

GENERAL

The following provides advisory and cautionary instructions to users of GSM mobile stations regarding their own and third party safety.

ELECTRICAL SAFETY

This apparatus is intended for use when supplied with power from:

Battery Chargers:

SLN9347 + SPN4161A or SPN4069A
SLN5039 + SPN4181A or SPN4030A

Battery Savers:

SKN4292, SKN4519

Car Kits/Vehicular Chargers:

S3060, S3284, S3285, S2461, S1759, S1758,
S3512A

Other usage will invalidate any approval given to this apparatus and may be dangerous.

AIRCRAFT SAFETY

Switch off your cellular telephone 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 this instruction may lead to suspension or denial of cellular telephone services to the offender, or legal action or both.

EXPLOSIVE ATMOSPHERES

- Users are advised not to use the equipment 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.

ROAD SAFETY

- The use of the Alert device to operate a vehicle's lights or horn on public roads is not permitted.
- It is advised that a hand-held microphone or telephone handset should not be used by the driver while the vehicle is moving, except in an emergency. Speak only into a fixed, neck slung or clipped-on microphone when it would not distract your attention from the road.

USAGE INSIDE A VEHICLE

If operating a cellular telephone inside the vehicle without utilizing an external antenna, the functionality of inadequately shielded equipment (such as antilock braking and fuel injection systems, etc.) in your vehicle may be impaired.

Consult your vehicle owner's manual or ask your automobile dealer if you have questions about your vehicle.

MEDICAL ELECTRONICS

Operation of any radio transmitting equipment, including cellular telephones, may interfere with the functionality of inadequately shielded medical devices (such as pacemakers, hearing aids, etc.) Consult your physician or ask the manufacturer of the medical device if you have questions.

MANUAL UPDATES

No user manual updates at this time.



INTRODUCTION

This cellular telephone is designed for the GSM System. Using this phone makes it possible to contact any phone in the world, provided you are in an area covered by the GSM system.

The cellular telephone does not contain your GSM-subscriber number, this information is contained on your SIM card supplied by your local service provider. All billing will be registered, when the conversation takes place, to the subscriber number on the SIM card which is inserted in the phone.

Instruction sequences shown in this manual are presented in the following format:



This format indicates that you should press the  key and then the  key (one, then the other, not simultaneously).

For your protection, some features require a 6-digit security code.

- Your security code is initially set to '000000'. To program a unique security code, please see section, 'Changing the Security Code.'

Telephone Overview

See flap at the front page.

Display

The display and keypad are back lit whenever the telephone is switched on. After several seconds, the back lighting will turn off.

Pressing any key will return the back lighting.

1. Displays the entered telephone number or alpha message. The following indicators may also appear in the display:

Power on

Stays lit while the phone is on.

In Use

Symbol lights when a call is in progress.

No Service

Fixed symbol: You are out of cellular system coverage and cannot make calls.

Flashing: You are in an area with coverage but not registered on the system. You can make emergency calls using the special GSM emergency number, 112, but cannot make/receive ordinary calls.

Roam

Fixed Symbol: You are registered on a preferred system different from your home system.

Flashing: You are registered on a non-preferred system.



Signal Strength

The more segments displayed in the bar graph, the better the signal strength and call quality.



Battery Level

Fixed symbol: Battery charge level is sufficient for normal operation.

Slow flash: Warning! Battery charge level becoming low.

Rapid flash: Battery charge level is nearly depleted. Replace or recharge battery.



Short Message Service

The short message feature is not available on this model. This phone cannot be upgraded to support this feature.

Cold Temperature Note

This phone is equipped with the latest in display technology. This "supertwist" liquid crystal display (LCD) provides superior performance, viewing angle and viewing contrast over previous LCD technologies. At extremely cold temperatures, it is normal for the display to respond more slowly to key presses. *When entering numbers under these circumstances, the audible tones will still indicate that a key has been depressed and the visual indication will follow shortly.*



Volume Keys

- The push buttons on the right side of the phone adjust the earpiece and ringer volume levels. Press the top button to increase, or the bottom button to decrease the volume level.

To adjust earpiece volume:

Operate the volume buttons with the phone held to your ear.






To adjust ring alert volume:











-   Operate the volume buttons to the desired volume level for the ring tone of incoming calls.

SIM Card Release

- To remove SIM card, slide button down, then pull SIM card out.

Keypad

-  Press to turn phone on or off.
-  Press to make and receive calls.
-  Press to end calls.
-  Use to store numbers and names into memory.
-  Use to recall numbers and names from memory.

9.  *Microphone mute* 
Switches microphone off/on during conversation.
Select by pressing  
- Secondary features* ↑
Use in sequence with other keys to initiate features.
10.  *Letter entry (a):*
Use to store and recall phone numbers with names.
Clear (c):
Clears the display. Press and release to clear last digit. Press and hold to clear entire display.
11.  *Menu:*
Use to initiate menu features
Short Message Service (SMS): 
The short message feature is not available on this model. This phone cannot be upgraded to support this feature.
12.  *  #  Press to move forward and backward through memory locations and feature menus.
13. **Flip** The flip can be used to answer and end calls.

BASIC OPERATION

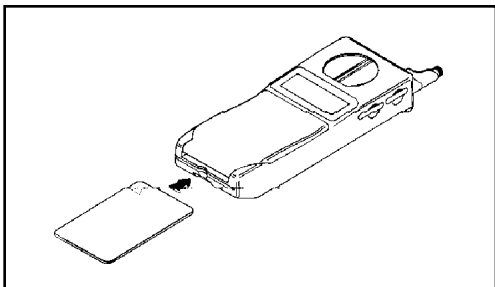
Your network service provider supplied you with a subscription card known as a Subscriber Identity Module card or **SIM** card. The SIM card is your key to accessing GSM services and contains the following personal data:

- subscriber number
- home system
- services subscribed to
- PIN and unblocking codes

Your valid SIM card must be correctly inserted into the phone's card reader to access services.

