User's Manual

BIRDY SLIM

Firmware v1.00.1__16

Version 1.0.0

Document history

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Version naming convention : Vx.y.z
z is incremented for a minor change like a syntax error, adding a detail, a change in format, and are draft versions before official version
y is incremented for official released versions
x is incremented for a major change like adding a chapter, a new function

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1 Abbreviations

BIRDY	Name of **TPL Systèmes** pager
BIRDY SLIM	Pager with POCSAG transmission capability
dBm	Decibel referenced to 1 milliwatt, power unit
EEPROM	Electrically Erasable Programmable Read Only Memory
LCD	Liquid Crystal Display
LED	Light Emitting Diod
L/R	Left / Right
MMI	Man-Machine Interface
POCSAG	Post Office Code Standardization Advisory Group, data transmission asynchronous protocol (used for pagers)
RIC	Radio Identity Code
RSSI	Received Signal Strength Indicator
RX	Related to Reception
TX	Related to transmission
U/D	Up / Down
USB	Universal Serial Bus

2 Product overview

2.1 Birdy Slim

BIRDY SLIM 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

BIRDY SLIM pager

2.2 Birdy Slim cradle

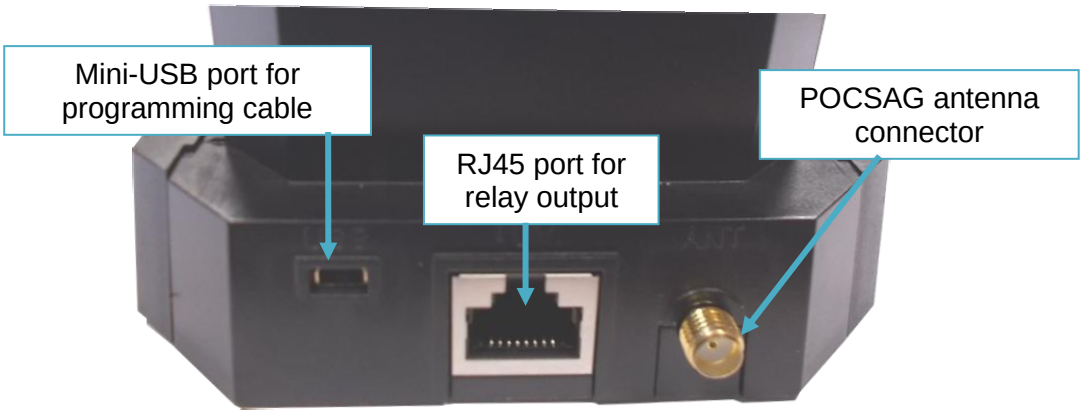
BIRDY SLIM cradle exists in 2 versions :

- Programming and charging cradle
  - You can charge BIRDY battery and programme BIRDY (see **BIRDY programming manual**)
  - LED strip light is green
- Charging cradle
  - You can only charge BIRDY battery
  - LED strip light is blue

