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Series 7.0

Etherset Installation Guide and User Manual

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Comments on this document

The *Centrex IP Client Manager Etherset Installation Guide and User Manual* is under continuous revision. Comments which will keep it accurate and informative are welcome.

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About this document

Purpose

The *Series 7.0 Centrex IP Client Manager Etherset Installation Guide and User Manual* describes the installation process for the i200x Ethersets to be used with the CentrexIP International Gateway, also referred to as the Centrex IP Client Manager (CICM).

Audience

This document is intended for Etherset customers. It describes the installation and initialization procedure. In addition, it provides users with step-by-step instructions in making basic calls and navigating the Etherset menu system.

Structure

This book is divided into the following sections:

- Chapter 1 *Overview*
- Chapter 2 *Installing and initializing the i200x Etherset*
- Chapter 3 *Using the i200x Etherset*
- Chapter 4 *Adjusting Etherset settings*

References

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Chapter 1 Overview

1.1 Centrex IP Client Manager

Centrex IP Client Manager (CICM) uses Internet Protocol (IP) telephony to integrate voice and data capabilities. Voice over IP (VoIP) is the technology that allows voice to be carried over a data network. Analog voice signals are digitized, compressed, and transmitted as internet protocol (IP) packets over an IP network.

Combining IP telephony with Succession networks or traditional Digital Multiplex System (DMS) services, Centrex IP Client Manager delivers Centrex capabilities to an IP network.

A VoIP call can be initiated from either a software client or a hardware client. The CICM supports the following two types of client:

- A software client, the m6350 SoftClient. Refer to the *NN10182-113 CICM m6350 SoftClient Installation and User Guide*.
- A hardware client (which is essentially a LAN-capable telephone) such as the Nortel i200x Etherset.

Both types of CICM clients are supplied by Nortel Networks exclusively. An Etherset is recommended for a user based at one primary location, and the SoftClient is recommended for mobile users to access from a variety of locations.

The CICM Element Manager administration interface is used for administration and configuration of i200x terminals, including assigning user permissions, User Profiles and Audio Profiles. Administrators should refer to *CICM* documentation suite for i200x Etherset configuration and administration procedures.

1.2 i200x Ethersets

The i200x terminals are Nortel Networks' Etherset Internet Protocol (IP) telephones, which connect directly to a client LAN or to a telephony switch module. The i2001, i2002 and i2004 models are supported.

CICM Clients use the Nortel Networks proprietary UNiStim (Unified Networks stimulus) protocol to communicate with the CICM. Stimulus protocols reflect the user's input stimulus ((key presses) and reflect display commands sent from the network (which drive displays and lamps on the device). This allows the clients to deliver the full range of Centrex services.

The i2004 model of the Etherset is the full version which has been available in previous releases. The i2002 is a model that was introduced in the CICM Series 2.5 release, and is an economical, abbreviated version of the i2004. The i2001 Etherset is new for CICM Series 7.0 release. It is the most economical version of the i200x series, and provides the most popular functions of the i2004 at a much lower price.

The i2001 Etherset is the first phase II Unistim terminal. Phase II terminals have a new bootstrap and require some incremental work on the CICM for support. Phase I terminals will be Manufacture Discontinued (MD) when Phase II terminals are fully implemented and easily available. The Phase II terminals can be configured as emulations of Phase I terminals.

The three Ethersets are MBS-like handsets that connect directly to a LAN. The Ethersets are shown in the following figure 1.

Figure 1 i2004 Etherset (left), i2002 (center), and i2001 (right)

IP Telephone 2001, 2002 and 2004

Full integration of Power over LAN

Firmware updates

- Power classification (Q3 '04)
- 100mbps/Full Duplex (Q3 '04)
- Full Virtual LAN (YE '04)

Multi-Protocol support

- Apart from Unistim, SIP available from Q1'05

Increased Security

- UNiStim signaling encryption

Planned-In Voice Call Quality Measurement and Diagnostics

Phase II Phones from Q4'04

i2004
6 feature keys & large display
2 x accessory ports
Plug-in 10/100BT Switch

i2002
4 feature keys & smaller display
Wall Mountable
Integrated 10/100BT Switch

i2001
4 soft keys
Wall Mountable
Economical

The functional components of the i200x are:

- A handset
- A speaker and headset connector for hands-free operation

- A standard keypad, including Release, Hold, Volume Control and Mute keys
- A function display area with a set of keys for scrolling

To use the i200x, the user logs on to the CICM, supplying a user name and password. Once logged in, the handset and standard keypad of the i200x behave in the same way as a standard MBS telephone. Additional services and features can be accessed via the Softkeys of the function display area. Each of the Softkeys corresponds to a menu option, and the navigation keys can be used to select a particular menu option.

The following table provides a comparison of the i2001, i2002 and i2004 user interfaces.

Table 1: i2001, i2002 and i2004 User Interface Comparison

Option	i2004	i2002	i2001
Display contrast	Y	Y	Y
Feature key configuration	Y	N	N
Language selection	Y	Y	Y
Time and date format selection	Y	N	N
Time settings	N	N	N
Audio configuration allows for the user to configure and choose their own audio profile from the i200x menu.	Y	Y	Y
Firmware Upgrades	Y	Y	Y
User-created Contacts List that can be associated with feature keys for automatic dialing. There are 6 feature keys. Up to 12 features are available from these keys by using the page up/down keys.	Y	N	N
Call history feature provides access to CICM-hosted inboxes and outboxes. It enables users to display a history of incoming and outgoing calls.	Y	N	N

1.2.1 Etherset hardware feature comparison

The i200x clients support IEEE 802.1p and IETF DiffServ Code Point (DSCP) marking. The recommended firmware release for the i200x V2 client on Series 7.0 CICMs is 3.45, for i200x V1 1.63, and for m6350 7.11.160.

The following table provides a i2004, i2002, and i2001 hardware feature comparison.

Table 2: i2004, i2002, and i2001 Hardware Feature Comparison

i2004	i2002	i2001
<p>The Internet Telephone Switch Module is an accessory that docks in the stand of the i2004 Internet telephone. It splits one LAN drop into separate feeds for the phone and a desktop PC. It contains a fixed priority scheme to ensure that the PC traffic does not block phone access.</p>	N/A	N/A
<p>Adjustable-angle stand</p>	<p>Fixed-angle stand</p>	<p>Fixed-angle stand</p>
<p>N/A</p>	<p>Wall mount</p>	<p>N/A</p>
<p>Plug in Ethernet switch available on older models, & Built-in Ethernet switch (2RJ-45 jacks) in more recent models.</p>	<p>Built-in Ethernet switch (2 RJ-45 jacks)</p>	<p>Built-in Ethernet switch (2 RJ-45 jacks)</p>
<p>6 line keys</p>	<p>4 line keys</p>	<p>4 line keys</p>
<p>4 line display area</p>	<p>1 line display area</p>	<p>1 line display area</p>
<p>Extended low-frequency speaker</p>	<p>Standard Stetron LS19 speaker (no tuned cavity)</p>	<p>Standard Stetron LS19 speaker (no tuned cavity)</p>
<p>Handsfree microphone for wide-band audio</p>	<p>Standard Primo EM-80 handsfree microphone</p>	<p>Standard Primo EM-80 handsfree microphone</p>

1.3 The i2004 Etherset

The Nortel Networks i2004 Etherset telephone is a member of the Centrex IP Client Manager range of products. The Etherset connects directly to the Local Area Network (LAN) and therefore allows customers to capitalize on the economies of simplified wiring systems in the office.

The i2004 Etherset user interface is shown in the following Figure 2. The Etherset has been designed to have the look and feel of a standard Meridian Business Set (MBS) telephone providing a full set of Centrex services along with additional features such as a display screen, softkeys and multiple line appearances.

Figure 2 i2004 Etherset user interface

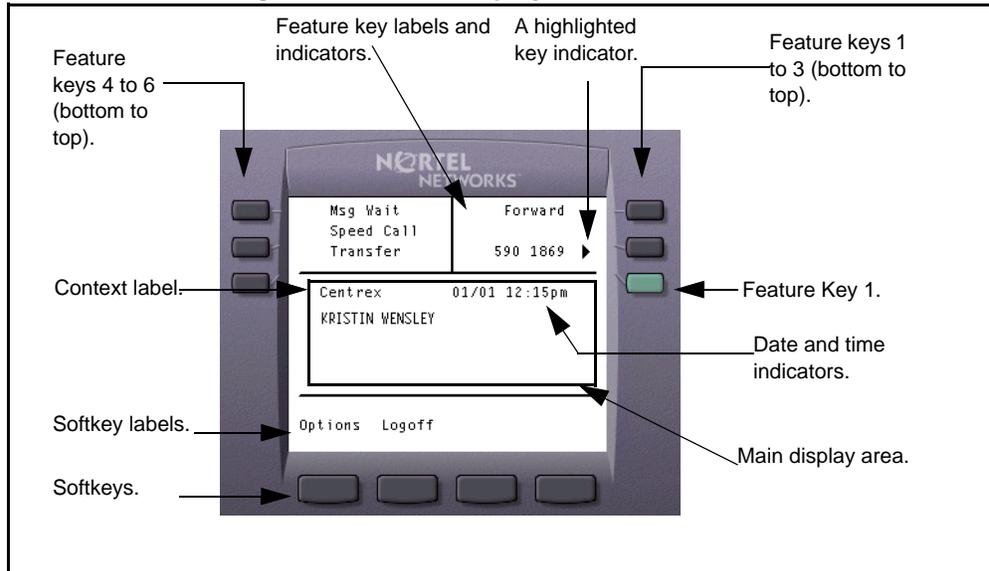


1.3.1 The i2004 Etherset display screen

Figure 3 shows the Etherset display screen. The i2004 Etherset telephone is a feature rich telephone that has a built-in display screen for ease of use.

The display and the keys are described in the sections that follow.

Figure 3 Etherset display



1.3.2 Main display area

The middle portion of the screen is the main display area. This area is used to convey information to the user (e.g. when the user is invoking features such as predial).

This portion of the screen is also used to display the screens and options available through the softkeys.

1.3.3 Feature key labels and indicators

Six feature keys appear to the left and right of the top portion of the display.

Note: There are three keys on each side.

These feature keys are used to access the Centrex features which have been configured against a user's particular line. (By default the keys map to the first six features datafilled against the line at the Central Office.)

Although there are only six feature keys on the Etherset, a maximum of eleven Centrex features are available across two screens. To scroll between the screens, use the up and down navigation keys.

Note: Feature key 1 is never scrolled and is always associated with the lower right-hand green key.

Note: The feature keys will be configured with a specific feature template by your service provider as part of the installation procedure. For the purposes of this document, the feature key assignment shown in

Table 3: will be assumed. However, this interface will vary depending on the feature template configured by your service provider.

Table 3: Feature Key assignment

Feature key	Feature key assignment
Key 1	Primary Dialed Number
Key 2	Unassigned
Key 3	Forward
Key 4	Transfer
Key 5	Speed Call
Key 6	Message Waiting
Key 7	Ring Again
Key 8	Call Park
Key 9	Time and Date
Key 10	Auto Dial
Key 11	Inspect

1.3.3.1 Autoscroll

It is possible to invoke an option known as Autoscroll. Enabling autoscroll allows the Etherset to display an active feature even if it was on a different page when activated.

To enable autoscroll, see the *Labelling Feature Keys* section in chapter 4.

1.3.4 Softkeys

The softkeys provide a simple way for users to navigate through the Etherset's extensive menu system. The softkeys are labelled in the Etherset display screen directly above each of the softkeys.

In some cases, there may be more than four options for a particular menu. In this case, menu options can be scrolled one at a time using the left and right navigation keys. (See the following Figure 4.)

Note: The softkey labels will not wrap when scrolled in either direction.

Menu scrolling examples are shown below:

Figure 4 Menu scrolling examples

Menu context with three options:

Optn1 Optn2 Optn3

Menu context with seven options, scrolled fully to the right:

<Optn4 Optn5 Optn6 Optn7

Menu context with six options, scrolled one to the right:

<Optn2 Optn3 Optn4 Optn5>

Each time a new menu option is selected, the context label will be updated to indicate the current context and the main display area will provide information to the user.

1.3.5 Navigation keys

The navigation keys can be used to scroll between the softkey items if there are more than four options. Use the left and right keys to scroll between the items one at a time, or the up key to return to the first option and the down key to go to the last softkey menu option.

The up and down navigation keys can also be used to scroll between the feature key menus.

1.3.6 Quit key

The quit key is used to return to the top level menu.

1.3.7 Conspicuous keys

The conspicuous keys will be used in future Centrex IP Client Manager releases to provide messaging and internet services. No functionality is currently offered.

1.4 The i2002 Etherset

This section describes the i2002 Etherset and its functionality, and outlines the differences between the i2002 and i2004.

Figure 5 provides a scaled illustration of the i2002 Etherset.

Figure 5 i2002 scale picture



1.4.1 i2002 Display

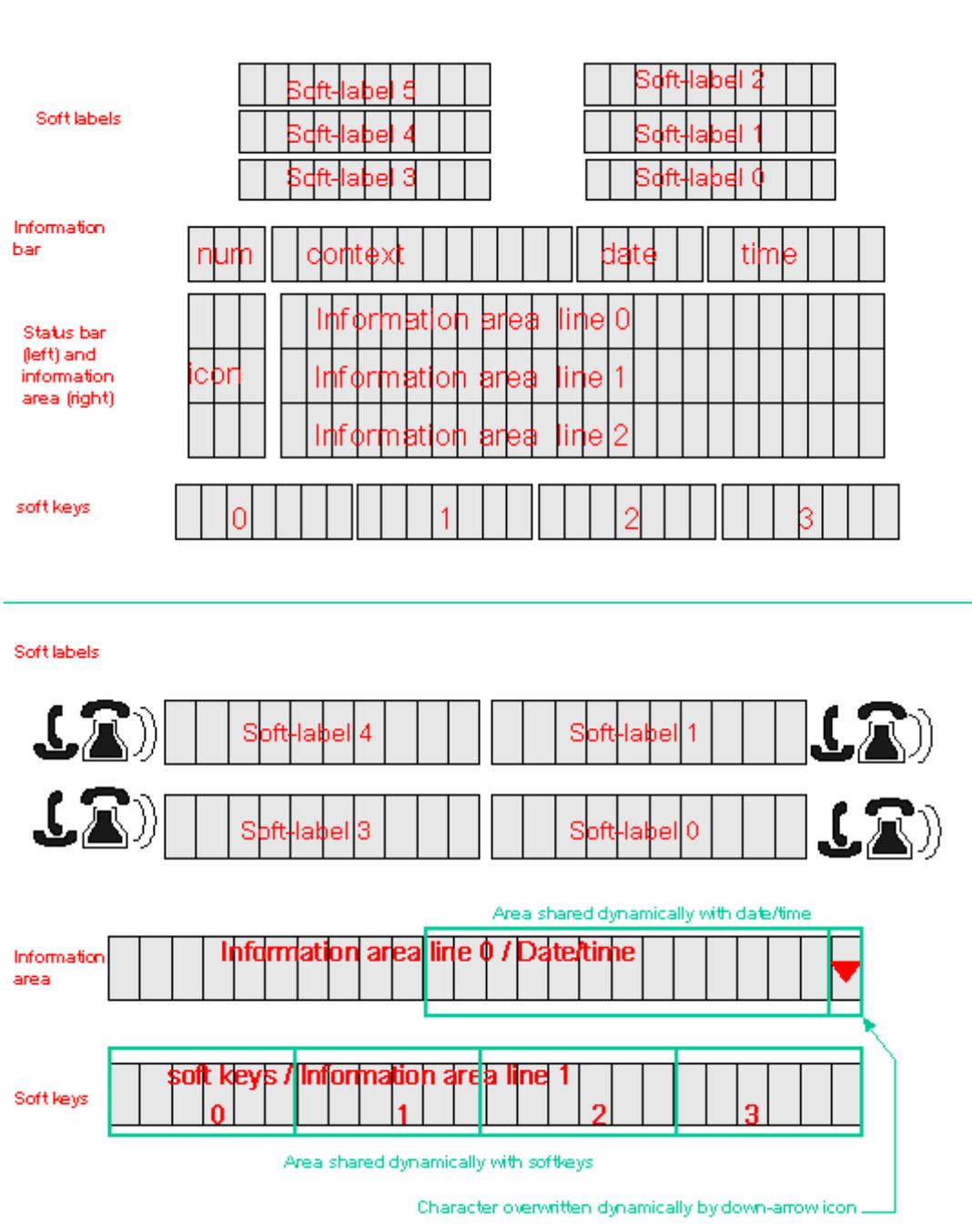
The i2002 Etherset display area characteristics and their comparisons to i2004 are as follows:

- The text area is 1 x 24 characters.
- The number of soft labelled feature keys is four.
The length of these labels is smaller than the i2004; however, the ten character length is the same as the i2004.
- The soft labelled feature key icons are segmented rather than bitmapped as in the i2004. These icons show call state only (**On-hook**, **Off-hook**, and **Hold**).
- The characteristics of the i2004 display that are not available on the i2002 display are:
 - A dedicated icon area in the main display area
 - Dedicated Clock/calendar area

- Dedicated number and context label areas
- Dedicated down arrow

Figure 6 illustrates the comparison of the i2004 and i2002 display layout.