Inserting the SIM Card

Insert the SIM card into the phone's card reader either before or after turning the phone on.



If the SIM card is missing, '**Insert Card**' will appear in the phone's display.

If the SIM card is damaged or not correctly inserted, (e.g. inserted upside down or backwards) '**Check Card**' will appear in the display. Check for proper orientation and re-insert the SIM card.

To remove SIM card, slide SIM card release button down, then pull SIM card out.

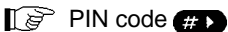
Switch Phone On/Off

Switch on:



If the SIM card is not inserted the display will prompt you to do so. The telephone then checks the validity of the SIM card.

If '**Enter PIN**' appears in the display, the SIM card is protected by a PIN code.



For more information on PIN codes, see section, "Entering the PIN Code".

If '**Enter Unlock Code**' appears in the display, the phone is protected by an electronic lock.



For more information on lock features, see section, "Electronic Lock".

If '**Blocked**' appears in the display, your SIM card is blocked from use. Please see section, "Unblocking the SIM card".

If '**Bad Card**' or '**Blocked**' then '**See Supplier**' appears in the display, a problem exists with your SIM card. Please seek help from your service provider.

Switch off:





Entering the PIN Code

Your Personal Identification Number (PIN) is a 4-8 digit code that protects your SIM card from unauthorised use.

The first PIN code is selected by the SIM provider. To change or disable the PIN code, see sections, "Changing the PIN Code" or "PIN Code Enable/Disable".

When the SIM card is protected by a PIN code, **'Enter PIN'** appears in the display whenever the phone is switched on or the SIM card is inserted.

 PIN code 

The PIN code will appear as 

If you make a mistake while entering the PIN code,



If the PIN code is accepted, **'OK'** will appear in the display.

If the PIN code is not accepted, **'Wrong PIN'** then **'Enter PIN'** will appear in the display. Re-enter PIN code.

If you do not succeed after three attempts, **'Blocked'** will appear in the display. The SIM card is blocked from further use. To unblock the SIM card, see section, "Unblocking the SIM card".

Making Calls

The  indicator must be off.

 Telephone number 

Phone numbers up to 20 digits long may be dialed.

If a call is temporarily interrupted, **'Retrying'** may appear in the display. The system will automatically reconnect the call if possible.



Dialling Errors



To erase last digit:  

To erase entire display:   and hold

Ending Calls

Either



  or close the "flip".

To retry if number is busy:  

Receiving Calls

Your phone must be on, unlocked, and in service.

To answer calls:

  or open the "flip".

To stop alert signal without answering:

Automatic Redial

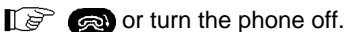
Before ending an unsuccessful call attempt:



'Redial' will appear in the display.

Your phone will continuously attempt to complete the call until the redial procedure times out. When the call is successful, your phone will ring once to alert you.

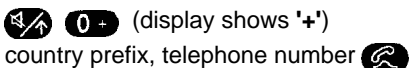
To cancel:





International Calls

Just like the ordinary telephone system, you must add an international prefix before dialling the country prefix and the telephone number. This feature automatically adds the international prefix.

To select:



It is possible to store the   sequence into memory and still have the maximum of 20 digits.

GSM Emergency Calls

To dial the GSM emergency number, 112:



This call may be initiated with or without a SIM card inserted and despite electronic lock activation or PIN protection. The call is directed to a central emergency operator as long as the \emptyset indicator is either flashing or off.

Storing Telephone Nos. into Memory

Your phone can store up to 100 telephone numbers and names. Each memory location can hold a number up to 20 digits long and a name up to 16 characters long. The phone's memory locations are labelled from 1 to 100.

Additionally, your SIM card may also store telephone numbers. Please contact your card provider for details. SIM card memory locations are labelled 101 and up.

To store phone number with name:



Enter person's name.

To enter names, the characters on the number keys are used.

For example,


to enter character 'N'.




and hold down.

Display shows: M-N-0-5-M-N

Release key when desired character appears.

To advance to the next position, either press a new key or press 

Repeat procedure for the next character.

You could have also selected the character 'N' by pressing  repeatedly.

To correct mistakes:



When name is complete:



Next,



phone number



memory location number

(1-100 or 101 and up for SIM card locations)

To store phone number without name:



phone number  memory location

number (1-100 or 101 and up for SIM card locations)

The name (if entered) and phone number will be stored in the selected memory location. If the selected memory location is already occupied, **'In Use'** will appear in the display;



new memory location number.

If all memory locations are filled, **'Full'** will appear in the display.

If you have no preference for a memory location number:



as the memory location number.

The phone number and name will be stored in the next available memory location.


If you desire a memory location in a particular decade like 50-59:



as memory location number.

Recalling Telephone Nos. from Memory

To recall by memory location number:

 **MR** memory location number

The name (if any), memory location number, and phone number will appear in the display.

To review name (if any) and entire phone number:

 **MR**

To scroll through directory:

 **< ***
or **# >**

To call number:

To exit and clear display:




 
a/c and hold

To recall by persons name:

 **MR**  **a/c**

Enter the digit key having the first letter of the person's name.

For example;

 **2**  **2**  to recall a name beginning with letter "E"

The name, memory location number, and last digits of the phone number will appear in the display.

To review name and entire phone number:



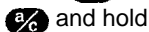
To scroll through directory:



To call number:



To exit and clear display:



Speed Dial

memory location number

The called number is displayed.

Clearing Numbers Stored in Memory

Recall the number from memory first.



'Clear?' will appear in the display.



to confirm deletion

or



if you do not want to clear

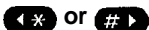
FEATURE MENUS

Feature menus allow you to select and cancel features by following prompts in the display.

To enter feature menus:



At the **Menu** prompt, **either**



to scroll through all menus,

or

enter the menu number for direct access.

