# Table of Contents

1. Abbreviations ......................................................................................................................... 4

2. Product overview .................................................................................................................. 5
   2.1 EPOC-S .......................................................................................................................... 5
   2.2 Cradle ............................................................................................................................. 5

3. Keys ........................................................................................................................................ 7

4. Screen ..................................................................................................................................... 7
   4.1 Screen rotation ................................................................................................................... 8

5. Menu ..................................................................................................................................... 8
   5.1 Message box ...................................................................................................................... 8
      5.1.1 Received messages ..................................................................................................... 9
         5.1.1.1 Lock message ...................................................................................................... 9
         5.1.1.2 Delete message ................................................................................................... 10
         5.1.1.3 Acknowledge message ......................................................................................... 10
         5.1.1.4 Unread message ................................................................................................. 11
      5.1.2 Canned message ....................................................................................................... 11
      5.1.3 Message sent ............................................................................................................ 11
      5.2 Status ............................................................................................................................ 12
      5.3 Ring mode ..................................................................................................................... 12
      5.4 Profiles ........................................................................................................................ 13
      5.5 Language ....................................................................................................................... 14
      5.6 Settings .......................................................................................................................... 14
         5.6.1 Sound & alert ........................................................................................................... 15
         5.6.2 Display .................................................................................................................... 15
         5.6.3 Clock setting ............................................................................................................ 16
         5.6.4 Keyboard ................................................................................................................ 17
         5.6.5 Charger light ......................................................................................................... 17
         5.6.6 Flash LED ............................................................................................................. 18
      5.7 Technical menu ............................................................................................................. 18
         5.7.1 Version ....................................................................................................................... 19
         5.7.2 Serial number ......................................................................................................... 19
         5.7.3 Battery level ............................................................................................................. 19
         5.7.4 Identities ................................................................................................................ 19
         5.7.5 Radio ........................................................................................................................ 20
            5.7.5.1 Receiver ............................................................................................................ 20
            5.7.5.2 Transmitter ....................................................................................................... 21
            5.7.5.3 POCSAG ......................................................................................................... 21
         5.7.6 Auto-test ................................................................................................................ 21
         5.7.7 Accelerometer ........................................................................................................ 22
      5.8 Lone worker ..................................................................................................................... 22
      5.9 Shut down ....................................................................................................................... 23
## 1 Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPOC-S</td>
<td>Scope Pager with POCSAG transmission capability</td>
</tr>
<tr>
<td>dBm</td>
<td>Decibel referenced to 1 milliwatt, power unit</td>
</tr>
<tr>
<td>EEPROM</td>
<td>Electrically Erasable Programmable Read Only Memory</td>
</tr>
<tr>
<td>LCD</td>
<td>Liquid Crystal Display</td>
</tr>
<tr>
<td>LED</td>
<td>Light Emitting Diode</td>
</tr>
<tr>
<td>L/R</td>
<td>Left / Right</td>
</tr>
<tr>
<td>MMI</td>
<td>Man-Machine Interface</td>
</tr>
<tr>
<td>POCSAG</td>
<td>Post Office Code Standardization Advisory Group, data transmission asynchronous protocol (used for pagers)</td>
</tr>
<tr>
<td>RIC</td>
<td>Radio Identity Code</td>
</tr>
<tr>
<td>RSSI</td>
<td>Received Signal Strength Indicator</td>
</tr>
<tr>
<td>RX</td>
<td>Received signal</td>
</tr>
<tr>
<td>TX</td>
<td>Transmitted signal</td>
</tr>
<tr>
<td>U/D</td>
<td>Up / Down</td>
</tr>
<tr>
<td>USB</td>
<td>Universal Serial Bus</td>
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</tbody>
</table>
2 Product overview

2.1 EPOC-S

EPOC-S is a POCSAG very light and rugged pager. It can be programmed with 128 numeric and/or alphanumeric addresses. It offers a TX capability.

