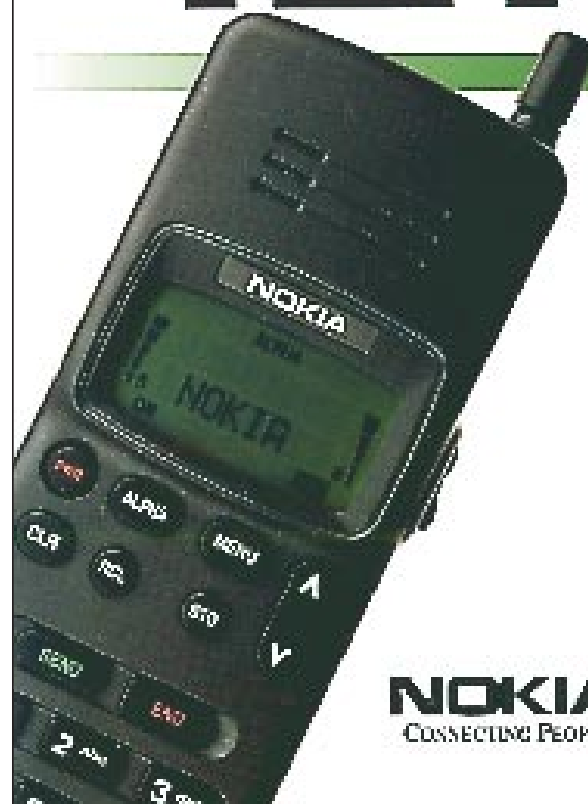


OWNER'S MANUAL

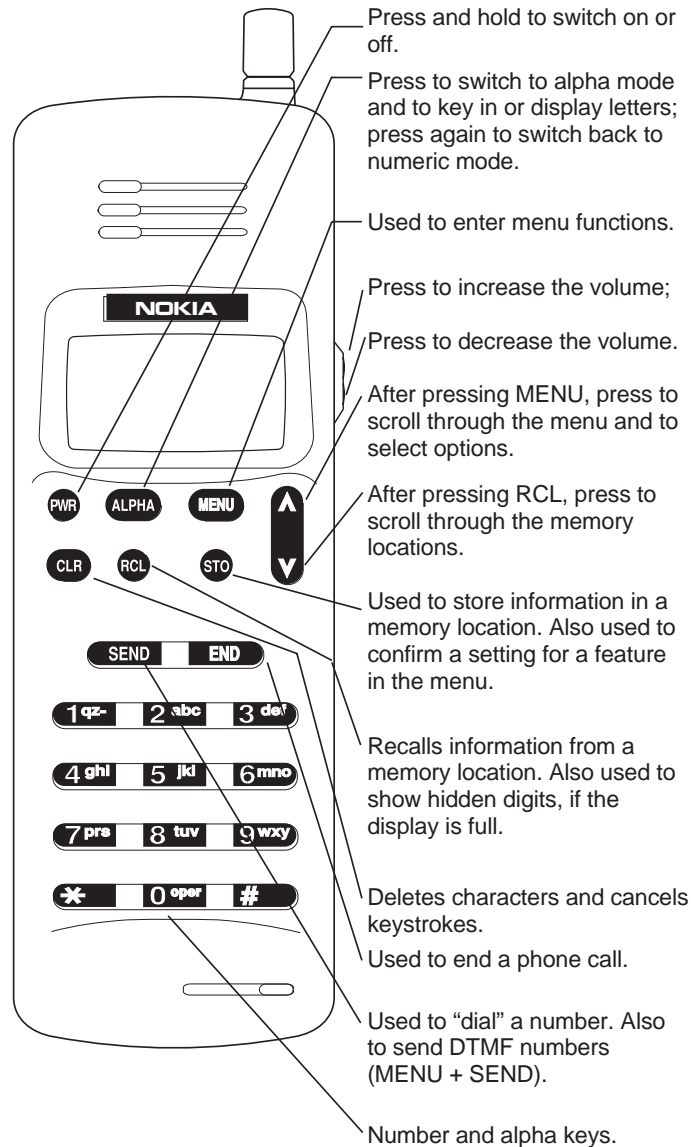
NOKIA® 121



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CONNECTING PEOPLE

DESCRIPTION OF KEYS

More detailed information on each key is given throughout the manual.



IMPORTANT SAFETY INFORMATION

Traffic Safety

Do not use a hand-held telephone while driving a vehicle. If using a hand-held phone park the vehicle before conversing.

Always secure the phone in its holder; do not place the phone on the passenger seat or where it can break loose in a collision or sudden stop.

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

Remember, road safety always comes first!

Operating Environment

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

Operation of any radio transmitting equipment, including cellular phones, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device if you have any questions. Other electronic equipment may also be subject to interference.

As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position.

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

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

Only authorised personnel should install or service the phone in a vehicle. Faulty installation or service may be dangerous and may invalidate the warranty.

Electronic fuel injection systems, electronic anti-skid braking systems, electronic cruise control systems and other electronic systems can malfunction due to the lack of protection from radio signals. Check regularly that all cellular phone equipment in your vehicle is mounted and operating properly.

Switch off your cellular phone when in an aircraft. The use of cellular telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the cellular network and is illegal.

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

Emergency Calls

IMPORTANT!

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

Locking the phone or restricting calls do not prevent making emergency calls with the phone. If the ALPHA indicator is shown on the display, you must clear it by pressing the **ALPHA** key. If there are any characters on the display, clear them with the **CLR** key. Otherwise simply key in 911 (or other official, programmed emergency number) and press the **SEND** key.

Emergency calls may not be possible on all cellular phone networks or when certain network services are in use. Check with local cellular service providers.

Note that in uneven terrain or close to large buildings the operating range of the base stations can be limited affecting the connection. When making an emergency call, remember to give the location of the emergency, as accurately as possible. Remember that your cellular phone may be the only means of communication at the scene of an accident – do not cut off the call until given permission to do so.

FUSE REPLACEMENT

The cigarette lighter charger (LCH-2) contains a protective fuse. The fuse is located in the charger tip. If the charger does not work, the fuse may be blown. If blown, replace it with a 3.0 amp. 125 volt fuse. Never use a fuse with a higher current rating.