The following is an overview of all menus:

Menu 1 - General Features		1	ABC
Status Review	+	1	ABC
Automatic Answer ¹	+	2	DEFT
Manual Roaming (Select Service)	+	3	GHI
Preferred Provider List			
Display/Change	+	4	JKLM
Auxiliary Alert ¹	+	5	MNOP
Menu 2 - Interface Features		2	QRST
Ringer On/Off	+	1	ABC
Keypad Tones On/Off	+	2	DEFT
Notepad Tones On/Off	+	3	GHI
Long Tone DTMF	+	4	JKLM
PIN Code Enable/Disable	+	5	MNOP
Language Selection	+	6	QRST
Safety Timer Setting ¹	+	7	STUV

Menu 3 - Call Monitor Features



- 1 Minute Audible Timer + **1** ABC
- 'Repeat' Audible Timer + **2** DEF
- Once Only Audible Timer + **3** GHI
- Automatic Monitor Displays + **4** JKL
- Display Call Timers + **5** MNO
- Display Call Meters + **6** PQR
- Rate Programming + **7** STU
- Reset Timers/Meters + **8** VWX

Menu 4 - Call Restriction Features



- Restrict Keypad Dialling + **1** ABC
- Restrict Memory Access + **2** DEF
- Restrict Incoming Calls + **3** GHI
- Restrict Phone Number Length + **4** JKL
- No Restrictions, Full Service + **5** MNO

Menu 5 - Secure Features



- Change/Display Unlock Code + **1** ABC
- Master Reset + **2** DEF
- Master Clear + **3** GHI
- Change Security Code + **4** JKL

Menu 6 - Other Features



- Battery Save Feature (DTX)² + **1** ABC
- Automatic Hands Free³ + **2** DEF

Note

1. Only displayed when used with the GSM Micro Car Kits.
2. Not displayed when used with Car Kits.
3. Only displayed when used with the Basic Car Kit.

To access features within a menu:

Enter feature number (or **1** to review features from beginning)

To scroll through features:



The display will show the feature name, number and status (if applicable).

Once the desired feature is displayed:



Menu features are simply toggled on/off using the **M+** key. Some features will prompt for more information, such as the security code.

To return to menu headings:



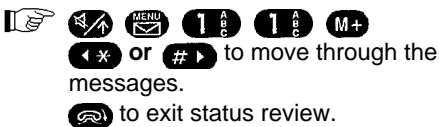
To exit menu operation:



STATUS REVIEW

Status review allows you to review any features changed from their original settings.

To review these features:



If **'Standard'** appears in the display, no default settings have been changed.

MASTER RESET

USE THIS FEATURE WITH CAUTION.

You can reset all features that you may have changed back to their original settings.

Cancels the following:

- Automatic Answer
- Long Tone DTMF
- Safety Timer
- All Audible Call Timers
- Automatic Call Monitor Display
- Battery Saving Feature (DTX)
- Selected Language
- Auxiliary Alert
- Auto Hands Free
- Electronic Lock
- Restricted Calls

Restores the following:

- Keypad tones
- Ringer
- Notepad tones
- Volume level to medium

To select:



'Reset Complete' will appear in the display.

MASTER CLEAR

USE THIS FEATURE WITH CAUTION.

Performs the same function as 'Master Reset' plus these additional functions;

- Clears:**
- All 100 memory locations*
 - Notepad
 - Last Number Called
 - Home Charge Rate
 - Roam Charge Rate
- Resets:**
- Resettable Call Timers
 - Resettable Call Meters

To select:



security code

'Clear Complete' will appear in the display.

Note

* SIM card memory locations are not cleared

SYSTEM REGISTRATION



Automatic Roaming

The SIM card memory contains space for a list of "preferred" service providers.

If coverage on your home system becomes unavailable, the telephone will automatically try to establish contact with one of the first eight preferred service provider locations on this list. This is done in the order that they are listed.

If automatic roaming is successful the ▲ indicator will light up indicating that you are registered on a preferred system different from your home system.

If service from one of the first eight preferred service providers is not available, **'Select Service'** will appear in the display.

To defer service selection:  


To see a list of service providers available in your immediate area:

The display shows the first service provider on the list.

Example:

Position on list ———— 1 234-01
Star = Preferred Provider
Blank = Non-Preferred Provider
Service Provider Code ————



Providers are listed in order of decreasing signal strength.

To scroll through provider list:



To select displayed service provider:



If you are accepted by the system, the display will show the provider code and the ▲ indicator will start flashing, indicating that you are registered on a non-preferred system.

If you are not accepted by the system, the ∅ indicator will flash. To select a different service provider, continue as described in the section, "Manual Roaming".

Manual Roaming

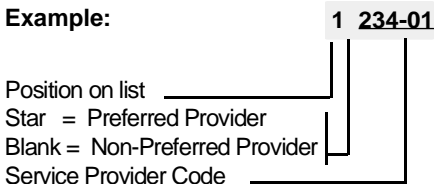
You may manually select a service provider from a list of those providing coverage at your immediate location.

To see the list of available service providers:



The display shows the first service provider on the list.

Example:



The display may also show the service provider name or the country abbreviation with the network number.

Providers are listed in order of decreasing signal strength.

To scroll through provider list:



To select displayed service provider:



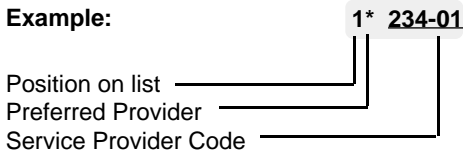
Displaying Preferred Provider List

To see the list of preferred service providers:



The display shows the first service provider on the list.

Example:



To scroll through provider list:



Where no service provider has been programmed, e.g. position 7, the display will show: 7*

To exit preferred provider list:




To programme a service provider, see the section, "Changing Preferred Provider List".

Changing Preferred Provider List

A list of international service providers and their codes may be obtained from your service provider.

Enter the preferred list and scroll to the position you want to change as described in the section, "Displaying Preferred Provider List".

