eircom **advantage 1200**
System Introduction

Specifications subject to change without notice. Facilities described may or may not be supported by your network.
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This documentation refers to CCU software version 361.302, Applications card 5.37.
DM 850

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1.   System Introduction

## 1.1   **System Overview**

Integrated Platform

The *eircom* **advantage 1200** integrates all the communication needs of a small business into a single platform that includes Internet access, voice, data and voicemail. It enables small and medium enterprises to benefit from all these technologies simply and quickly. Through excellence in design, ease of use and reliability; functionality and cost effectiveness are achieved in one powerful communications tool.

Voice calls are handled with the full functionality of a traditional PBX. Calls can be made, received, placed on hold, and transferred from any extension on the system to any internal or external party. This includes ISDN terminals connected to the internal S bus or even DECT handsets.

Capacity

The *eircom* advantage 1200 is a small capacity voice & data digital switch. The key interfaces are as follows:

- Four Euro ISDN Basic Rate Access lines (BRAs). Two simultaneous digital quality calls may be conducted on each line.
- One of the ISDN lines may be configured as an internal So-Bus.
- The internal So-Bus allows the connection of up to 8 ISDN terminals. Only two devices connected to the So-Bus may be used for calls at any one time.
- Eight 2-wire digital extensions: i.e. *eircom* advantage digital key sets. There are 8 connectors for this purpose located within the system's access area.
- Four analogue a/b extensions.
- You may connect standard 2-wire telephones (including a normal telephone, fax machine, answering machine, cordless phone or modem).
- Battery Connection Port for use with optional Battery Backup (BBU) Module.
- Applicaitons card.
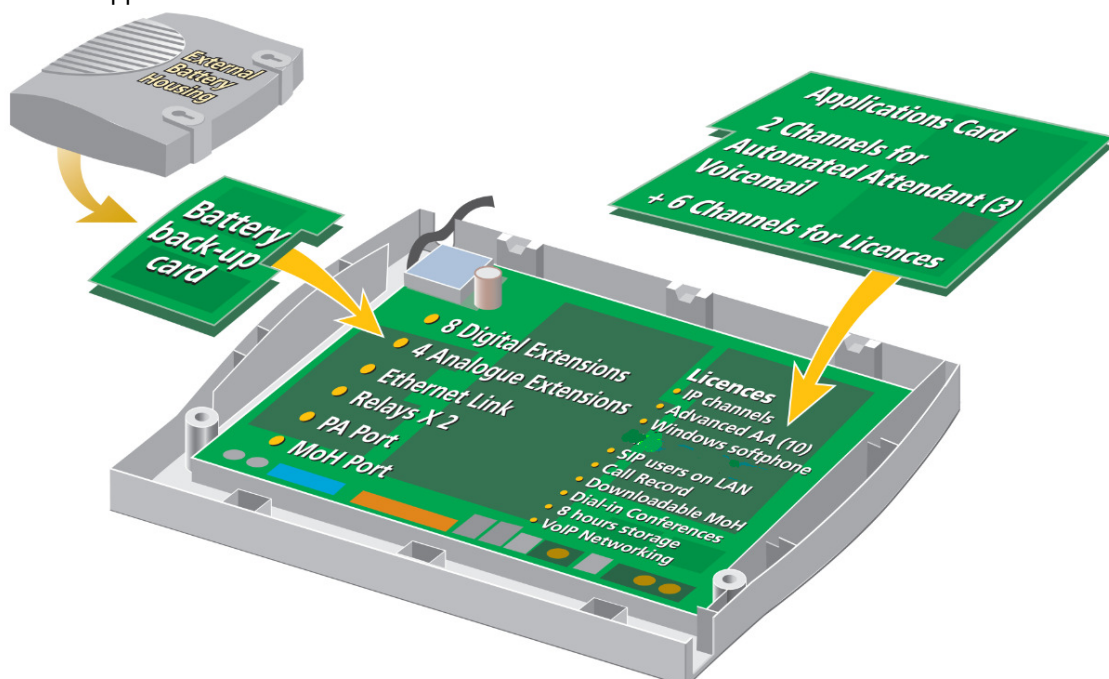
Other Interfaces