Regulations

FCC/INDUSTRY CANADA NOTICE

Your phone may cause TV or radio interference (e.g. when using telephone in close proximity of receiving equipment). The FCC/Industry Canada can require you to stop using your telephone if such interference cannot be eliminated. If you require assistance, contact your local dealer.

This device complies with part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference.

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GETTING STARTED

Your phone is powered by a rechargeable battery.



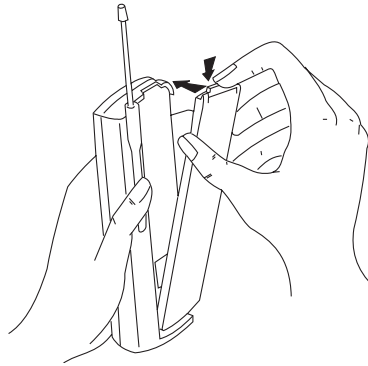
TO ACHIEVE FULL BATTERY CAPACITY, NEW BATTERIES MUST BE CHARGED WITH THE PHONE OFF FOR AT LEAST 24 HOURS BEFORE INITIAL USE.

If left unused, a fully charged battery will discharge itself in a few weeks. Store batteries uncharged in a cool, dark and a dry place.

The battery pack is a sealed unit with no serviceable parts inside. Do not attempt to open the case.

WARNING: Use only Nokia-approved batteries, antennae and chargers. The use of any other types will invalidate any approval or warranty applying to the telephone, and may be dangerous.

INSTALLING AND REMOVING THE BATTERY



To Install the Battery:

- ① Insert the bottom of the battery into the base of the phone.
- ② Fasten it to the phone by pressing slightly downwards on the battery and in at the top, until the locking catch snaps into place.
- ③ Make sure the battery is properly installed.

To Remove the Battery:

- 1 Switch the power off before removing the battery.
- 2 Depress the locking catch at the top of the battery and gently pull it away from the phone.

BATTERY CHARGE INDICATOR

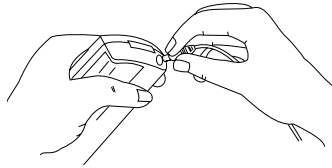


The bars on the right side of the display screen indicate the battery charge level. The more bars, the higher the battery charge. When the charge falls to less than 10%, the phone displays a warning message BATTERY LOW and an audible "beep" will be heard.

It will be repeated every 5 minutes if the phone is in standby mode and every minute if the phone is in use.

When the battery is fully discharged, the message RECHARGE BATTERY is displayed and you will hear three short "beeps". The message will remain on the display for 10 seconds before the phone switches itself off.

CHARGING AND RECHAGING THE BATTERY



- 1 Plug the AC charger into a standard 120V AC outlet.
- 2 Connect the lead from the charger to the bottom of the phone. (A short "beep" will sound to indicate charging is in progress.)
- 3 When the phone is switched on, the battery charge indicator will scroll the bars on the right side of the display screen. When the battery is fully charged, the scrolling will stop and all bars will be displayed.

Detailed information on a variety of available battery chargers is included in the “Accessories” section, starting with page 26.

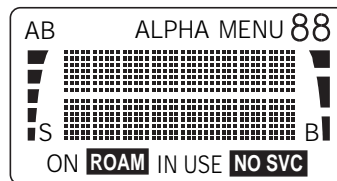
A new battery must be fully charged before being used for the first time.

You can use the phone during recharging, but the charging process will be interrupted for the duration of the call.

Batteries last longer and perform better if allowed to discharge fully at least once a week. You can do this by leaving the phone switched on overnight, or until the message RECHARGE BATTERY is displayed and the phone shuts itself off.

NOTE: If the battery is too hot or cold, charging will be interrupted until the battery reaches a normal temperature.

DISPLAY INDICATORS



AB – Shows which network is in use

A – A system only AB – both systems

B – B system only blank – home area only

ALPHA – Shows that the phone is in ALPHA mode and letters can be keyed in or displayed.

MENU – Shows that the MENU key has been pressed.

88 – Indicates which menu function is on display; or which memory location is currently being used.

ON – Shows that the phone is switched on.

ROAM – Appears when the phone is outside its home service area.

IN USE – Shows that a call is in progress.

NO SVC – Shows that the phone is outside cellular service area.



S – Shows the cellular signal strength.



B – Shows the battery charge.

BASIC FUNCTIONS

SWITCHING ON AND OFF

Extend the antenna fully.

As with any other radio transmitting device, avoid prolonged contact with the antenna when the phone is switched on.

❶ Press the **PWR** key and hold it for at least 2 seconds.

The phone will carry out a short self-test sequence, then briefly display its programmed name or number.

❷ When the ON indicator appears on the display, the phone is ready for use.

If NO SVC appears it likely means that you are outside the cellular service area and the network cannot serve you.

A cellular phone can only send and receive calls when it is switched on.

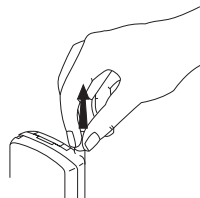
❸ Press the **PWR** key and hold it for at least two seconds to switch the phone off.

PLACING A CALL

Fully extend the antenna before sending or receiving a call.

NOTE: Push in the antenna when you are not using the phone.

You can use the phone without extending the antenna in a good coverage area (see “**Signal Strength**”, page 10).



❶ Key in the number (include the area code, if you’re making a long distance call).

The number will appear on the display.

If you make a mistake, press **CLR** to delete the last keystroke; or to clear the whole display, press and hold the **CLR** key.

② Press **SEND**. The IN USE indicator will appear, and the number will disappear from the display.

③ Lift the phone to your ear, and wait until your call is answered. You can alter the volume of the phone or the HF loudspeaker, (whichever you are currently using) by pressing the volume key on the right side of the phone.

④ When you have finished the call, press **END**.

If the message LOCKED appears on the display when you try to make a call, your phone has been electronically LOCKED – see “**Locking the Phone**”, page 20. You can still make emergency calls and calls to the number in memory location 98, when the phone is locked.

If the message NO SERVICE appears in the display, you are outside the cellular service area.