To change the displayed service provider:

 **M+** Service Provider Code

Example:

Service Provider Code = 234-01

To access preferred list:

   **1**  **4**  **M+**

To scroll to position:

 **#** 




To enter new service provider code:

 **M+** **2**  **3**  **4**  **0+** **1** 


To clear the displayed service provider:

Check that it is the service provider that you want to clear.

If OK,

 **a/c** (If not,  )

If **a/c** is pressed, 'Clear?' will appear in the display.

Confirm by  **a/c**

(otherwise  )

To exit preferred provider list:

MEMORY FEATURES

Notepad

During a call, if you need to record a phone number, you can enter it into the display as a form of electronic notepad. Once you have ended the call, this number can then either be called by:



or stored into memory by:



M+ memory location number.

Recall Last Number 'Called'



The last number called will appear.

For security reasons, you may wish to clear the last number called. You can do so by entering any invalid number, and then



Memory Linking

Memory linking allows you to "link" a number from memory to a number already in the display.

To link numbers:



 digits  **MR** memory location number.

INTERFACE FEATURES

Electronic Lock

Protects your phone from unauthorised use.

To lock:   **4** 

To unlock:  3 digit unlock code **#** 
Upon delivery, the unlock code is set to 123.

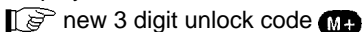
If you forget the unlock code, you can still access the "Change Unlock Code" feature to display the current unlock code. Your security code will be required.

Changing the Unlock Code

To change the unlock code:



Display shows current unlock code.



Your new unlock code will display for six seconds.

Avoid using the GSM emergency number as your unlock code.

Ringer On/Off

To mute the ring tone of incoming calls and replace with the word 'Call' in the display:



If "Automatic Answer" has been selected, then muting the ring tone is not recommended.

Keypad Tones On/Off

To mute the tones heard when pressing keys:



M+ to toggle tones on/off.

Tone Signalling Features

Tone signalling features allow you to communicate with external devices that respond to Dual Tone Multi-Frequency (DTMF) tones.

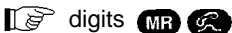
Notepad Tones On/Off

If you use the "Notepad" feature often, the DTMF tones heard while pressing keys may irritate the called party. To avoid this, you can mute these tones:



M+ to toggle tones on/off.

With the notepad tones muted, you will still hear a feedback tone whenever you press a key, but the called party will not. If you wish to transmit DTMF tones while the notepad tones are muted, simply:






Pauses in Memory

This feature makes two part calling more convenient by allowing you to dial sequences of numbers separated by pauses. The pause in the number sequence will stop transmission at that point to allow for a system response, such as a second dial tone.

To construct sequences:



Enter the first numbers you wish to send, or recall them from memory by:

 **MR** memory location number.

1. Then to insert a pause:   

A small square will appear after the number to represent the pause.

2. Enter the next number, or recall from memory by:

  **MR** memory location number.

Repeat steps 1 and 2 for a maximum of 32 digits. An additional 12 digits may be appended to the standard 20 digits. The international prefix (+) and a pause each count as 1 digit.

You can store this number sequence in memory locations 1-100. Number sequences containing pauses cannot be stored to your SIM card.

To make calls using number sequences:

Construct or recall sequence first.



Digits prior to pause are transmitted.

1. Await system response.

2. 


Digits prior to next pause are transmitted.

Repeat the steps 1 and 2 until all digits have been transmitted.

DTMF Signalling

DTMF tones used to signal pagers, access computers, etc., can be sent using your phone.

DTMF dialling from keypad:

Once the call is established, press the keypad digit keys to transmit DTMF tones. Do not use the  key.

DTMF dialling from memory:

1. Establish the call.

2. Recall from memory the number you wish to transmit as DTMF digits.

3. 

Repeat steps 2 and 3 as necessary, to send separate groups of numbers.

Actual DTMF tone sent over the air lasts about a tenth of a second. If you require longer tones use the "Long Tone DTMF" feature.

Long Tone DTMF

Certain electronic devices require longer tones e.g. answering machines. This feature allows you to transmit a DTMF tone for as long as the key is depressed.

To select/cancel:



Language Selection

You can select the language in which the prompts are displayed.

To select language:



To scroll to preferred language:



Point, M+ to make language selection.

PIN Code Enable/Disable

You may enable or disable (if the SIM card allows) the PIN code. When disabled, you do not have to enter the PIN Code when the phone is turned on.

To enable/disable PIN code:



If the display shows;

'Not Allowed', disabling the PIN code is not allowed by the service provider.

'Wrong PIN', the PIN code was wrong. You must start over. If you have forgotten your PIN code, you may choose a new PIN code by using the procedure described in the section, "Unblocking the SIM Card".

'Blocked', three unsuccessful attempts at entering the PIN code have been tried. See section, "Unblocking the SIM Card".

Changing the PIN Code

The first PIN code is selected by the SIM card provider. The PIN code must be enabled before it may be changed.

To change the PIN code:



original PIN code

new PIN code (4-8 digits)

new PIN code again



If the display shows:

'OK' the PIN code has been changed.

'Matching Error', the two new PIN codes did not match. You must start over.

'Wrong PIN', the original PIN code was wrong. You must start over.

If you have forgotten your PIN code, you may choose a new PIN Code by using the procedure described in the section, "Unlocking the SIM Card".

'Blocked', three unsuccessful attempts at entering the PIN code have been tried. See section, "Unlocking the SIM Card".

Unlocking SIM Card

The SIM card is blocked from use upon three unsuccessful attempts at entering the PIN code. To unblock the SIM card, you must choose a new PIN code following the procedure below. Use the unblock code supplied by the SIM card provider.

To unblock SIM card:

When **'Blocked'** appears in the display,



unlock code



new PIN code (4-8 digits)



new PIN code again



If the display shows;

'OK', you have unblocked the SIM card and entered a new PIN code.

'Matching Error,' the two new PIN codes did not match. You must start over.

'Wrong Code,' your unblock code was wrong. You must start over.