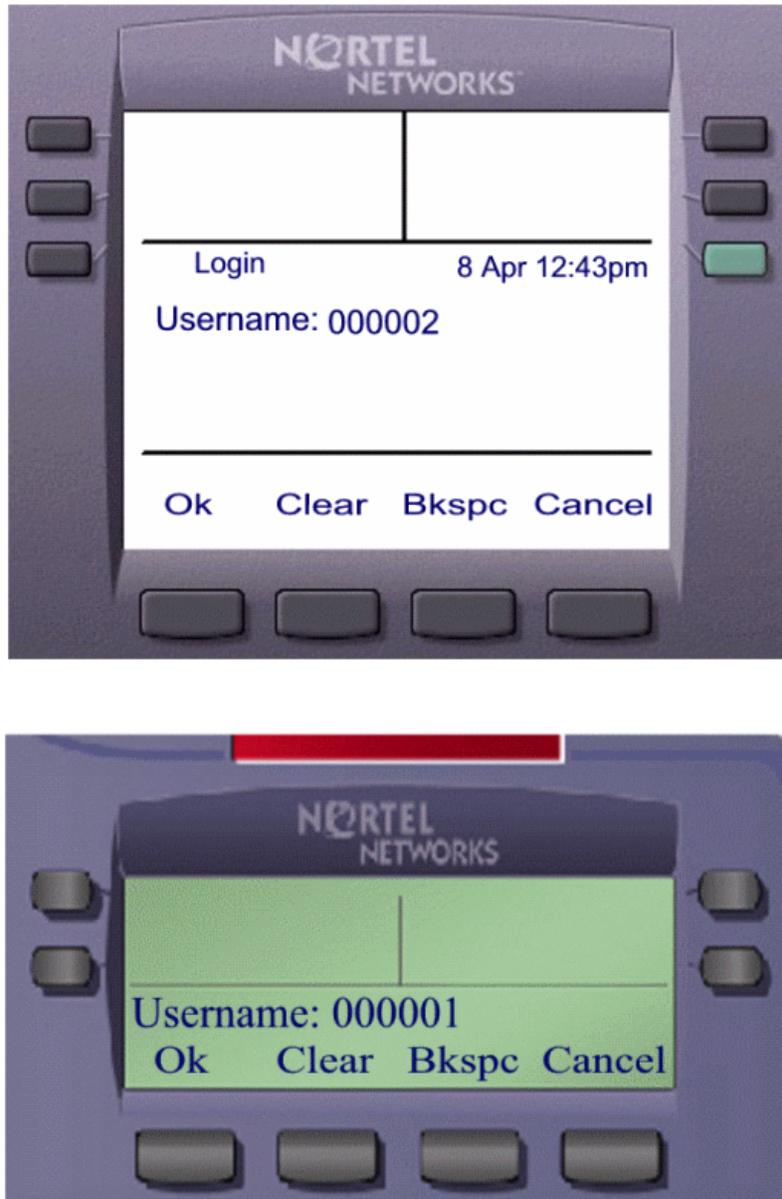
Figure 6 Display layout of i2004 (top) and i2002 (bottom)



1.4.2 Login display

Figure 7 compares the display are for the i2002 and i2004.

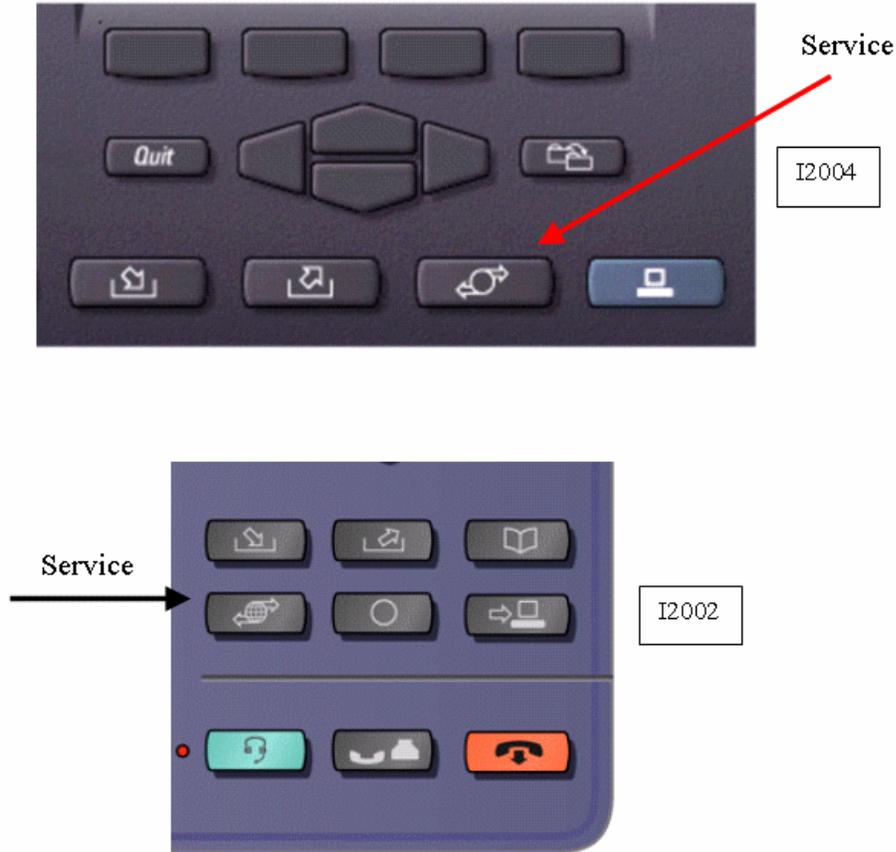
Figure 7 Login display: i2004 (top) and i2002 (bottom)



1.4.3 Service key position

Figure 8 illustrates the service key positions of the i2004 and i2002, which are used to launch the menu system.

Figure 8 Service key position: i2004 (top) and i2002 (bottom)



1.4.4 i2002 Display rules

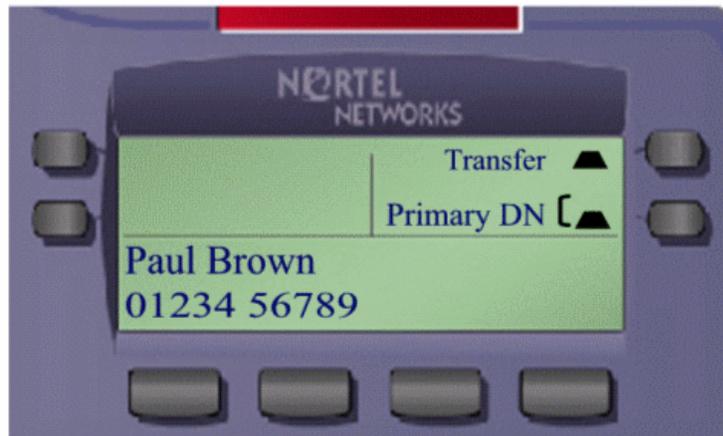
Following are the display rules for the i2002:

- There is no icon display area.
- Menu options are selected via a scroll-able list. The relative position within the list is shown to the far right of information line 0, via up and down arrows.
- The icons displayed adjacent to the top soft feature keys are dependant upon both the feature assigned to the feature key, and the feature state.
Table 4 displays the i2002 feature key icon mappings, and Figure 9 displays an example of a feature key icon mapping.

Table 4: Feature key icon mappings

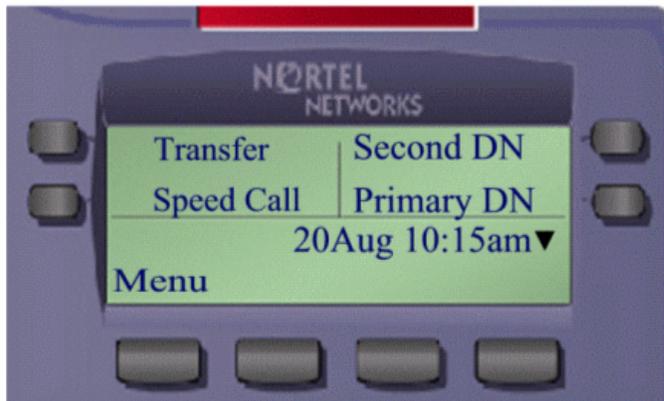
Feature(s)	Cadence	Icon
<ul style="list-style-type: none"> Primary DN 	Off	None
<ul style="list-style-type: none"> DN ACD Incalls Agent, ACD Incalls Supervisor 	<ul style="list-style-type: none"> Winking Flashing 	
	On	
All other feature Keys	On	
	<ul style="list-style-type: none"> Winking Flashing 	
	Off	None

Figure 9 Example: Feature key icon mapping of answered call with Transfer feature active



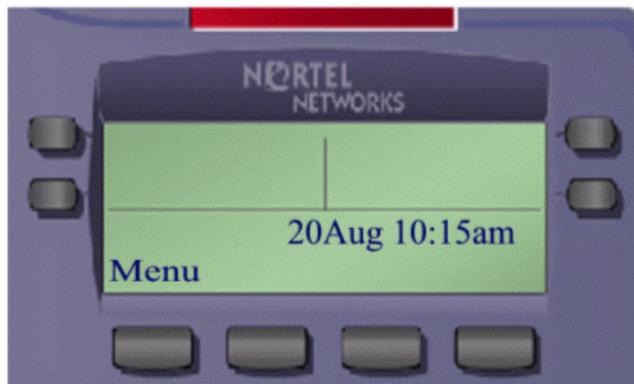
- The top Softkeys are used to display and allow the selection of Feature keys. To make more Feature keys available to the user, a paging facility exists, which allows the user to scroll between multiple pages of Feature keys on the Softkeys. The i2002 has three pages of Feature keys giving a total of 10 keys (key 1 is a static key). An Up/Down indicator is displayed on the extreme right hand side of the Information area line 0 to show the state of scrolling of the top Softkey labels. This arrow is shown when the set is in the idle state and when the user is in the base menu (with the exception of when only one page is available). See Figure 10 for an example.

Figure 10 Example: Feature key paging (Base menu)



- The Time and Date are shared with Information line 0. This is managed by displaying the Time and Date only when the phone is in the idle state and the user is in the base menu. See Figure 11 for an example. If the set is not idle, Information Line 0 is used to display call information to the user, as in Figure 10.

Figure 11 Example: Time and Date displayed in idle state (Base menu)



- Information line 1 is shared by the Softkeys and incoming call information. This is managed while the terminal is in a non-idle state (showing call information) by employing the following rules:
 - Call information is only shown when the user is in the Base screen (i.e. if a user is not in the base screen upon receiving an incoming call, no call information will be shown to the user until they quit from the menu system to the Base menu).
 - The Menu system may be launched (from the base screen – showing call information) by selecting the Switch Services key or by selecting Softkey 0.

1.4.5 i2002 Menu map

The figures provided in this section illustrate what will be presented to the user when logging on to a CICM gateway, and when navigating the menu options of the i2002.

1.4.5.1 Login screens

The login screens in Figure 12 are numbered (in the upper right corner of each screen), and the corresponding descriptions for these screens are:

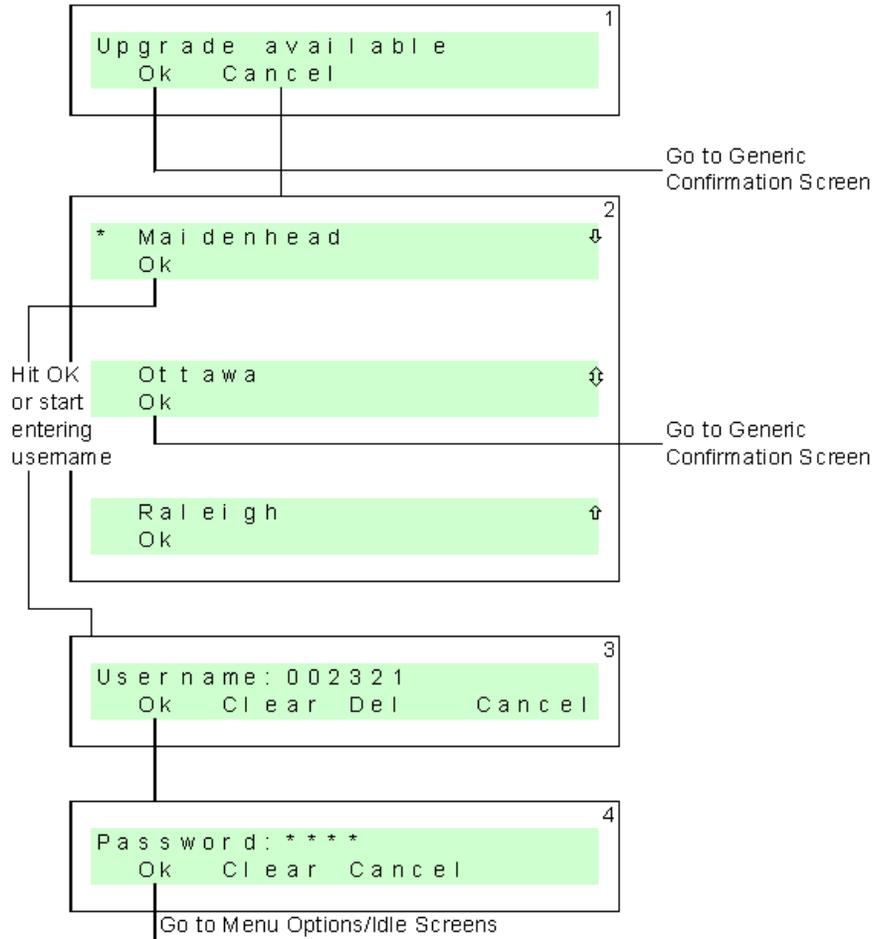
Screen 1 Only shown if an upgrade is available or required. Select **Ok** to go to a Generic Confirmation screen. Select **Cancel** to continue with login.

Screen 2 Used for the Selective CICM gateway Login feature. Select **Ok** to accept a gateway to login to, which takes you to Screen 3. Or, begin to input your username digits, which results in accepting the currently selected gateway. Go to screen 3 and insert the digit(s) entered and complete the login.

Screen 3 Complete login, then select **Ok**. If the username is too long for the display, the digits entered will scroll to the left, and an ellipsis will be shown to the left of the username.

Screen 4 Enter password, then select **Ok**. This will take you to the Menu options and Idle screens, described in the next section.

Figure 12 Login screens



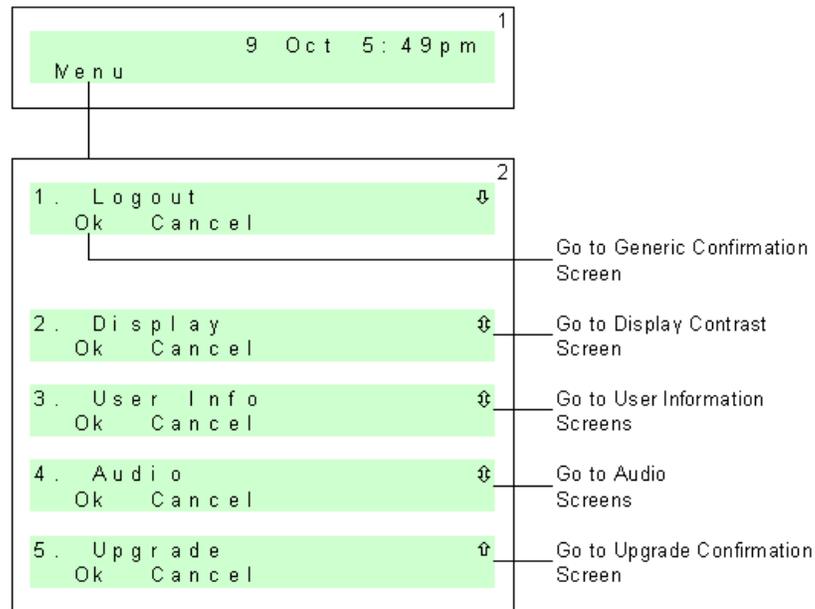
1.4.5.2 Idle and Menu Option screens

The Idle and Menu Option screens are shown in the Figure 13 (the numbers in the upper right corner of each screen correspond to the following descriptions).

Screen 1 The **Idle** screen, showing the Time and Date display, and the Menu option. Select **Menu** to display the menu options, shown in screen 2.

Screen 2 This **Menu Option** screen shows the scrolling of the menu options.

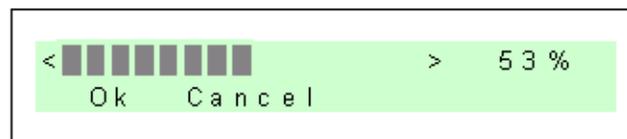
Figure 13 Idle and Menu Option screens



1.4.5.3 Display contrast screen

From the **Menu Option** screen in Figure 13, selecting **Display** will result in the **Display Contrast** screen shown in the Figure 14.

Figure 14 Display Contrast screen



1.4.5.4 User Information screens

From the **Menu Option** screen in Figure 13, selecting **User Info** will result in the **User Information** screens shown in the Figure 15. The numbers in the upper right corner of each screen correspond to the following descriptions:

Screen 1 Shows scrolling through **Username**, **Auto Login**, **Password**, and **Reset to Defaults** options.

Screen 2 Selecting **Username** results in display of the username.

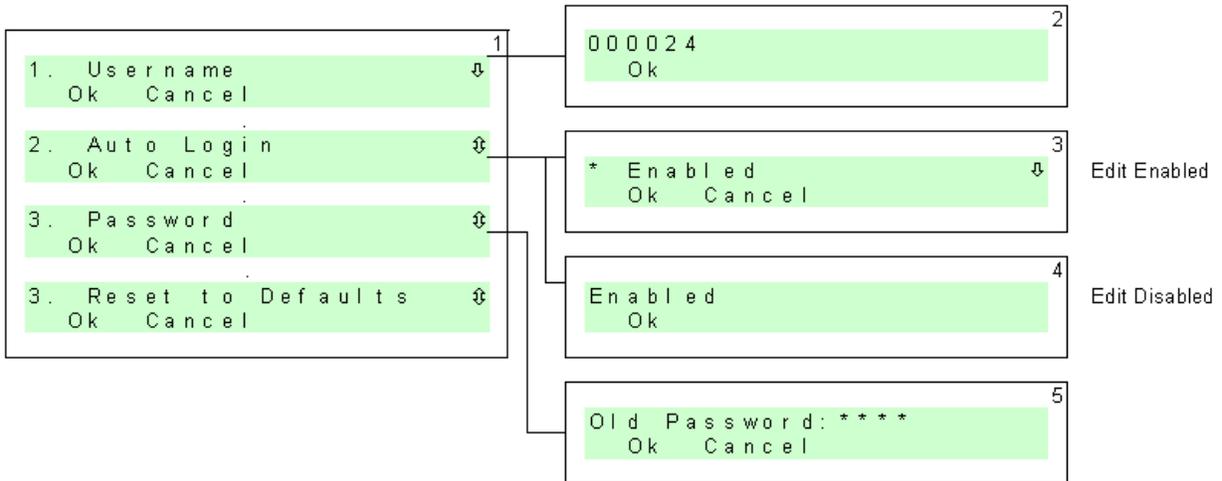
Screen 3 Selecting **Auto Login** results in display of the Auto Login setting. If the user has permission to edit their Auto Login, this screen will allow the user to enable/disable the feature.