BIRDY programming cradle

programming cable

power sector adapter

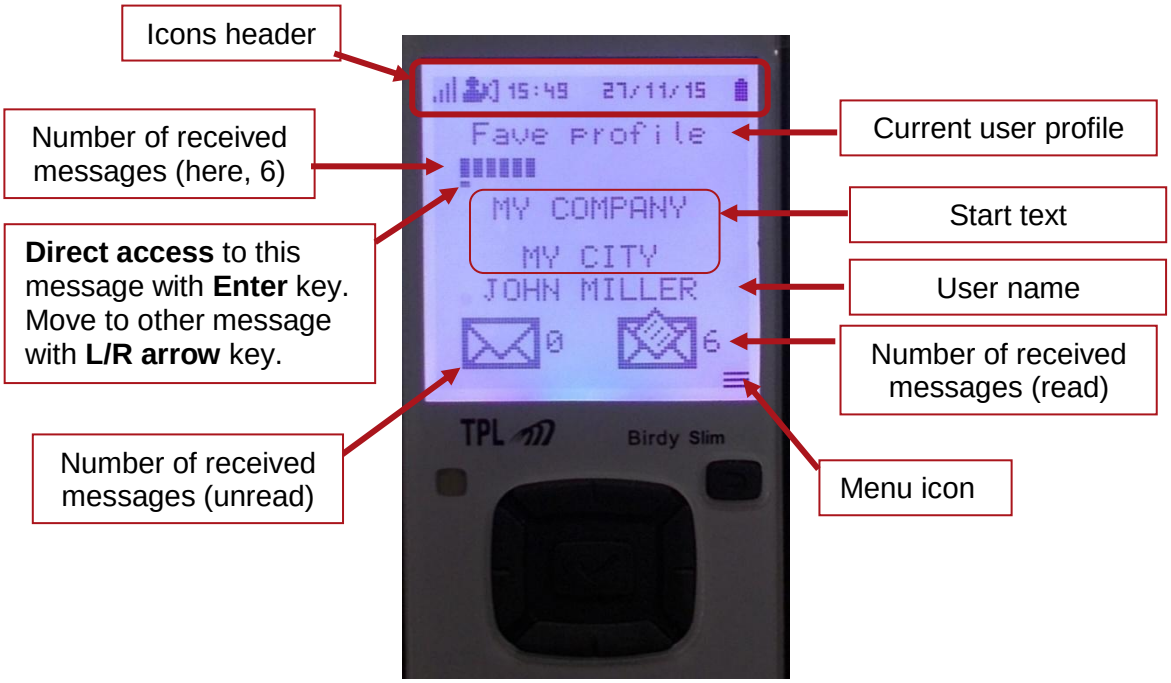


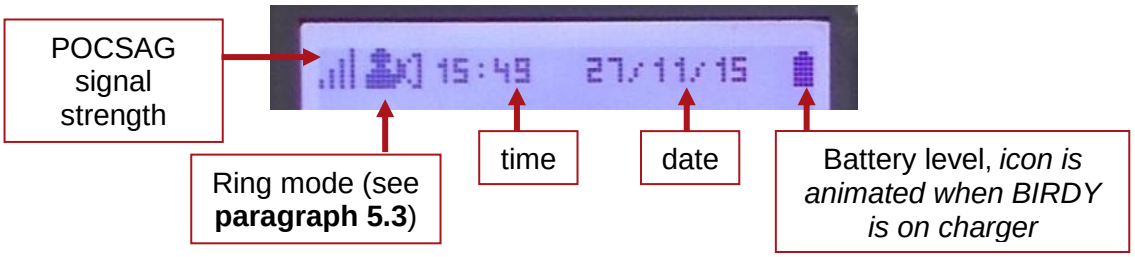
Programming cradle rear view

When BIRDY is on charger, LED strip light intensity varies permanently between minimum and maximum.
Green LED → charging and programming
Blue LED → charging only

3 BIRDY keys

4 BIRDY screen



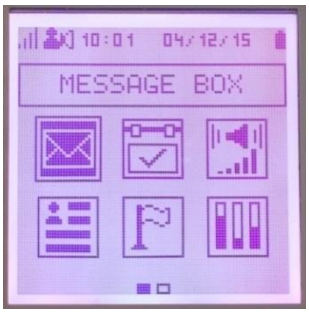


4.1 Screen rotation

BIRDY screen can rotate automatically depending on BIRDY orientation.
This feature must be activated in the programming.

5 BIRDY 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 BIRDY programming some sub-menus may be present or not.
When all possible sub-menus are activated there exist **2 menu pages** on the BIRDY that you can access with **Arrow** keys.



5.1 Message box

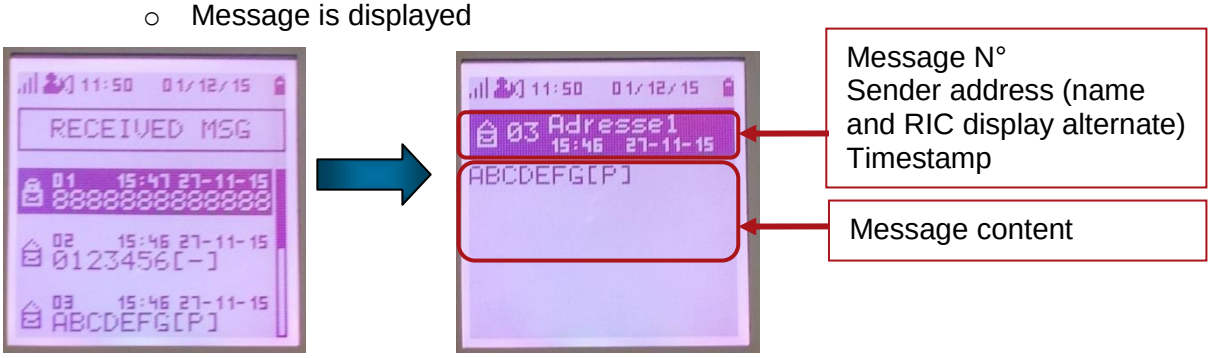
To enter ***Message box*** menu from BIRDY :