If you do not succeed after 10 attempts, the SIM card is permanently blocked. **'Blocked, See Supplier'** will appear in the display. You must then seek help from your service provider .

Changing the Security Code

Upon delivery, your security code is "000000".

To change the security code:

  **5** **4** **M+**
security code

Display shows current security code

Enter new security code **M+**

In case you have forgotten the programmed security code, please contact your telephone dealer's service centre.

CALL MONITORING

The phone has a variety of features to help you monitor time and costs accumulated when making outgoing calls.

These features provide both audible and visual call monitoring.

One Minute Audible Call Timer

You can programme the phone to emit a beep 10 seconds before the end of each minute of a call.

To select/cancel:

   **3** **1**
 **M+** to toggle feature on/off.

Programmable Audible Call Timer







You can programme the phone to signal you two different ways:

1. Every X seconds during a call.
2. Once after Y seconds during a call.

The value of X and Y are programmed by you. The phone will emit a beep ten seconds before the interval X or Y is reached.







Option 1

To select/cancel:

   **3**  **2**  **M+**
time period in seconds (011-999) **M+**
 **M+** to toggle feature on/off.

Option 2

To select/cancel:

   **3**  **3**  **M+**
time period in seconds (011-999) **M+**
 **M+** to toggle feature on/off.

Visual Call Timers & Meters

The visual call monitors consist of seven call timers and seven call meters. To use the call meters you must programme a rate-per-minute into the phone, using either charge units or currency.

Only outgoing calls are monitored.

Descriptions of the various call timers/meters are as follows:

Individual - Accumulates time and charge for the most recent call made. Automatically returns to zero before each call.

Resettable - Accumulates time and charge for calls made since last reset. There are three types of resettable call timers/meters:

Home Accumulates time and charge for calls made on your home system, since last reset.

Roam Accumulates time and charge for calls made while roaming, since last reset.

Total Sum of Home and Roam call timers/meters.

To reset all resettable call timers/meters:



Cumulative - Accumulates the total time and charge for all calls made and cannot be reset. There are three types of cumulative call timers/meters:

Home Accumulates time and charge for all calls made on your home system.

Roam Accumulates time and charge for all calls made while roaming.

Total Sum of Home and Roam call timers/meters.

Displaying Call Timers



Hand icon pointing to the sequence of buttons: a left arrow with an X, or a right arrow with a #, to scroll through all call timers.

Hand icon pointing to the call timer icon to exit call timers.

Displaying Call Meters

A rate-per-minute (either currency or charge unit) must be programmed into the phone. See the section, "Programming Rates".



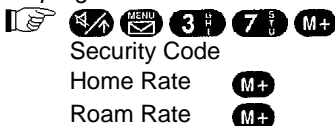
Hand icon pointing to the sequence of buttons: a left arrow with an X, or a right arrow with a #, to scroll through all call meters.

Hand icon pointing to the call meter icon to exit call meters.

Programming Rates

Call meter rates can be programmed as either currency-per-minute or charge units-per-minute. In either case, the minimum time interval increment is 30 seconds.

To programme rates:



The roam rate is initially set to the home rate to prevent you from setting it to zero by mistake.

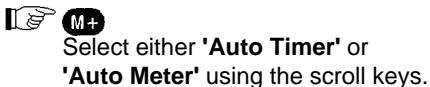
Automatic Monitor Displays

You can automatically display the time or charge of each outgoing call both during and after the call.

To select/cancel:



To toggle feature on:



To toggle feature off:



CALL RESTRICTIONS

Call restriction settings are stored in the phone, but may affect SIM card usage.

The following restrictions are available:

- Keypad Dialling
- Memory Access
- Incoming Calls
- Phone Number Length

These may be selected/cancelled independently to suit your needs.

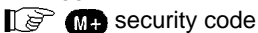
Restrict Keypad Dialling

Prevents any keypad dialling except for '112' emergency calls and recall from memory.

To select/cancel:



To toggle feature on/off:



Restrict Memory Access

Only those memory locations selected by you are accessible for storing and recalling. Memory locations outside this range are programmed as either:

Protect: Storing and recalling are barred.

Recall Only: Only recalling is allowed.

To select/cancel:



To toggle feature on:

M+ security code
Select either '**Protect**' or '**Recall Only**' using the scroll keys.

M+ to confirm selection.
Enter low limit
Enter high limit

To toggle feature off:

M+ security code.

Restrict Incoming Calls

Only outgoing calls are allowed.

To select/cancel:



To toggle feature on/off:

M+ security code.

Restrict Phone Number Length

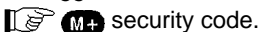
This can be done to prevent long distance and international calls.

DTMF signalling is also disabled.

To select/cancel:



To toggle feature on:



Display will show maximum number of digits that can be sent.

To change this maximum:

Enter new maximum number (up to 20) **M+**

To toggle feature off:



'112' emergency calls are still possible.

Digits after pauses in phone numbers do not count toward length limit.

Full Service

Permits full keypad and memory usage.

To select:



If selected, this service will remove all call restrictions previously selected.

CALL BARRING

Call barring is a SIM card feature. If you subscribe to call barring, you may bar incoming and/or outgoing calls by entering a special key sequence. The key sequence includes a "barring code" and a password.

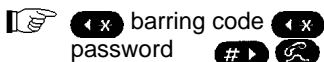
The first password is supplied by the service provider.

Common types of barring:

all outgoing calls	barring code: 33
all outgoing international calls	barring code: 331
all outgoing international calls except those to home service provider	barring code: 332
all incoming calls	barring code: 35
all incoming calls when roaming	barring code: 351

Additional call barring services may be provided. Consult your service provider for further information.

Activating Call Barring



If display shows;

'Please Wait', your request is being processed.

'Barring On', barring has been enabled.