Note: The permissions are configurable via the CICM Element Manager web pages in the user and user profile pages.

Screen 4 Selecting **Auto Login** results in display of the Auto Login setting. If the user has view only permission to the Auto Login functionality, this screen is presented for the user to view what their current setting is. Changing the setting will not be possible.

Screen 5 Selecting Password results in display of the password screen.

Figure 15 User Information screens



1.4.5.5 Audio screens

From the **Menu Option** screen, selecting **Audio** will result in the **Audio** screens shown in the Figure 16. The numbers in the upper right corner of each screen correspond to the following descriptions:

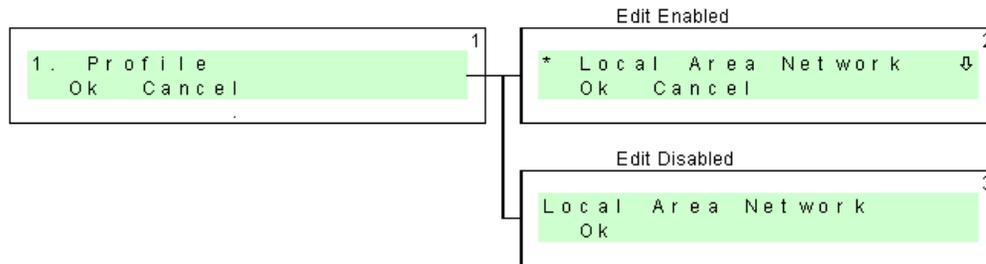
Screen 1 Shows the (Audio) **Profile** option.

Screen 2 Selecting **Ok** results in display of the Audio Profile screen, showing the current Audio Profile. If the user has edit permission, edit will be enabled on this screen.

Note: The permissions are configurable via the CICM Element Manager web pages in the user and user profile pages.

Screen 3 Selecting **Ok** from the **Profile** option results in display of the Audio Profile screen, showing the current Audio Profile. If the user does not have edit permission, edit will be disabled on this screen.

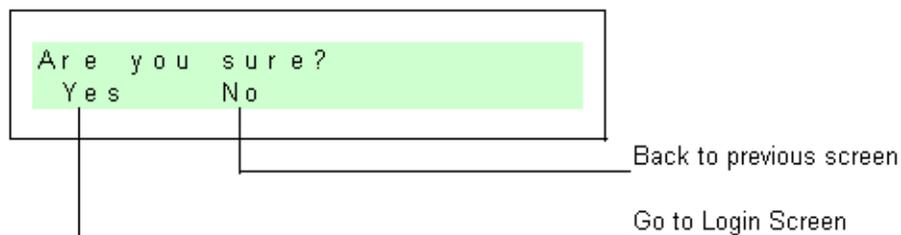
Figure 16 Audio screens



1.4.5.6 Generic Confirmation screen

From the **Menu Option** screen, selecting **Ok** to the **Logout** option will result in the **Generic Confirmation** screen shown in the Figure 17.

Figure 17 Generic Confirmation screen



1.4.6 Physical keys

The labelling of the physical buttons of the i2002 Etherset is the same as the i2004, except that the **Copy** button is not included on the i2002. This button is not used by CICM for the i2002 or the i2004 model.

There are four top Softkeys (used by CICM as Feature keys) on the i2002, and six on the i2004. The i2004 currently has 14 feature keys (feature key 1 is static) which are paged across two screens. The i2002 has 10 feature keys (feature key 1 is static) which are also paged across two screens.

1.4.7 Indicators

The i2002 has the same number of LED indicators as the i2004. These are used in the same way as they are used on the i2004.

1.5 The i2001 Etherset

The i2001 is a more economical version of the i2002, with somewhat reduced functionality. It has a smaller screen and fewer keys.

The i2001 is a Phase II Unistim Terminal. Previous to SN07 the CICM supported Phase I Terminals. With SN07, existing support for the i2002 and i2004 Phase I Terminals has been updated to support the new range of Phase II i2002 and i2004's.

Phase I terminals will be Manufacture Discontinued (MD'd) when the Phase II terminals are fully implemented and are readily available.

1.5.1 i200x Configuration/menu comparison

The following table provides a comparison of the configuration and menus for the i2001, i2002, and i2004 terminals.

Table 5: i2001, i2002, & i2004 Configuration/menu matrix

		Terminal type			
Function	Sub-options	I2001	I2002	I2004	
Login/Logoff	N/A	✓	✓	✓	
Firmware upgrades	N/A	✓	✓	✓	
Options	Audio	Profile	✓	✓	✓
	Display Contrast	N/A	✓	✓	✓
	Feature Keys	Assign	✓	✓	✓
		Label	✓	✓	✓
		Reset	✓	✓	✓
	Language	N/A	✓	✓	✓
	Time	Time Format	✓	✓	✓
		Date Format	✓	✓	✓
		Hours from GMT	✓	✓	✓
		Daylight Saving	✓	✓	✓
	User	Username	✓	✓	✓
		Login Type	✓	✓	✓
		Auto Login	✓	✓	✓
	Services	Inbox	Display	✓	✓
Store			✓	✓	✓
Clear			✓	✓	✓
Dial			✓	✓	✓
Outbox		Display	✓	✓	✓
		Store	✓	✓	✓
		Clear	✓	✓	✓
		Dial	✓	✓	✓
Directory		Add	✓	✓	✓
		Edit	✓	✓	✓
		Delete	✓	✓	✓
		Dial	✓	✓	✓

1.5.2 i2001 Display

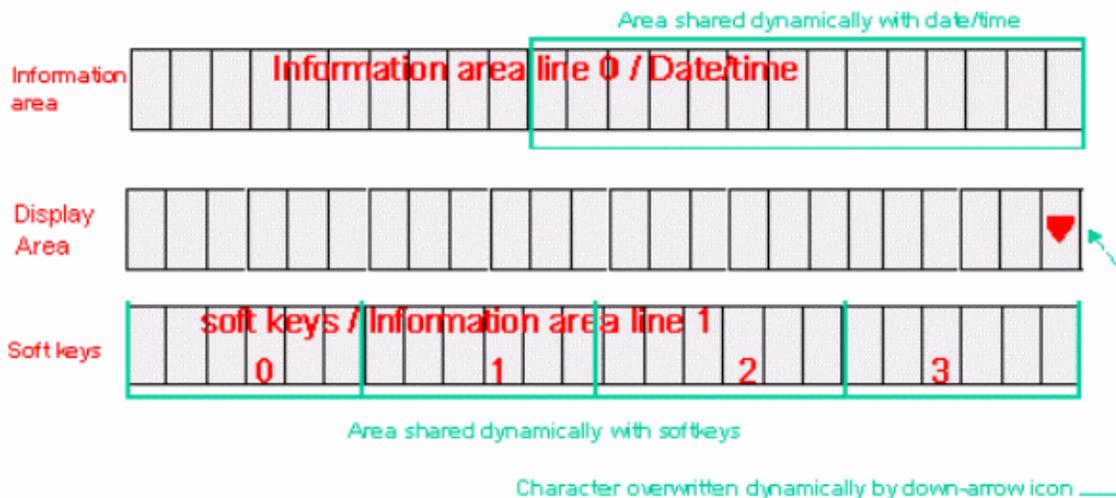
The key characteristics of the i2001 display are:

- The i2001 has a 32x143 pixel, fully bit-mapped, monochrome, non-grayscale display

- There are no soft labelled feature keys
- The dedicated icon area in the main display area is not available
- The dedicated Clock / Calendar area is available
- The dedicated number and context label is available
- The dedicated down arrow is not available

The layout of the i2001 display is shown in the Figure 18.

Figure 18 i2001 Display layout



1.5.3 Generic display rules

The following rules apply to the i200x terminals. These rules allow one common interface across both terminal types (Phase I and Phase II Unistim Terminals), and to help avoid issues with Language Translations on soft key strings.

1 Character rules:

- Recommended length 12 characters.
Strings meeting this condition will always be shown in full (both on the information lines and in the context field). All Menu Options are set to this recommended length of 12 characters.
- Maximum length 20 characters.
Strings above 12 characters and up to and including 20 characters are displayed in the information line, but not in the context field.
Long strings in the context field are cropped off to 11 characters and terminated with an ellipsis to indicate they have been cropped.
- Strings above 20 characters are shown as follows:

- In the information field: strings are cropped off to 19 characters and terminated with an ellipsis to indicate they have been cropped.
 - In the context field: strings are cropped off to 11 characters and terminated with an ellipsis to indicate they have been cropped.
- d. The recommended word size is 24 characters. Words exceeding this limit are word-wrapped onto the next line of the display.
- 2 The Login Screen echoes entered digits to information line 0 rather than line 1 (see the figure below). The username and passwords may be up to a maximum of 15 characters. If the username and password entered is longer than the field space left on the screen (e.g. if the username string is 14 characters and 12 username digits are to be entered), the digits are scrolled to the left and an ellipsis (...) is inserted to the left of the username (see example below).

Example: Ellipsis indicating digits scrolling

U	S	E	R	N	A	M	E		T	E	S	T	:	...	3	4	5	6	7	8	9	0	
---	---	---	---	---	---	---	---	--	---	---	---	---	---	-----	---	---	---	---	---	---	---	---	--



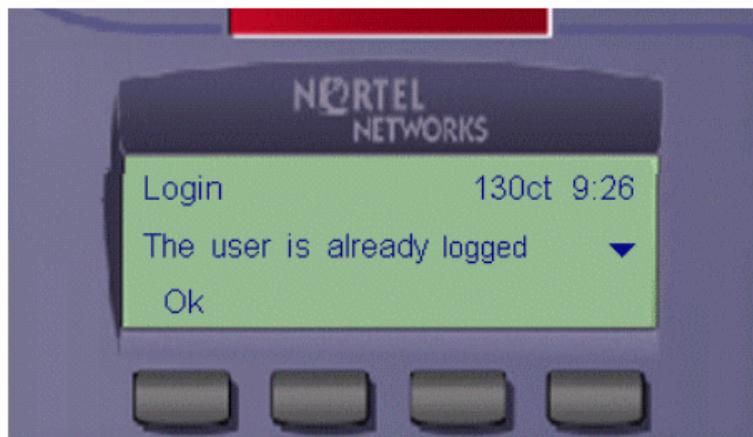
- 3 Bottom Soft key labels are set to a maximum of 5 characters with the exception of the last soft key on the screen, which may use up to a maximum of 6 characters (see the figure above in rule 2).
- 4 Soft key labels are limited to the following subsection of the i2002 soft keys:
- OK
 - Cancel
 - Clear
 - Bkspc
 - Menu

- Help
 - Yes
 - No
- 5 Menu options are selected via a scroll-able list, instead of being assigned to a soft key. The Up and Down navigation keys may be used for scrolling. This allows menu options to be displayed in strings of up to a maximum of 20 characters (see rule 1). This provides the following advantages:
 - A greater area makes language translations easier.
 - A more informative string may be displayed.
 - 6 The position within a scroll-able list is displayed to the far right side of the display. 1 character space is reserved to show scroll position.
 - 7 All Menu Options in the scroll-able list are numerically indexed with the shortcut key number assigned to that option. The numerical indexes go from 1 to 9. Options above 9 will have no shortcut assigned/displayed next to the menu option.
 - 8 A menu option is selected by either highlighting the option (i2004) or viewing the option (i2002, i2001), then selecting **OK**. Alternatively, the appropriate shortcut key assigned to an option may be selected using the key pad. The shortcut key puts you straight into the menu option required, without scrolling.
 - 9 The Logout option is the first option presented in the Menu Options List. This avoids language translation issues when using a soft key for the same operation.
 - 10 All user prompts are presented on Information line 0 on the display. The rules for prompts are:
 - The maximum length of a prompt is 23 characters.
 - Prompts beyond 23 characters are cropped down to 22 characters, and an ellipsis (...) is presented as the 23rd character to indicate cropping has taken place.

- Further text to describe the prompt is viewable on a help screen which is accessed by selecting a Help soft key (see the following figure).

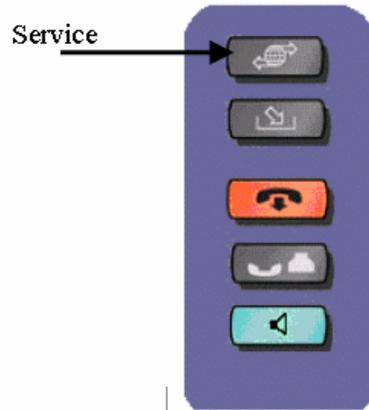


- The Help screen presents text to the user by using scrolling pages. The Help screen has a maximum number of 255 characters, due to the scrolling functionality. The following figure illustrates the scrolling functionality of the Help screen.



- The recommended word size is 24 characters. Words exceeding this limit will be word-wrapped onto the next line of the display.

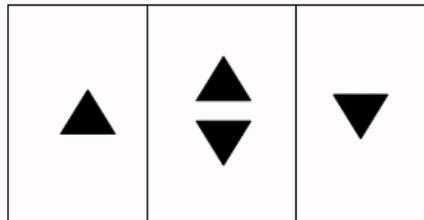
- 11 The Menu system is accessible by either selecting the Menu softkey or by selecting the Service physical key. The i2001 terminal also provides feature activation via the Service key when either CXR or 3WC is assigned on the core to one of the DN's first 14 keys (see section 1.5.6 Feature Interaction). The following figure illustrates the i2001 Service key position which is used to launch the Menu system.



1.5.4 i2001 Display rules

This section provides the rules for the user of the i2001. The i2001 display is context-sensitive, in that the position and visibility of information on the display changes, depending upon context. This is required because of the limitations of the small display area.

- 1 The Menu options are selected via a scroll-able list.
- 2 The relative position within the list is shown to the far right of information line 0, via up and down arrows, as illustrated below.



- 3 Information line 1 is dedicated for the Soft keys.
- 4 Time and Date is displayed on the Context line.

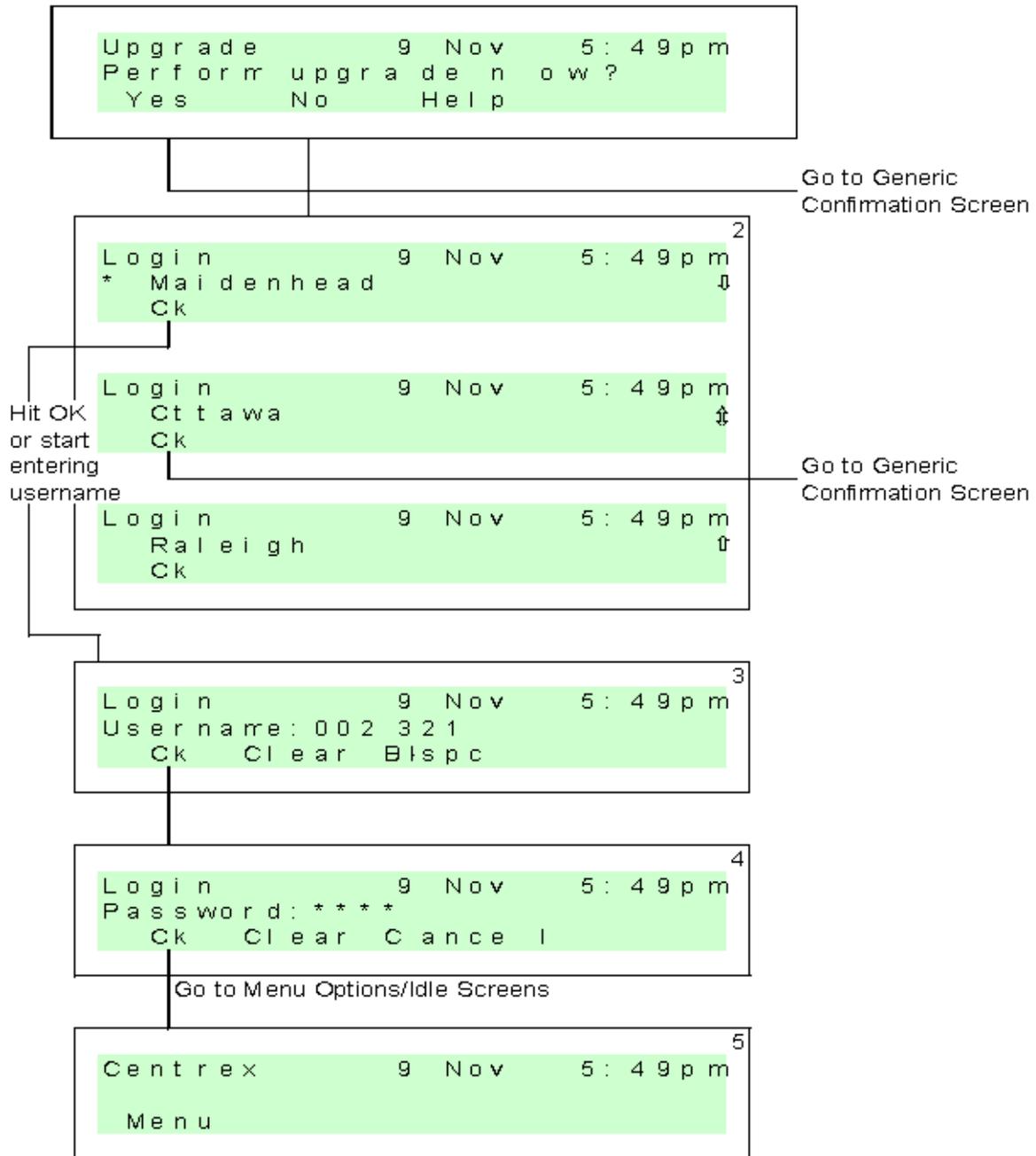
1.5.5 i2001 Menu Map

This section describes the i2001 menu map.