- 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

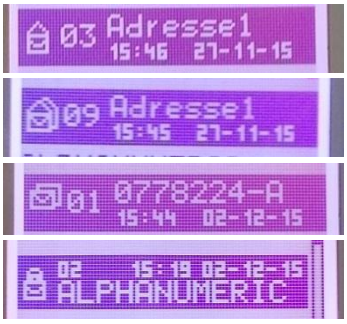
To read a message :

- 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)

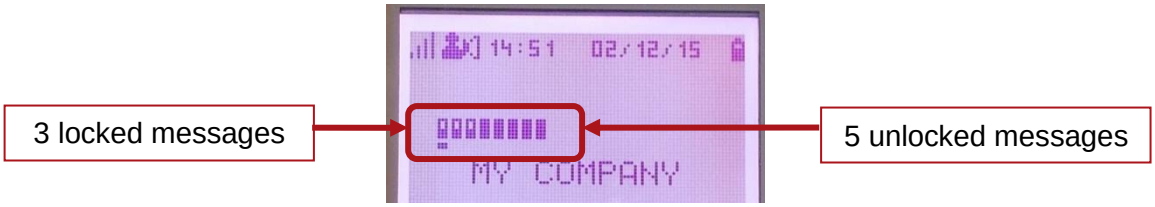
Message locked (padlock)

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 gets different :



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

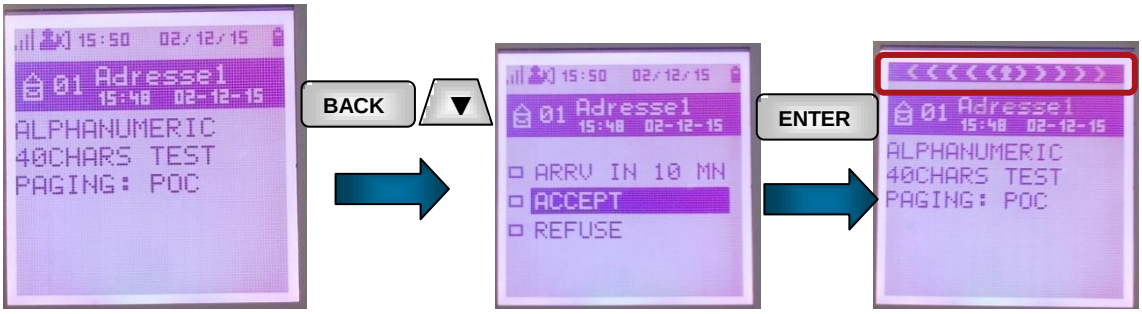
Procedure is similar if you wish to *delete all messages*.

5.1.1.3 Acknowledge message

In BIRDY programming it is possible to demand an "**Operational ACK**" from user to be sure **user has read** the message (refer to **BIRDY Programming Manual** for more details).
If BIRDY 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 BIRDY 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
    - ACK message is sent



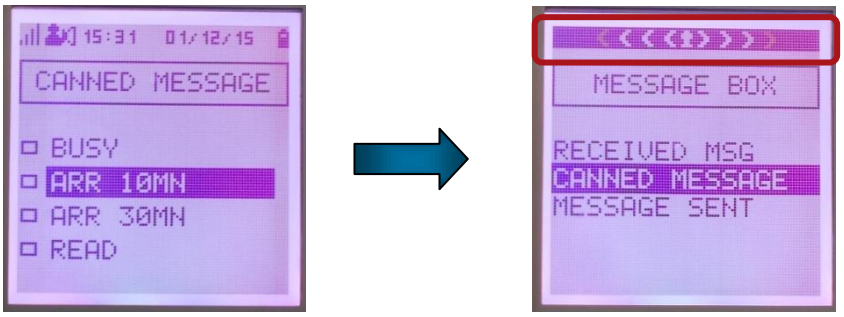
5.1.1.4 Unread message

5.1.2 Canned message

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

User can send any of these messages on demand :

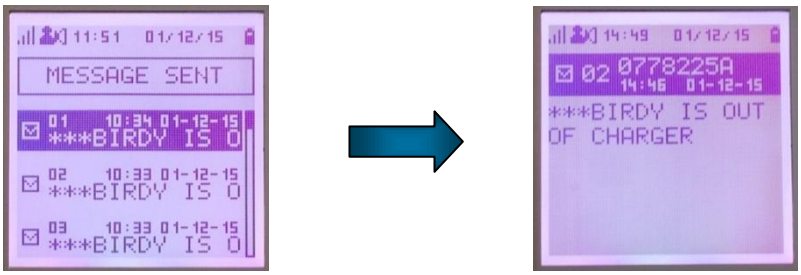
- Enter *Canned message* menu
- Select message with **U/D arrow** key
- Press **Enter** key
    - Message is sent immediately. You can see BIRDY transmission animation.
    - Screen goes back to previous menu



5.1.3 Message sent

In *Message sent*, user has the list of messages sent by BIRDY.