Ethernet port for connecting to a company LAN
2 External relays to connect a door phone
External Music port
PA port
Call Logging port

eircom **advantage Executive System Phone -** The *eircom* **advantage** Executive System Phone is a full hands free display telephone designed specifically for use with the system. The 4 line display and associated navigation keys guide the user through the features and programming of the switch; it also has 6 fixed and 16 programmable function keys that give single touch access to many of the most commonly used features. A headset can be connected to the phone if required.

eircom **advantage Standard System Phone -** The *eircom* **advantage** standard phone is a fully hands free single line display telephone with 6 fixed keys designed specifically for use with the system.

eircom **advantage Direct Station Select (DSS**) - A Direct Station Select (DSS) module containing 32 keys may be connected to the *eircom* **advantage** Executive Key Set. This will give key and lamp access and status on all of the 12 voice extensions while providing access to commonly used features on the additional 20 keys.

Normal Analogue Telephones - The system also supports plain 2-wire analogue telephones, ISDN telephones, fax machines, answering machines, DECT cordless telephones, payphones and modems.

Applications Card - The optional Applications card is a plug-in hardware module that can be remotely downloaded with the following applications packages or facilities:

Voicemail with email forwarding of voicemails as WAV attachments and basic auto attendant
Advanced Multi-layer **Auto Attendant** with 10 layers of interactive messages
Pre-recorded **Music on Hold**, with downloadable WAV capability, up to 45 Minutes
Call Record and email forwarding of voice calls on a global or individual call basis
Voice storage expandable up to 20 hours with software keys
Voice over IP User Licenses for VoIP compression and echo cancellation
Meet-me Dial-in Conference bridge for up to seven participants
Windows Softphone registration

Up to 8 channels may be licensed on the Applications card, for use among the above functions.

Users can access their voice mail remotely to listen to their messages, record new introductory messages or change their diversion settings.
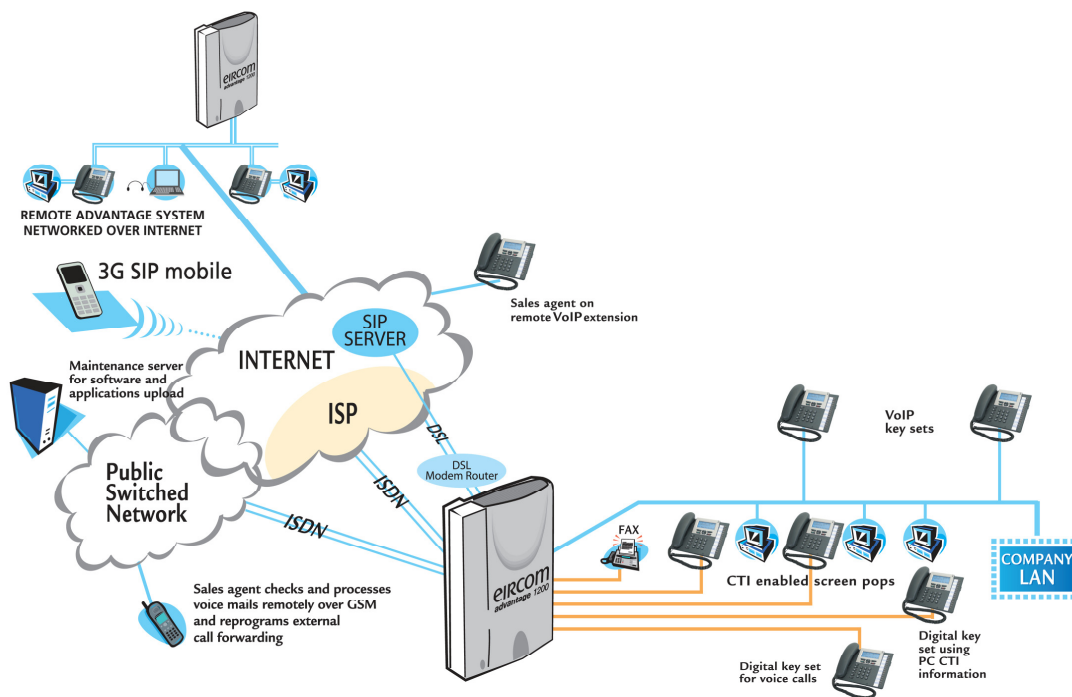
1.1.1 PBX Features

Auto-Attendant - The Auto-Attendant will answer a call with a recorded message after a pre-determined time and can prompt the caller to dial DTMF digits in order to be routed to a specific extension, group or external party.

