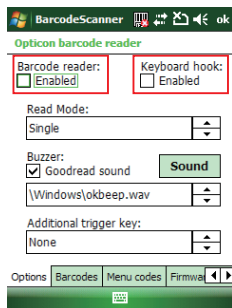
In the top of your device, a barcode reader is built in. Depending on your model this is either a 1D laser scanner or an optical 2D scanner. With this device various types of barcodes are decoded into readable information such as letters and numbers. Settings of this barcode reader can be changed to fit your specific requests.

9.1 Setting Barcode Reader

Changing Options in Barcode Reader

The barcode reader is set to be disabled by default, please remember to activate it before scanning.

1. Tap  > **Settings** > **System** tab > **Barcode settings** > **Options** tab.
2. Check the check box of **Barcode reader** or/and **Keyboard hook**.

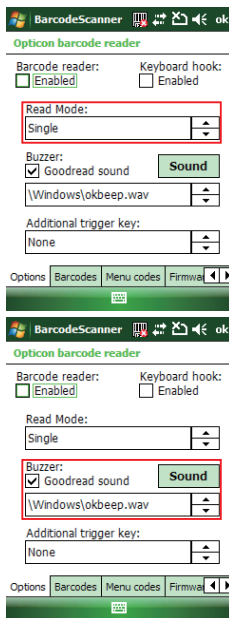


When Keyboard hook is enabled, data is received as key message; when Keyboard hook is disabled, data is stored in the memory buffer temporarily. To retrieve the data, use specific software development kit (SDK) and compatible Windows application program interfaces (APIs). You can download the SDK from <http://www.opticon.com>.



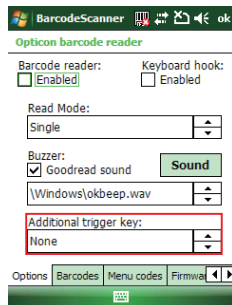
Keyboard hook can convert received characters to keyboard messages; therefore, you can read barcode in applications such as Notes, Tasks, Excel Mobile and Word Mobile as long as you enable the keyboard hook.

3. In **Read Mode**, tap the upward/downward arrow to toggle between **Multiple** and **Single**. Multiple read mode enables reading of multiple barcodes within a specified time after one time triggering, while being in single read mode needs the reader to be triggered again to read another label.



4. In **Buzzer**, check the checkbox of **Goodread sound**. It enables the function of playing a sound effect after a barcode has been decoded successfully. You can change the sound effect by tapping the upward/downward arrow and play the sound effect you choose by tapping the **Sound** button on the screen.

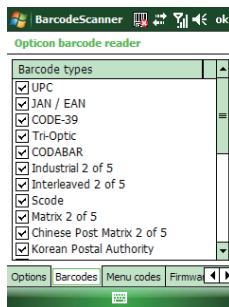
5. In **Additional trigger key**, tap the upward/downward arrow to choose another access key for the reader. Otherwise you can set the additional trigger key to be none.



Choosing Barcode Types

Your device is capable of scanning and decoding various barcode types; to check what kind of barcode is readable and to assign specific barcode types to scan for, do as follows:

1. Tap > **Settings** > **System** tab > **Barcode settings** > **Barcodes** tab.
2. Select specific barcode types or select all of them.
3. Tap .



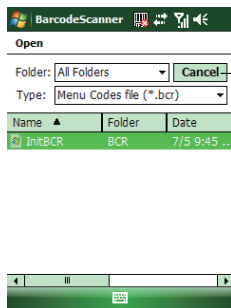
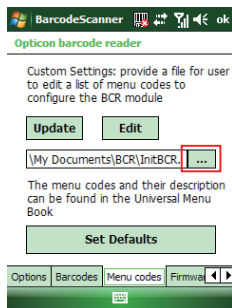
Advanced Setting

You can set specific configuration to your barcode reader by editing a list of codes in the menu codes file. The codes you enter will be stored in the menu code file and replace default settings. For descriptions of menu codes, refer to Universal Menu Book (you can download it from www.opticon.com). Please note that supported menu codes depend on the module type or the firmware version of your device.

Inputting Menu Codes from a File

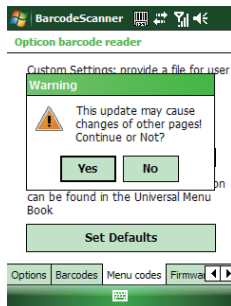
You can input menu codes automatically from a file, please do as follow to access the file and configure the barcode reader.

1. Tap  > **Settings** > **System** tab > **Barcode settings** > **Menu codes** tab.
2. Tap  to view available files in your device.

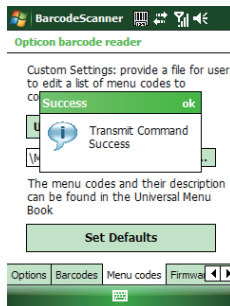


Tap Cancel if you want to stop the procedure.

3. Tap **Update** after you select a file.
4. Tap **Yes** to continue.



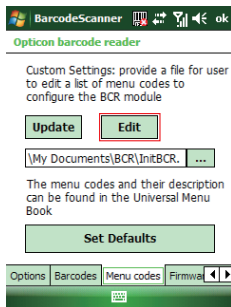
5. Tap **ok**.