- Dimensions 97.4x54.7x16.7mm
- Weight 90g
- Screen 96 x 96 pixels up to 8 lines of 16 characters each
- Multiple coloured screen
- Li-ion rechargeable battery
- IP67 compliant
- Accelerometer for lone-worker monitoring and automatic screen rotation
- Powerful flash LED
- User-friendly MMI with arrow keys
- Belt clip and lanyard

2.2 EPOC-S cradle

The cradle exists in 2 versions:
- Programming and charging cradle
  - You can charge the EPOC-S battery and program it (see EPOC-S programming manual)
  - LED strip light is green
- Charging cradle
  - You can only charge the battery
  - LED strip light is blue
When EPOC-S is on charger, LED strip light intensity varies permanently between minimum and maximum.

Green LED → charging and programming

Blue LED → charging only
3 EPOC-S keys

- **Switch on** (long-press 5s)
- **Access to Menu**
- **Back key**
- **Flash LED**
- **Enter (center) key** and **Arrow keys**

4 Display

- **Icons header**
- **Number of received messages** (here, 6)
- **Direct access** to this message with **Enter** key. Move to other message with **L/R arrow** key.
- **Current user profile**
- **Start text**
- **User name**
- **Number of received messages** (read)
- **Menu icon**
- **Number of received messages** (unread)
4.1 Screen rotation

Screen rotates automatically depending on orientation. This feature must be activated in the programming.

5 Menu

You can access Menu by pressing Menu key. You can then navigate into Menu with Arrow keys. Sub-menu under selection is highlighted in reverse video. You can enter into a sub-menu by pressing Enter key. You can escape from Menu or sub-menu by pressing Back key. Depending on programming, some sub-menus may be present or not. When all possible sub-menus are activated there exist 2 menu pages that you can access with Arrow keys.

5.1 Message box

To enter Message box menu:
- Enter Menu with Menu key
- Go to Message box menu with Arrow keys (Message box is on top of menu icons)
- Push Enter key
5.1.1 Received messages

To read a message:
- Go to Received messages with Arrow keys
- Validate with Enter key
  - List of received messages is displayed
- Go to wanted message with U/D arrow key
- Validate with Enter
  - Message is displayed

User can press Back key to return to main screen.

Different icons are used to show messages status:
- Message read (envelope opened)
- Message repeated and read (double envelope opened)
- Message repeated and unread (double envelope closed)
- Message locked (padlock)

5.1.1.1 Lock message

From message display window, press Enter key:
- A menu offers to
  - Lock message
  - Delete message
  - Delete all messages
- Select Locking with U/D arrow keys
- Validate with Enter key
- Select Yes with U/D arrow keys
- Validate with Enter key

When messages are locked, message icon in main screen changes:

5.1.1.2 Delete message

From message display window, press Enter key:
- Go to Delete message with Down Arrow key
- Validate with Enter key
- Select Yes with U/D arrow keys
- Validate with Enter key

Procedure is similar if you wish to delete all messages.

5.1.1.3 Acknowledge message

In programming it is possible to demand an “Operational ACK” from user to be sure user has read the message (refer to Programming Manual for more details).
If EPOC-S is programmed as such, user cannot exit message (go back to main screen with Back key) without sending an ACK message.
ACK messages are programmed in EPOC-S and displayed to user in that case.

From message display window, press Back key:
- ACK messages are displayed to user
- Select ACK message with U/D arrow keys
- Validate with Enter key
  o ACK message is sent
5.1.1.4 Unread message

In Canned message, user can find messages (TX) defined in programming (Refer to Programming Manual).

User can send any of these messages on demand:
- Enter Canned message menu
- Select message with U/D arrow key
- Press Enter key
  - Message is sent immediately. You can see the transmission animation.
  - Screen goes back to previous menu

5.1.2 Canned message

5.1.3 Message sent

In Message sent, user has the list of messages sent by the EPOC-S.
- Enter Message sent list of messages
- Go to wanted message with U/D arrow key
- Press Enter to display message
5.2 Status

Status sub-menu availability depends upon status messages programmed. Status menu enables user to send messages to an address about their availability. Messages and recipient address are pre-programmed in the EPOC-S.