Busy Line Details - If a system phone makes a call by selecting a specific line and the line is busy, the user will receive Busy tone and the display will indicate the reason the line is busy.

Call-Back - When a called extension is busy, a call-back can be set so that when the called extension becomes free, the system will first ring the extension that set the call-back and when that extension answers, the system will ring the called extension.

Call Brokerage - Allows the user to make multiple outgoing calls from the same extension and by putting these calls into Hold, toggle from one call to another.

Call Diversion - There are 3 types of call divert -   Divert All Calls
                                                              Divert On No Answer
                                                              Divert On Busy

The Divert All Calls and Divert On No Answer features can be programmed to divert to:
- Extension or Group
- Voice mailbox
- Personal/Common Address book entry
- External number.

The Divert On Busy feature can be programmed to divert to:
- Extension or Group
- Voicemail

Call Hold - Places a call on Hold while an enquiry is made.

Call Intrusion - Intrudes on an established call. A warning tone is given before the intrusion takes place.

Call Park - Places a call on hold which can then be picked up at another extension.

Call Pick off - Picks off (or takes over) a call in progress at another extension, for example - an answering machine.

Call Pick up - Answers a call ringing another extension.

Call Transfer - Transfers a call to another extension. Both announced and unannounced (transfer on ringing) transfers are supported.

Call Waiting - When on a call, an alert tone will indicate that a call is waiting to be answered. The caller will receive ringing tone to indicate that the called party is being alerted. Call waiting can be enabled for both Internal calls and External calls.

Conference Call - The system allows 3 parties to be connected together on a call. A conference call can be set up with -
- 2 other extensions
- 1 extension + 1 external party
- 2 external parties.

CLIP and CLIR - (Caller Line Identification Presented and Caller Line Identification restricted)

Incoming calls: The *eircom* advantage 1200 enables the user to view the identity of the incoming caller before answering the call. Available to all extensions on the system, digital and analogue, provided the latter has the ability to display CLI.

Outgoing calls: System users can prevent their CLI information from being sent to the line by using CLIR (Calling Line Identification Restriction). CLIP is the default mode. The system will present the base number of the line, unless an alternative MSN has been selected in the outgoing CLI option by an *eircom* business systems technician.

Operator Functionality - The system can be programmed so that incoming calls ring different extensions or groups of extensions at different times of the day, e.g. after hours, all calls ring a night service extension. These changeovers will take place automatically but can be overridden by an extension, provided that extension has Operator Functionality enabled in system programming. Normally only the system administrator or reception extension would have this facility enabled. This feature also allows users to have access to other functions such as Auto-attendant setup and the Common address book

Direct Line Seizure (DLS) - When DLS is set, an extension will seize a line and receive external dial tone when the handset is lifted or the Speaker key is pressed. This option is programmable on a per extension basis. It is disabled by default.

Do Not Disturb (DND - When set, all calls arriving at the extension will receive Busy tone. The exceptions to this are calls from extensions that have DND override set in system programming.

Door Phone - A door phone can be connected to the system using one of the analogue extension ports. When the door phone button is pressed, the system will ring the extensions that have been assigned to answer the door phone. The door can be opened by dialling a code at the extension.

Enquiry Call -   Places a call on hold enabling the user to make a call to another extension or external party.

Flexible Numbering Plan - The extension numbering plan is variable and ranges from 1 to 9 digits in length. The numbering plan accommodates different length extension numbers simultaneously. (E.g. Dial "0" for the Operator, dial "11" for an extension, dial "123" for a group, etc..)

Group Operation - Up to 10 different groups of extensions can be defined on the system. Typical groups might be Sales, Purchasing, Technical Support, etc... A user by dialling a group number from internal dial tone will ring all members programmed for that group. The system also provides for a leader to be assigned to each group. The leader of a group will receive messages for that group such as voicemails and missed call information.

Hotline Extensions - The hotline facility automatically dials a pre-programmed number when an extension goes off-hook. This feature can operate in immediate or delayed mode.

Internal Calls - These are calls made between extensions on the system.

