



Dear customer,
congratulations to the DiCal-ToM, the new Swissphone-POCSAG-Desktop-Receiver. It's a state-of-art device with a 7" Touch-Screen monitor. The ToM impresses by a combination of intuitive usage, text visualization in different sizes and styles, MP3 sounds, printing-, audio- and relay-output capabilities.

The parameters for the POCSAG-Receiver part will be configured by the programming software PSWplus, the alerting & display parameters directly via the ToM touchscreen.

This will be done usually by the device administrator via a selectable password.

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What's in the box

- DiCal-ToM
- Rod antenna
- AC adaptor, 12 Volt/1 A
- USB-printer cable type A to type B
(to be used reversely as programming cable)
- User manual



Start-up

Connect antenna eventually printer and AC-adaptor cable to ToM. The antenna has to be put in vertical position. ToM starts automatically after plugging in the AC-adaptor to a power outlet, visualized by a green power-on LED at the front. In areas with low field strength the antenna can be installed remotely via an optional 50 Ohm RF-cable (e.g. outdoor antenna).

Start-up information



During the start, process the Swissphone-Logo appears on the screen, after that the start photo on the left will be shown for some seconds, followed by the DiCal-ToM logo. In parallel the start- sound will be played.



While the start-sound cannot be interrupted, it can be changed by MP3-files and volume via the menu “RIC & Sound combination” (page 17).

After the successful start-, (boot-) process the screen shows „DiCal-ToM ready for use“.

DiCal-ToM ready for use

--:-- 0 Unread Protected 0/16 Message 0/0

The sound playback can be stopped by touching the screen.

ToM is now prepared to receive POCSAG-messages, depending on the proper programming of the POCSAG-receiver device (page 21).

If you are using a low power POCSAG-test-transmitter it can be necessary to hold it close to the antenna in some cases.

According to the text settings the messages will be visualized in 3 different font sizes (1,2,3) or dynamically in full-screen mode.

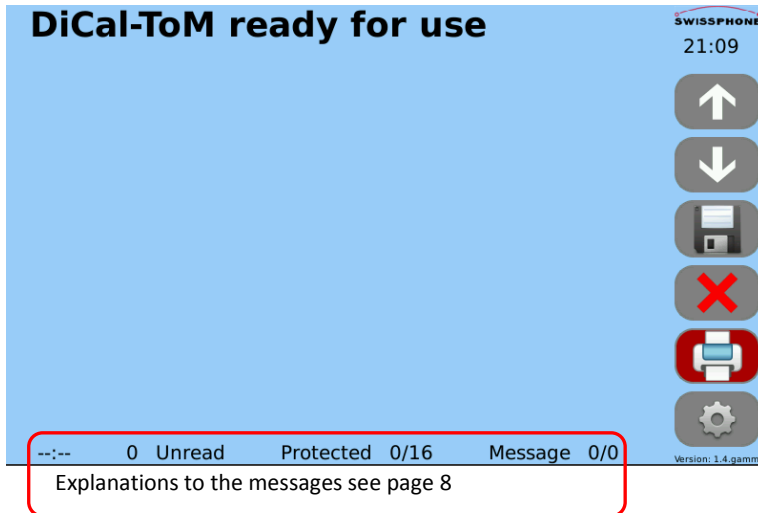
After the timeout, the screen-saver shows the actual time at different positions on the screen.

The screen-saver can be set in the configuration menu.

Operating-Menu



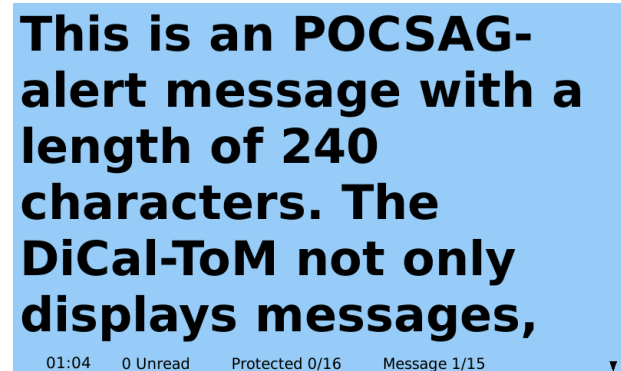
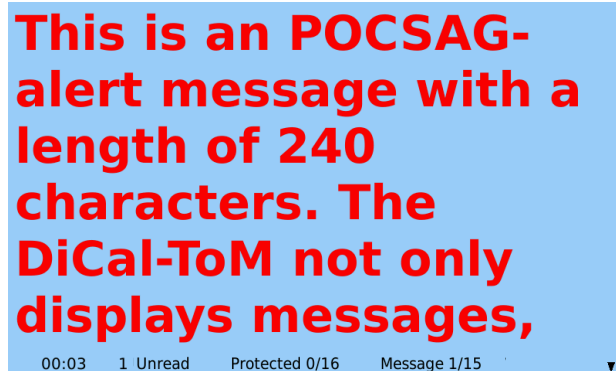
After a click on the touch-screen the “menu bar” appears at the right part of the screen.