Editing Existent Menu Codes

You can input characters directly to edit an existent menu codes file.

1. Tap **Settings** > **System** tab > **Barcode settings** > **Menu codes** tab.
2. Tap **Edit**.



3. Input or delete menu codes.

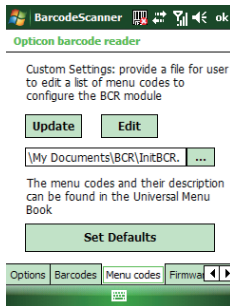


4. Tap **ok** .

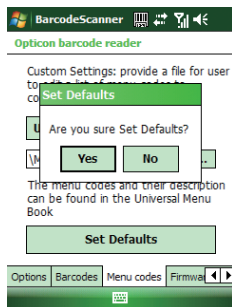
Returning to Defaults

You can cancel all personalized settings in the barcode reader.

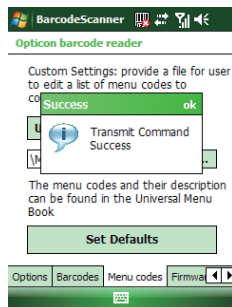
1. Tap  > **Settings** > **System** tab > **Barcode settings** > **Menu codes** tab.
2. Tap  .



3. Tap **Yes** to continue.



4. Tap **ok**.



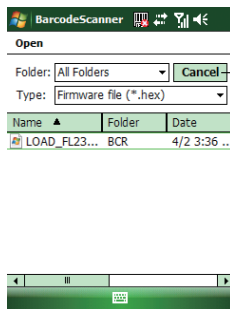
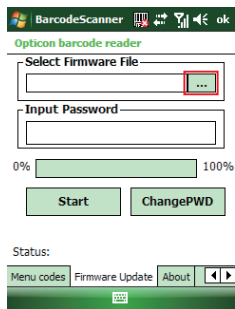
Firmware Update

How to update the firmware of your device

You can update the firmware of the barcode reader from an adapted file on your device or a Mini-SD card inserted to your device. Please connect your device with the AC adapter before updating the firmware.

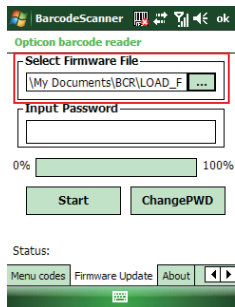
1. Tap  > **Settings** > **System** tab > **Barcode setting** > **Firmware Update** tab.

2. Tap  to view available files and select one of them.



Tap Cancel if you want to stop the procedure.

3. Tap the file you want to update the firmware from. The selected file will be showed on the screen then.

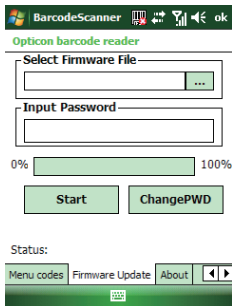


4. Input the default password "1234567890AB" and tap **Start** . You can then see current completed percentage of the update to be displayed on the screen.
5. Tap **ok** to complete the operation.

Change Password

You can change the default password of firmware update to another one.

1. Tap  > **Settings** > **System** tab > **Barcode setting** > **Firmware Update** tab.
2. Tap **ChangePWD** .



3. Input old password first. In **Password Information**, input your new password in both of the boxes in sequence for double confirmation. Then tap **OK**.

The screenshot shows the 'BarcodeScanner' app interface. At the top, there's a status bar with icons for Wi-Fi, signal, and battery. Below it, the app title 'BarcodeScanner' is followed by icons for a barcode scanner, a keyboard, and a speaker. The main screen has a title bar with 'Input Old Password' and a text input field with a masked password '*****'. Below this is a section titled 'Password Information' which contains two text input fields: 'Input New Password' and 'Confirm New Password', both with masked passwords '*****'. A note below the fields states 'Note: Input 6~12 characters, numerics'. At the bottom of the screen are two buttons: 'OK' and 'CANCEL'.

4. Tap **ok** to complete the procedure.

The screenshot shows the 'BarcodeScanner' app interface after a successful password change. The title bar now says 'Success' and has an 'ok' button. The main screen has a title bar with 'Input Old Password' and a text input field with a masked password '*****'. Below this is a section titled 'Success' which contains a blue speech bubble icon with a white 'i' and the text 'Change Password Success'. Below this is a section titled 'Confirm New Password' with a text input field and a masked password '*****'. At the bottom of the screen are two buttons: 'OK' and 'CANCEL'.



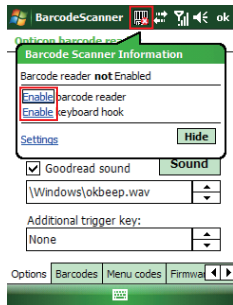
NOTE

You can see more information about the barcode reader such as scanner version, please tap  > **Settings** > **System** tab > **Barcode settings** > **About** tab.

9.2 Scanning and Reading Barcode labels

Your device can scan and decode barcode labels depending on the scanner equipped with your device. If you prefer to read a barcode on your device right after scanning, open an application in which letters and numbers can be displayed before you activate the barcode reader.