Internal Paging - Enables an extension user to broadcast a message through the speakers of executive System Phones and/or through a PA device attached to a PA port on the system.

MSN/Line Assignment - Assigns extensions to ring for particular MSN numbers.

Missed Calls list - The system maintains a list of the last 10 missed calls for each extension equipped with an Executive system phone. If more than 10 calls are missed, the oldest recorded on the list will be deleted.

Phone Book -   There are 3 phone books available to each extension -

- Personal Address Book which stores 50 numbers per extension. These numbers are only available from the extension that entered them.
- Common Address book which stores 200 numbers available to all extensions on the system.
- Extension List which shows extension numbers and names.

PIN Codes - PIN Codes are used as a means of security. Extension users have the option to program a 4 digit PIN code that can be used for accessing features such as Voicemail. See the Voice Mail user guide for more information.

Redial - The executive system phone can store up to the last 10 numbers dialled from the extension. Using the Last Number Redial feature allows the user to select a number from the list to redial. The Standard system phone will store the last 5 numbers dialled from the extension. Using the Redial key the user can scroll through the last 5 dialled numbers. Standard analogue extensions can only re-dial the last number dialled.

Roaming PIN - Calls made from an extension are subject to the level of access that has been assigned to the user of that extension. The level of access defines the types of call the user is permitted to make, e.g. internal calls only, internal and external local calls only etc. The *eircom* advantage 1200 offers up to 100 different user profiles with associated levels of access. By entering a User Name and a PIN code, a user can make calls at a roaming PIN enabled extension using his/her profile with its associated level of access. The *eircom* business systems technician will issue Roaming PIN and user numbers.

Voicemail - The optional Applications card provides a maximum of 22 mailboxes. Users can configure their own mailboxes, divert calls to their mailboxes and retrieve or save the voice messages received. Messages may be forwarded automatically by email, as wav attachments, to a designated email address.

1.1.2 Data Features

Ethernet Interface - The system can be used as a router for Internet access from any PC connected to the Ethernet Port. Browser Based System Programming can also be carried out from a PC connected to this port by the *eircom* business systems technician.

Internet Access - The system's built-in ISDN router enables multiple PC Internet access with bandwidth management and a firewall.

Internet Barring - Prevents selected PCs connected to the LAN from accessing the Internet by barring the LAN IP address for that PC

Remote Download - The system is equipped with Flash Memory, which allows the software of the system to be upgraded from a remote service centre over the telephone line.

Call Logging - The system outputs Call Logging records for all external calls, both incoming and outgoing. The Call Logging report is sent over the Ethernet connection using a TCP/IP port where it can be read by an application such as HyperTerminal.   The RS232 serial port can also be used for Call Logging.

1.2 *eircom* advantage Executive system phone overview

The *eircom* advantage Executive Key Set is a full hands free display telephone, designed specifically for use with the new generation *eircom* advantage voice and data switches. This phone, which can be either desk or wall mounted, supports headset operation allowing an increased degree of freedom for more intensive users of the system.