- Enter *Message sent* list of messages
- Go to wanted message with **U/D arrow** key
- Press **Enter** to display message
    - User can see recipient address, timestamp of message, and message content

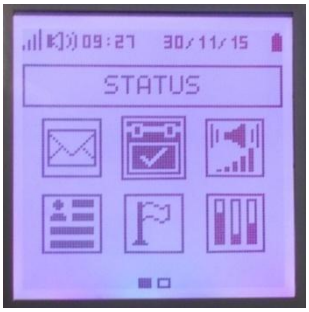


5.2 Status

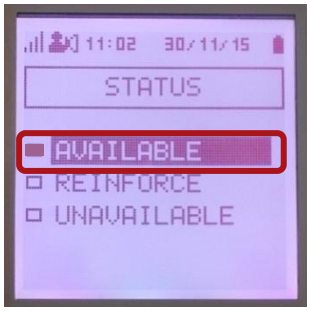
Status sub-menu availability depends upon status messages creation and use in BIRDY programming.
Status menu enables user to send messages to an address about their availability. Messages and recipient address are pre-programmed in the BIRDY.

To send a Status message from BIRDY :

- Enter ***Menu*** with **Menu** key
- Go to ***Status*** menu with **Arrow** keys
- Push **Enter** key
- Go to desired *Status message* with **Arrow** keys



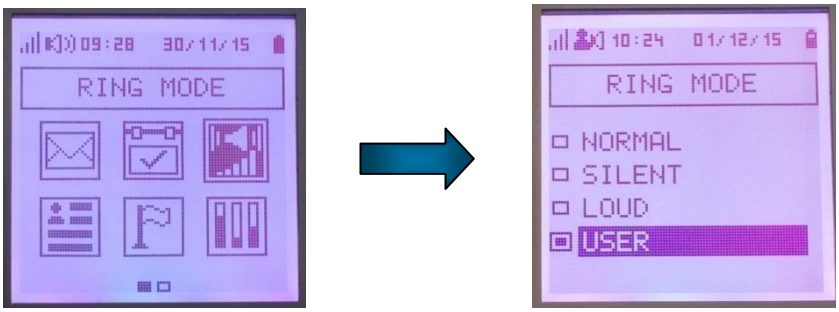
- Validate with **Enter** key
  - Message is then selected and sent immediately
    - Message is highlighted in reverse video and left square is blackened
    - You can see BIRDY transmission animation
- Exit ***Status*** menu with **Back** key



5.3 Ring mode

To modify ring mode :

- Enter ***Menu*** with **Menu** key
- Go to ***Ring mode*** menu with **Arrow** keys
- Push **Enter** key
- Go to desired *choice* with **Arrow** keys
- Validate with **Enter** key



Current ring mode is shown in icon header with a specific icon :

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

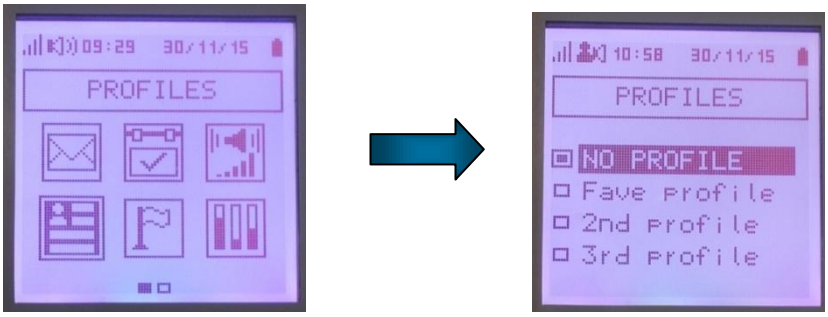
If address is defined as priority in programming, normal mode is applied whatever the current ring mode and the user profile.