1.5.5.1 i2001 Login screens

The following Figure 19 illustrates the i2001 login screens. It shows what is presented when a user logs on to a gateway on the i2001 and navigates the menu options. Table 6 provides a description of the screens.

Figure 19 i2001 Login screens



These 5 Login screens (from top to bottom) are described as follows:

Table 6: i2001 Login screens

Screen	Description
Screen 1	This screen is only shown if an upgrade is available or required.
Screen 2	Selective Gateway Login feature. Either: <ul style="list-style-type: none"> • Hit OK for the selected gateway to login to. The result is to be presented with Screen 3 to login. • Start entering your username. This action results in acceptance of the currently selected gateway, then automatically opens Screen 3 with the digit(s) already entered. Complete entering the username.
Screen 3	If the username is too long for the display, the digits entered will scroll to the left and an ellipsis will be shown to the left of the username.
Screen 4	Enter your password.
Screen 5	The Menu Options/Idle Screen.

1.5.5.2 Menu Options/Idle Screens

The Menu Options/Idle Screens are illustrated in Figure 20, and the Menu Options are described in Table 7.

Figure 20 Menu Options/Idle screens

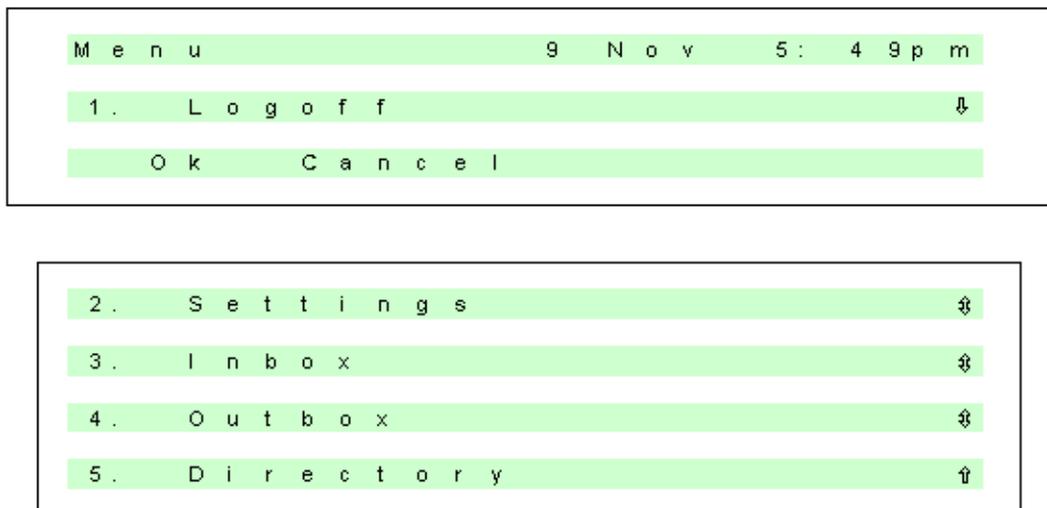


Table 7: i2001 Menu Option/Idle screens

Menu Option	Description
Menu Option 1	Logoff A generic confirmation screen is displayed.
Menu Option 2	Settings Launches the new i2001 settings menu.
Menu Option 3	Inbox Launches the Inbox. The Inbox is also available via a dedicated Inbox key on terminal (i200x). The i2002 will be able to launch the inbox via both the menu and the dedicated key, the i2004 will only be able to access via its existing implementation of the dedicated key.
Menu Option 4	Outbox Launches the Outbox. The i2001 does not have a dedicated Outbox key, and will only be able to access the Outbox via this menu system. The i2002 will be able to access the Outbox via both the menu and the dedicated key. The i2004 will only access the outbox via the dedicated key.
Menu Option 5	Directory Launches the directory contact list. The i2001 does not have a dedicated Directory key and will only be able to launch the directory via this menu system. The i2002 and i2004 have dedicated Directory keys to launch the directory

1.5.5.3 Menu Option: Settings

Selecting the Main Menu Settings option opens the following Settings Menu with access to the following four Settings sub-menus, which are illustrated in Figures 21 through 24:

- Regional Settings (Figure 21)
- User Settings (see Figure 22 and the User Information screens section)
- Terminal Settings (Figure 23)
- Call Settings (Figure 24)

Figure 21 Menu Option: Regional Settings

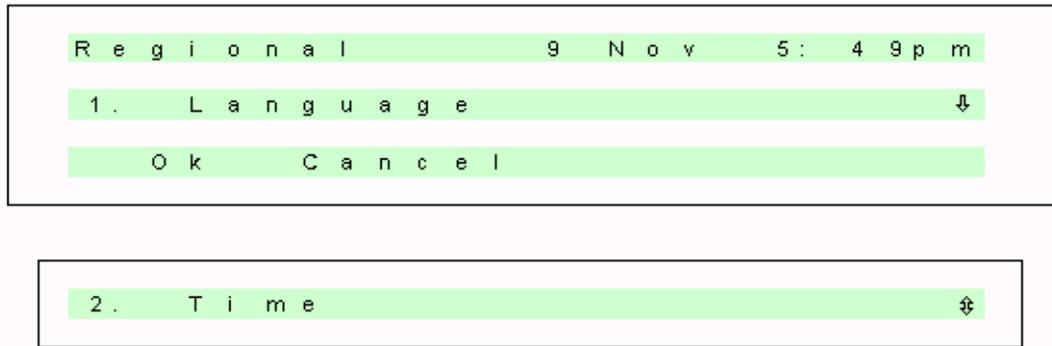


Figure 22 Menu Options: User Settings

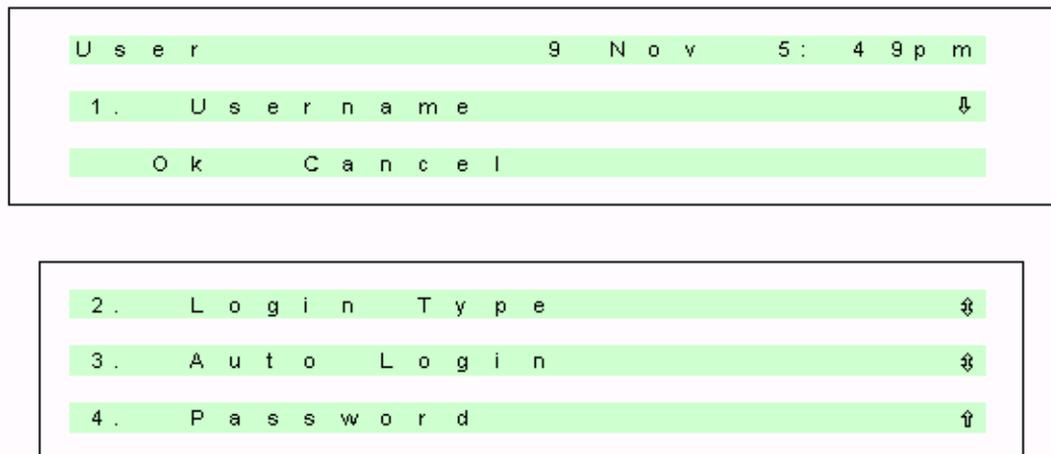
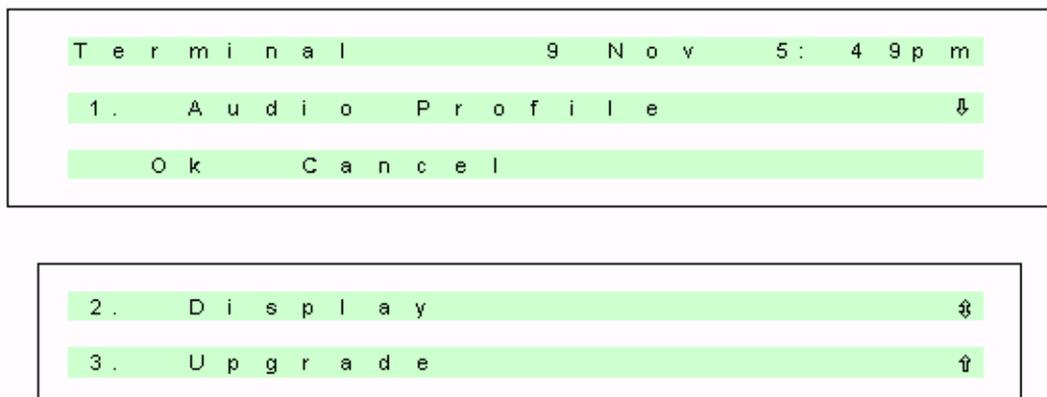


Figure 23 Menu Options: Terminal Settings



The Terminal Settings are described in the following table:

Table 8: Menu Option: Terminal Settings

Terminal Settings Option	Description
Terminal Settings Option 1	Audio Profile Launches the Audio Profile menu.
Terminal Settings Option 2	Display Launches the Display Contrast screen (see Figure 25).
Terminal Settings Option 3	Upgrade Launches the Upgrade Confirmation menu,

Figure 24 Menu Options: Call Settings

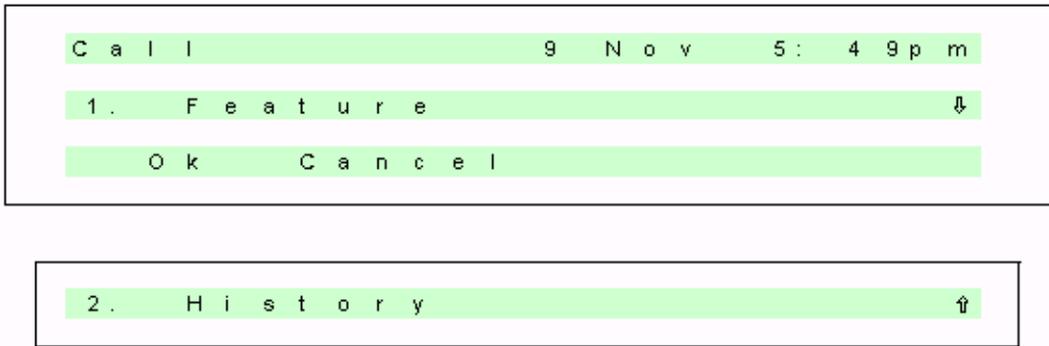
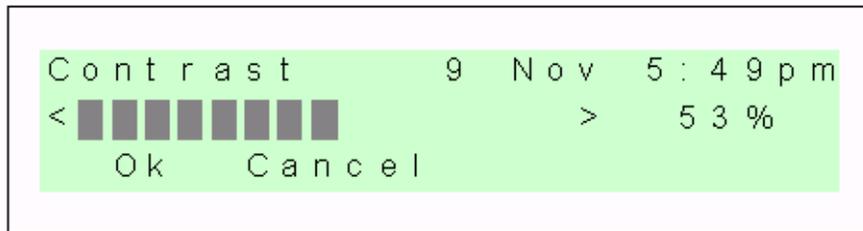


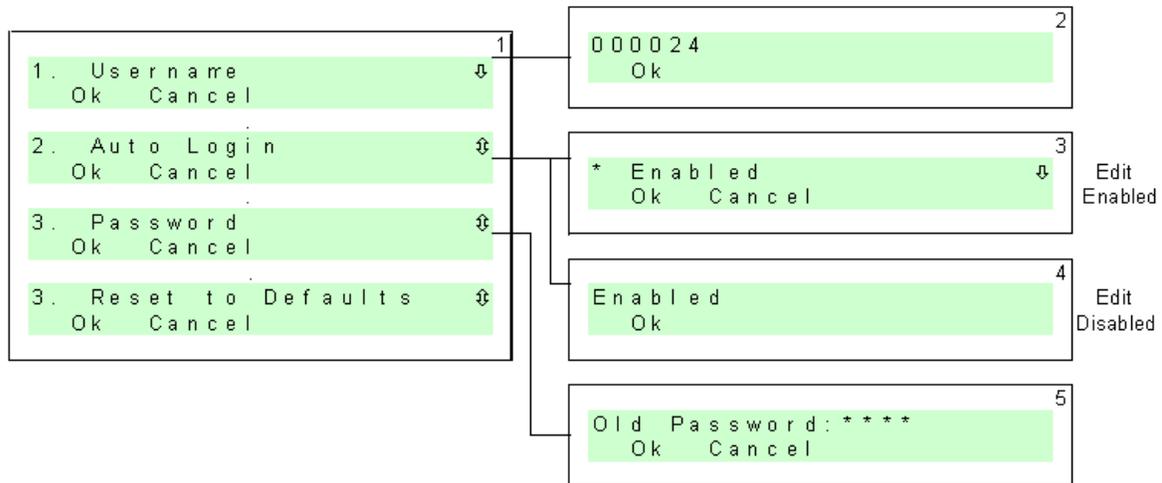
Figure 25 Display Contrast screen



1.5.5.4 User Information screens

The User Information screens are illustrated in Figure 26. User permissions are configured via the CICM Element Manager on the User and User Profile Web pages. If the user permission is configured, the user can enable/disable their Auto Login functionality. Without edit permission, the user may only view their settings.

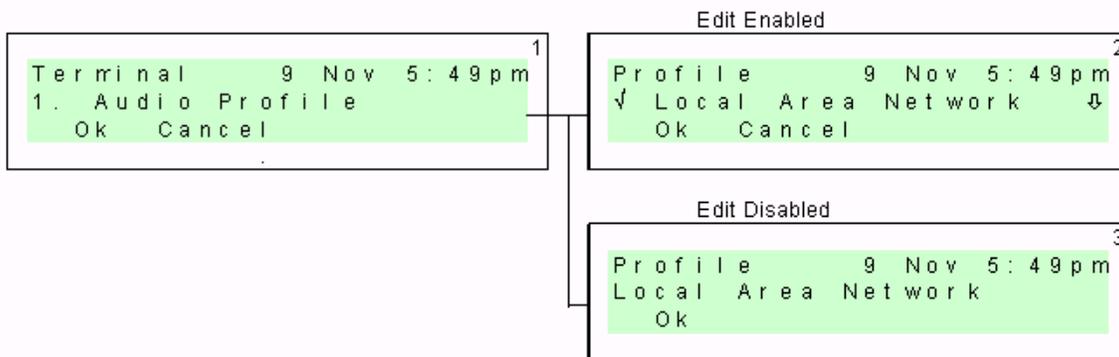
Figure 26 User Information screens



1.5.5.5 Audio screens

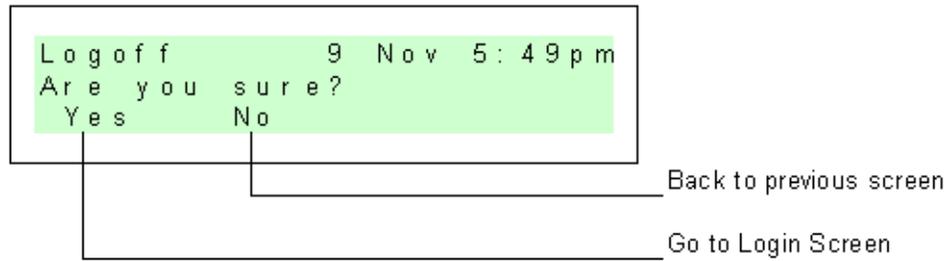
The Audio screen allows the user to enable/disable the Audio Profile setting.

Figure 27 Audio screens



1.5.5.6 Logoff Confirmation screen

Figure 28 Logoff Confirmation screen



1.5.5.7 Inbox and submenu screens

The Inbox and submenu screens are illustrated in Figure 29. The up/down arrows on the right-hand side of the screens allow you to scroll through the list of inbox entries or options.