RECEIVING A CALL

① When there is an incoming call, the ringing tone sounds and the CALL message flashes on the display.

If the ringing tone has been switched off – the SILENT SERVICE feature has been selected for privacy or other reasons – the keypad and display lights will flash instead and only one short “beep” will be given (see “**Setting the Ringing Volume**”, page 18).

② Press **SEND** and lift the phone to your ear. (For your comfort do not lift the phone to your ear before pressing **SEND**.)

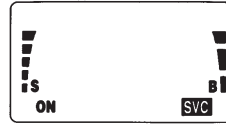
Note: For your added safety, you can press any key to answer.

③ When you have finished speaking, press **END**.

If you don't answer the call, the CALL message will remain on the display (showing that someone has tried to phone you). Press any key to clear the display.

SIGNAL STRENGTH

The quality of your call depends on the strength of the cellular signal in your area. The phone displays current signal strength as a series of bars on the left side of the display screen. The more bars, the better the signal. If the signal is poor, try moving the phone slightly to improve reception. If you are using the phone in a building, it may be necessary to move near a window, or outdoors for better reception.



VOLUME KEYS

The earpiece volume can be controlled by the two buttons on the side of the phone.

Use the upper button to increase and the lower to decrease the volume level. The volume level is shown on the display. VOLUME 1 indicates the lowest and VOLUME 5 the highest volume level. If you try to increase or decrease the volume level over these values, a “beep” is given.

LAST NUMBER REDIAL

The five last called numbers can be recalled from memory and the latest number can even be redialed automatically. The numbers can still be retrieved even if the phone has been switched off and back on.

To recall from memory and redial the number that you called most recently:

① With the display clear, press **SEND**.

The number will appear on the display and is automatically redialed.

To recall from memory one of the five last called numbers:

① Press **0 RCL**.

② Use **V** or **Λ** to scroll the list until you find the desired number.

③ Press **SEND** to make a call to the number on the display.

SPEED DIALING

Speed dialing is the quickest way to recall and dial a telephone number.

When you have stored a frequently used phone number in memory, you can use the memory location number or name when dialing the stored number (see “**Storing Information**”, page 11).

① Key in the number of the memory location (e.g. 0,2) or the name stored there (name uses the **ALPHA** mode).

② Press **SEND**.

The phone will recall the telephone number or name from memory, display it briefly, and then dial it.

Wait until your call is answered.

THE MEMORY

Your phone has 98 standard memory locations which allow you to store phone numbers with a maximum of 32 digits or names with a maximum of 16 letters. Names (max. 16 letters) can be stored together with phone numbers (max 32 digits).

Only numbers or letters can be displayed at one time. To switch from numbers to letters press **ALPHA**.

Only 16 characters can be displayed at one time. To see additional characters, press and hold the **RCL** key.

In addition, memory location **0** stores the five last called numbers and memory location **99** stores your phone's own number.

STORING INFORMATION

① Key in the area code and phone number.

② Press **ALPHA**.

③ Key in the name (see “**Keying in Names**”, page 12).

④ Press **STO**. The display will read STORE.

⑤ Press **STO** again if you want the information stored in the first available memory location shown in the upper right corner of the display.

Otherwise, key in a memory location number and then press **STO**.

The message STORED will be shown on the display, confirming that the information has been stored in the memory location specified in the upper right corner of the display.

Note: If all the memory locations are used, the display will read NO SPACE.

If you try to store information in a memory location that is already used, the phone will display the memory location number and the REPLACE CONTENT? message.

If you want to replace the existing information, press **STO** within 8 seconds.

If you do not want to delete the existing information, either press **CLR** or wait until the message STORE NOT DONE appears on the display. The information you tried to store will then reappear on the display, and you can store it in a different memory location as described above.

If you attempt to store a name that has previously been stored, the display will read REPLACE NAME?

Note: You may also begin the memory store procedure in alpha mode, followed by the phone number.

KEYING IN NAMES

① Press **ALPHA**. The ALPHA indicator will appear on the display to show that the phone is in alpha mode. When you press a key, letters will appear instead of numbers.

② Select the key labeled with the letter you want. Press it once to obtain the first letter, twice (before the ALPHA indicator flashes) to obtain the second, and three times (before the ALPHA indicator flashes) to obtain the third. If you miss the letter you want, continue pressing until it is displayed again.

③ Select further letters in the same way.

If you want the same letter twice, either select it as above, wait until the ALPHA indicator flashes once and select it again; or select the letter, press *, then select it again.

In alpha mode the **0** key provides a space, and the **1** key provides a “-” (hyphen), and the “*” allows duplicate entry of a letter.

You can enter up to 16 characters (8 per each line of the display). Each "space" and "hyphen" entry is included as part of the maximum 16 characters.

④ Store the name in a desired memory location.

⑤ To exit alpha mode, press **ALPHA**.

Note: If you begin your memory store procedure in alpha mode, after you have finished keying in a name, exit alpha mode by pressing **ALPHA** again. Now you can key in numbers.

EDITING NAMES OR NUMBERS

If you make a mistake while keying in a name or a number, you can correct it as follows:

① Press **CLR** to delete the last number or digit.

② Press and hold **CLR** to clear the whole display.

Note: This clears both the name and the number entered.

DISPLAYING "HIDDEN" NUMBERS

The phone can display up to 16 digits. If you key in more than this, the first digits will disappear off the side of the display.

If you want to check these hidden digits, press and hold **RCL** and they will appear on the display. When you release the **RCL** key, the original display will reappear.

Remember to clear the whole display (press and hold **CLR**) after having displayed a long number.

DELETING INFORMATION FROM A MEMORY LOCATION

① Press and hold **CLR** to clear the display.

② Press **STO**. The display will read STORE.

③ Key in the number of the memory location you want to delete. The message REPLACE CONTENT? will appear.

④ Press **STO**. The message STORED and the memory location number will be displayed briefly, confirming that the memory location has been deleted. (Also alpha characters are deleted from the memory location).

RECALLING INFO. BY MEMORY LOCATION NUMBER

① Press **RCL**. The display will read RECALL.

② Key in the memory location number (e.g. 0,2). The telephone number stored in that memory location will

appear on the display. If the memory location is empty, the message **EMPTY** will appear.