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

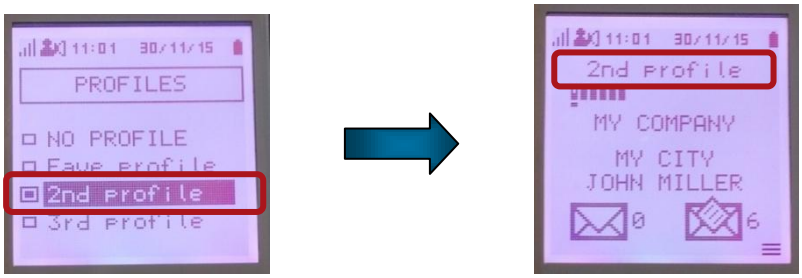
Profiles sub-menu availability depends upon user profiles creation and use in BIRDY programming.
Profiles is not present if no user profile has been activated in BIRDY programming.



To activate a particular Profile in BIRDY :

- 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

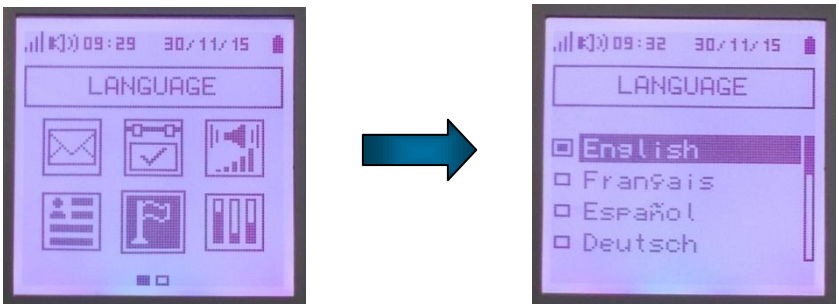


5.5 Language

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

To select BIRDY 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

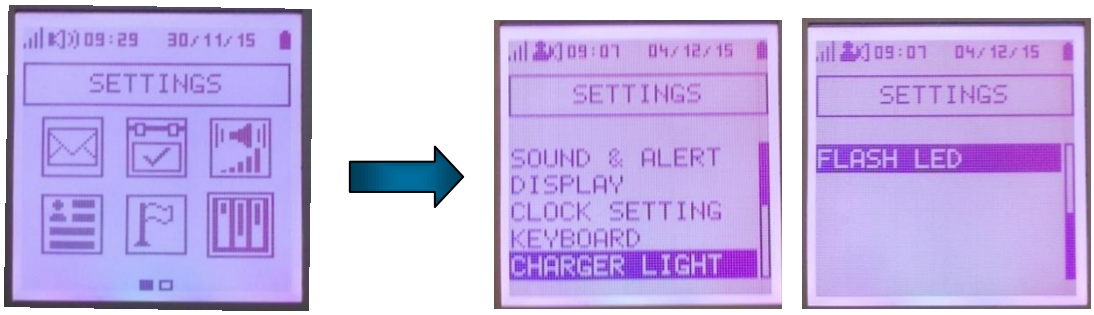


5.6 Settings

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

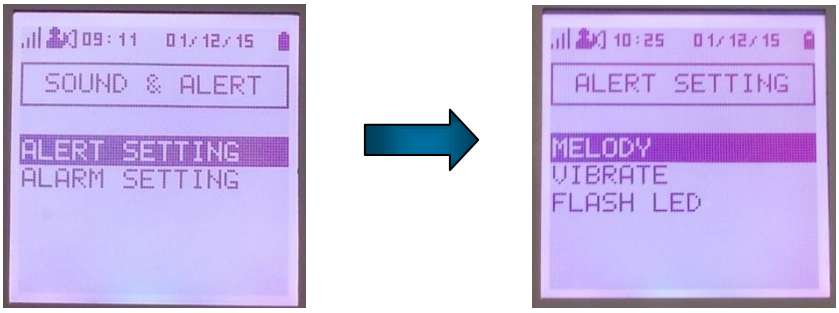
To go into BIRDY Settings menu :

- 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

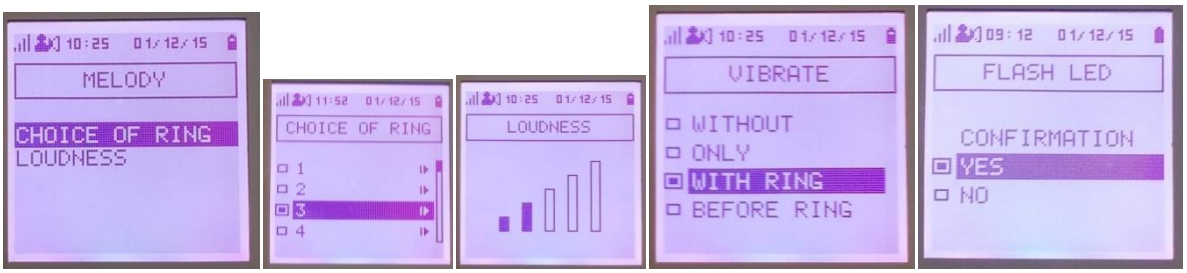


5.6.1 Sound & alert

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



Alert setting will be applied in user ring mode (see **paragraph 5.3**)



- 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 coulour with *Intensity*.