Figure 29 Inbox and submenu screens

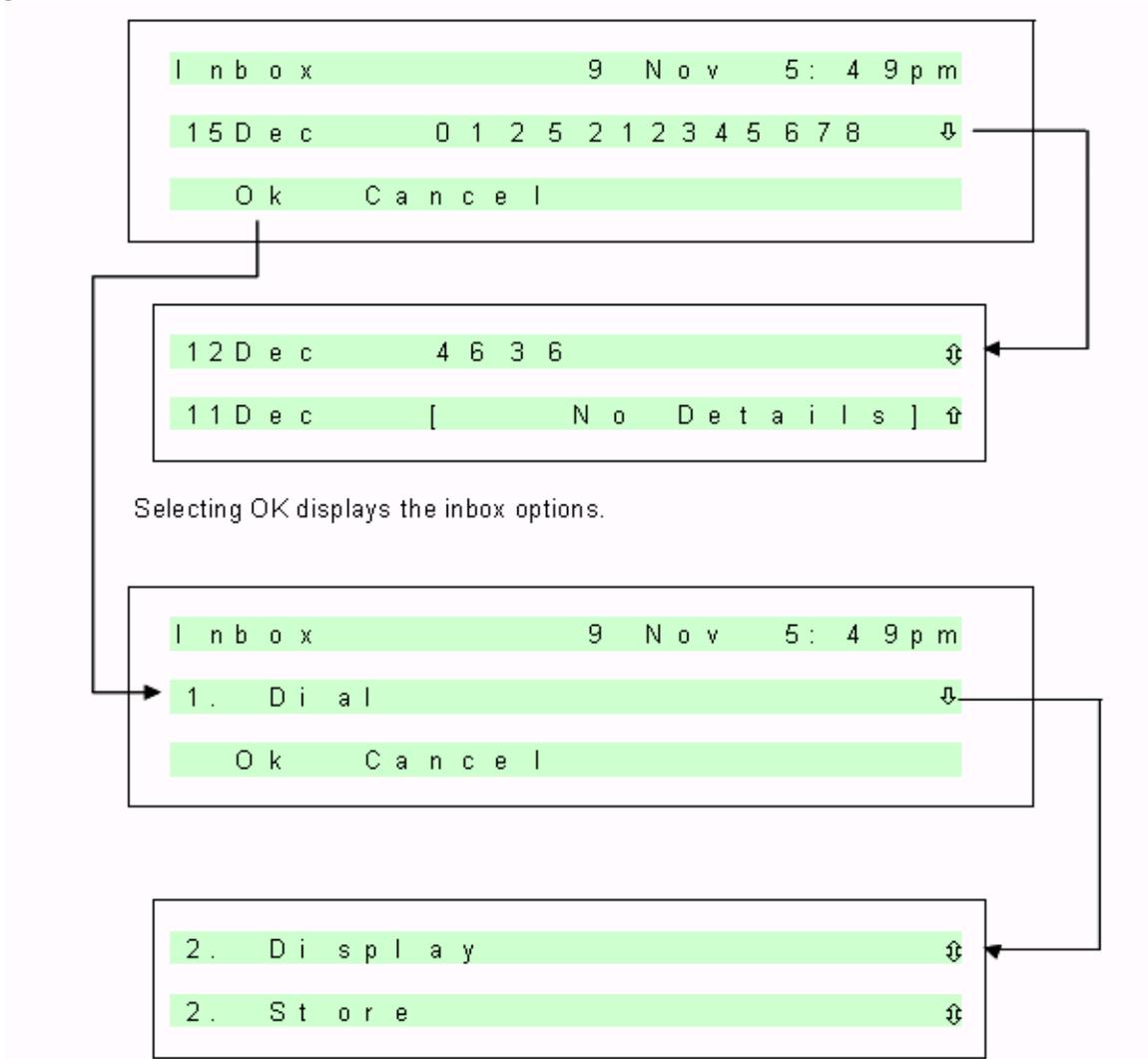
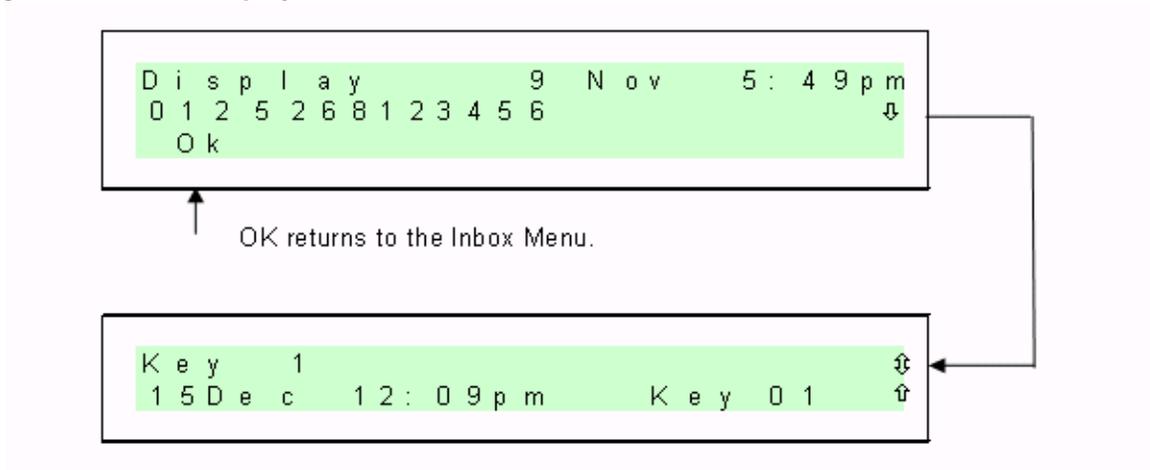


Figure 30 Inbox Display screens



1.5.5.8 Outbox and submenu screens

The Outbox and submenu screens are illustrated in Figure 31.

Figure 31 Outbox and submenu screens

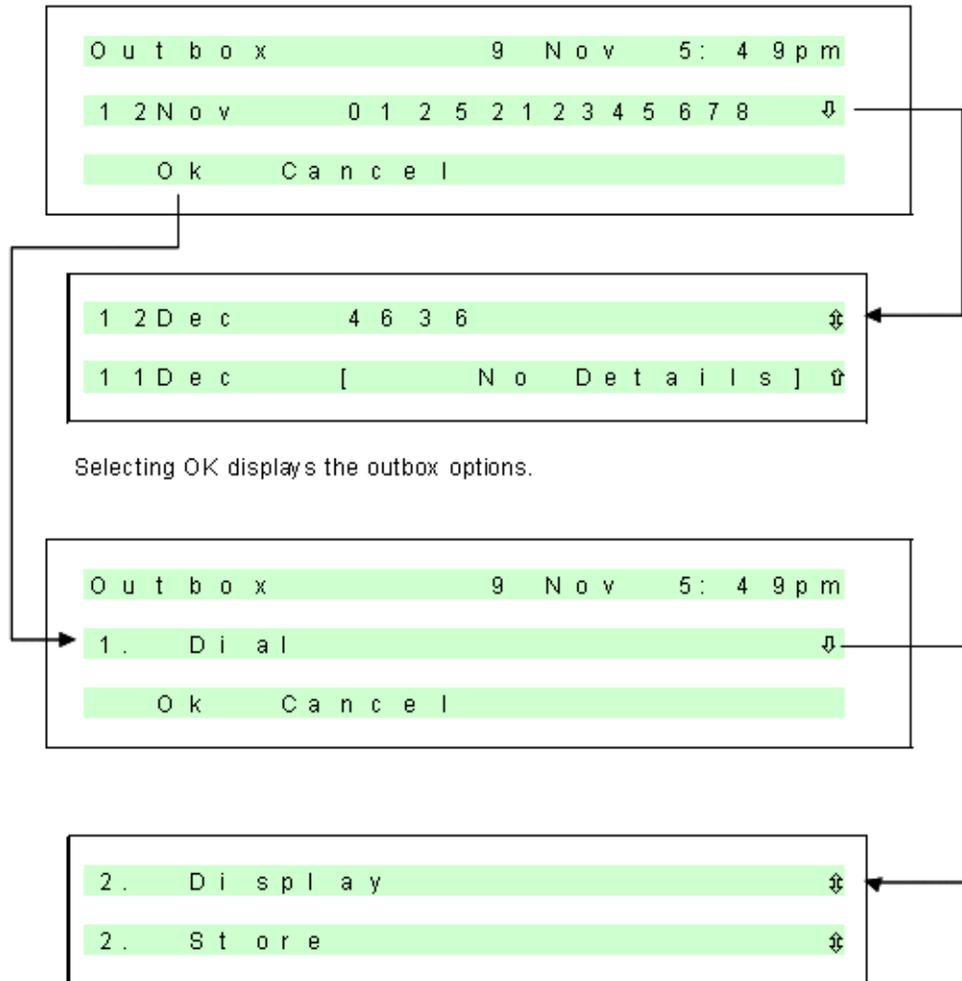
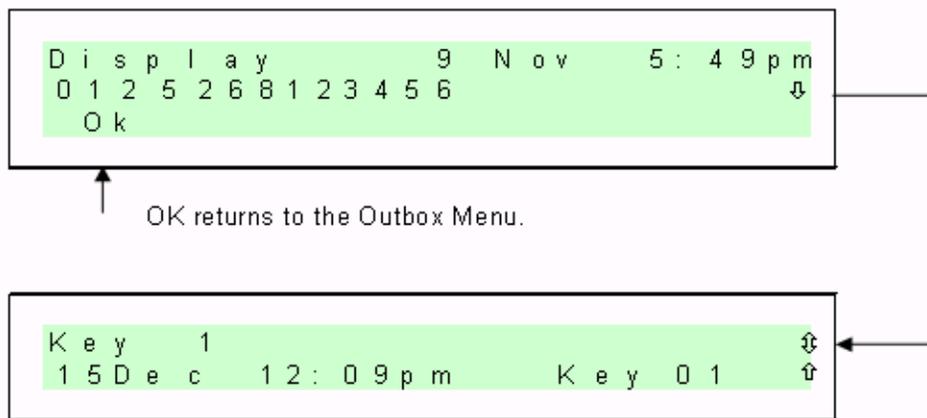


Figure 32 Outbox Display screens

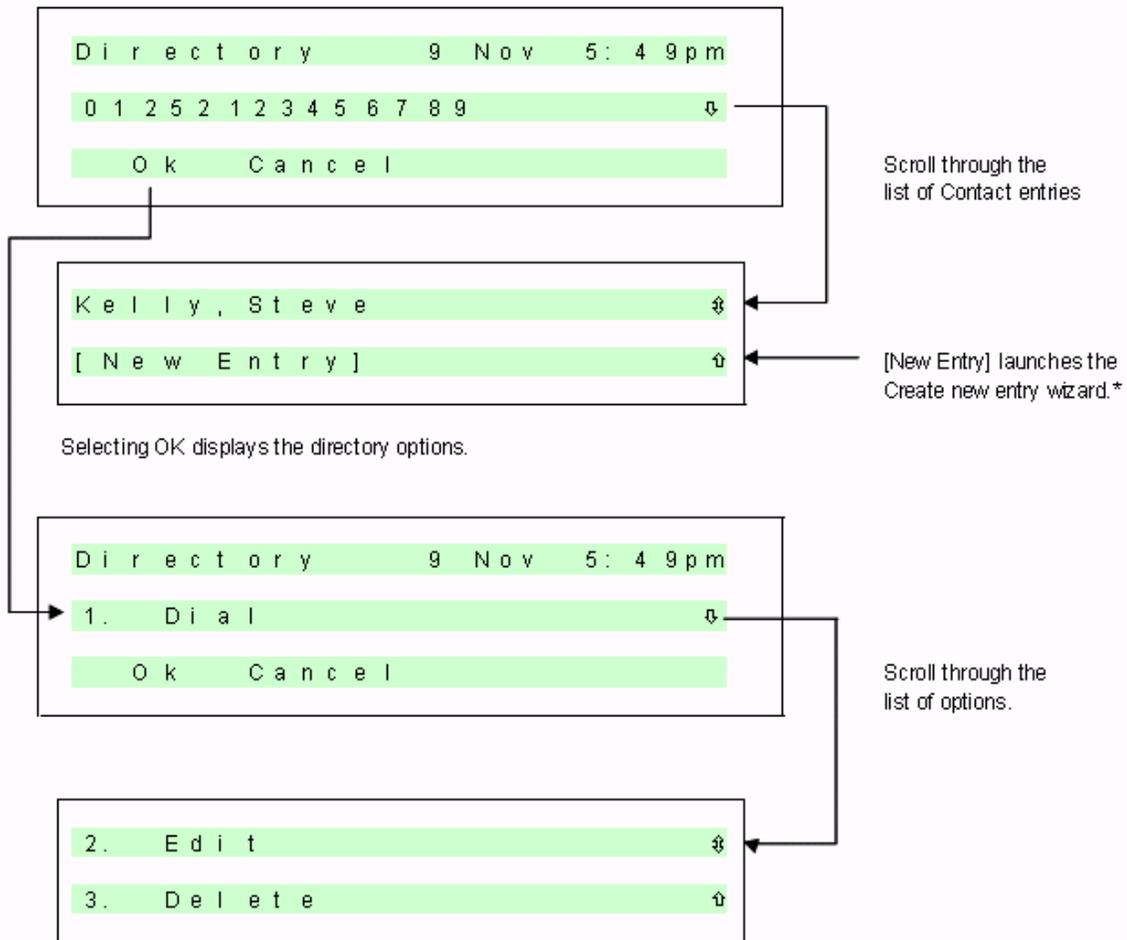


1.5.5.9 Directory screens

The Directory screens are shown in Figure 33. From the main Directory screen, select OK to display the directory options.

The New Entry option may be ordered to feature at the top of the directory list, so upon entering the directory you are presented with the first entry and press up to select New Entry. The New Entry option launches the Create New Entry Wizard.

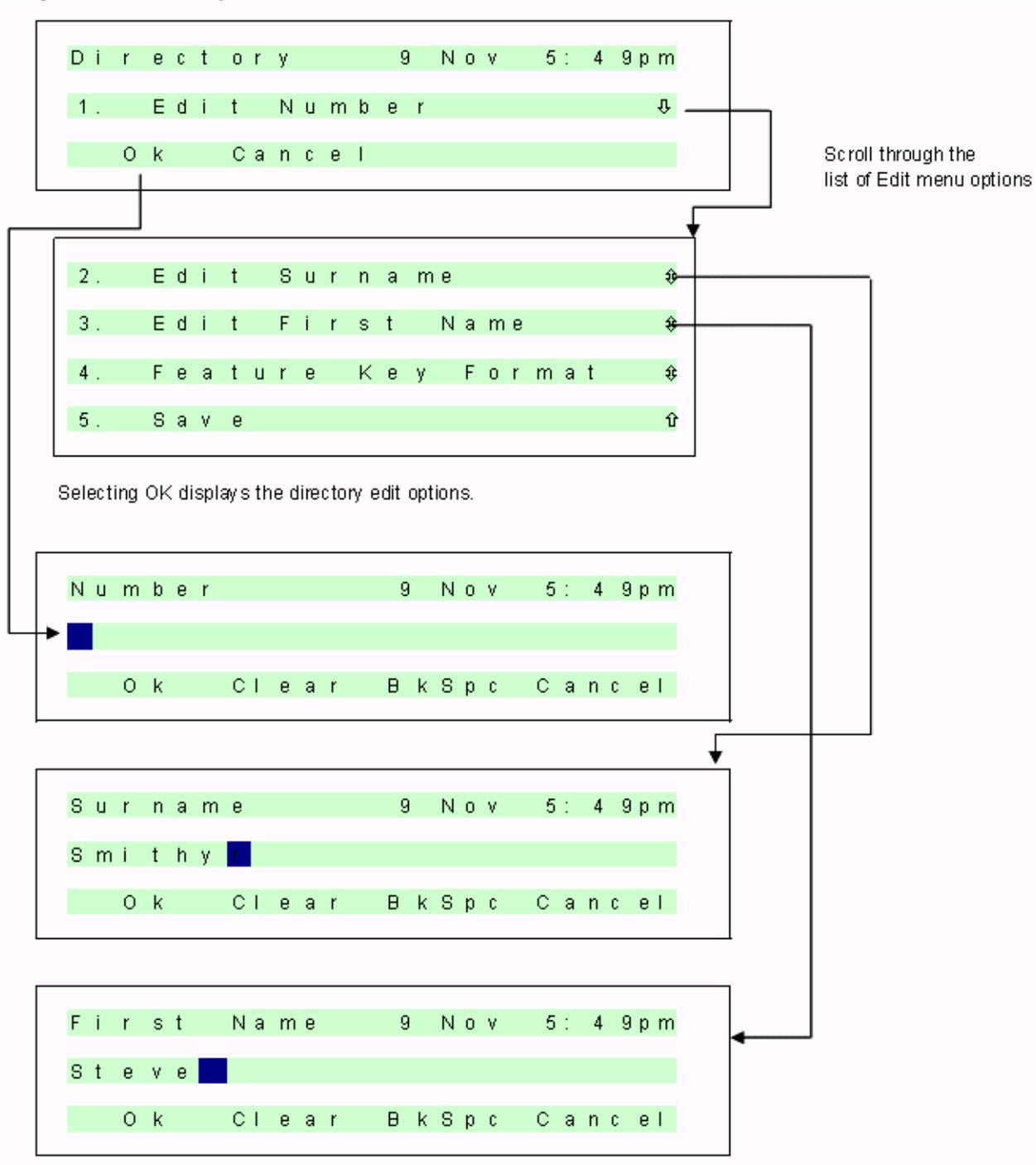
Figure 33 Directory screens



1.5.5.10 Directory Edit screens

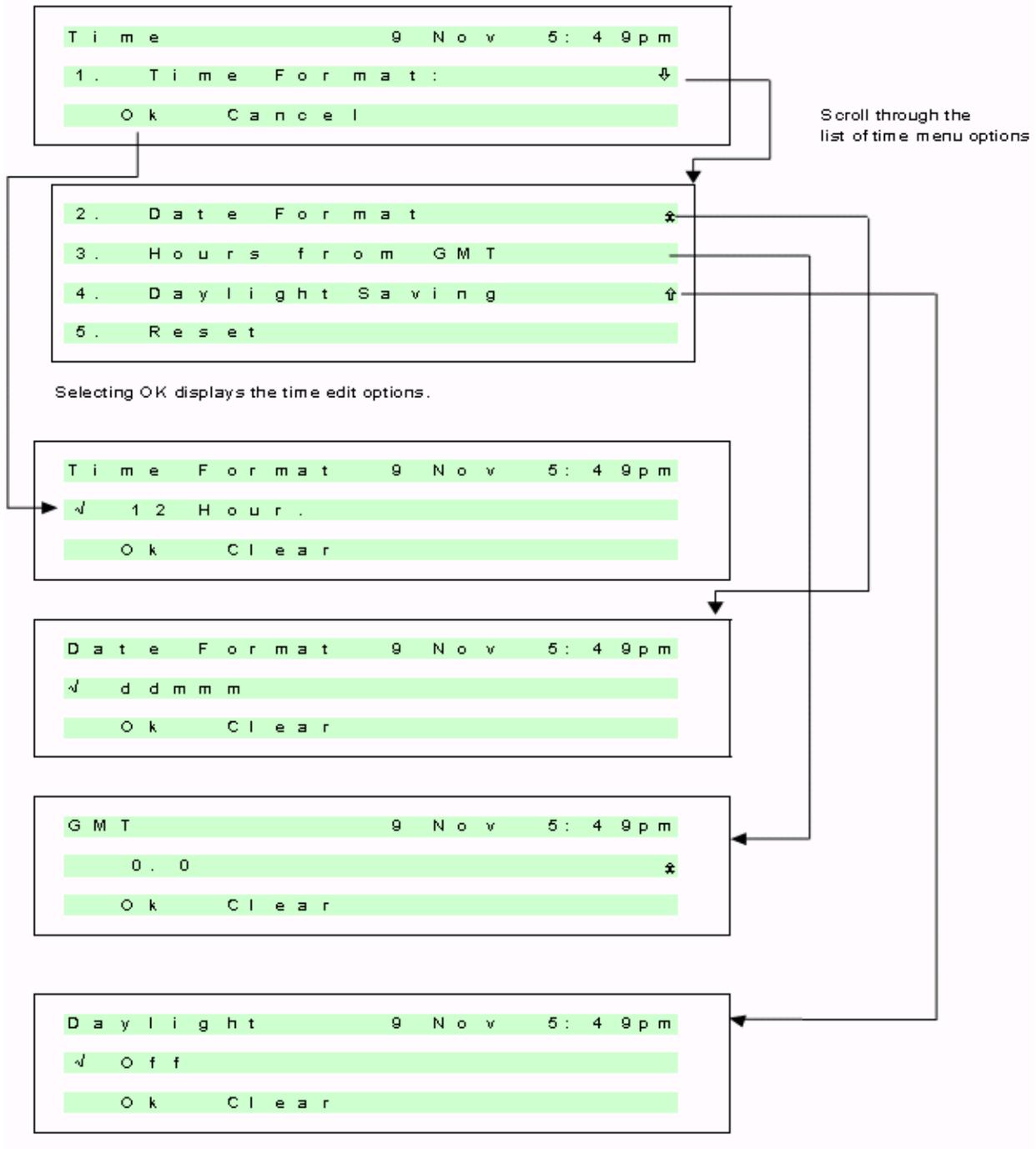
From the main Directory menu, Selecting OK displays the directory edit options.