③ If you want to check the name stored with the number, press **ALPHA**. (If no name was stored with the number, the display will be blank). Press **ALPHA** again to return to the number display.

④ Call the number by pressing **SEND**. (You can place your call with the number or the name displayed).

RECALLING INFORMATION BY NAME

① Press **ALPHA**.

② Key in the name you want to recall (see “**Keying in Names**”, page 12).

③ Press **RCL**. The name, and the memory location number it is stored in, will appear on the display.

④ If you want to check the phone number, press **ALPHA** again.

⑤ Call the number by pressing **SEND** (You can place your call with either the name or the number displayed.)

Note: If you enter a name that does not exist in memory, the display will read **NOT FOUND**.

SCANNING FOR A NUMBER

① To scan the entire memory, press **V** to **Λ** display the contents of all the memory locations.

If you have just recalled a memory location by number, (eg. **RCL,0,2**), the phone will start scanning from that memory location.

② When you find the number you want, press **SEND** to make the call.

SCANNING FOR A NAME

① Press **ALPHA**.

② Press **V** to display the name which is the first and **Λ** to display the name which is the last in alphabetic order. To display the other names, press **V** or **Λ** until you find the name you are looking for. The number of the memory location where the name is stored is shown in the upper right corner of the display.

- ③ If you want to check the phone number stored with a name, press **ALPHA**. Press it again, then use **V** or **Λ** to continue scanning through the names.
- ④ When you find the name you want, make the call by pressing **SEND**.

If you want to “speed search” names, key in the first letter of the name you are looking for and then press **RCL**. The first name beginning with this letter will appear on the display. To scan forward press **V**, to scan backwards press **Λ** (within 15 seconds).

SCRATCHPAD MEMORY

In addition to its 98 permanent memory locations, the phone has one short term memory location to temporarily store numbers keyed in during a call. The scratchpad location is not cleared when the phone is switched off.

Note: You may wish to turn the “**Keypad Tones**” off, (**Menu 5**), to store numbers during your call.

- ① Key in the area code and phone number.
- ② Press **STO # #**. The phone will store the number in the scratchpad memory location.

Any number previously stored in the scratchpad location will be lost.

- ③ Press **RCL # #** to recall the number.
- ④ Press **SEND** to call the number.

To move a number from scratchpad memory to a permanent memory location, recall it, then store it as described in “**Storing Information**”, page 11.

DISPLAYING YOUR OWN NUMBER

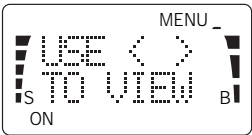
Your phone number is stored in memory location **99**. To display the number:

- ① Press **RCL 99** OR press **MENU**, then press **V** or **Λ** keys until **NAM SELECT** appears. Press **STO**.

Note: If your phone is registered on more than one cellular network, the number displayed will be for the network that is currently being used (see “**Using The Phone on Two Networks**”, page 22).

MENU FACILITY

The menu allows you to operate or check the setting of certain features. Although the menu method can take longer than the alternative shortcut, it is often easier to remember.



- 1 Press **MENU**.
- 2 The display will read **USE < > TO VIEW**. Use either **V** or **Λ** to step forward or backward through the list of the functions available. Press **STO** when the desired function is displayed.
- 3 Use the **V** or **Λ** to change the setting of the function.
(The current setting is displayed first.)
- 4 Press **STO** to set the new status (the one which is displayed.)
- 5 Use the **CLR** key to exit the menu function.

Each menu function can also be controlled by a shortcut; the phone displays the shortcut number in the top right corner of the display.

MENU SHORTCUTS

The following menu functions can be entered either by using the menu method (press **MENU**, use **V** and **Λ** press **STO**) or a shortcut (press **MENU** and a function number):

Menu Function	Shortcut	Description
LOCK PHONE	MENU 0	lock, unlock phone
SYSTEM SELECT	MENU 1	(system feature) select roaming option from home type, non-home type, home area, or both systems
RINGING TYPE	MENU 2	select ringing type from options 1-4
CALL TIMERS	MENU 3	displays length of calls; last, total own, total optional: reset timers

LIGHTS ON OFF	MENU 4	set lights off; or off after 15 sec.
KEYPAD TONES	MENU 5	switch keypad tones on/off
RINGING VOLUME	MENU 6	select volume of ringing tone from ringing high, ringing low, or silent service
NAM SELECT	MENU 7	view and select cellular number, network between own and optional
AUTO ANSWER	MENU 8	automatic answer on/off (works only with a car kit)
ACCESSORY MENU	MENU 9	accessory control menu (works only with external accessories connected)

Note: When you enter a function by its shortcut, eg. **MENU 7**, the name of the menu function (eg. **NAM SELECT**) will not be shown.

The following menu functions can only be entered by using a shortcut (press **MENU** and a function number):

Clear the last called numbers	MENU 10
Change the lock code	MENU 11
Set the phone into data mode	MENU 12
Send DTMF tones (during a call)	MENU (SEND)
Set keyguard on/off	MENU *

Note: The names of the functions accessible only by a shortcut are not shown on the display. For example, if you press **MENU 10**, you will see the current setting of the function “**Clear the last called numbers**”. To change the setting, press **V** and **Λ** then **STO** to store the new setting in memory.

When entering **MENU 1** by its shortcut, there will be a delay of a few seconds.

MENU FUNCTIONS

Only shortcuts for the menu functions are presented below. Obviously, you can also use the menu method (press **MENU**, scroll the list and enter the desired function by **STO**).

SETTING THE RINGING VOLUME

The ringing tone sounds when there is an incoming call. You can select the volume of the tone or switch it off completely (**SILENT SERVICE**).

- ❶ Press **MENU 6**.
- ❷ Use **V** or **Λ** to select **HIGH**, **LOW** or **SILENT SERVICE** in the handportable mode or select volume levels 1-5 or **SILENT SERVICE** when using the car installation kit.
- ❸ Press **STO**.

If you select **SILENT SERVICE**, the message SILENT is displayed after a brief delay. This will remind you that the ringing tone is off. When a call is coming in, a short *"beep"* will sound and the display and keypad lights will flash. (The CALL message will also appear on the display.)