Example

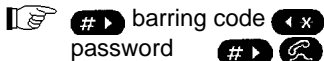
Bar all incoming calls.

barring code: 35
password: 2468



Cancelling Call Barring

To cancel a single type of call barring:



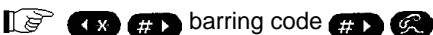
To cancel all types of call barring:



'Barring Off' will appear in the display.

Call Barring Status

To check whether call barring is on or off:



If display shows;

'Barring On', call barring is on.

'Barring Off' call barring is off.

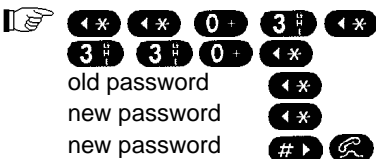
Each call bar type must be checked individually.

Example

Check status of 'barring all incoming calls'.
barring code: 35



Changing Call Barring Password



If display shows;

'Password Changed', password changing was successful.

'Matching Error', the two entries of the new passwords did not match. Try again.

Special Call Barring Messages

While call barring is active, the following messages may appear in the display;

'Outgoing Call Barred', you have tried to make a call while outgoing calls are barred.

'Wrong Password', you have entered the wrong call barring password. Try again.

'Call Barred', you have made a call to someone who has barred incoming calls.

CALL FORWARDING

Call forwarding is a SIM card feature. If you subscribe to call forwarding, you may forward incoming calls to another phone number by entering a special key sequence. The key sequence includes a "forwarding code".

Common types of call forwarding:

unconditionally forwarding code: 21
Forwards all incoming calls.

no answer forwarding code: 61
Forwards calls which you do not answer.

not reachable forwarding code: 62
Forwards calls which you cannot answer.

For example:

- your phone is out of coverage.
- your phone is switched off.
- your SIM card is not inserted.

busy

forwarding code: 67

Forwards calls received while your phone number is busy.

Additional call forwarding services may be provided. Consult your service provider for further information.

Activating Call Forwarding



forwarding code



phone no.



If display shows,

'Please Wait', your request is being processed.

'Forward On', forwarding has been enabled. This message also appears each time you make a call if call forwarding is on.

'Invalid Number', The phone number you have chosen to receive your calls is invalid.

You may use a different phone number for each call forwarding type.

Example

Forward calls if busy.

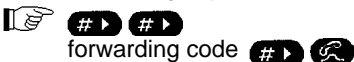
forwarding code: **67**

phone no. to receive calls: **13579246**



cancelling Call Forwarding

To cancel a single type of call forwarding:



To cancel all types of call forwarding:



'Forward Off' will appear in the display. This message also appears if the network cancels call forwarding.

Example

Cancel call forwarding if busy.

forwarding code: 67



Call Forwarding Status

To check whether call forwarding is on or off:



If display shows;

'Forward On, 13579246', call forwarding is on to number shown.

'Forward Off', call forwarding is off.

Each call forwarding type must be checked individually.

Example

Check status of 'call forwarding if busy'.
forwarding code: **67**



Special Call Forwarding Messages

While call forwarding is active, the following messages may appear in the display;

- 'Call Forward'**, either a call made to you or a call you have made has been forwarded.
- 'Busy Try Later'**, the network is processing your earlier request/Please try again later.
- 'Not Allowed'**, you cannot activate this service subscription problems and incompatible service(s).
- 'Network Problem'**, communication with the network failed. Please try again.
- 'Invalid Command'**, either a key sequence failure or an unsuccessful attempt. If the message appears after repeated attempts, please consult your service provider.
- 'Not Available'**, this service is not available.

BATTERY OPERATION

The only maintenance required for the batteries is to keep them charged and the contacts clean (a pencil eraser works well). The battery pack should be near room temperature when charging.

WARNING !

Batteries may explode if disposed of in fire.

Low Battery Warning

When the battery level becomes too low for normal operation, a warning signal (two double beeps) will sound. **'Low Battery'** will appear in the display. When the battery is almost completely discharged, the phone will turn off.


Battery Saving Feature (DTX)

The Battery Saving Feature, also known as Discontinuous Transmission (DTX), allows the phone to operate at reduced power when you are not talking.

To select/cancel:



  to toggle feature on/off.



Replacing Battery

To remove battery:

Grasp the phone in one hand, push the thumb catch on the back of the phone, and slide the battery down and off.

To attach battery:

Line up the top of the battery with the horizontal line on the back of the phone. Place the battery on the guides and push up until the battery locks into place.

Important Charging Information

- Both NiCAD and NiMH batteries can be used with your phone.
- It is normal for the battery to become warm during charging.
- Do not leave batteries charging for more than 24 hours.
- NiMH batteries have a high rate of self-discharge compared to NiCAD batteries. Battery capacity can be restored by recharging.



Overnight Desktop Battery Charger

The charger's front pocket accepts batteries either alone or while attached to the phone. The charger's rear pocket accepts batteries alone.

Battery Type*	Approximate Recharge Time
NiCAD Standard XT	14 hours
NiCAD Slim XT	15 hours
NiMH Ultra Slim	10 hours

The yellow lamps indicate that the phone or batteries are properly inserted and charging.

When charging a battery attached to the phone, turn the phone off. Leaving your phone on while charging could extend the recharge time.

Note: * *In some markets these batteries are known as (in the same order as above): TalkPak XT, Standard XT and Standard.*



Rapid Desktop Battery Charger

The charger's front pocket accepts batteries either alone or while attached to the phone. The charger's rear pocket accepts batteries alone.

Battery Type*	Approximate Recharge Time
NiCAD Standard XT	90 minutes
NiCAD Slim XT	90 minutes
NiMH Ultra Slim	90 minutes

The NiCAD batteries above are charged sequentially, front pocket first followed by rear pocket.

The NiMH battery above is charged simultaneously (both pockets together).

Each pocket has its own three-colour lamp to indicate that the phone or battery is properly inserted in the charger pocket and either rapid charging (red), finished charging (green), or trickle charging (flashing yellow).