The executive D3 telephone has a 4 line 20-character, backlit display and associated navigation keys which guide the user through the use and programming of the system and of the phone.
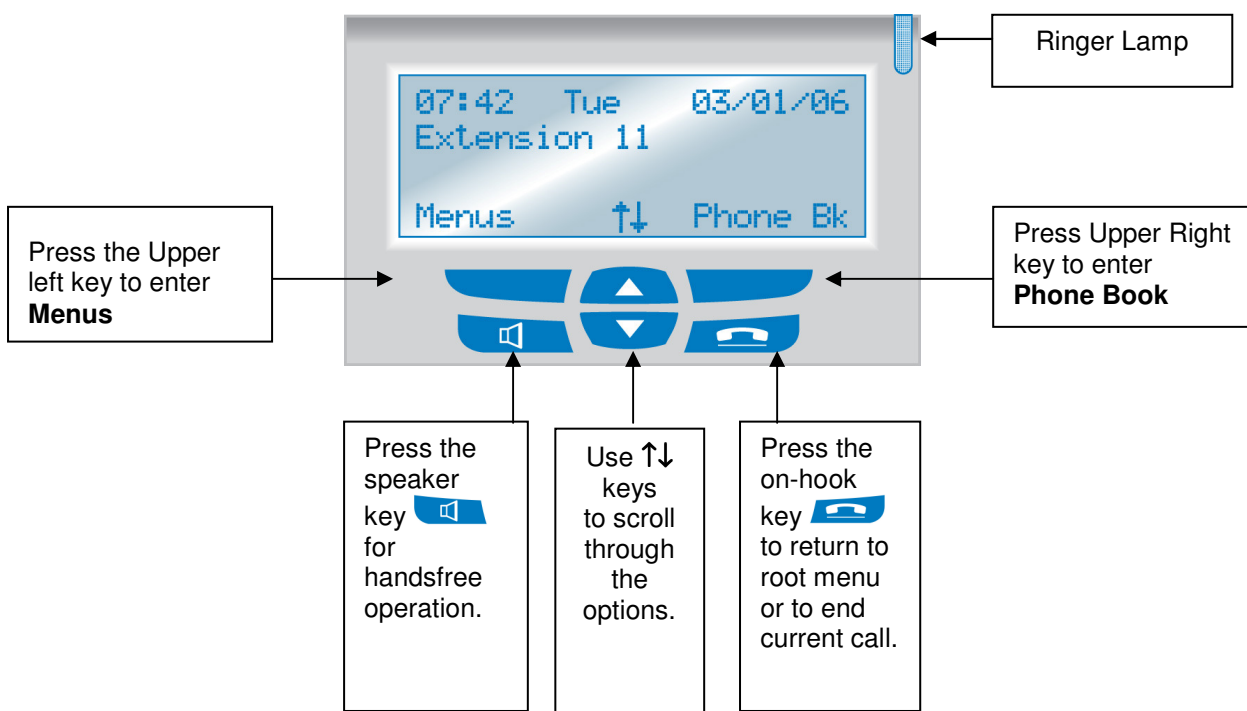
1.2.1 Display

Display prompts provide assistance to the user when operating or programming the telephone and the system.

When the system phone is idle, the display shows the time, day and date on the top line, the extension number on the second line and the function of the context sensitive navigation keys on the fourth. The third line (normally blank) is used to display additional information.
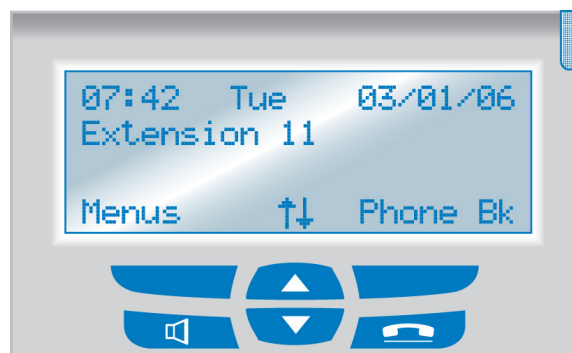
1.2.2 Navigation Keys

The Executive System Phone D3 allows call control and programming operations to be performed quickly and intuitively using the phone display and the context sensitive navigation keys.

Ringer Lamp

Press the Upper left key to enter **Menus**

Press Upper Right key to enter **Phone Book**

Press the speaker key 🔊 for handsfree operation.

Use ↑↓ keys to scroll through the options.

Press the on-hook key ☎ to return to root menu or to end current call.

1.2.3 Function Keys

The system phone has 16 programmable function keys, 6 fixed function keys, 4 context sensitive display-associated keys, a green speaker (off hook) key and a red on-hook or return to root key. The user can program the 16 programmable function keys with speed dials or other functions. The 6 fixed function keys cannot be altered.

Programmable Function Keys
The factory settings of these keys are set as 6 LINE KEYS, 6 EXTENSION KEYS, 2 SPEED-DIAL KEYS, CONFERENCE and PICK-UP.

Fixed Function Keys
These keys provide single touch access to the most commonly used features of the system:

MESSAGE	MESSAGE for voice mails and missed calls
MUTE	MUTE disconnects microphone for secret consultation
REDIAL	REDIAL for any of the last 10 numbers
PARK	PARK a call for pick-up elsewhere
DIVERT	DIVERT to forward calls
HOLD	HOLD to allow enquiry and transfer

1.2.4 Dual Colour Lamps (LEDs)

Each function key has a red and a green lamp. Green is associated with this phone. Red is associated with other users of the system. Fast flashing denotes ringing, slow flashing is for a held or parked call and continuously 'on' means an active call.