To send a Status message:
- Enter Menu with Menu key
- Go to Status menu with Arrow keys
- Push Enter key
- Go to desired Status message with Arrow keys
  - Validate with Enter key
    - Message is then selected and sent immediately
      - Message is highlighted in reverse video and left square is blackened
      - You can see the transmission animation
- Exit Status menu with Back key

5.3 Ring mode

To modify ring mode:
- Enter Menu with Menu key
- Go to Ring mode menu with Arrow keys
Current ring mode is shown in icon header with a specific icon:

Normal mode is defined in the programming for each address and sub-address. Silent and loud modes are defined in programming. User mode is defined by user with EPOC-S menu Settings | Sound & alert | Alert setting.

If address is defined as priority in programming, normal mode is applied whatever the current ring mode and the user profile.

If normal mode is selected, text filters prior to user profiles modes (if defined) will be applied.

If another ring mode is selected (silent, loud, user), this ring mode is applied.

5.4 Profiles

Profiles sub-menu availability depends upon user profiles programmed. Profiles is not present if no user profile has been activated in the programming.

To activate a particular Profile:
- Enter Menu with Menu key
- Go to Profiles menu with Arrow keys
- Push Enter key
- Go to desired Profile with Arrow keys
- Validate with Enter key
  - Profile is then selected (2nd profile on example below)
- Exit with Back key
  - You can see selected profile on main screen

5.5 Language

Language sub-menu needs to be validated in programming to be available to user.

To select menu language:
- Enter Menu with Menu key
- Go to Language menu with Arrow keys
- Push Enter key
- Go to desired Language with Arrow keys
- Validate with Enter key

5.6 Settings

Settings sub-menu content depends upon programming. Some items may not be available to user.

To go into Settings menu:
- Enter Menu with Menu key
- Go to Settings with Arrow keys
- Push Enter key
- Go to desired item with Arrow keys
- Validate with Enter key
5.6.1 Sound & alert

In Sound & alert you can define ring and display in case of alert message receipt and for alarm (clock feature).

- Move with Arrow keys
- Validate with Enter key

You can play ringtone by pushing Right key. You stop playing with Enter key.

Alarm clock time can be set in Clock setting (see paragraph 5.6.3)

5.6.2 Display

In Display user can define contrast, zoom level, and screen backlight colour with Intensity.
- Move to desired item with Arrow keys
- Validate with Enter key.
With *Intesity* feature you can define several colour shades. *Rotation* feature allow the screen to rotate automatically depending on orientation. This feature must be activated in the programming.

### 5.6.3 Clock setting

In *Clock setting* user can define *time*, *alarm (clock) time*, *quiet period*, and *battery warning alert period*.

- Move to *desired item* with *Arrow* keys
- Validate with *Enter* key.

To set a time and/or date

- Move with *L/R arrow* keys
- Change value with *U/D arrow* keys
- Validate with *Enter* key
  - Winter/Summer time will be displayed if selected in programming

In case alarm clock is not realistic screen backlight colour turns to red.

When alarm clock is set a ring icon is displayed in the header :

To define *quiet period* or *battery warning* period :
In case time period specified is not possible screen backlight colour turns to red.

### 5.6.4 Keyboard

In **Keyboard** user has menus to:
- Lock keyboard
  - **Locking** becomes active when EPOC-S switches to standby mode
  - Any key press leads to screen menu to unlock keyboard
    - Select **Yes** with **Arrow** keys
    - Validate with **Enter** key
    - Keyboard is unlocked
- Select to play a beep on each key push or not
  - Select **Yes** or **No** with **Arrow** keys
  - Validate with **Enter** key
- Select if key press turns backlight on or not.

### 5.6.5 Charger light

In **Charger light** user can choose to activate charger light when EPOC-S receives a message while being on charger. This feature depends upon programming.

- Select **Yes** to activate the charger light with **U/D Arrow** keys
  - Validate with **Enter** key
- Select **No** to deactivate the charger light with **U/D Arrow** keys
  - Validate with **Enter** key
5.6.6 Flash LED

In Flash LED user can activate permanently the flash LED.
- Select Yes to activate the flash LED with U/D Arrow keys
  - Validate with Enter key
- Select No to switch off the flash LED with U/D Arrow keys
  - Validate with Enter key

5.7 Technical menu

Technical menu sub-menu needs to be validated in programming to be available to user. Technical menu items also depend upon programming.