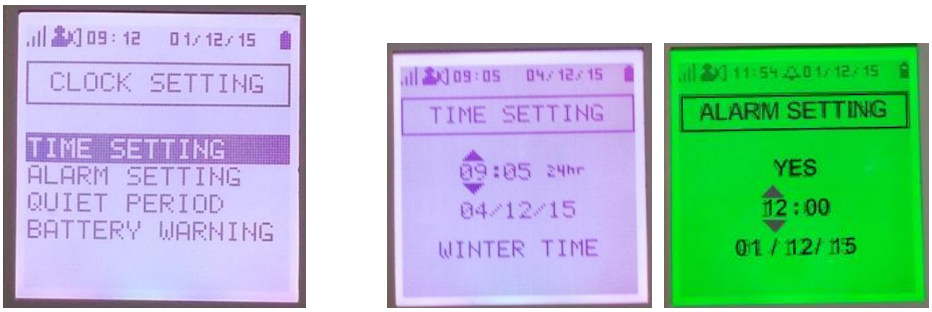
- Move to *desired item* with **Arrow** keys
- Validate with **Enter** key.

With *Intensity* feature you can define several colour shades.

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.



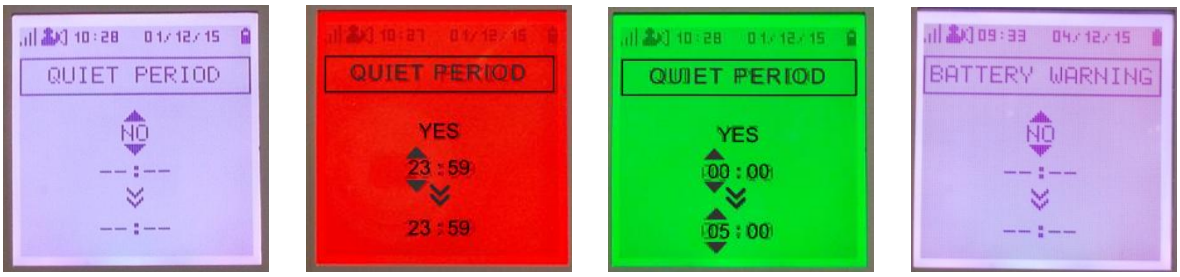
To set a time and/or date

- 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 BIRDY programming

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

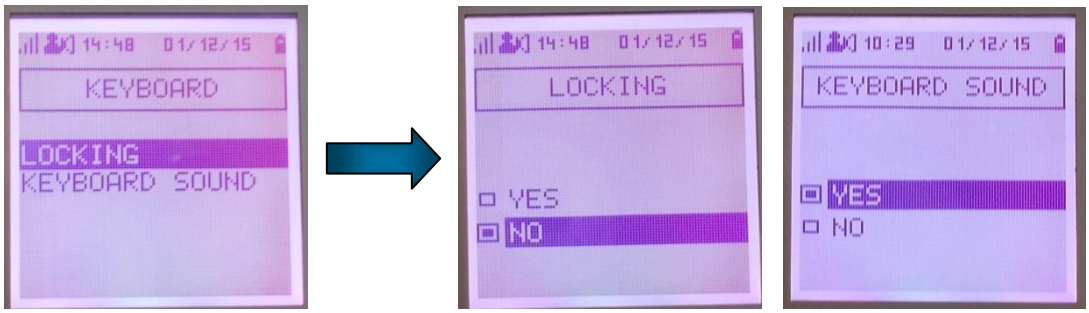
When alarm clock is set a ring icon is displayed in the header :

To define *quiet period* or *battery warning* period :



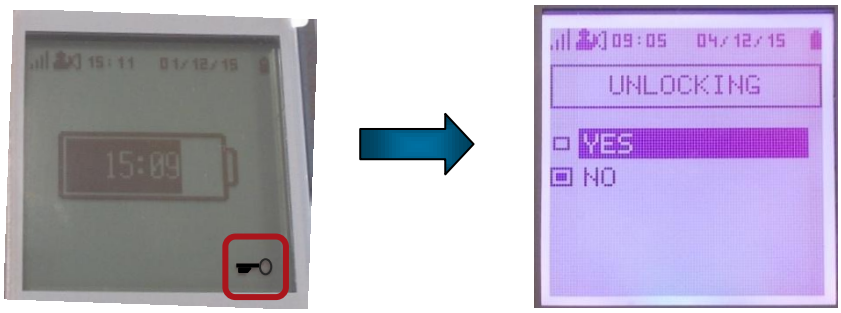
In case time period specified is not possible screen backlight colour turns to red.