Note: * *In some markets these batteries are known as (in the same order as above): TalkPak XT, Standard XT and Standard.*



BATTERY SAVER

The Battery Saver requires no installation and allows you to power your phone from the car's electrical system. The Battery Saver does not charge the phone's battery, but saves it from use.

Attach the Battery Saver by sliding the flat end of the Battery Saver connector into the connector slot on the back of the phone. You will hear a click when proper connection is made. Plug the cigarette lighter adaptor into the car's cigarette lighter socket.

To unplug the Battery Saver from the phone, squeeze both sides of the connector until the tabs release, then remove the connector from the phone.

CAR KIT FEATURES

The following features are only available when your phone is used with the optional car kits.

Automatic Answer

When using your phone with a Car Kit this feature allows your phone to automatically answer calls (no keypress required). An incoming call will ring twice, then simply talk into either the telephone mouthpiece or the hands free microphone.

Automatic answer will not operate with the *Simple Micro Car Kit*.

To select/cancel automatic answer:



If you are using the *Coupled Micro Car Kit*, make sure the phone is resting in the cradle for automatic answer to work properly.

If you are using the *Basic Car Kit*, select the automatic hands free feature before selecting automatic answer.

If automatic answer is selected while the phone's ringer has been switched off, incoming calls will only be announced by the message **'Call'** flashing in the display. The ring tone will not be heard.

ENTERTAINMENT MUTE /AUXILIARY ALERT

Depending on the option selected for your phone, only ONE of these two features will be supported. Also, the *Coupled Micro Car Kit* is required to use either of these features.

Entertainment Mute

If your phone has this feature and your car installation supports it, the car stereo will mute whenever a call is made or received. Also note that this feature CANNOT be disabled.

Auxiliary Alert

If your phone has this feature, Auxiliary Alert informs you of an incoming call when outside your car by activating an external alerting device (horn, lights).

To select/cancel:




When Auxiliary Alert is on, the word 'Alert' will appear in the display. If the car ignition is turned off, the phone will remain on until the Safety Timer turns it off (See section Safety Timer).

Turning the car ignition back on will cancel Auxiliary Alert.

Safety Timer

When using your phone with a car kit, the safety timer prevents the phone from draining your car's battery, if the phone is left on while the car ignition is off.

Only the *Coupled Micro Car Kit* will support this feature.

Although your phone does turn off with the car ignition, you can turn the phone back on by pressing . Also, if you switch the car ignition off during a call, the phone will remain on allowing you to complete the call.

The safety timer can be programmed to turn the phone off 1 - 999 minutes after the car ignition is switched off. If the timer is not programmed, it will default to four hours. The safety timer cannot be disabled.

To select:



The current time period will appear in the display. If no keys are pressed within 6 seconds, this time will be retained.

To change time:

Enter new time period (up to 999).





MICRO CAR KITS

Simple Micro Car Kit

The **Simple Micro Car Kit** provides:

- A holder (cradle) for the phone.
- Charging of the phone's battery while the phone is mounted in the holder.
- Charging of the phone's battery while separated from the phone.

*When used along with the optional **Battery Saver** accessory, this kit also provides:*

- Power to the phone from the car battery.
- Immediate communications regardless of the phone battery charge level.

Coupled Micro Car Kit

*In addition to the above features, the **Coupled Micro Car Kit** provides:*

- Connection to an outside cellular antenna during hands free calls.
- Automatic Hands Free operation.
- Built-in hands free speaker.
- Optional "Boom Microphone" accessory for headset hands free capability.
- Optional easy-install "External Speaker" accessory.
- Automatic car stereo muting (entertainment mute) when receiving incoming calls.

**Note:**

This feature is compatible with only certain car stereos. Your phone must also be programmed to support this feature. If your phone does support this feature, you will not be able to activate 'auxiliary alert'.

**Micro Car Kit Operation**

Turn off your phone before attaching or detaching the car kit coil cord (or optional *Battery Saver* coil cord if using the *Simple Micro Car Kit*). Attach the coil cord by sliding the flat end of the connector into the connector slot on the back of the phone. You will hear a click when proper connection is made.

To unplug the coil cord, squeeze both sides of the connector until the tabs release, then remove from phone. When not in use, place the coil cord connector into the storage slot located on the top surface of the telephone holder.

Place your phone (bottom end first) into the holder,¹ then pivot the phone's top backwards until it clicks into place as shown in figure 1.²

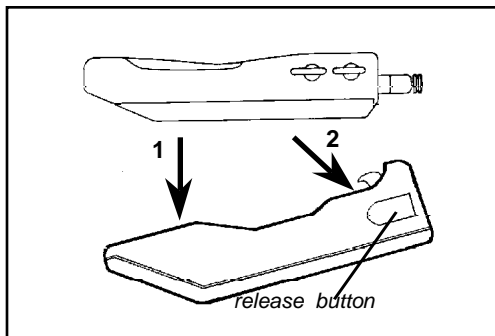



Figure 1. Insertion of Pocket Telephone into Car Kit Charger/Holder

The phone's flip can be opened and closed while in the holder. To release the phone, press the button(s) on the side(s) of the holder. Pivot the top of the phone towards you and slide it upwards out of the holder.



Micro Car Kit Vehicular Charger

Your Car Kit includes a rapid vehicular charger. The charger will fast charge all approved pocket phone batteries whenever either the battery alone, or the battery connected to the phone is placed in the holder. The LED light located next to the holder button will light up to indicate the following:

- flashing red:** "Alert" - charging problem!
Check to ensure that the metal contacts on the battery and on the holder are clean. Then re-insert your phone or battery back into the holder. If there is still no change, try a different battery, or contact your dealer.
- steady red:** rapid charging
- green:** done charging
- yellow:** "Waiting" to charge (battery too hot/too cold).

Charge times will vary depending on the type of battery used and the vehicle's electrical system. Note that charging stops in most permanent installations when the vehicle's ignition is turned off.