Figure 34 Directory Edit screens



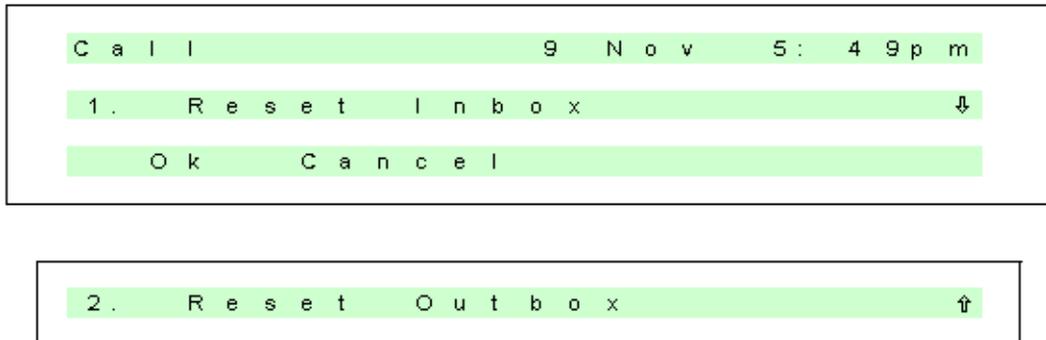
1.5.5.11 Time Display screens

Figure 35 Time Display screens



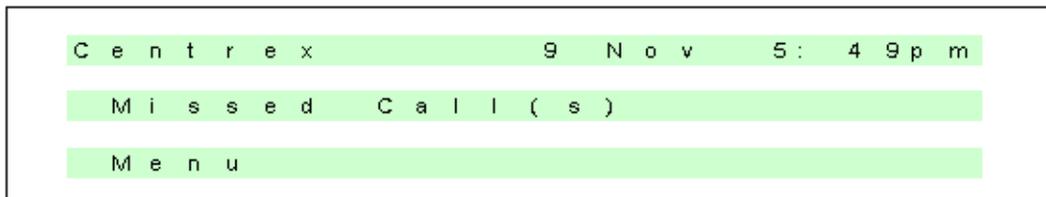
1.5.5.12 Call History screens

Figure 36 Call History screens



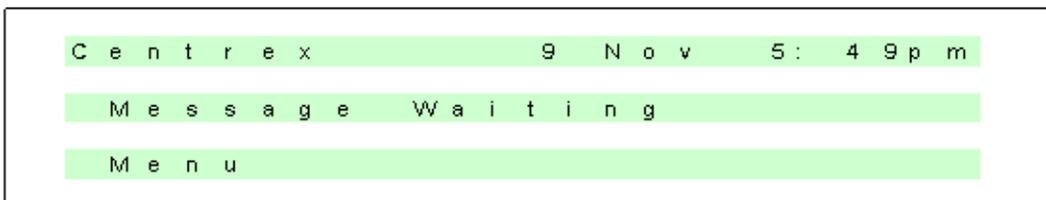
1.5.5.13 Missed Call screens

Figure 37 Missed Call screens



1.5.5.14 Message Waiting screens

Figure 38 Message Waiting screens



1.5.6 CICM Element Manager administration

The administration and configuration of the i2001 terminals use the same CICM Element Manager Web pages which are currently used for the i2002 and i2004 terminals.

Figure 39 illustrates the **i2001 terminal firmware configuration** <cicm_name> web page. Click on the ? icon for the help file on any field.

Figure 39 i2001 Terminal firmware configuration <cicm_name>

1.5.7 i2001 Etherset feature limitations

The Centrex features that are not supported on the i2001 Etherset are described in this section.

Any Centrex feature that cannot be assigned to key 1 (i.e. Primary DN key) of a line having a Line Class Code = M5216 cannot be supported on the i2001 set. In order to access a feature that cannot be provisioned on key 1, the i2001 set must be in a cooperative session with the m6350.

The features (such as CCV, PRL, RAG) that cannot be assigned to key 1 of an MBS line, either:

- 5 Do not have a corresponding access code, or
- 6 They can be assigned to the set but on a key other than key 1.
In this case, the feature cannot always be activated/deactivated using the access code (as provisioned in Table IBNXLA).

1.5.8 i2001 Services key

The functionality of the Service key on the i2001 changes depending on whether the 3WC or CXR features are assigned to one of the first 14 keys on the set.

Assignment of the 3WC or CSR features is not obviously visible from the set, unless a label has been created. Without this label the functionality of the Service key may be confusing. The general rule is:

- **If** the 3WC or CSR feature **IS** assigned to the Service key on the i2001, **Then** the Service key **DOES NOT** launch the menu.
- **If** the 3WC or CSR feature **IS NOT** assigned to the Service key on the i2001, **Then** the Service key **DOES** launch the menu.

1.5.9 Joint sessions

The i2001 is only able to have a joint session with an m6350 Softclient. There is no support for the i2001 to have a joint session with another i200x (2001, i2002, or i2004) terminal.

In the case of a joint i2001/m6350 session, the i2001 always adopts the master position in their master/slave relationship. The i2001 functions in the same manner as the i2004.

1.5.10 i2001 feature interactions

Unlike the i2002 and i2004, the i2001 has no feature keys. The i2001 uses the Services key to provide a smaller set of features.

The Services key will provide access to a “Flash Hook.” When pressed, it will search through the list of features provisioned on the core for that specific DN. If 3WC (three way call) or CXR (call transfer) is provisioned on one of the first 14 keys, then hitting the Services key activates one of those features.

To use any features through code access, the call must be active on a directory number (DN) or the Call Waiting (CWT) key/lamp. For the features that require flashes, pressing the Three-Way Calling/Call Transfer (3WC/CXR) key generates the flash equivalent. An MBS must have a 3WC/CXR key for the use of many of the code accessed features. If only a CXR key is present, the end user cannot always flash. The type of call transfer and the type of line or trunks involved in the active call determines this action.

1.5.10.1 Unsupported Centrex features on the i2001

Any Centrex feature that cannot be assigned to key 1 (i.e. Primary DN key) of a line having a Line Class Code of M5216 cannot be supported on the i2001 set. In order to access a feature that cannot be provisioned on key 1, the i2001 set must be in a cooperative session with the m6350.

Features such as CCV, PRL, RAG (and others listed in the *Centrex features on the i2001 set* section below) that cannot be assigned to key 1 of an MBS line, either:

- a. do not have a corresponding access code, or
- b. can be assigned to the set but on a key other than key 1.
In this configuration, the feature cannot always be activated/deactivated using the access code (as provisioned in table IBNXLA).

1.5.10.2 Use of the Services key on the i2001

The Services key default is to activate the menu when no 3WC or CXR features are provisioned. When 3WC or CXR is provisioned, then the feature activation takes precedence.

1.5.10.3 Feature interaction limitations

There may be feature interaction issues between 3WC or CXR and the Centrex feature being accessed when:

- 3WC or CXR features are assigned to one of the first 14 keys on the i2001 set in order to allow the Services key to act as a flash-hook, **AND**
- Feature activation/deactivation codes (as provisioned in Table IBNXLA) are dialed.

These interaction issues may be confusing if the 3WC or CSR feature assignments are not labeled on the i2001 set.

1.5.11 Centrex features on the i2001 set for SN07

This section provides a list and description of the key features applicable to the i2001 Etherset. It is not a comprehensive list.

Table 9: i2001 Feature List

Feature Acronym	Feature	Access Code	Description/Comments
AUTODISP	Auto Display	No	Can assign to key 1 on i2001. If assigned to any other key (e.g. Secondary DN), i2001 must be in a cooperative session with m6350.
AUTODISP + CWT	Auto Display + Call Waiting	No	Passes only if i2001 in a cooperative session with m6350 to access CWT key. Tested AUTODISP on key 1 and CWT on key 2 of i2001 set.
CCV	Call Covering	Yes	Requires i2001 in a cooperative session with m6350 to access CCV key (i.e. key other than key 1). CCV must be assigned to the secondary member of a MADN group. The primary MADN member must have EMW assigned. CCV/EMW can also be activated/deactivated by using CRA (Call Request Activation) & CRR (Call Request Retrieval) access codes. With CCV assigned to key 2 (i.e. a key other than key 1), pressing the 3WC/CXR key or Services key and dialing the CRA access code does not cause the EMW lamp to be turned on, on the primary MADN.
CCW	Cancel Call Waiting	Yes	Can assign to key 1.
CFB	Call Forward Busy	Yes	Can assign to key 1.
CFD	Call Forward Don't Answer	Yes	Can assign to key 1.
CFDVT	Call Forward Don't Answer Variable Timing	Yes	Can assign to key 1.
CFF	Call Forwarding Fixed	Yes	Can assign to key 1.
CFI	Call Forwarding Intragroup	Yes	Can assign to key 1.

Table 9: i2001 Feature List

Feature Acronym	Feature	Access Code	Description/Comments
CFRA	Call Forwarding Remote Access	Yes	Can assign to key 1.
CFU	Call Forward Universal	Yes	Can assign to key 1. Note: if i2001 is used with m6350 in cooperative session to access CFU key (or CFU on i2002/i2004), the CFU key stays flashing after it has been pressed. Not i2001 specific.
CPU	Call Pickup	Yes	Can assign to key 1.
CRA	Call Request Activation	Yes	Can use access code.
CWI	Call Waiting Intragroup	No	Can assign to key 1.
CWT	Call Waiting	No	Requires i2001 in a cooperative session with m6350 to access CWT key (i.e. key other than key 1).
CXR	Call Transfer/ Blind Transfer Recall	No	Can assign CXR to one of keys 2-14 on i2001 and use Services key to activate CXR. Can also use i2001 in cooperative session with m6350 to access CXR key.
DCBI	Directed Call Pickup Barge-In	Yes	Can assign to key 1.
DCBX	Directed Call Pickup Barge-In Exempt	Yes	DCBI on key 1 of i2001 (Set A). DCBX on key 1 of i2001 (Set B).
DCPK	Directed Call Park	Yes	If DCPK is assigned to a key other than key 1, i2001 must be in a cooperative session with m6350 to access DCPK key. If DCPK is assigned to key 1, must also assign 3WC/CXR to one of keys 2-14 to activate Services key. I2001 can then press flash-hook (i.e. Services key) and dial access code (e.g. *80 - DPRKS) plus DN of set at which the called party parks the call.

Table 9: i2001 Feature List

Feature Acronym	Feature	Access Code	Description/Comments
DCPU	Directed Call Pickup Non Barge-In	Yes	Can assign to key 1.
DISP	Display Called Number	No	Do not need to assign to line via Servord unless LCC=PSET.
DISP + HOLD	Display Called Number	No	Hold key functions on i2001.
DRCW	Distinctive Ringing/Call Waiting	No	Assign DRCW on key 1 of i2001. Also need CWT on another key.
DRING	Distinctive Ringing Enhancements	No	Requires i2001 in a cooperative session with m6350 to access GIC key (i.e. key other than key 1) for DRING for GIC calls.
EBO	Executive Busy Override	Yes	When EBO is assigned to key 1 and 3WC/CXR is assigned to one of keys 2-14, the Services key can be used as a flash-hook and then the EBO access code dialed (e.g. *83).
EBX	Executive Busy Override Exempt	Yes	Access code exists for EBO. It is not required for EBX.
EMW	Executive Message Waiting	Yes	Requires i2001 in a cooperative session with m6350 to access EMW key (i.e. key other than key 1). Cannot assign EMW to key 1. If i2001 is not in cooperative session (and therefore cannot access EMW key), upon hearing ringing or busy tone on the i2001 set, instead of pressing the EMW key, the CRA code (e.g. *91) can be dialed after pressing the 3WC/CXR key. This will turn on the EMW lamp on the called set. Similarly, if the EMW lamp is on on the i2001 set (this is visible only if in cooperative session), pressing the Services key and dialing the CRR code (e.g. *92), will dial the caller who activated the EMW lamp.
GIC	Group Intercom	No	Requires i2001 in a cooperative session with m6350 to access GIC key (i.e. key other than key 1).

Table 9: i2001 Feature List

Feature Acronym	Feature	Access Code	Description/Comments
LNR	Last Number Redial	Yes	Can assign to key 1 on i2001. Can press ## to activate LNR or dial LNR access code (e.g. *98).
LNRA	Last Number Redial Associated with Set	Yes	Can assign to key 1 on i2001. However, it requires i2001 in a cooperative session with m6350 to access an SDN. Note there is not a specific access code for LNRA in table IBNXLA. The access code for LNR (e.g. *98) can be used in this case.
LVM	Leave Message	No	Requires i2001 in a cooperative session with m6350 to access LVM key (i.e. key other than key 1).
MCH	Malicious Call Hold	Yes	If MCH is assigned to a key other than key 1, it requires i2001 in a cooperative session with m6350 to access MCH key. If MCH is assigned to key 1, you must also assign 3WC/CXR to one of keys 2-14 to activate Services key. This provides flash-hook so that MCH access code (e.g. *132) can be dialed.
MRF	MADN Ring Forward	No	Can assign MADN (SCA) and MRF to key 1 on i2001.
MSB	Make Set Busy	Yes	Can assign MSB on key 1 of i2001.
MWIDC	Message Waiting Indication	No	Requires i2001 in a cooperative session with m6350 to access MWIDC key (i.e. key other than key 1).
MWQRY	Message Waiting Query	No	Requires i2001 in a cooperative session with m6350 to access MWQRY key (i.e. key other than key 1).

Table 9: i2001 Feature List

Feature Acronym	Feature	Access Code	Description/Comments
MWT	Message Waiting	Yes	To access MWT key (i.e. key other than key 1), requires i2001 in a cooperative session with m6350. Alternatively, instead of pressing the MWT key, the CRA and CRR access codes can be used. To leave a message, press the 3WC/CXR key or the Services key (if 3WC/CXR is assigned to one of keys 2-14) and the CRA code (e.g. *91). To retrieve a message, go off-hook and dial the CRR code (e.g. *92). Note: Message Waiting appears on i2001 display when a message has been left.
NAME	Network Name Display	No	Can assign to key 1 on i2001.
PF	Power Features	Yes	Can assign PF on key 1 of i2001.
PRK	Call Park	Yes	If PRK is assigned to a key other than key 1, it requires i2001 in a cooperative session with m6350. If PRK is assigned to key 1, you must also assign CXR to the set. If CXR is assigned to one of keys 2-14, then after pressing Services key (to activate flash-hook), the PRK access code (e.g. *77) can be dialed to park the call. If CXR is assigned to a key other than 1-14, the i2001 must be in a cooperative session to access either the CXR or PRK key.
PRL	Privacy Release	Yes	Requires i2001 in cooperative session with m6350 to access PRL key. While PRL cannot be assigned to key 1 (PDN key), it can be assigned to another key (e.g. 2) and, without being in cooperative session, the i2001 can activate PRL by pressing the Services key (when 3WC is assigned to a key from 2-14) and then dialing the PRL access code.

Table 9: i2001 Feature List

Feature Acronym	Feature	Access Code	Description/Comments
PRV	Privacy	Yes	Requires i2001 in cooperative session with m6350 to access PRV key. While PRV cannot be assigned to key 1 (PDN key), it can be assigned to another key (e.g. key 2) and, without being in a cooperative session, the i2001 can activate Privacy by pressing the Services key (when 3WC is assigned to a key from 2-14) and then dialing the PRV access code (e.g. *99). Privacy can be toggled by dialing *99 or by pressing the PRV key.
QTD	Query Time and Date	No	Requires i2001 in a cooperative session with m6350 to access QTD key (i.e. key other than key 1).
RAG	Ring Again	Yes	Requires i2001 in a cooperative session with m6350 to access RAG key (i.e. key other than key 1). Cannot assign RAG to key 1 (DN key) therefore could not activate RAG using flash-hook (obtained by adding 3WC to one of keys 2-14) via Services key and dialing RAG access code (e.g. *75). No confirmation tone is received after dialing *75. Cooperative session is currently the only supported configuration for the RAG feature. Suspect this will be a problem for any feature that cannot be assigned to key 1 of i2001.
REASDSP	Reason Display	No	Can assign to key 1 on i2001.
REASDSP + CFD	Reason Display + Call Forward Don't Answer	Yes	Can assign CFD on key 1 of i2001.
SCL	Speed Calling Long	Yes	When SCL is assigned on key 1 of i2001, you can use access code *71 (SCPL) to program SCL. If SCL is on a key other than 1, you must use i2001 in a cooperative session with m6350.