Note: All other tones will also be turned off.

SETTING THE RINGING TYPE

The phone is provided with one standard and four optional ringing tones. To select a ringing tone:

- ❶ Press **MENU 2**.
- ❷ Select the desired ringing type by **V** or **Λ**.
- ❸ Press **STO** to confirm the setting.

LENGTH OF YOUR CALLS

The phone allows you to check the duration of your calls.

- ❶ Press **MENU 3**.
- ❷ The display will show the duration of your last call in minutes and seconds (LAST).
- ❸ Press **V** to display the same information for all the calls you have made from your own number (OWN). The total duration is displayed in minutes and seconds.

- ④ Press **V** to display the same information for your optional own number (OPT) (see “**NAM Select Using the Phone on Two Networks**”, page 22).

RESETTING THE CALL TIMERS

To reset the call duration timers to zero:

- ① Press **MENU 3**.
- ② Use vto scroll through the list to **RESET TIMERS**.
- ③ Press **STO**. The display will read SECURITY?.
- ④ Key in the five-digit security code and press **STO**.

Note: Factory default is 12345.

The phone will display a TIMERS CLEARED message, confirming that the timers have been set to zero. If you keyed in a wrong security code, the message CODE ERROR appears. To exit the function anytime, press **CLR**.

ROAMING

Each cellular service area can have two cellular service suppliers called carriers. One carrier operates the “non-wireline” or “A” system and the other carrier operates the “wireline” or “B” system. Your phone is designed to work with either or both carriers.

The system priority feature allows you to program your phone for optimum operation when in your home service area or when away from your home area (this is called roaming). When you buy your phone, you may register (receive a phone number) with either or both of your local carriers.

Contact the office of your home cellular phone company for information about the roaming agreements they have with other cellular phone companies.

In some areas, roaming telephones are automatically recognized by the cellular system’s computer. In other areas, you must contact the cellular phone operator before it can recognize your phone. The company needs to know your telephone number, your phone’s ESN (electronic serial number), and how you plan to pay for your calls. There is usually an additional charge for roaming calls.

Note: The mechanical SN# for your mobile phone is located in the battery compartment of the phone. Add the manufacturers’ prefix to the 8 digit mechanical SN# to get ESN.

To select the roaming mode:

❶ Press **MENU 1**. The phone will display its current roaming mode. The roaming modes available are:

HOME TYPE – phone uses only home system

NON-HOME TYPE – phone uses only non-home system

HOME AREA – phone uses only home area and home system

BOTH SYSTEMS – phone may use either of the systems A or B.

The home system depends on the current NAM selection (see **“NAM Select – Using the Phone on Two Networks”**, page 22).

❷ Press **V** or **Λ** to change the mode.

❸ Confirm your choice with **STO**.

For the function of ROAM indicator on the display see **“Display Indicators”**, page 7.

The ROAM indicator flashes when you are using a system that is not your home system. The indicator lights steadily if you are outside your home area using the same type of system.

LOCKING/UNLOCKING THE PHONE

Your phone has a simple security system. It can be locked by using a four-digit lock code to prevent unauthorized use.

If you forget your lock code, you can change it in **MENU 11** (accessible only by a shortcut). The factory default lock code is 1234. The factory default security code is 12345.

When the phone is locked, only emergency calls (911, *911) and calls to the number in memory location 98 can be made, but any call can be received. Use of the memory is also prevented (you cannot store or recall numbers).

❶ Press **MENU 0**. The display will read LOCKCODE?.

❷ Key in your four-digit code. It will appear on the display as a series of stars.

❸ Press **STO**.

If you make a mistake, the phone will display a CODE ERROR message. To retry, start again from the beginning.

If you key the correct code, LOCKED will appear on the display and remain there to remind you that the phone is locked.

Unlocking is carried out in the same way. When the lock is cleared the message UNLOCKED will appear briefly on the display.

SETTING THE LIGHTS

The phone's keypad and display are illuminated to make them easy to read.

When the lights are switched ON

- phone used as a handportable phone or connected to an external or fast charger: lights go off 15 seconds after your last keypress;
- phone connected to the car installation kit: the lights are continuously on.

When the lights are switched OFF

- phone used as a handportable phone or connected to an external charger: lights are continuously off (always off);
- phone connected to the car installation kit: lights are OFF.

To set the lights:

- ① Press **MENU 4**.
- ② Use **V** or **Λ** to select LIGHTS ON (with 15 seconds timer) or LIGHTS OFF.
- ③ Press **STO**.

SETTING THE KEY TONES

These tones sound each time you press a key. To turn the key tones on or off:

- ① Press **MENU 5**. The display will indicate whether the tones are on or off.
- ② Use **V** or **Λ** to switch the tones ON or OFF.
- ③ Press **STO**.

If the phone is connected to the car installation kit:

You have four options (VOLUME LEVEL 1, 2 and 3, as well as TONES OFF) instead of the two above. Follow the same steps as above.

Note: When the key tones are switched off, DTMF tones can still be sent.

NAM SELECT – USING THE PHONE ON TWO NETWORKS

The phone's two number capability feature lets you subscribe to competitive cellular services in your area and other cities. This means that your phone can have up to two numbers. NAM stands for Number Assignment Module.

Note: You cannot change from one network to the other during a call. If you are only registered on one network you cannot access the other.

To change the network:

❶ Press **MENU 7**. The phone will display the number currently in use.

Note: If only one number is programmed in your phone, this feature is inoperative.

❷ Press **V** or **Λ** to select the other number.

❸ Press **STO**.

SETTING AUTO ANSWER

You can set the phone to answer incoming calls automatically (i.e. switch itself from standby mode to talk mode) after one ring. When selected, the auto answer feature is active only when the phone is connected to a handsfree kit and is in handfree mode. The default setting is OFF. To set the auto answer mode on or off:

❶ Press **MENU 8**.

❷ Use **V** or **Λ** keys to set auto answer AUTO ON or AUTO OFF.

❸ Press **STO** to confirm the setting.

ACCESSORY MENU

In this menu you can control the accessories connected to your phone via the car installation kit. If you try to use it when no extra accessory is fitted, the phone will display an error message.