1.2.5 User Programming

When the *eircom* **advantage** Executive System Phone is idle, pressing the <**Menus**> key gives access to the following programmable features and settings enabling the user to configure the *eircom* **advantage** Executive System Phone to best meet their needs -

Personal Address Book - Enables the user to enter, modify and delete entries in their Personal Address Book.

Common Address Book - Enables the user to enter, modify and delete entries in the Common Address Book. (*)

Call Diversion - Enables user to set/clear all types of call diversion.

Mailbox Settings - Enables access to mailbox messages and voice mail programming. This is only accessible if the system is equipped with a Voice Module.

Auto-Attendant Set-up - Enables the user to Record and listen to the Auto-attendant messages. This is only accessible if the system is equipped with a Voice Module and the Auto-attendant has been enabled. (*)

Phone Settings - Enables the user to customise the phone. (For details, see **Phone Settings** and **Define Function Keys** menus).

Day/Night Changeover - Enables manual change of ringing mode from the *eircom* **advantage** Executive System Phone.(*)

List of calls - Enables access to details of the following:
  - The last ten missed calls.
  - The last ten dialled Numbers.
  - The last ten received calls.

Roaming PIN - If an extension has been enabled for Roaming PIN by an *eircom* business systems technician, then that extension has the ability to accept different levels of access associated with a user profile. The *eircom* advantage 4800 offers up to 100 different user profiles with associated levels of access. By entering a User Name and a PIN code, a user can make calls at a roaming PIN enabled extension using his/her profile and its associated level of access.

Group Settings - Enables the user to program and access group related settings e.g. Diversion, Mailbox settings, missed call list and PIN codes. This option is only accessible by the leader of a group or by a group member if a PIN code has been assigned for that group.

(*) - These options are only accessible if the user has been programmed with Operator functionality.

Phone Settings Menu

The Phone Settings Menu allows the features listed below to be customised to meet the user's individual requirements.

Phone Settings
Ringing Volume
Handset Volume
Speaker Volume
Headset Volume
LCD Contrast
Change Language
Define Function Keys
Keypad Tones
Phone Software
Receive Page Calls
Auto-Answer
Show Number
Change PIN Code
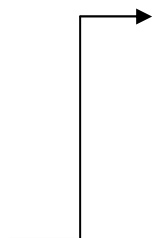
Programmable Options for Function Keys
- Redial Last Number
- Day/Night Ringing
- Conference Call
- Intrude Call
- Call Pick Up
- Park Current Call
- Phone Book
- Internal Paging
- Transfer Call
- Call Back
- Roaming PIN
- CLI Restriction
- Any Line
- Extension Key
- Line Key
- Speed Dial Key
- Central Speed Dial

1.2.6 DSS Module

The DSS Module for Executive system phones has 48 user-programmable keys with associated dual colour LEDs. The function of each DSS key can be changed by using the Phone Settings menu and selecting the Define Function Keys option on the Executive System Phone.

1.3   *eircom* advantage Standard system phone overview

The *eircom* **advantage** Standard Key Set is a handsfree backlit display telephone, designed specifically for use with the new generation *eircom* **advantage** voice and data switches. It has six function keys with dual colour leds and can be desk or wall mounted.

1.3.1 Function Keys

The *eircom* **advantage** Standard has 6 fixed function keys. . These keys provide single touch access to the most commonly used features of the system.

MESSAGE: A flashing LED alongside the MESSAGE key indicates unanswered voice mail messages.

MUTE: This key switches off the handset microphone, enabling private local conversations to take place while still allowing the caller to be heard. The mute key is also used to delete digits during on-hook dialling.

REDIAL: This key redials the last external numbers dialled from the advantage Standard.

LINE: One touch access to make an outside call on any available line.

SPEAKER: This key switches the Standard Key Set to handsfree working.

HOLD: This key places the current call on exclusive hold for later retrieval

1.3.2 Dual Colour Leds

Each function key is lit either red or green when activated. Green is associated with a function activated by this system phone and red is associated with a function activated by another phone on the system.