Table 9: i2001 Feature List

Feature Acronym	Feature	Access Code	Description/Comments
SCS	Speed Calling Short	Yes	When SCS is assigned on key 1 of i2001, you can use access code *70 (SCPS) to program SCS. If SCS is on a key other than key 1, you must use i2001 in a cooperative session with m6350.
SCU	Speed Calling User	Yes	Do not need access code to activate SCU.
SUPPRESS	Suppress Line Identification	No	Can assign to key 1 on i2001.
TBO	Terminating Billing Option	Yes	TBO on key 1 of i2001.
3WC	Three Way Conference	No	Can assign 3WC to one of keys 2-14 on i2001 and use Services key to activate 3WC. Can also use i2001 in cooperative session with m6350 to access 3WC key.
UCDLG	UDC Login	No	Requires i2001 in a cooperative session with m6350 to access UC DLG key.

Chapter 2 Installing and initializing the i200x Etherset

Installing and initializing the i2001, i2002 and i2004 Ethersets is essentially the same process. The figures in this chapter illustrate i2004, but are equally applicable to the i2001 and i2002. For a comparison of functionality and screen displays, see Chapter 1.

2.1 Installing the i2004 Etherset

The Etherset may be configured in different ways depending on whether a DHCP (Dynamic Host Configuration Protocol) server is available on your network. Full or partial DHCP may be used to provide the Etherset with an IP address and other information required to initialize the set. Your network administrator should inform you as to whether DHCP is being used and whether it is partial or full DHCP. If you are not using DHCP, ensure that you have the information required, as listed in Table 10, prior to beginning the installation procedure.

The procedure for connecting the i2004 Etherset is as follows:

- 1 Connect one end of the handset cord to the handset jack on the telephone base. Connect the other end of the handset cord to the handset.

Caution: Severe damage to your i2004 Etherset will occur if this set is plugged into an ISDN connection. Consult your system administrator to ensure that you are plugging your set into a 10/100 Base T Ethernet jack.

- 2 Connect one end of the line cord to the line cord jack on the telephone base and the other end of the line cord to an IP voice network, using a CAT-5 cable with an RJ45 connector.
- 3 Plug the AC Power adaptor into the base of the telephone and plug the adaptor into the nearest 240V outlet.

2.2 Initializing the i2004 Etherset

When you first connect your Etherset to a power source, all hardkey indicator lights and softkey icons may flash. This indicates that the phone has not yet been initialized.

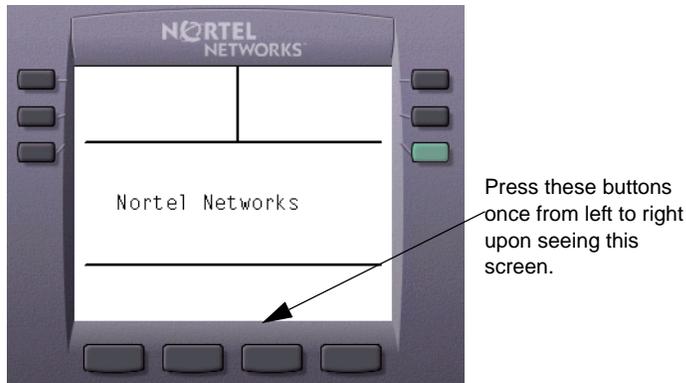
The following steps describe the initialization procedure for the i2004 Etherset.

- 1 Power the Etherset on by connecting it to the power source, or by disconnecting and reconnecting the AC power adaptor plug.
- 2 The Etherset will begin initializing. When the screen in Figure 40 is shown, press each of the Softkeys once from left to right. This will allow you to configure the Etherset.

Note: This must be done as soon as the screen appears. If you do not press the buttons quickly, the screen in Figure 41 will appear. If this occurs, disconnect the Etherset from the power source and reattempt the initialization procedure.

If the screen in Figure 40 does not appear, contact your system administrator, as your Etherset will need to be upgraded.

Figure 40 Initializing screen



- 3 Prompts will appear requesting that you supply configuration details. Table 10 defines the configuration parameters and explains what should be entered.

Table 10 Etherset configuration parameters

Parameter/Text shown	Definition
1. DHCP? (0 - No, 1 - Yes)	If you will be using either partial or full DHCP, enter 1. If you will be manually configuring the Etherset, enter 0. Your network administrator will let you know whether or not you are using DHCP.
2. DHCP: 0 - Full, 1 - Partial	This will only appear if you have selected yes (1) for the DHCP parameter above. Selecting partial DHCP means that parameters 3,4 and 5 will be configured by a DHCP server. Selecting full DHCP means that all further parameters will be configured by the DHCP server. Your network administrator should inform you of which option to choose.
3. SET IP	IP address for the i2004 Etherset.
4. NETMSK	Net submask.
5. DEF GW	Default Gateway IP network address.
6. S1 IP	Primary server IP address.
7. S1 PORT	Primary server port number. Must be set to 5000.
8. S1 ACTION	Primary action code: Enter 1
9. S1 RETRY COUNT	Primary retry count: Enter 6
10. S2 IP	Secondary IP server address.
11. S2 PORT	Secondary server port number. Must be set to 5000.
12. S2 ACTION	Secondary action code: Enter 1
13. S2 RETRY COUNT	Secondary retry count: Enter 6

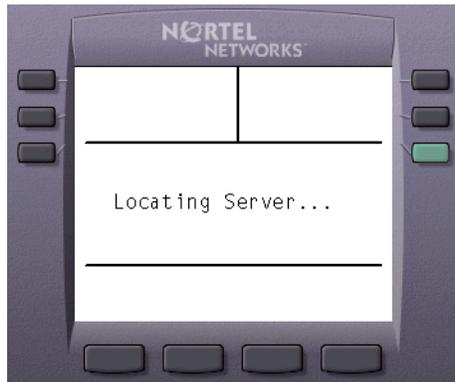
During the initialization procedure, the softkeys will be labelled as follows:

- **OK**
Press OK to record the entry and advance to the next parameter.
- **Bkspace**
Use Bkspace to edit the current entry. (Bkspace will delete the entry one character at a time.)
- **Clear**
Press Clear to erase the current entry to enter a new parameter.
- **Cancel**
At any point during the initialization procedure, press Cancel to abandon the configuration process and return to the power-up process.

To input requested information in the menu fields, use the number keys on the dial pad. Press the * key to enter a period (".") when keying in IP addresses.

- 4 Once the parameters have been entered, the Etherset will save the newly entered parameters and attempt to connect with the server.

Figure 41 Connecting with the server



- 5 Depending on the configuration of your Gateway, you may be offered to upgrade the Etherset firmware when there is a new release. A message will appear as follows:

New firmware available. Perform upgrade now?

Select **Yes**. It will take about a minute for the new firmware to be downloaded onto the Etherset.

Note: The firmware upgrade will not be available until the Gateway has been configured to offer it and the Etherset has subsequently been power-cycled.

- 6 If the Etherset has successfully connected to the server, the following screen will appear:



You may now begin using your Etherset.

If your telephone does not connect with the server, it will attempt to reconnect. If the Etherset is unable to make a connection with the Gateway, it may indicate that an invalid parameter setting was entered during initialization. Disconnect the Etherset from the power source and reattempt the initialization procedure.

If you are still unable to connect with the network, contact your system administrator.

Chapter 3 Using the i2004 Etherset

Using the i2001, i2002 and i2004 Ethersets is essentially the same process, but with some differences in screen displays and functionality. This chapter illustrates i2004. For a comparison of functionality and screen displays between the i2001, i2002 and i2004, refer to Chapter 1.

3.1 Upgrading the Firmware on the i2004 Etherset

If a new firmware release is available for the etherset an upgrade button will be displayed at the login screen or if the user is currently logged in, an option will be available in the options menu.

If the **Upgrade** softkey is selected, the following screen will be displayed.

When the firmware level is being upgraded, the softkey icons will flash and the screen will remain blank for a short period of time (approximately 2 minutes).

Figure 42 Upgrade Prompt



3.2 Logging into the i2004 Etherset

Prior to using the Etherset, it is necessary to log into the set and into the network. To log into the i2004 Etherset:

- 1 At the following screen, enter your username (this will be supplied by your service provider.)

Figure 43 Login prompt



- 2 Press the **OK** softkey.
- 3 When the following screen appears, enter your password (this will also be supplied by your service provider).

Figure 44 Password prompt



- 4 Press the **OK** softkey.

After a few moments, the main display screen will appear. It is now possible to use the Etherset.

3.3 Predial

Selecting the **OK** key uses the default key. If no default key is defined, Key 1 is used.

3.4 Making a call

The Etherset is used in virtually the same way as a traditional telephone to make and answer a call. The following steps describe the procedure for making a call:

- 1 Lift the handset, or select the Handsfree or Headset key to route the call appropriately (details on audio handling are described below in Section 3.5).
 - 2 Using the dial pad, enter the telephone number you wish to dial.
- Press the Release key or replace the handset to end the call.

3.5 Audio Handling

The Etherset provides the option of routing the audio path to your handset, to a headset or to the handsfree option. When an audio path is going to be opened, such as when you are making a call, the Etherset will route the audio path depending on certain criteria:

- If your handset is off the hook when an audio path is opened, the audio path will be routed to the handset.
- If the handset is on hook when an audio path is opened, the Etherset will check to see if there is a headset plugged in. If there is a headset plugged in, the audio will be routed to the headset; if there is not a headset plugged in, the audio will be routed to the handsfree option.

Additionally, you may change where the audio is being directed at any time by using the Handsfree or Headset buttons on the Etherset. You may refer to the following table to determine where the audio will be routed:

Table 3 Audio handling scenarios

Current audio path	Pressing the Handsfree button	Pressing the Headset button
Handset	Routes the audio to Handsfree.	If there is a Headset available, it routes to the Headset. If there is not a Headset, it routes to Handsfree.
Headset	Routes the audio to Handsfree.	Routes to the Handset.
Handsfree	Routes to the Handset.	If there is a Headset, routes to Headset. If there is not a Headset, it routes to the Handset.

3.6 Predial

Predial is used to enter and edit a dialled number string prior to applying that number to a line. This allows for errors without having to close and restart a dialing sequence.

Note: Predial is only available when the line is idle.

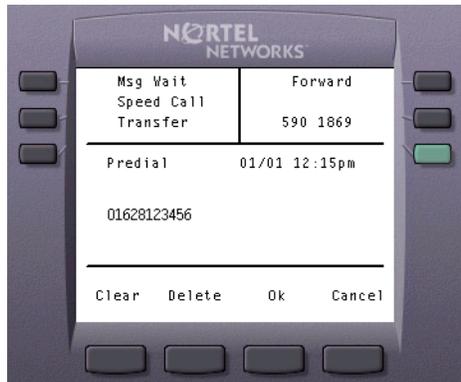
Note: Selecting the OK key uses the default key. If no default key is defined, key 1 is used.

3.6.1 Making a call with predial

To make a call using predial:

- 1 When the telephone line is idle, use the dial pad to enter the telephone number you wish to dial. The main display area will appear as shown below:

Figure 45 Predial



- 2 To edit the number, select the **Clear** softkey to restart the digit sequence; or, press the **Delete** softkey to edit the sequence one number at a time.
- 3 You may now route the call by selecting **OK** or by selecting another line key (selecting **OK** will route the call to the Default key).
- 4 The Etherset will begin ringing the dialled number.
- 5 Lift the headset, or select the Handsfree or Headset key to route the call appropriately.
- 6 Hang up or press Release to end the call.

3.7 Answering a call

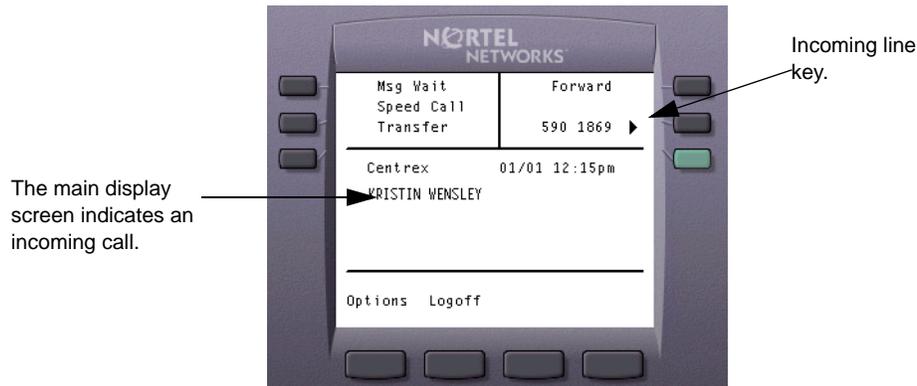
When an incoming call arrives at the Etherset, you will be notified by:

- Audible ringing.
- Flashing alert lamp.
- The incoming line key will be flashing with the ► symbol.
- The main display may show one of the following, depending on the calling party information that is available:
 - The calling party name and number.
 - The calling party number only.
 - The calling party name only.

- An indication that the calling party details have been withheld.
- A blank display.

Figure 46 shows the Etherset display indicating an incoming call.

Figure 46 Incoming call display



To answer a call:

- 1 Lift the handset, or select the Handsfree or Headset key to route the call appropriately.
- 2 Hang up or press the Release key to end the call.

3.8 Placing and retrieving a call on hold

The Etherset has designated a key for the **Hold** function. This feature allows you to place a call on hold until you are ready for the caller.

Place and retrieve an answered call on hold as follows:

- 1 Press the **Hold** key.
- 2 The Etherset will indicate a call on hold with a flashing ► symbol next to the incoming line feature key.
- 3 Press the appropriate line key to retrieve the call.

3.9 Forwarding calls

The call forwarding feature allows you to divert calls to a second number. This may be particularly useful should you wish to send calls to a mobile telephone or voice mail system.

Note: The availability of the Call Forward feature will depend on your individual service provider.

3.9.1 Enabling call forward

To enable call forwarding:

- 1 Press the **Forward** softkey. (This symbol:  will appear next to the Forward softkey and will be flashing.)
- 2 Enter the telephone number of the forwarding destination.
- 3 Press the **Forward** softkey again. (The  symbol will stop flashing.)

3.9.2 Disabling call forward

To disable call forward:

- 1 Press the Forward key. (The  symbol will no longer appear.)

3.10 Message waiting and message retrieval

Note: The availability of the Message Waiting feature will depend on your individual service provider.

You will be informed that you have a message waiting by the following indicators:

- The **Msg Wait** key is highlighted with a .
- The alerting lamp will be lit.
- An envelope icon will be displayed (left of the screen).

To check waiting messages:

- 1 Enter the phone number for your voice mail provider; or, if your Etherset has been configured to do so, press the **Msg Wait** key.
- 2 Review your messages.
- 3 Hang up or press the Release key to end the call.

Chapter 4 Adjusting Etherset settings

Adjusting the i2001, i2002, and i2004 Etherset settings is basically the same process. The figures in this chapter illustrate i2004. For a comparison of functionality and screen displays, see Chapter 1.

4.1 Introduction

The i2004 Etherset contains an extensive menu system which allows users to change the default settings on their telephone set following the initial configuration procedure.

To access the settings menu, select the **Options** softkey when the Etherset is idle. The following screen will appear:

Figure 47 Softkey options menu



The options menu allows you to configure the following settings:

- Network connection type.
- Etherset display contrast.
- Feature key labels.
- Password.
- Time and date settings.
- Language.

- Volume.

These options are described in the following sections.

4.2 Selecting the network connection

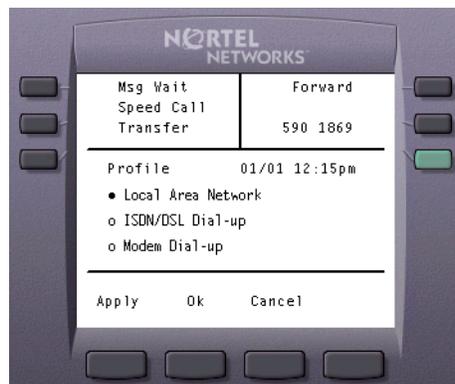
The i2004 Etherset allows you to select the type of network connection between your Etherset and the Gateway. The different types of network connection offered will depend on the Audio Profiles configured on the Gateway. Examples include:

- Local Area Network
- ISDN/DSL Dial-up
- Modem Dial-up
- Default

To select an option, do the following:

- 1 From the main menu, press the **Options** softkey.
- 2 In the Options menu, press the **Audio** softkey.
- 3 In the Audio menu, press the **Profile** softkey.
- 4 A screen similar to the following will appear:

Figure 48 Audio profile menu



- 5 Use the up and down navigation keys to select the desired network connection type. When your preferred selection is highlighted, press the **Apply** softkey, then press the **OK** softkey to save the changes and return to the previous menu.
- 6 Press the **Cancel** softkey to return to the previous menu; or, press the **Quit** key to return to the main menu.

The new network connection setting will take affect at the next call origination.

Warning: Changing your network connection settings may affect the voice quality of your calls. Contact your system administrator if you have any problems with the voice quality.

4.3 Adjusting the contrast on the Etherset

The Options menu provides the ability to adjust the contrast on your display. To adjust the contrast:

- 1 Select the **Options** softkey from the main menu.
- 2 In the options menu, press the **Display** softkey.
- 3 Use the right and left navigation keys to adjust the display contrast.
- 4 Press the **OK** softkey to return to the previous menu; or, press the **Quit** key to return to the main menu.

4.4 Labelling feature keys

It is possible to add or edit feature key associations using the Etherset.

Note: Adding or editing feature keys creates an association between the SoftClient or Etherset and the Centrex features which are available through your service provider. Creating a feature key association does not provide new functionality, but it labels the key.

To add or edit feature key associations:

- 1 Select the **Options** softkey from the main menu.
- 2 In the Options menu, press the **Keys** softkey. The following screen will appear:

Figure 49 Softkey menu



- 3 Use the up and down navigation keys to select the feature key you wish to assign or edit. Press **Assign**. The following screen will appear:

Figure 50 Softkey label options



- 4 You may optionally select the key type by selecting the key to be a:
 - CO feature (Central Office feature). This is selected if the feature key is to be used for a feature being supplied by Succession or the DMS.
 - Local key type. This is selected if the feature key is to be used for a CentrexIP feature, for example a contact in the contact list may be assigned to a local feature key for dialing.