Reception of an alert



The reception of a new message will be audible by playing the sound file attached to the specific RIC. In parallel the message will flash in red colour. The playback of the soundfile can be stopped by touching the screen and the message will be marked as 'read'.

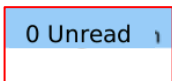


The message flashes still in red colour, while it is not confirmed (Unread). In the flash-mode the text-colour can be shown in black, blue, dark-blue, green, dark-green, purple and yellow, depending on the settings. The sound-file, flash-time and text-colour can be set RIC-dependant and individually in the "Format Text" menu.

Alert-memory management

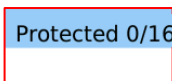


The Alert-timer shows the time elapsed from the recent alert (from 00 min. und 00 sec. to 11 h und 59 min. max).



Number of unread messages or alerts

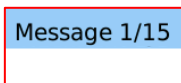
The unread messages will be displayed in red colour, the last message will be visualized in the colour specified. All read messages except the last one will be displayed in grey colour.



0/ number of protected messages, 16 max. When a protected message will be selected, the background of the storage



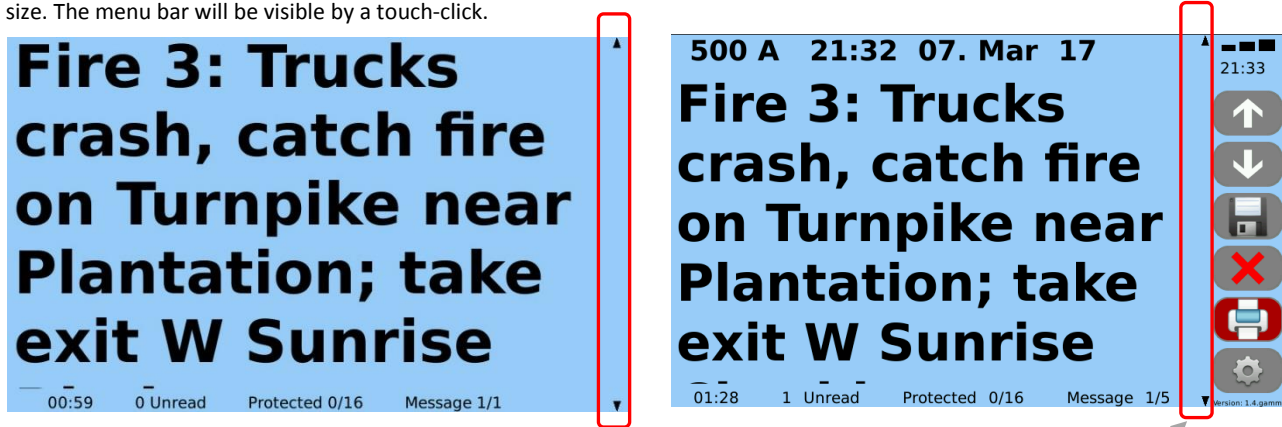
button turns to green colour.



1/ number of all messages stored, which is actually displayed
Max. number of messages in memory is 17.