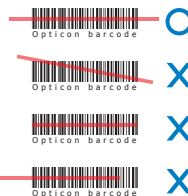
1. Open an application, e.g. Notes, Tasks and Contacts, in which you want to display converted barcode information after scanning.
2. Do one of the following to enable barcode reader and keyboard hook:
 - Tap  > **Settings** > **System** tab > **Barcode settings** > **Options** tab. Then check the checkboxes of Barcode reader and Keyboard hook.
 - Tap  icon on the screen and tap Enable in the dialog box to active barcode reader and keyboard hook directly.



3. Point the barcode reader to a barcode label and press the scan key (left scan key, right scan key or the assigned trigger key).
4. Adjust the distance between your device and the label, and make sure the light emitted from the scanner exceeds the width of the label.



Bar code



2D code



5. A Goodread Sound plays and the content of the barcode shows when the label is decoded successfully.

Chapter 10.

Other Applications

- 10.1 Backing up/Recovering
- 10.2 Managing Memory
- 10.3 Windows Live Messenger
- 10.4 Windows Media
- 10.5 Office Mobile
- 10.6 Phone Profile
- 10.7 Formatting Storage Card and
DiskOnChip
- 10.8 Setting up GPS

10.1 Backing up/Recovering

It is advisable to make backups of your device data regularly in case important data is accidentally lost or damaged. You can restore your data from those backup copies as needed. Device data can be backed up to or be restored from DiskOnChip of your device or a compatible memory card.



DiskOnChip is flash memory device which locates in an independent area of OS. DiskOnChip keeps the data even after a factory reset.

Backing up Data

1. Tap  > **Programs** > **Backup Manager**.
2. Tap the **Backup** button.



OPTICON

Tap the "Backup" button to backup selected data to a storage card or DiskOnChip of your device. Tap the "Restore" button to restore selected data on your device.

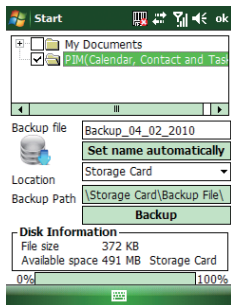
Backup

Restore

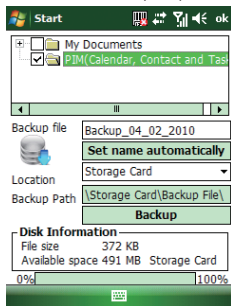
V1.8



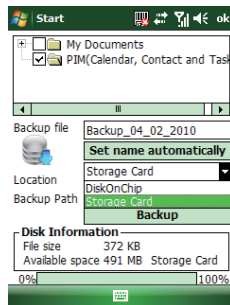
3. Select the check box(es) of the item(s) that you want to backup.



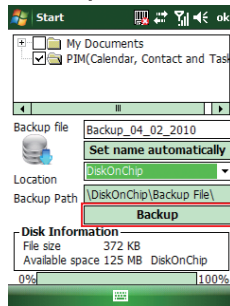
4. Input a file name for the backup copy. To name it automatically, tap **Set name automatically**.



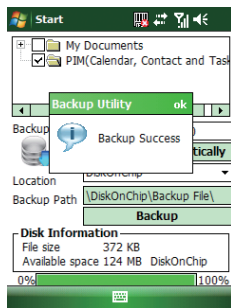
5. Select a location for storing the backup copy: Storage Card or DiskOnChip.



6. Tap the **Backup** Button.



7. Tap **ok**.



Recovering Data

1. Tap  > **Programs** > **Backup Manager**.
2. Tap the **Restore** button.



OPTICON

Tap the "Backup" button to backup selected data to a storage card or DiskOnChip of your device. Tap the "Restore" button to restore selected data on your device.

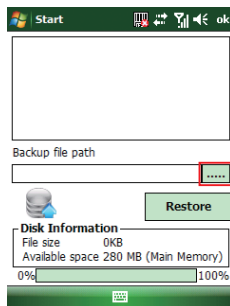
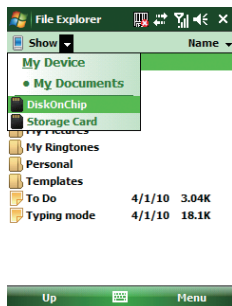


V1.8



3. Do one of the following to select a file:

- Tap  > **Program** > **File Explorer** > **DiskOnChip/Storage Card** > **Backup File** folder and select a file. Please note the Backup File may be located under DiskOnChip or Storage card. It depends on the backup path you had chosen.
- Tap  on the screen to view available files. You can then select one of them. Please note that the selected backup file will be deleted once it has been restored to your device successfully.



4. Tap the **Restore** Button.

5. Tap  .



Only items that have already been backed up can be restored on your device.

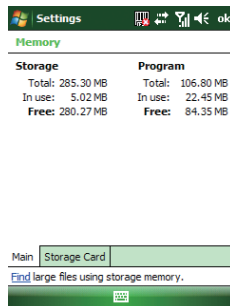
Your device will be rebooted automatically after you restore Personal Information (Calendar, Contact and Task) on the device.

Installed applications will not be backed up.