Switching Phone On/Off

Simple Micro Car Kit:

The phone must be turned on or off manually by




Coupled Micro Car Kit:

If your car kit has been installed with *Ignition Sense Activation*, the phone will turn on or off with the car's ignition switch, as long as the phone was powered on before the ignition was last turned off.

If you turn your car ignition off during a call, the phone will remain on until you end the call.

If you have purposely or unintentionally left your phone on while connected to the Car Kit, the safety timer will turn the phone off after a user selected time period (or four hours if no time period has been selected) to prevent draining the car's battery.



Adjusting Volume

To adjust hands free speaker volume:

Operate the phone's volume buttons with the phone in the cradle. If you are not in a call, a representative tone will be heard.

To adjust earpiece volume:

Operate the volume buttons with the phone held to your ear.

To adjust boom headset volume:

Operate the volume buttons with the phone in the cradle and the headset plugged in.

Automatic Hands Free

Hands Free operation is enabled or disabled automatically by the phone holder (not applicable for the Simple Micro Car Kit). When your phone is inserted into the holder, and the coil cord is attached to the phone, your phone will automatically operate in hands free mode. When the phone is removed from the holder the phone will revert to normal handset mode.

For the 'Coupled' Micro Car Kit, the phone will only operate with the outside cellular antenna while the phone is mounted in the holder.

Standard Hands Free

This feature is available when you need to enter and exit hands free without the use of the cradle. For example, you may want to use the cradle to charge a second battery while still communicating in hands free mode.

The following are methods for selecting/cancelling hands free while your phone is out of the cradle and in a call:

Either

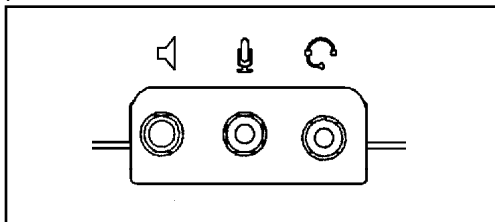
Close and then open the phone's flip within one second.


or





Micro Car Kit Rear Panel

The Coupled Micro Car Kits come with a rear panel as shown below:



 Indicates Optional External Speaker. If you purchase this additional accessory, the speaker cord will be installed into either this port or a port behind your dashboard.

 Indicates the car kit microphone. All Coupled Micro Car Kits come standard with a microphone, which is plugged into the car kit in this panel and mounted above your front windshield.

 Indicates Optional Boom microphone. If you purchase this accessory you must unplug your standard microphone and slide the microphone door across to reveal the port of the Boom Microphone (both microphones cannot be connected to your Car Kit at the same time). Use of the Boom microphone automatically cancels the voice functionality of the internal speaker, which is built into your Car Kit and provides improved Hands Free Capabilities.

BASIC CAR KIT

The **Basic Car Kit** provides:

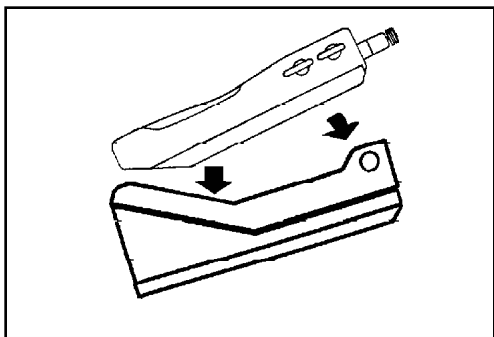
- Full Duplex Hands Free operation.
- Power to the phone from the car's battery.
- Connection to an outside cellular antenna during hands free calls.
- Constant illumination of the phone's keypad and display while the car is on.
- Charging of the phone's battery while mounted in the holder.

Basic Car Kit Operation

Turn off your phone before attaching or detaching the Car Kit coil cord. Attach the coil cord by sliding the flat end of the connector into the connector slot on the back of the phone. You will hear a click when proper connection is made.

To unplug the coil cord, squeeze both sides of the connector until the tabs release, then remove from phone. When not in use, place the coil cord connector into the storage slot located on the top surface of the telephone holder.

Place your phone (bottom end first) into the holder, then pivot the phone's top backwards until it clicks into place as shown in figure 2.



*Fig. 2 Insertion of Personal Telephone into
Car Kit charger/holder.*

The phone's flip can be opened and closed while in the holder. To release the phone, press the button on the right side of the holder. Pivot the top of the phone toward you and lift.

Basic Car Kit Vehicular Charger

The Basic Car Kit Vehicular Charger will charge the phone's battery in the car whenever the phone is placed in the holder.

When the charger's 2-colour lamp is red, the battery is fast charging. When the lamp turns green, the battery has finished fast charging and is trickle charging. Charging stops in most permanent installations when the car's ignition is turned off.

Battery charging using the vehicular charger will achieve charge times approximately equal to those of the Rapid Desktop Charger.



Switching Phone On/Off

If your Car Kit has been installed with *Ignition Sense Activation*, the phone will turn on or off with the car's ignition switch, as long as the phone was powered on before the ignition was last turned off.

If you turn your car ignition off during a call, the phone will remain on until you end the call.

Adjusting Volume

To adjust hands free speaker volume:

Operate the phone's volume buttons either during a hands free call or before placing the call with auto hands free selected. If you are not in a call, a representative tone will be heard.

To adjust earpiece volume:

You must be in a call using the handset. Operate the volume buttons with the phone held to your ear.

Automatic Hands Free

Hands free operation can be enabled two different ways:

1. Automatically by selecting the *Auto Hands Free* feature.
2. Manually, during a call, either by closing and then opening the phone's flip within one second.

or by



To select Automatic Hands Free:

Your phone must be connected to the Basic Car Kit.



You may wish to select this feature the first time you use the Car Kit.

To make calls with Auto Hands Free on:

Enter telephone number (or recall one from memory).





You will hear call through the hands free speaker. When call is answered, leave phone in holder and speak normally.



To receive calls with Auto Hands Free on:

Either:

  or open the "flip".

Leave phone in holder and speak normally.

Switching Between Hands Free and Handset

During a call, either close and then open the phone's flip within one second or

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