5.6.4 Keyboard



In *Keyboard* user has menus to :

- Lock keyboard
  - *Locking* becomes active when BIRDY 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

5.6.5 Charger light

In *Charger light* user can choose to activate charger light when BIRDY receives a message while being on charger. This feature depends upon BIRDY 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 BIRDY programming to be available to user.
Technical menu items also depend upon programming.

To go into BIRDY 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

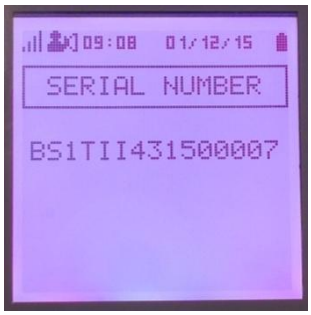
5.7.1 Version

In *Version* you can get info about BIRDY firmware version.

On example above :

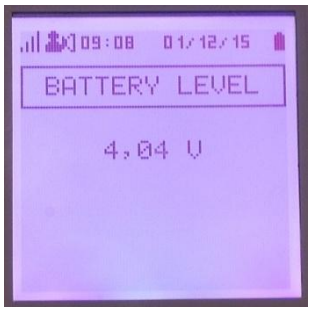
- Firmware version : v1.00.1__build 15
- EEPROM version : B5121.1
- POCSAG RX frequency : 446.525MHz
- POCSAG baud rate : 512 bauds
- Boot version : 03

5.7.2 Serial number



In *Serial number* you can read BIRDY serial number.

5.7.3 Battery level



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

5.7.4 Identities

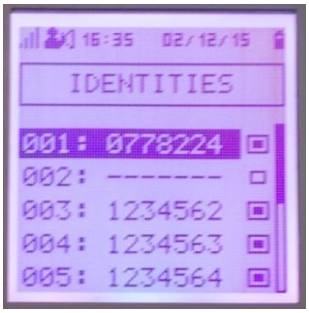
In *Identities*, you can :

- 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

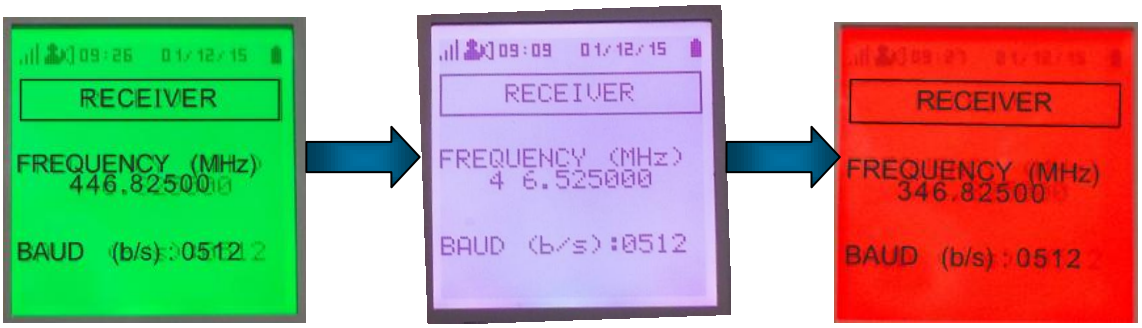
The *Radio* menu offers to change POCSAG radio parameters in RX, TX and view POCSAG RSSI.

- Select *Receiver*, *Transmitter* or *POCSAG* with **Arrow** keys
- Validate with **Enter** key

5.7.5.1 Receiver

In *Receiver* you can change :

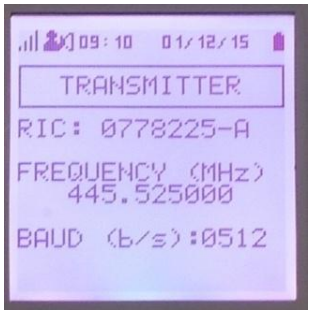
- RX frequency
  - Digit under change is blinking, you can modify its value with **U/D arrow** keys. You move to other digit with **L/R arrow** keys
  - If you enter a wrong value screen back light turns to red
- Data rate
  - You move to baud rate with **L/R arrow** keys
  - When rate is blinking you 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.