10.2 Managing Memory

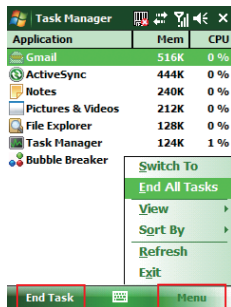
Checking Available Storage

1. Tap  > **Settings** > **System** tab > **Memory**.
2. In **Main** tab, you can see how much storage is available on the main memory of your device.
3. To see how much storage is available on your storage cards, tap **Storage Card** tab.
4. Use the drop-down menu to select your available storage cards and view their available memory.



Closing a Running Program

1. Tap  > **Programs** > **Task Manager**.
2. Select a program and tap **End Task**. Alternatively, tap **Menu** > **End All Tasks** to close all running programs.



10.3 Windows Live Messenger

You can send instant messages with Windows Live Messenger.



NOTE

Your device must be connected to the Internet before you can start using Windows Live Messenger. To connect to the Internet, refer to “Chapter 7. Connecting to the Internet” for details.

Signing In/Out Windows Live Messenger

With Windows Live Messenger, you can send and receive instant messages from other Windows Live Messenger users.

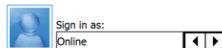
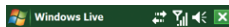


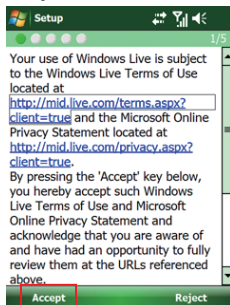
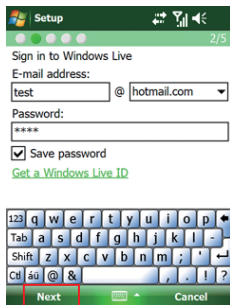
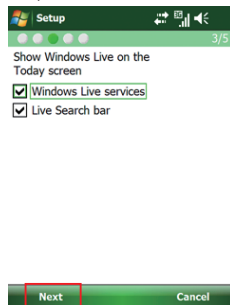
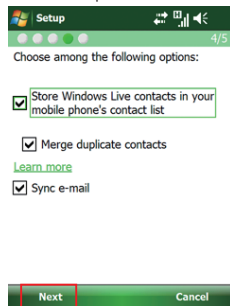
NOTE

You must have a valid Microsoft .NET Passport or Hotmail account before you can sign in to Windows Live Messenger.

To sign in Windows Live Messenger

1. Tap  > **Programs** > **Messenger**.
2. In **Sign in as**, select a condition which you want to show on your Windows Live Messenger. Then tap **Sign in**.



3. Tap **Accept**4. Enter your e-mail and password and tap **Next**.5. Select whether to show Windows Live on the Today screen or not. Then tap **Next**.6. Select what you want to sync on your device. Then tap **Next**.

7. System will sign in to Windows Live automatically while all procedures are done.

To sign out Windows Live Messenger

- Tap **Menu** > **Sign out**.

Adding/Deleting a Windows Live Messenger Contact

1. Sign in Windows Live Messenger.
2. Do any of the following:
 - To add a contact, tap **Menu** > **Add New Contact**, and follow the on-screen instructions.
 - To delete a contact, tap and hold the contact name in the Windows Live contact list, then tap **View contacts' info**. Next, Tap **Menu** > **Delete Contact**.

Sending an Instant Message

1. Sign into Windows Live Messenger.
2. Select the contact's name to whom you want to send a message to. Then tap **Send IM**.
3. Enter a message and tap Send.
4. To close the dialog box of instant messages, tap **Menu** > **End conversation**.

Changing Windows Live Messenger Display Name

1. Sign in Windows Live Messenger.
2. Tap **Menu** > **Change appearance**.
3. Enter a new display name and tap **Done**.

Blocking/Unblocking a Contact

- To block a contact from seeing you online, select the contact and tap **Menu** > **Contact options** > **Block contact**.
- To unblock a contact, select the contact and tap **Menu** > **Contact options** > **Unblock contact**.

Changing Windows Live Messenger Settings

1. Sign in Windows Live Messenger.
2. Tap **Menu** > **Options**.
3. Select the type of options to change.



4. Tap **Done**.



If you connect to Window Live Messenger through a Wi-Fi network, please don't disconnect the Wi-Fi network before you sign out Windows Live Messenger. Otherwise, your Windows Live contacts stored in your device may be lost.

10.4 Windows Media

You can play digital audio and video files that are stored on your device or on a network.

Transferring Your Music and Videos to Your Device

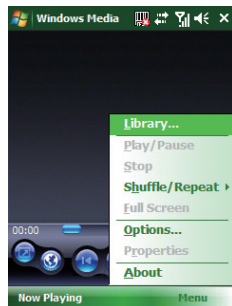


NOTE

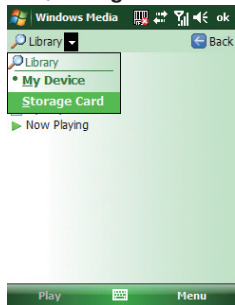
When synchronizing media files via a storage card, you will need a 32 MB or larger storage card in your device.

If you want to store the media files to a storage card, insert a MicroSD card on the device before connecting the device to a PC.