If "local" is chosen as the key type the user can only assign a memory space (Contact from the directory) to that key and all other key assignments are made unavailable.
- 5 The feature option will be highlighted. Use the left and right navigation keys to scroll through the Centrex features which can be assigned to the key. Apply the selection by pressing the **Apply** key.
- 6 You may optionally select a default key to be used if any of the following are selected:
 - Handsfree key
 - Headset key
 - "Dial" menu option from either the inbox or outbox
 - **OK** key from the predial options menu.
- 7 You may optionally choose to enable autoscroll on this feature. Use the down navigation key to highlight autoscroll. Enable and disable autoscroll using the left and right navigation keys. (For a full description of autoscroll, see the *Autoscroll* section in chapter 1.)
- 8 You may also optionally choose to assign the key as the Default key. The Default key is used in selecting a Directory Number (DN) with such Centrex features as Predial. Only one key can be specified as the Default.
- 9 Return to the Feature key menu by pressing the **OK** softkey.

10 You may optionally select the key to be monitored by the inbox/outbox if the option is available. Following keys can be used:

- Inbox: keys 1-6
- Outbox: keys 1-12

See Section 4.9, “Assigning an Inbox/Outbox to a DN feature key from the Etherset” for more detailed information.

11 When you are finished assigning or editing feature keys, press the **OK** softkey to return to the Options menu; or, press the **Quit** key to return to the main menu.

4.5 Language Selection

The language displayed on your Etherset can be selected from a list of languages configured by your service provider. To change the language on your Etherset:

- 1 Select the **Options** softkey from the main menu.
- 2 In the options menu, press the **Lang** softkey.
- 3 Use the up and down keys to select the appropriate language.
- 4 Press the **Apply** key, and then press **OK**.

You will now have all further screens in the above chosen language.

4.6 Changing your password

To change your user password:

- 1 From the main menu, press the **Options** softkey.
- 2 In the options menu, press the **Passwd** softkey.
- 3 The following screen will appear:

Figure 51 Password screen



- 4 Enter your old password and press the **OK** softkey.

- 5 Enter your new password and press the **OK** softkey.
- 6 Enter your new password again for verification, then press the **OK** softkey.
- 7 Your password is changed. Press the **OK** softkey to return to the options menu; or, press the **Quit** key to return to the main menu.

4.7 Changing date and time displays

It is possible to use theETHERSET to change the following time and date settings:

- Time zone (in relation to GMT).
- Daylight savings settings
- Time formats.
- Date formats.

The following procedure describes configuring the time and date settings on your i2004ETHERSET:

- 1 In the main menu, press the **Options** softkey.
- 2 In the options menu, press the **Time** softkey. The following screen will appear:

Figure 52ETHERSET Time and Date menu



- 3 From this menu, use the up and down navigation keys to select the option you would like to configure.
- 4 Once the option you would like to configure is highlighted, use the left and right navigation keys to scroll between the available settings for that option.
- 5 Press **Apply** to select a setting. Once that setting has been selected, the * symbol will appear next to the chosen setting.
- 6 When you have finished with this menu, press the **OK** softkey to return to the options menu; or, press the **Quit** key to return to the main menu.

4.8 Assigning auto login

To assign auto login:

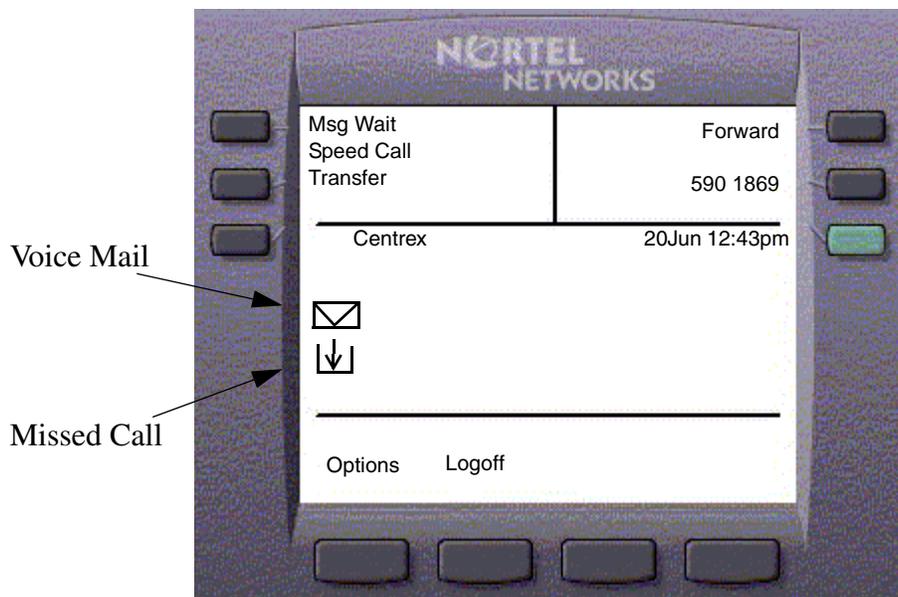
- 1 From the main menu, press **Options** softkey.
- 2 In the **Options** menu, press the **User** softkey.
- 3 Highlight **Autologin** using navigator (scroll) keys and set it to **Yes**.
- 4 Press **Apply** key and then press **OK**.

4.9 Assigning an Inbox/Outbox to a DN feature key from the Etherset

You may assign an inbox, outbox or both to a DN key using the left and right navigation keys. (For a full description of inboxes and outboxes, see Sections 4.10 and 4.11.)

If an inbox has been assigned to a DN key and an incoming call to that DN key is missed an inbox icon will be displayed to the left of the top level screen (see example below) and the red LED will be lit at the top of the set. The icon will disappear and the LED will be reset to its normal state as soon as the user views their inbox.

Figure 53 Icon Descriptions



Restrictions:

Only one DN may be assigned to use the outbox at any one time on any feature key.

Up to 6 DN keys may be monitored by the inbox at any one time but only on the first 6 feature keys.

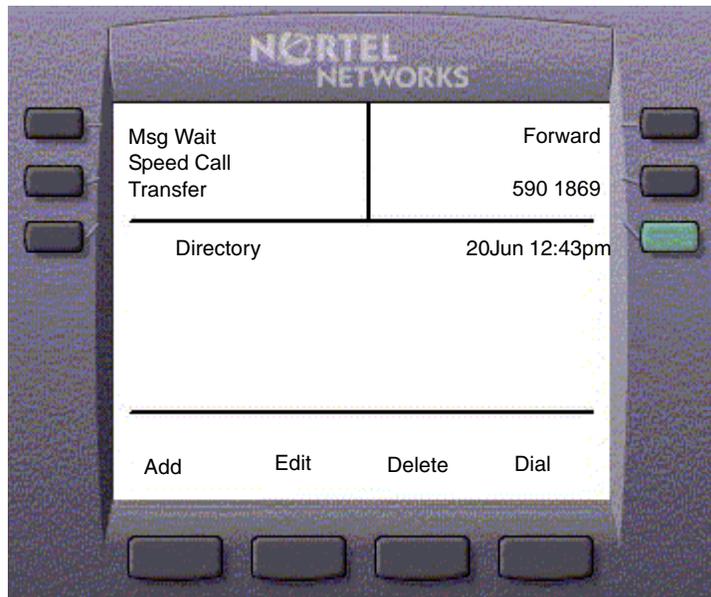
If the user has a message waiting (on a feature key assigned as a "Msg Wait" key) an envelope icon will be displayed to the left of the top level screen (see Figure 53).

This icon is removed once the user dials the voice mail server to retrieve the waiting message.

4.10 Using the Directory

The directory is accessed by selecting the directory button. The following screen will appear:

Figure 54 Using the Directory



The Directory can hold up to 16 contacts at any one time. Contacts held within the directory may be assigned to feature keys so they may be dialed when the assigned feature key is selected.

The following soft option keys may be selected while viewing the directory:

- The **Add** softkey may be selected to launch the contact wizard to add a new contact into the directory.
- The **Edit** softkey may be selected to edit an existing contact entry in the directory.
- The **Delete** softkey may be selected to delete an existing contact entry in the directory.
- The **Dial** softkey may be selected to dial a contact in the directory.

The contact wizard prompts the user for the following details:

- "Edit Number" - Enter the number of the new contact, if available.
- "Edit Surname" - Enter the surname of the new contact, if available
- "Edit First Name" - Enter the first name of the new contact, if available.
- "Edit Display Format" - Use the left and right navigation buttons to select the appropriate display format to be used. You may choose from the following display formats:
 - Surname, First Name
 - First Name Surname
 - Surname only
 - First name only
 - Number only

Note: The display format you have chosen here does not refer to the format in the directory; it refers to the format when you assign the directory entry to a local feature key.

Example:

You entered **Smith, Dave** in your directory and selected **First Name** as the display format. Then the entry in the directory will still be **Smith, Dave**.

However, if you:

go to **Options > Feature**

then **select a feature key** (e.g. 5),

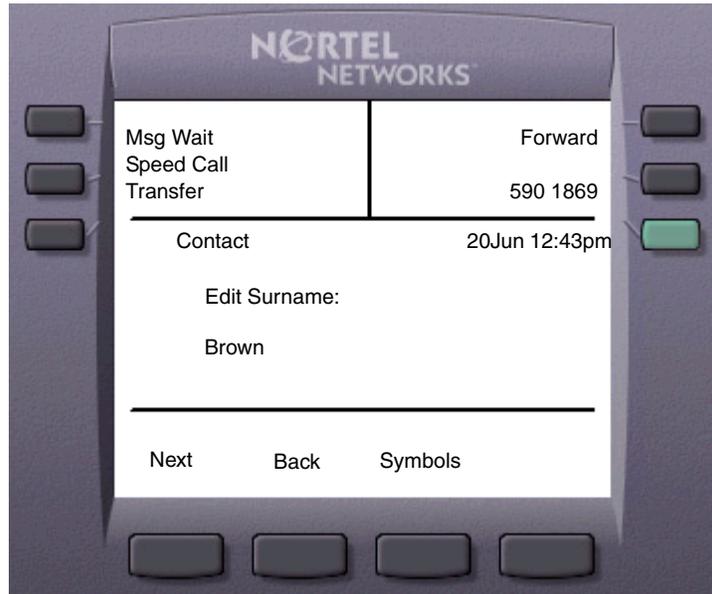
then **change the key type to local**,

then **choose the directory memory entry** (e.g. Smith, Dave),

the result is that Dave is shown next to key 5 (First Name was selected).

When text is entered into the contact wizard for the first name or surname a **Symbols** softkey will appear for a short period of time.

Figure 55 Edit Name



The **Symbols** softkey allows you to access a symbols menu associated with the number and character set of the selected key. A **More** softkey option is available within the symbols screen to display the whole symbols menu available to the i2004.

4.11 Using the Inbox

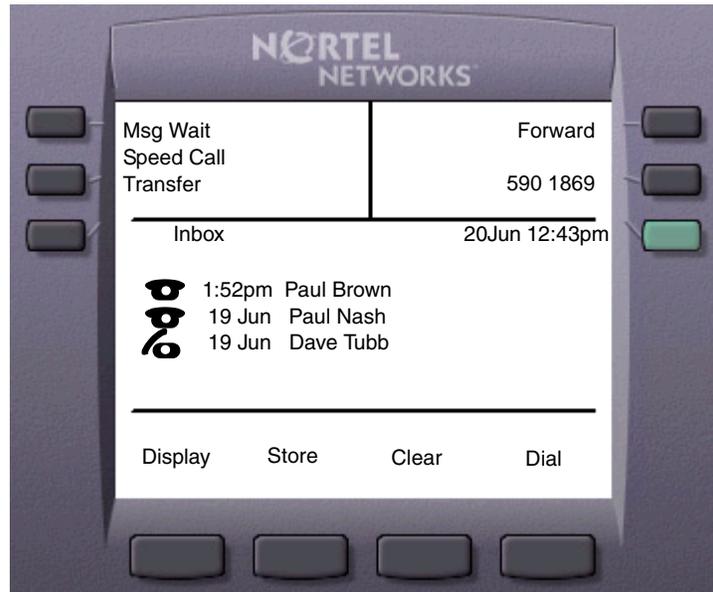
Once a DN key has been assigned an inbox all incoming calls to that DN key will be logged (incoming calls will be logged regardless of whether the user is logged in or not). The incoming key number, time and date will be stored as well as the display shown on the i2004 at the time of the incoming call.

Note: The display will only be captured if the incoming call lasts for more than 2 seconds).

The logged calls may be viewed by selecting the inbox key. The inbox can store up to 10 of the most recent incoming calls. The list is displayed in order of the time the call was received, i.e. the most recent call being at the top of the list.

Calls in the inbox are tagged with an icon to the left of the inbox screen. The off hook icon means the call was taken and the on hook icon means the call was missed as shown below:

Figure 56 Inbox



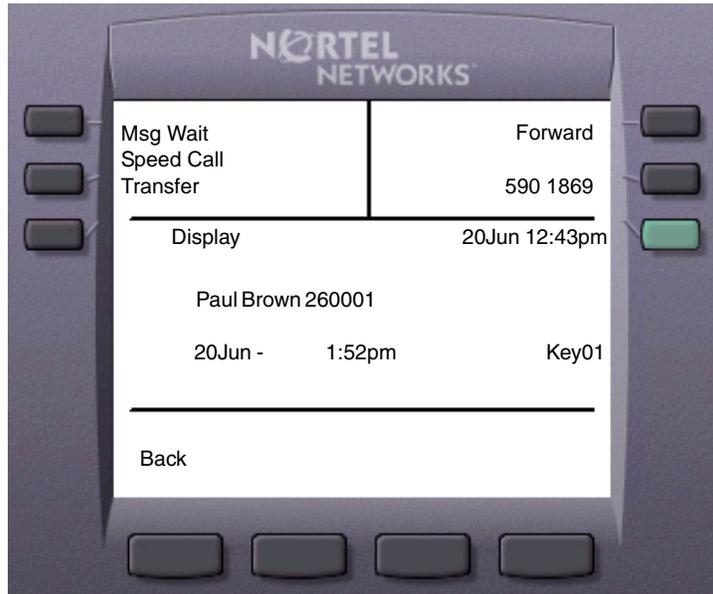
The inbox call list is comprised of a time or date stamp (a time stamp is shown if the call was received on the same day of viewing the inbox, otherwise a date stamp is displayed) and a name or number. If no name or number was extracted from the display of the incoming call a "No Details" message will be displayed in the name/number field. The list may be scrolled around using the up and down navigation keys.

Note: The list does not wrap around.

The following options may be selected using the softkeys while viewing the inbox:

- The **Display** softkey may be selected to show the display captured from the incoming call, the time, date and key number. See screen shot below.
- The **Store** softkey may be selected to launch the contact list wizard. Any captured details from the incoming call are passed into the contact wizard so they may be edited before storing (see Section 4.10, "Using the Directory").
- The **Clear** softkey may be selected to clear all of the inbox entries.
- The **Dial** softkey may be selected to dial the number of the incoming call back (only if the incoming call number was available on the display when the incoming call was captured). The number captured from the display of the incoming call will be placed into the predial menu. From here, you may delete/add extension numbers etc. which may or may not be required.

Figure 57 Display Inbox entry



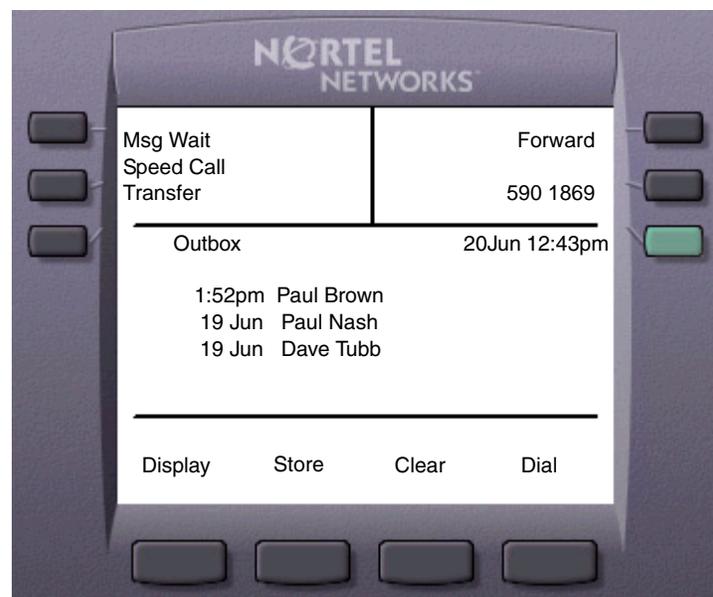
4.12 Using the Outbox

Once a DN key has been assigned to an outbox all outgoing calls from that DN key will be logged. The outgoing key number, time and date will be stored as well as the display shown on the i2004 at the time of the outgoing call.

Note: The display will only be captured if the outgoing call lasts for more than 2 seconds.

The logged calls may be viewed by selecting the outbox key. The outbox can store up to 10 of the most recent outgoing calls. The list is displayed in order of the time the call was made, the most recent call being at the top of the list.

Figure 58 Outbox



The outbox call list is comprised of a time or date stamp (a time stamp is shown if the call was received on the same day of viewing the outbox, otherwise a date stamp is displayed) and a name or number. If no name was extracted from the display of the outgoing call the number dialed will be displayed. The list may be scrolled around using the up and down navigation keys.

Note: The list does not wrap around.

The following options may be selected using the softkeys while viewing the outbox:

- The **Display** softkey may be selected to show the display captured from the outgoing call, the time, date and key number.
- The **Store** softkey may be selected to launch the contact list wizard. Any captured details from the outgoing call are passed into the contact wizard

so they may be edited before storing (see Section 4.10, “Using the Directory”).

- The **Clear** softkey may be selected to clear all of the outbox entries.
- The **Dial** softkey may be selected to dial the number of the outgoing call back. The number is dialed directly using the default feature key.

Centrex IP Client Manager
Series 7.0
Etherset Installation Guide and User Manual

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