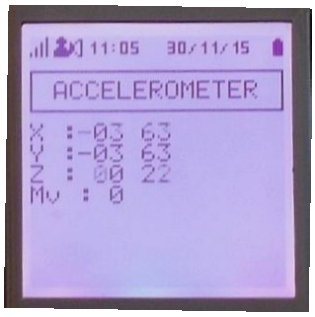
5.7.6 Auto-test

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.



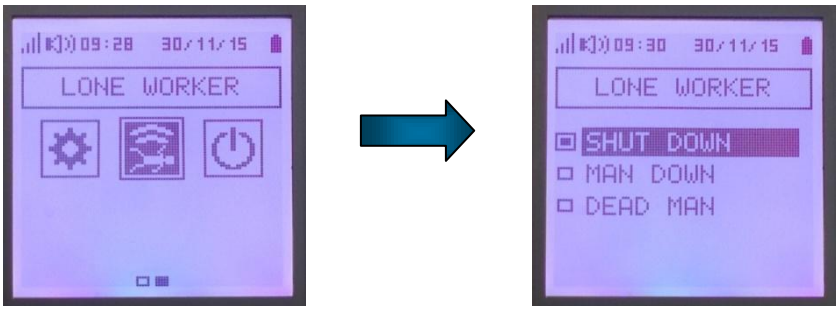
For each axis, second column returns accelerometer measurements raw data.
First column returns angle derived from raw data.
In case of motion, Mv value is at 1.
In case of immobility, Mv value is at 0.

5.8 Lone worker

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

To activate ***Man down*** or ***Dead man*** functions on BIRDY :

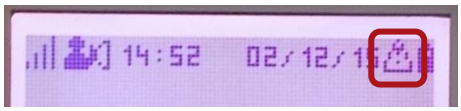
- Enter ***Menu*** with **Menu** key
- Go to ***Lone worker*** with **Arrow** keys
- Push **Enter** key
- Go to desired function with **Arrow** keys
- Validate with **Enter** key



Man down and *dead man* functions are active after an “activation time”.
When function becomes active BIRDY 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 **BIRDY programming manual** for more details.

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

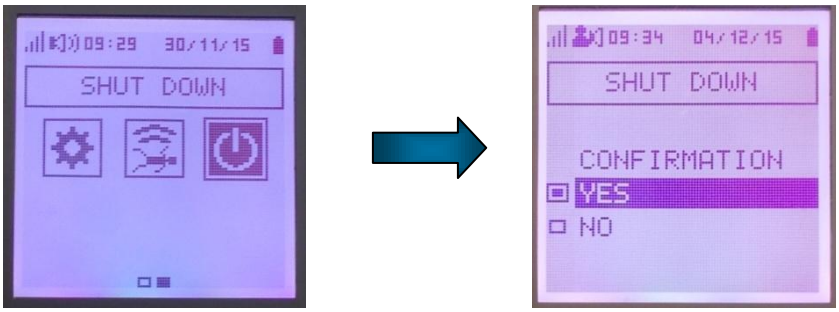


5.9 Shut down

Shutdown menu is available only if authorised in BIRDY programming.

To switch off BIRDY :

- Enter ***Menu*** with **Menu** key
- Go to ***Shut down*** with **Arrow** keys
- Push **Enter** key
- Choose *Yes* with **Arrow** keys
- Validate with **Enter** key



BIRDY is switched off immediately.

FCC Statement

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
--Reorient or relocate the receiving antenna.
--Increase the separation between the equipment and receiver.
--Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
--Consult the dealer or an experienced radio/TV technician for help.
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Specific Absorption Rate (SAR) certification information
Your device conforms to U.S. Federal Communications Commission (FCC) standards that limit human exposure to radio frequency (RF) energy emitted by radio and telecommunications equipment. These standards prevent the sale of mobile devices that exceed a maximum exposure level (known as the Specific Absorption Rate, or SAR) of 1.60W/kg. SAR information on this and other model devices can be accessed online on the FCC's website through transition.fcc.gov/oet/rfsafety/sar.html.
In normal use, the actual SAR is likely to be much lower, as the device has been designed to emit only the RF energy necessary to transmit a signal to the nearest base station. By automatically emitting lower levels when possible, your device reduces your overall exposure to RF energy.
The FCC has granted an Equipment Authorization for this model device based on the compliance of all reported SAR levels with the FCC RF exposure guidelines. This device has a FCC ID: 2ATEXBIRDYSL2 and the specific SAR levels for this device can be found at the following FCC website : www.fcc.gov/oet/ea/.