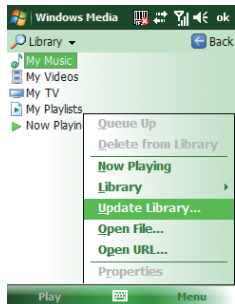
1. On your computer, open **Windows Media Player**.
2. Connect your device to your computer using a USB cable.
3. In Windows Media Player on your computer, click **Sync**.
4. Drag each item you want to synchronize to the Sync List on the right side of the computer screen.
5. Insert a mini-SD card to your device now if you want to synchronize media files to your device via a storage card.
6. At the bottom of the Sync List, click **Start Sync**. The file will be synchronized to your device or the storage card.
7. After transferring your media files, update your mobile device Media Library:
 - I. Tap  > **Programs** > **Windows Media**.
 - II. Tap **Menu** > **Library**.



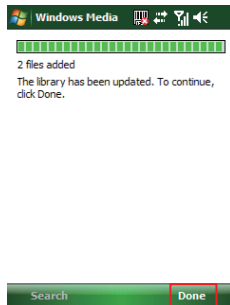
- III. Tap **Library** ▼ , then select **My Device/Storage Card**.



- IV. Tap **Menu** > **Update Library**.

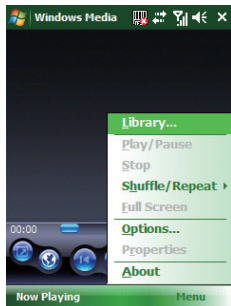


- V. Tap **Done** when update is completed.

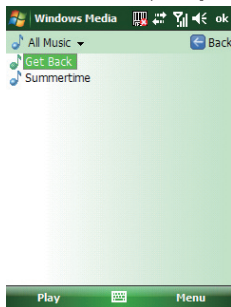


Playing Media File on Your Device

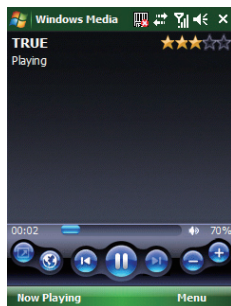
1. Tap Menu  > **Library** to open the Library screen.



2. Select a category (e.g. My Music > All Music).
3. Select an item, and tap **Play**.



4. You can then use the following functions when playing audio or video files:



- : Display the video in full screen
- : Displays a Web site where you can find music and videos to play.
- : Skip to the beginning of the current file or to the previous file.
- : Pause/Play
- : Skip to the next file.
- : Decrease the volume level.
- : Increase the volume level.
- : Adjust the playback progress of a selected file.

Saving a New Playlist

1. Tap  > **Programs** > **Windows Media**.
2. Tap **Menu** > **Library**.
3. Select a category (e.g. My Music > All Music).
4. Select an item, then tap **Menu** > **Queue Up**. Selected item will be added to the Now Playing list immediately.
5. Tap **Menu** > **Now Playing**.
6. Tap **Menu** > **Save Playlist**.
7. Enter a name for the playlist and tap **Done**.

10.5 Office Mobile

Excel Mobile

With Excel Mobile, you can create, view and edit spreadsheet on your device. Moreover, you can edit documents created on your desktop computer.

**NOTE**

Unlike Microsoft Excel, you can only have one document open at a time in Excel Mobile.

Creating a New Spreadsheet

1. Tap  > **Office Mobile** > **Excel Mobile**.
2. Enter text, numbers, and formulas as desired.
3. Tap **Menu** > **File** > **Save As**.
4. Enter a name for the document and tap the **Save** button.

**NOTE**

You can also tap **Ok** to save a spreadsheet and Excel Mobile gives it a name automatically.

Excel Mobile Formatting Toolbar

The formatting toolbar in Excel Mobile provides a quick way to apply common functions such as create a chart or align text to the left.

- In an Excel Mobile workbook, tap **View > Toolbar**.

A check mark appears next to Toolbar when the toolbar is visible.

Tap	To
	Create a chart from the selected cells
	Align text to the left
	Center the selected text
	Align text to the right
	Add all contiguous numbers in a column or row
	Add a currency symbol
	Add the default thousands separator
	Add a decimal point
	Increase and decrease the magnification

PowerPoint Mobile

With PowerPoint Mobile, you can view PowerPoint slides on you device.



PowerPoint Mobile only supports slides in .ppt and .pps formats.

Starting a PowerPoint Presentation

1. Tap  > **Office Mobile** > **PowerPoint Mobile**.
2. Tap the slide show you want to view in the presentation list.
3. Tap the current slide to advance to the next slide if slides don't advance automatically.
4. Tap **Menu** > **Rename/Move**.
5. Enter a name for the document and tap **ok**.

Stopping a PowerPoint Presentation

- In a slide show, tap  > End Show.

Navigating Between Slides

- Tap  > **Next** to go to the next slide.
- Tap  > **Previous** to go back to the previous slide.
- To jump to any slide in the slide show, tap  > **Go to Slide** and tap on the slide you want to view.

Word Mobile

With Word Mobile, you can create and edit Microsoft Word documents and templates, plain text files, and/or rich text format files.



Unlike Microsoft Word, you can only have one document open at a time in Word Mobile.

Creating a Document

1. Tap  > **Office Mobile** > **Word Mobile**.
2. Tap **New**, if a new document is not opened by itself.
3. Enter text as desired.
4. Tap **Menu** > **File** > **Save As**.
5. Enter a name for the document and tap the Save button.



You can also tap **Ok** to save a document after you finish editing text. This way, the first few words of the document are used as the filename.