To access the Technical menu:
- Enter Menu with Menu key
- Go to Technical menu with Arrow keys
- Push Enter key
- Go to desired item with Arrow keys
- Validate with Enter key
5.7.1 Version

In Version you can get info about firmware version.

On example above:
- Firmware version: v1.00.1__build 15
- EEPROM version: B5121.1
- POCSAG RX frequency: 446.525MHz
- POCSAG baud rate: 512 bauds
- Boot version: 03

5.7.2 Serial number

In Serial number you can read the serial number.

5.7.3 Battery level

In Battery level you can read current battery level in Volts.

5.7.4 Identities

In Identities, you can:
- Change an identity (above N°1)
- Activate or disable an identity (above N°1)
Go to **Identities** menu:
- Go to desired identity with **U/D Arrow** keys
- Validate with **Enter** key
  - Modify digit value with **U/D Arrow** keys
  - Move to another digit with **L/R Arrow** keys
  - Move to activation icon with **L/R** and change with **U/D**
    - If square is black identity is active
  - Validate with **Enter** key
    - Possible identity values are in green screen backlight
    - If identity value is prohibited screen backlight turns to red

### 5.7.5 Radio

The **Radio** menu offers to change POCSAG radio parameters in RX, TX and view POCSAG RSSI.
- Select **Receiver**, **Transmitter** or **POCSAG** with **Arrow** keys
- Validate with **Enter** key

#### 5.7.5.1 Receiver

In **Receiver** you can change:
- RX frequency
  - Digit under change is blinking, you can modify its value with **U/D arrow** keys.
  - You move to other digit with **L/R arrow** keys
  - If you enter a wrong value screen back light turns to red
- Data rate
  - You move to baud rate with **L/R arrow** keys
  - When rate is blinking you can change it with **U/D arrow** keys
    - Possible values are: 0512, 1200, 2400
5.7.5.2 Transmitter

In Transmitter you can change:
- Recipient RIC code and sub-address
  - Digit under change is blinking, you can modify it with U/D arrow keys
  - You move to other digit with L/R arrow keys
- TX frequency
  - Digit under change is blinking, you can modify its value with U/D arrow keys.
  - You move to other digit with L/R arrow keys
  - If you enter a wrong value screen back light turns to red
- Data rate
  - You move to baud rate with L/R arrow keys
  - When rate is blinking you can change it with U/D arrow keys
    - Possible values are: 0512, 1200, 2400

5.7.5.3 POCSAG

In POCSAG you can read RSSI level in dBm from POCSAG emitter.

5.7.6 Auto-test

In Autotest menu user has the ability to test:
- LCD display
  - Press **Enter** key to validate and pursue test
- Red / green / blue LED
- Vibrator Buzzer and ring
- Flash LED
- All keyboard keys
  - Press **highlighted key** under test to validate and pursue test
- Charger light

5.7.7 Accelerometer

In **Accelerometer** you can have access to integrated accelerometer measurements. Measurements are subject to uncertainty and can vary rapidly.

For each axis, second column returns accelerometer measurements raw data. First column returns angle derived from raw data.
In case of motion, \( M_v \) value is at 1.
In case of immobility, \( M_v \) value is at 0.

5.8 Lone worker

**Lone worker** sub-menu needs to be validated in programming to be available to user.

To activate **Man down** or **Dead man** functions:
- Enter **Menu** with **Menu** key
- Go to **Lone worker** with **Arrow** keys
- Push **Enter** key
- Go to desired function with **Arrow** keys
- Validate with **Enter** key
Man down and dead man functions are active after an “activation time”. When function becomes active EPOC-S plays two successive beeps (at the end of the activation time delay). Once function is active only user can deactivate it by using “Shut down” function in Lone worker menu, or a press on any key.

Refer to programming manual for more details.

When dead man or man down functions are active, an icon is displayed in the header:

5.9 Shut down

Shutdown menu is available only if authorised in programming.

To switch off:
- Enter Menu with Menu key
- Go to Shut down with Arrow keys
- Push Enter key
- Choose Yes with Arrow keys
- Validate with Enter key

EPOC-S is switched off immediately.