To enter the menu:

❶ Press **MENU 9**. If no accessories are connected to the phone, the message NONE PRESENT is shown.

If you have any number of accessories connected to the phone, the name of the first accessory is shown. If you have several accessories, scroll the accessory list by using **V** or **Λ** until you find the accessory whose setting you wish to change.

② Press **STO** to enter the respective accessory menu and scroll the setting options by using **V** or **Λ**.

③ Store the new setting in memory by pressing **STO**.

For messages generated by accessories, refer to the user's guides delivered with them.

CLEAR LAST CALLED NUMBERS

If this feature is active, the last called number stack will automatically be erased when the phone is powered off.

To set the phone to clear the last called numbers automatically from memory:

① Press **MENU 10**.

② Use **V** or **Λ** to select CLEAR LAST ON or CLEAR LAST OFF.

③ Press **STO** to confirm the setting.

CHANGING THE LOCK CODE

To change the lock code of your phone.

① Press **MENU 11**.

The phone asks you to key in the 5-digit security code of your phone (SECURITY?).

② Key in the security code and press **STO**. Factory default is 12345. If you have keyed in an incorrect code, the CODE ERROR message will appear. After you have entered the right security code, the phone asks you to key in the new lock code (NEW LOCK CODE?).

③ Key in the new 4-digit lock code and press **STO**. The code may contain numerical digits only; other characters (e.g. *, #) are not allowed. The message STORED appear to confirm that the new lock code has been set.

DATAMODE

Not only can your phone make and receive voice calls but it can, when connected to the car kit, send and receive data, too.

To enter data mode:

❶ Press **MENU 12**. A call must be in progress when you enter data mode. If you are not in a call, the message NO CALL ACTIVE appears. When the phone is in data mode, the DATA ACTIVE message appears on the display.

For more information on sending and receiving data, refer to the user's guide delivered with any data adapters (eg. FDP-1) supplied by Nokia.

DTMF DIALING

You can transmit numeric information as a series of tones using the **DTMF** facility (for example to check for messages in your answering machine).

There are two alternative ways to use the **DTMF** facility.

(I) Sending Direct Entries

❶ Make the call in the usual way (see “**Placing a Call**”, page 8).

❷ Key in numbers onto the display. Each number is directly sent as a DTMF tone. The length of the tone depends on how long you press the key.

(II) Sending Stored Information

❶ Recall a number from a memory location and send it as DTMF tones.

❷ Make the call in the usual way (see “**Placing a Call**”, page 8).

❸ Recall the DTMF number from memory (**RCL** followed by the memory location number).

❹ Send the DTMF tones by pressing **MENU** followed by **SEND**. A series of tones, each representing a number, will be heard.

Using Pause and Wait Characters between DTMF Digits

If you need to place a pause (P = 2.5 seconds) between DTMF digits press **MENU #** to create the “p” character in the sequence. If you want to add a DTMF number to a stored phone number, place a wait “w” character in front of the DTMF number by pressing **MENU # #**.

When you recall the information (telephone number and DTMF numbers) from memory (**RCL**), press **SEND** to call the number stored before the wait character.

The telephone number disappears from the display. Wait for an answer.

Send the last part as DTMF tones by pressing **MENU** followed by **SEND**.

Note: When the key tones are turned off, the DTMF tones are still sent even though you cannot hear them.

KEYGUARD

The phone is fitted with the handy keyguard function which, when activated, prevents key pressing accidentally while the phone is, for example, in a pocket. When the keyguard function is activated, no keybeeps are heard and no key-presses are accepted, **excluding emergency numbers**.

To activate the keyguard function:

① Press **MENU ***. The KEYGUARD ACTIVE message appears on the display.

If activation takes place during a call, the message is shown for a while and the keyguarding begins just after the call is ended. When the keyguard is active the KEYGUARD ACTIVE message is shown. When any key is pressed the PRESS MENU * message is shown. If you receive a call the phone starts to ring and the blinking CALL message is shown. To answer the call, with keyguard activated, press **SEND** (anykey answer is disabled).

During a call the keyguard is not active and you can operate the phone in the usual way. If the incoming call is not answered the CALL message will remain on the display.

Calls to emergency numbers can be made as usual. After the emergency call, keyguard becomes active again.

To deactivate the keyguard function:

① Press **MENU ***. The KEYGUARD OFF message appears and the phone starts to operate in the usual way.

After power-off the keyguard deactivates itself.

CALLING YOUR SYSTEM OPERATOR

Your system may offer this feature which allows you to make a direct call to the system operator.

To call your system operator:

① Press **0** followed by **SEND**.

CALL FORWARDING

Your cellular system may offer a call forwarding service. Contact your cellular service provider for further details.

FLASH FUNCTION

Your cellular system may offer a flash function service. This system feature lets you accept a second call when you already have a call in progress. Contact your cellular service provider for further details.

ACCESSORIES

Use only accessories approved by the phone manufacturer. The use of any other types will invalidate any approval or warranty applying to the phone, and may be dangerous.

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

An extensive accessory range is available for your phone. Check the availability of the accessories with your dealer.

CAR INSTALLATION KIT (HFK-1)

The car installation kit is installed by your dealer and provides external antenna connection, rapid charging of the phone's battery, and handsfree operation. No additional handset is required, as the handportable functions as the handset. Ignition Sense and Car Radio Mute (explained below) are also functions of the car installation kit.

Ignition Sense

The ignition sense function (ignition controlled switch-on/off) allows the phone to be automatically switched on or off whenever the vehicle is started or switched off, respectively.

When the ignition is turned off, the message AUTO PWR OFF is displayed, a beep is given and the phone is switched off in 20 seconds. If you press any key or if you take the phone from the holder during this time, the phone will not be switched off.

If you turn off ignition while you have a call going on, the phone is switched off 20 seconds after you end the call.

Ignition sense is a non-user selectable feature. It is always enabled when the ignition sense line is connected.

Car Radio Mute (CRM)

The car radio mute (CRM) mutes the car's radio when a call is started (the handset lifted and **SEND** pressed) or when the phone rings to indicate an incoming call. When the call ends or the alerting ends, the car radio is unmuted and regains its original volume level. The CRM is non-user selectable. It is always enabled when the CRM line is connected.