Word Mobile Formatting Toolbar

The Formatting toolbar in Word Mobile provides a quick way to apply common formatting such as bold type, bulleted or numbered lists, and paragraph indentation to your text.

- In a Word Mobile document, tap **View** > **Toolbar**.

A check mark appears next to **Toolbar** when the toolbar is visible.

Tap	To
B	Make the selected text bold
<i>I</i>	Make the selected text italic
<u>U</u>	Underline the selected text

Tap	To
	Align text to the left
	Center the text
	Align text to the right
	Add or remove a numbered list in the selected text
	Add or remove bullets in the selected text
	Increase the indent of numbered or bulleted list text one tab stop to the right
	Decrease the indent of numbered or bulleted list text one tab stop to the left

10.6 Phone Profile

Phone Profile defines how your device reacts when you receive a call or a message, how your keypad sounds when you press a key, and more. Select or customize the most suitable profile for your situation, such as when you are in a meeting or outdoors. The phone profiles available are Normal, Silent, Vibrate, Outdoor, Headset, and User define.

**NOTE**

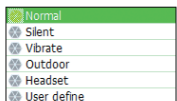
Only User defined profile can be customized.

Selecting a Profile

1. Tap  > **Programs** > **Phone Profile**.
2. Select the most suitable profile for your situation from the list.



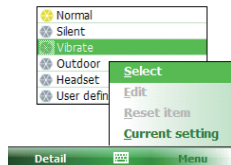
6 profiles,[User define]The user can customize his or her own profile and rename the profile



3. Tap **Menu** > **Select**. Then Tap **ok**.



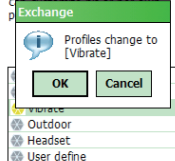
6 profiles,[User define]The user can customize his or her own profile and rename the profile



4. Tap **OK** to confirm the selection.

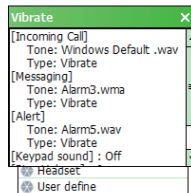


6 profiles,[User define]The user can customize his or her own profile and rename the profile



Viewing Profile Details

1. Tap  > **Programs** > **Phone Profile**.
2. Select the profile you want to view its details.
3. Tap **Detail**.

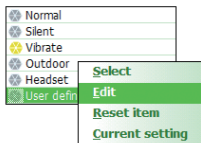


Defining Your Own Profile

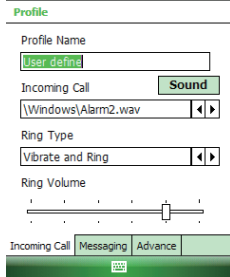
1. Tap  > **Programs** > **Phone Profile**.
2. Select **User Defined**, and tap **Menu** > **Edit**.



6 profiles,[User define]The user can customize his or her own profile and rename the profile



3. Select the type of options to change.

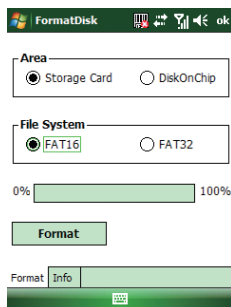


4. Tap **ok**.

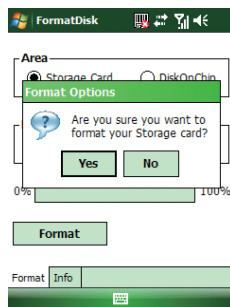
10.7 Formatting Storage Card and DiskOnChip

With Format Disk, you can format and check the capacity of an inserted storage card and DiskOnChip in your device.

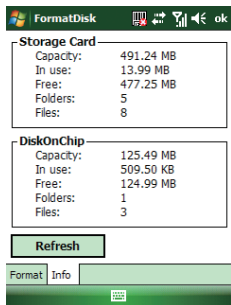
1. Tap  > **Programs** > **Format Disk**.
2. Select the area and file system.
3. Tap .



4. Tap **Yes** to continue.



5. Tap the **Info** tab.



6. Tap **Refresh** and check the capacity of an inserted storage card and/or DiskOnChip.



Only a valid storage card can be formatted with Format Disk.

NOTE

10.8 Setting up GPS

A GPS (Global Positioning System) signal receiver is built in your device. You have to install a mapping software on your device to start navigating. Please follow the instruction of your mapping software to install it and use the navigation functions. You may need to specify the GPS hardware port when installing the mapping software. Select the following value if requested.

- GPS hardware port: COM4.
- Baud rate: 57600.



Some mapping software or GPS navigation software may not be compatible with your device, please consult with the software provider/retailer before installing the software.

Receiving Better Satellite Signals

GPS positioning is limited by bad weather (e.g. rainy or cloudy days) and usage location (e.g. tall buildings, tunnels, underpasses, trees, bridges...etc). Most GPS do not work indoors, nor can GPS signals penetrate buildings, car sun shades and heat reflective film with metallic content.

It can take several minutes the first time you establish a GPS connection. If you find the device can not detect the satellite signal, try the following:

- Move the device to an open space without tall buildings or trees around it.
- Make sure there are no wireless communication products (e.g. radar-detecting devices and mobile phones) nearby since these products may cause unstable signal reception.
- Connect an external Bluetooth GPS receiver (not included in the package) to your device in order to enhance the reception.