1.3.3 Display

The single line, 16-character display with blue backlight provides context sensitive information such as the calling party name.
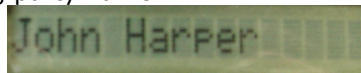
When the phone is idle, the display shows the time and extension number.
When the user lifts the handset or presses any key, the display backlight is illuminated.

1.5 *eircom* advantage 1200 outline specification

Control Unit
4 ISDN + 8 Dig + 4 a/b **(Exchange Lines + Digital Extensions + Analogue Extensions)**

Plug-in Cards
Voice card - 2 channels, 2 hours storage time. **Battery Back up charging card**

External Modules
Battery Back-Up battery

Features available on the eircom advantage 1200
Auto attendant – (Call queuing, Voice Response, Out of hours mailbox)
Browser based system programming
Browser based User programming
Call Intrusion

List Of Calls per Extension: (Available on eircom advantage executive system phones)
 	
    Missed Calls   **(stores up to the last 10 missed calls)**
    Received Calls **(stores up to the last 10 received calls)**
    Dialled Calls   **(stores up to the last 10 dialled calls)**
 	
Each of these 3 features presents the user with the following options:
 	
   •   **Call :** The user can call back the other party.
   •   **Time of Call:** The user can view the time and date of the selected call.
   •   **Save:** The user can save the call details to the personal address book.
   •   **Delete:** The user can delete the selected call from the list.

Call Barring – 7 Levels
Call Brokerage

Call Diversion   **- Divert All**
                     - Divert No Answer
                     - Divert On Busy
                     - External and internal divert
                     - Reprogram diversion remotely

Call Hold
Call Logging
Call Park
Call Pick-up/Call Pick-off
Call Intrusion Protection
Call Transfer
Call Waiting - Internal and external
CLIP, CLIR
3 Party Conference Call – (Internal and external, 2 Conference bridges)
Do Not Disturb
Enquiry Call
Flexible Numbering - 1 to 9 digit extension numbers

Groups   **- Up to 10 programmable groups**
              - Group mailbox
              - Group diversion (Divert All, Divert On Busy, Divert No Answer)

- List of calls per group (Missed calls, up to 10)
Hotline Operation
Least Cost Routing
MSN Ringing Assignment
MSN Restriction

Day/Night service   - 5 Ringing modes
                                  - 8 Switching per day
                                  - 30 Non-switching days, e.g. Bank Holidays

Paging - PA Port, Executive and Standard System Phones

Phone Book   - Common Address Book   200 system wide entries
                              (Codes *4000 to *4199)
                              - Personal Address Book   50 entries per extension
                              (Codes *800 to *849)
                              - Internal extension list

Redial - Last 10 numbers for Executive set and 5 for Standard set
Ringing Modes (5 programmable modes)
Roaming PIN - Up to 100 profiles
User PIN Codes - One per extension and group (22)

Flexible Applications

Following features are among those available on the Applications card.

Voicemail with 2 Channels and 4 hours storage or more
22 mail boxes, one per extension and per group.
Storage time (at least 2 hours) shared on a first come first served basis. **The default message length is 1.5 minutes. This can be increased up to 3 minutes.**
Call back the party that left a message
Caller ID
Change diversions remotely
Change welcome message remotely
Forwarding of messages with voice message attachment
Time and date stamp on the Executive system Phone
Remote access to mailbox.

Automated Attendant
10 user programmable messages
Interactive voice response
Out of hours mailbox
Information lines
Live transfer
Group messages
Revert to the auto attendant if unanswered

Call Record
Record all calls at particular extensions or record on a user selectable basis
Optional beep notification tone
Email forwarding of recorded calls

Voice over IP
Voice compression
Echo cancellation
Secure, encrypted connections for remote workers

Music on Hold
Preprogrammed internal melody
Up to 40 minutes of wav files may be downloaded

eircom advantage executive System Phone
Simple 2-Wire connection
Full hands free operation
6 Feature keys
16 Programmable function keys
20 Character by 4-line LCD display
Context sensitive programming keys
Wall mountable
Headset socket.

eircom Executive system phone DSS Module
48 Programmable function keys with associated LEDS
Simple connection to eircom advantage executive system phone

eircom advantage Standard System Phone Features
Simple 2-Wire connection
Full hands free operation
6 Feature Keys
16 Character Single line display
Wall mountable