CAR INSTALLATION KIT OPTIONS

Booster Upgrade Kit (BUK-1)

The optional booster kit upgrades the handportable to the level of a full powered mobile.

Data Adapter (FDP-1)

The FDP-1 is a simple, manually activated data adapter that allows you to connect the phone to a data device such as a fax machine or a computer, and to send and receive data.

The following options are also available for your phone. Check the availability with your dealer.

NOKIA PCMCIA DATA/FAX MODEM AND CRADLE (0082074)

A direct connection interface for sending and receiving high-speed information via notebook computers and Nokia 121 and PT128 cellular portables.

HOLDER WITH SPIRAL CABLE (MCH-3)

The holder (MCH-3) consists of a mount connector which connects the spiral cable to the bottom of the phone, and a cradle which holds the mount connector firmly in place. Place the phone in the holder and your phone turns into a car phone that can be used just like an additional handset. When using the holder and phone as a handset during a call if you wish to go into handsfree mode press **MENU** before returning holder to base. This prevents the call from being disconnected. Press the release button on the front of the holder and your phone turns back into a handportable phone.

CHARGERS

Your cellular phone will be equipped with one of the following battery chargers. Check with your dealer for availability of the other types. Charging times given are for approximately 80% capacity.

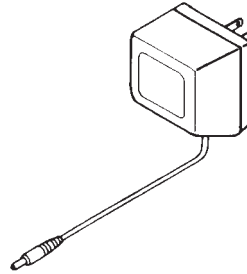
TRAVEL CHARGER (ACH-3U)

This light and compact AC charger is an economical charging option. Approximate charging time for each of the batteries while using the ACH-3U:

Slim (BTH-2L) 4 hours

Extended (BTH-2S) 8 hours

Ultra Extended (BTH-2HE)
11 hours



To use the travel charger, simply plug it into a standard 120V AC outlet, and connect the lead from the charger to the bottom of the phone.

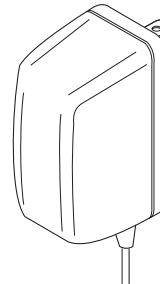
FAST TRAVEL CHARGER (ACH-4U)

This light and compact fast AC charger is ideal for active users. Approximate charging time for each of the batteries while using the ACH-4U:

Slim (BTH-2L) 30 minutes

Extended (BTH-2S) 60 minutes

Ultra Extended (BTH-2HE) 80 minutes



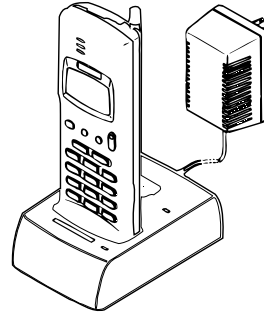
To use the travel charger, simply plug it into a standard 120V AC outlet, and connect the lead from the charger to the bottom of the phone.

DESKTOP CHARGING STAND (DCH-1U)

The desktop charging stand makes recharging easier, and allows you to charge both the phone and a spare battery.

To use the charging stand:

- 1 Connect the AC power supply (ACS-3U), AC fast travel charger (ACH-4U), or the cigarette adapter (LCH-2) to the stand, then plug it into a standard 120V AC outlet. (With LCH-2 plug into car cigarette lighter.)



Do not attempt to use the ACH-3U travel charger.

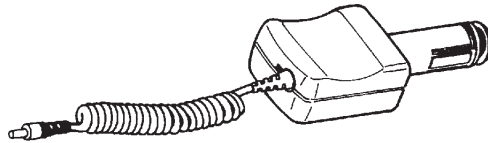
- 2 Place the phone in the charging stand.

If a spare battery is also placed in the charging stand, the battery connected to the phone is always charged first.

The battery charging times are the same as those for the ACH-4U Fast Travel Charging shown on page 28.

The charging stand is equipped with a deep discharge switch for the spare battery. Press the switch to start discharging the spare battery. After discharge, the spare battery will automatically begin to charge.

CIGARETTE LIGHTER CHARGER (LCH-2)



You can also charge the battery from your vehicle's cigarette lighter using the LCH-2 rapid cigarette lighter charger.

The charger should be connected to the phone in the same way as the travel charger. You can also connect the cigarette lighter charger to the desktop charging stand.

During charging, the phone can still be used.

Note: The input voltage range must be 12 V or 24 V DC, negative grounding.

The phone battery charging times are the same as those for the ACH-4U Fast Travel Charger shown on page 28.

BATTERY CHARGER ADAPTER (CXH-1)

The battery charger adapter, CXH-1, will charge your battery without it being attached to the phone. Connect the ACH-3U, ACH-4U, or LCH-2 charger to the adapter. Insert the battery into the charging adapter. The green LED will light upon completion of charging (in less than 12 hours depending on capacity, temperature, and charger used).

CHARGING INDICATORS

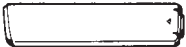
A red indicator on the charger (DCH-1U and LCH-2) and scrolling battery bars on the phone's display show that charging is in progress. When the phone's battery is fully charged, the battery indicator on the display will constantly show all three bars and the indicator on the charger will be green.

If the indicator is green but the bars on the display are scrolling, the charging is temporarily disabled (e.g. battery too hot or too cold).

The spare battery in the charging stand is charged when the green indicator is on.

BATTERIES

Slim 380 mAh NiCd
Battery BTH-2L



Extended 800 mAh NiCd
Battery BTH-2S



Ultra Extended 1100 mAh Nickel
Metal Hydride Battery BTH-2HE



Do not dispose of the
batteries in a fire.

Fully charged (new) batteries will provide exceptional talk time or standby time as follows:

Battery Option	Talk Time	Standby Time
BTH-2L	45 min	11 hrs.
BTH 2S	95 min	22 hrs.
BTH-2HE	130 min	30 hrs.