Important Notice about Using GPS

- It is forbidden in most counties to use the GPS system when driving.
- The GPS is built and operated by the US Defense Department. The accuracy of location data may be affected by changes made by the Department.
- GPS should not be used for precise location measurement. It can only be used as a navigation aid.
- Do not turn on the car engine when your device is connected to the car charger (not included in the package) as this may damage your device.

- Make sure the DC voltage provided by your car and the electric current supplied from your car charger are compatible with your device before using them.
- Using the GPS may drain the battery faster than usual.

Appendix

A.1 Regulatory Notices

A.2 PC Requirement to Run ActiveSync 4.5

A.3 Specifications

A.1 Regulatory Notices

European Union Notice

Products with CE marking comply with the R&TTE Directive (99/5/EC), the EMC Directive (89/336/EEC), and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms (in parentheses are the equivalent international standards).

- ETSI EN 301 489-1
Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements.
- ETSI EN 300 328
Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques.
- EN 50360 / EN62209-1
Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300MHz – 3GHz)
- ETSI EN 301 489-7
Electromagnetic compatibility and Radio spectrum matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS).
- ETSI EN 301 489-17



Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2.4 GHz wideband transmission systems and 5 GHz high performance WLAN equipment.

- EN60950-1+A11 (IEC 60950-1)
Safety of information Technology Equipment.
- ETSI EN 301 511
Global system for mobile communications (GSM); Harmonized EN for mobile stations in the GSM 900 and GSM 1800 bands, covering essential requirements of article 3.2 of the R&TT directive (1995/5/EC).
- 301489-3
- EN300440-1
- EN300440-2
- EN55022
- EN55024



List of National Codes

Country	ISO 3166 2 letter code	Country	ISO 3166 2 letter code
Austria	AT	Malta	MT
Belgium	BE	Netherlands	NT
Cyprus	CY	Poland	PL
Czech Republic	CZ	Portugal	PT
Denmark	DK	Slovakia	SK
Estonia	EE	Slovenia	SI
Finland	FI	Spain	ES
France	FR	Sweden	SE
Germany	DE	United Kingdom	GB
Greece	GR	Iceland	IS
Hungary	HU	Liechtenstein	LI
Ireland	IE	Norway	NO
Italy	IT	Switzerland	CH
Latvia	LV	Bulgaria	BG
Lithuania	LT	Romania	RO
Luxembourg	LU	Turkey	TR

Products with 2.4-GHz Wireless LAN Devices France

L'utilisation de cet équipement (2.4GHz wireless LAN) est soumise à certaines restrictions: cet équipement peut être utilisé à l'intérieur d'un bâtiment en utilisant toutes les fréquences de 2400 à 2483.5MHz (Chaîne 1-13). Pour une utilisation en environnement extérieur, les fréquences comprises entre 2400-2454 MHz (Chaîne 1-9) peuvent être utilisés. Pour les dernières restrictions, voir <http://www.art-telecom.fr>.

For 2.4-GHz wireless LAN operation of this product, certain restrictions apply. This equipment may use the entire 2400-MHz to 2483.5-MHz frequency band (channels 1 through 13) for indoor applications. For outdoor use, only 2400-2454 MHz frequency band (channels 1-9) may be used. For the latest requirements, see <http://www.art-telecom.fr>.

Wireless LAN Module's Maximum EIRP

Frequency Ranges (MHz)	Indoors	Outdoors
2400 MHz ~ 2446.5 MHz	10mW	Not Permitted
2446.5 MHz ~ 2483.5 MHz	100mW	100mW on private property with Ministry of Defense approval.

Federal Communications Commission Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee does cause harmful interference to radio or TV reception, which can be determined by turning the equipment on and off, the user is encourage to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



RF Exposure Information (SAR)

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. *Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

While there may be differences between the SAR levels of various devices and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/ea> after searching on FCC ID: DGIORCHID1

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines for use with an accessory that contains no metal and the positions the handset a minimum of 1.5 cm from the body. Use of other enhancements may not ensure compliance with FCC RF exposure guidelines. If you do not use a body-worn accessory and are not holding the device at the ear,

position the handset a minimum of 1.5 cm from your body when the device is switched on.

SAR Information

Band	Position	SAR 10g (W/kg)
GSM900	Head	0.438
GSM1800	Head	0.184

Exposure to Radio Frequency (RF) Signals

Your wireless device is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on the safety standards previously set by both U.S. and international standards bodies:

- American National Standards Institute (ANSI) IEEE. C95.1-1992
- National Council on Radiation Protection and Measurement (NCRP). Report 86. 1986
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1996
- Ministry of Health (Canada), Safety Code 6. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

In the U.S. and Canada, the SAR limit for mobile phones used by the public is 1.6 Watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in usage. Normal

conditions only ensure the radiative performance and safety of the interference. As with other mobile radio transmitting equipment, users are advised that for satisfactory operation of the equipment and for the safety of personnel, it is recommended that no part of the human body be allowed to come too close antenna during operation of the equipment.

Warning!

DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. TO REDUCE RISK OF FIRE OR BURNS, DO NOT DISASSEMBLE, CRUSH, PUNCTURE, SHORT EXTERNAL CONTACTS, EXPOSE TO TEMPERATURE ABOVE 60.C (140.F), OR DISPOSE OF IN FIRE OR WATER. REPLACE ONLY WITH SPECIFIED BATTERIES. RECYCLE OR DISPOSE OF USED BATTERIES ACCORDING TO THE LOCAL REGULATIONS OR REFERENCE GUIDE SUPPLIED WITH YOUR PRODUCT.



A.2 PC Requirement to Run ActiveSync 4.5

To connect your device to the PC, you must have Microsoft ActiveSync program installed on your PC. ActiveSync 4.5 is included in the Installation CD, which is compatible with the following operating systems and applications:

- Microsoft Windows 2000 Service Pack 4
- Microsoft Windows Server 2003 Service Pack 1

- Microsoft Windows Server 2003 IA64 Edition Service Pack 1
- Microsoft Windows Server 2003 x64 Edition Service Pack 1
- Microsoft Windows XP Professional Service Packs 1 and 2
- Microsoft Windows XP Home Service Packs 1 and 2
- Microsoft Windows XP Tablet PC Edition 2005
- Microsoft Windows XP Media Center Edition 2005
- Microsoft Windows XP Professional x64 Edition
- Microsoft Outlook XP and Microsoft Outlook 2003 messaging and collaboration clients
- Microsoft Office XP
- Microsoft Office 2003
- Microsoft Internet Explorer 6.0 or later (required)
- Microsoft Systems Management Server 2.0

A.3 Specifications

System Information

CPU	Samsung S3C2440A, 400MHz
Operating System	Windows Mobile 6.1 Professional
Memory	128 MB RAM 512 MB ROM

Dimensions and Weight

Dimension	140.8 x 62.3 x 24.5 (25.5) mm	
Weight	<H-19A>	193±5g with battery 153±5g without battery
	<H-19B>	199±5g with battery 159±5g without battery

Key and Indication

Key	• 5-way navigation with action input • 2 Scan key • Volume up and down • Power button • Talk key and End key • Reset button • Voice Record • 2 Soft key • Fn key and Backspace key • 12 key numeric dial pad
Indication	• Vibrate • Audible • Visual message • LED 1: Wi-Fi (Green)/Bluetooth(Blue) • LED 2: Low Power/Missed Call(Red)/Charging(Orange)/GSM on(Green)

Display

Type	Transflective TFT LCD with touch panel and backlight
Mode	Portrait/Landscape
Size/Resolution/Color	2.8", 240x320, 65K colors

Scanner/Barcode Reader

<H-19A> 1D Model	Red laser diode
	Supported Symbologies 1D : EAN, JAN, UPC-A, UPC-E, Industrial 2 of 5, IATA, Interleaved 2 of 5, NW-7 (CODABAR), CODE-39, CODE-93, CODE-128, and so on
<H-19B> 1D/2D Model	CMOS Area Sensor
	Supported Symbologies 1D : EAN, JAN, UPC-A, UPC-E, Industrial 2 of 5, IATA, Interleaved 2 of 5, NW-7 (CODABAR), CODE-39, CODE-93, CODE-128, and so on 2D : PDF417, Micro PDF417, QR Code, Data Matrix, Maxi Code, and so on

Connectivity

Bluetooth	Bluetooth 1.2 compliant
Wi-Fi	IEEE 802.11 b/g compliant
Telecom	GSM 850/EGSM 900/DCS 1800/PCS 1900, GPRS class 12, EDGE class 10
USB	mini USB (Revision 1.1 client)

GPS

Built-in GPS module	SiRF Star III
Cold Start Time	45s (maximum in open space)
Warm Start Time	45s (maximum in open space)
Hot Start Time	10s (maximum in open space)
Reacquisition Time	< 1s
Accuracy	Static: 3m Dynamic:30m

External Memory Card

Card Slot	Mini-SD card slot (maximum current: 200 mA)
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Battery and Power

Main Battery	Li-Ion Polymer 4.2V 1580mAh
Talk Time	4 hours
Standby Time	150 hours
Battery Charging Time	4 hours (AC charger via mini USB) 6 hours (USB cable connected to PC)
Backup Battery	5 minutes RTC after main battery removal 168 hours RTC in main battery low power

WEEE Notice

The Waste Electrical and Electronic Equipment (WEEE) Directive is designed to encourage and regulate the collection, reuse, recycling and recovery of waste electrical and electronic equipment, which entered into force as European law on 13th February 2003. The Directive aims to improve the level of recycling of electrical and electronic equipment (EEE) and encourages designers to develop products with recycling efficiency in mind; it also aims to improve our environment, reduce risks to human health through the proper treatment of discarded goods.



The WEEE logo () on the product and its accessories or on its box indicates that this product must not be disposed of or dumped with your other household wastes. You are liable to dispose of all your electronic or electrical waste equipment by relocating over to the specified collection point for recycling of such hazardous waste. Isolated collection and proper recovery of your electronic and electrical waste equipment at the time of disposal will allow us to help conserving natural resources. Moreover, proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment.

For more information about electronic and electrical waste equipment disposal, recovery and collection point, please contact your local city center, household waste disposal service, shop from where you purchased the equipment, or manufacturer of the equipment.

RoHS Compliance

This product is in compliance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) and its amen.