Notes:

- ① Standby time will be reduced by approximately 1 hour for every 6 minutes of talk time.
- ② The following conditions will reduce battery performance:
 - Temperature extremes
 - Poor charging or discharging practices
 - Improper storage
- ③ Do NOT short circuit the phone's battery. Accidental short circuit may happen e.g. if you have a spare battery in the pocket or bag where a metallic object (coin, clip or pen) causes direct connection of the + and - terminals of the battery (metal strips on the back of the battery). Short circuiting the terminals may damage the battery or the connecting object.
- ④ Do NOT attempt to discharge the battery with any other method or system other than those approved by the phone manufacturer.
- ⑤ NiCd and Nickel Metal Hydride battery performance will vary with condition of battery.
- ⑥ Do not use the charger or battery if either is damaged.
- ⑦ Recycle all batteries. Many batteries contain Nickel Cadmium (NiCd) and therefore must be recycled. Dispose of a NiCd battery in accordance with local regulations.
- ⑧ Do not dispose of batteries in a fire!

CARRY OPTIONS

There is a range of carry cases available for added protection.

LCS-3 Carry Sleeve

BCC-2 Belt Clip Carry Case

CWL-1 Leather Wallet

APPENDIX

DISPLAY MESSAGES

AUTO PWR OFF

Ignition sense is set on – the phone will be turned off in 20 seconds.

BATTERY LOW

Appears when battery charge is down to 10, then every 5 minutes if the phone is in standby; every minute if it is in use.

CALL

When flashing indicates that you are receiving a call. If you do not answer the call, the CALL message will remain on the display. Press any key to clear the display.

CALL IN PROGRESS

Appears if you try to change from one cellular network to the other, in mid call.

CALL ROAMED

Displayed when you have “roamed” to a non-home system.

CODE ERROR

Indicates you have keyed in a wrong security or lock code.

DATA ACTIVE

The phone is in data mode.

EMPTY

Displayed when you try to recall information from an empty memory location.

KEYGUARD ACTIVE

The keyguard feature is turned on.

KEYGUARD OFF

The keyguard feature is turned off.

LOCKCODE?

Asks you to enter your secret lockcode.

LOCKED

The phone is locked.

NAM ERROR

The NAM module contains erroneous data, contact your dealer.

NO CALL ACTIVE

Data mode cannot be used because you have no call going on.

NO SERVICE

Appears if you try to make a call when no cellular service is available.

NO SPACE

Indicates that all memory locations are full.

NOT ALLOWED

Indicates that you have tried to store a number to an illegal location (eg. 99).

NOT FOUND

Indicates that you tried to recall information from an invalid memory location. Indicates that the name you are trying to recall does not exist.

PRESS MENU *

You pressed a key while the keyguard was on.

RECALL

Asks you to enter the desired memory location number when wishing to recall information from memory.

RECHARGE BATTERY

Appears for 10 seconds before the phone switches itself off and all operation ceases.

REPLACE CONTENT?

Indicates that the memory location you are trying to store information in, is already in use.

REPLACE NAME?

Indicates that the name you are trying to store is already in use.

SECURITY?

Asks you to enter the security code of your phone.

SILENT

Indicates that the ringing tone volume is turned off to SILENT SERVICE mode.

STORE

Asks you to enter the desired memory location number when storing information in memory.

STORE NOT DONE

Indicates that you chose not to store new information in a memory location that was already used.

STORED

Indicates that storing to memory was successful.

TIMERS CLEARED

Indicates that call timers have all been set to zero.

UNLOCKED

The phone has been unlocked.

USE < > TO VIEW

Indicates that you have entered the menu. Press **V** to **Λ** scroll the functions.

VOLUME

Indicates at which volume level the earpiece volume is set.

TONES

Ringing Tone

The ringing tone sounds when there's an incoming call.

Key Tones

These sound each time you press a key. You can turn the keypad tones on or off.

Reorder Tone

This sounds if the network is busy, or terminates a call for any reason.

Low Battery Tone

Sounds every 5 minutes (or every minute when a call is in progress) to indicate that the battery is low. The message BATTERY LOW is displayed at the same time.

Recharge Battery Tone

This sounds when the battery is extremely low and will no longer operate the phone. The message RECHARGE BATTERY is displayed at the same time. The phone will shut off within 10 seconds.

CARE AND MAINTENANCE

Your phone is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfill the warranty obligations and to enjoy this product for many years.

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

Keep the phone dry. Liquids contain minerals that will corrode electronic circuits.

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

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

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

Do not use any other battery charger to recharge the battery than the type specified in the instructions. Use the battery only for its intended purpose.

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

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

If the unit is not working properly, take it to your nearest authorised dealer. The personnel there will assist you, and if necessary, arrange for service.

TROUBLESHOOTING

If the power does not come on or stay on:

Make sure the battery is installed in the phone properly.

Be sure the contacts are clean on the battery and the charging stand.

Battery charge may be too low for operation. Listen for the low battery warning tones.

If the power comes on, but the phone does not work:

Check the NO SERVICE message. You might be out of the cellular service area.

Make sure that the antenna is extended to its full length.

TECHNICAL INFORMATION	
Dimensions	170 x 57 x 22 mm (6.6" x 2.2" x 0.8")
Weight	280 gms. with slim battery (9.7 oz) 330 gms. with extended battery, (11.1 oz)
Transmitting Power	0,6 W max. ERP
Operating Voltage	7.2 V (int. battery), 120 V (AC), 12 V (car)
Frequency Band	824.040 848.970 MHz (TX) 869.040 893.970 MHz (RX)
Slim Battery Capacity	380 mAh NiCd
Number of Channels	832
Memory Locations	100
Memory Capacity	Numeric: 32 digits per location Alpha: 16 digits per location

NOKIA IN NORTH AMERICA AND ASIA/PACIFIC

USA

NOKIA MOBILE PHONES 2300 Tall Pines Drive.
Suite 120, P.O.Box 2930, Largo, FL 34649-2930
Tel. (813) 536 5553

CANADA

NOKIA PRODUCTS LTD.
575 Westney Rd. South,
Ajax, Ontario, L1S 4N7, Tel. (905) 427-6654

ASIA/PACIFIC

NOKIA (S.E.A.) Pte. Ltd. 541 Orchard Road #12-03,
Liat Towers, Singapore 0923 Tel. 65 733 8922

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FINLAND

NOKIA MOBILE PHONES, P.O.B. 86, SF-24101
Salo, Finland, Tel. +358-24-3061

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