Visualization of text

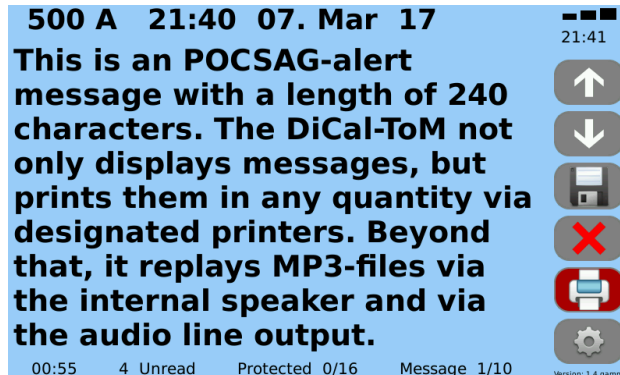
In the left window the text is shown in full-screen mode, the right window shows the menu bar also, both in maximum character size. The menu bar will be visible by a touch-click.



arrows indicating a message to be scrolled

Messages will be printed in maximum character size always. Multiple copies of a message can be configured.

Visualization of older messages



Bar graph for field strenght of the last message. One bar: small field strength, 3 bars large field strength.

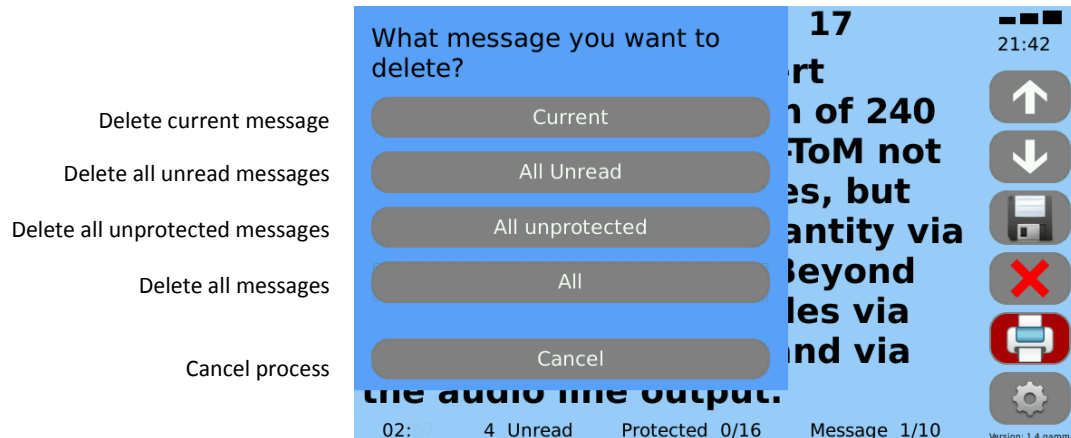
When the screen-saver is active, the Logo apears again.

While the recent message always will be displayed in red colour and after confirmation in the selected colour, older messages will always be shown in grey colour.

After the timeout the screen-saver shows the actual time at different positions on the screen. The screen-saver time can be set in the configuration menu.

Deleting of Messages by clicking on the - Button

In this menu the current, all unread, all unprotected or all messages can be deleted, independently if they are protected, read or unread. Be careful !



Settings



Enter the menu „Settings“ by touching the



– Button

Settings

Please enter the password..

7 8 9

4 5 6

1 2 3

<-- 0

Back Enter Restart

Time Settings

Configuration

Relay Settings

Sound assignment

Text Format

The user can perform a Restart by pressing the „Restart“ button

First setup & Change password

Type in the password „0000“ (state of despatch) and enter the “Settings” menu to perform your configurations.

By pressing the buttons „Configuration“ → „Change admin password“, → Yes“ → „OK“ a new password can be created.

Important:

Please absolutely note down the new password !
The device cannot be configured anymore without a valid password and has to be sent to the Swissphone service eventually.

Tasks for Administrators

Settings

Password correct.

7

8

9

4

5

6

1

2

3

<--

0

Back

Enter

Time Settings

Configuration

Relay Settings

Sound assignment

Text Format

Restart

After entering a valid password and pressing „Enter“ the following configurations can be performed:

Date/Time adjustment

Setup of the basic configuration

Adjust relay switching (closing) time

Combine RIC und sound, adjust volume

Format text, enter number of print copies

Restart

Time and date setup

Time Settings

Hour	<input type="text"/>	09:44:58	28.03.2017	
Minute	<input type="text"/>	1	2	3
Day	<input type="text"/>	4	5	6
Month	<input type="text"/>	7	8	9
Year	<input type="text"/>	←	0	
		Cancel	Ok	

The ToM has a built in real-time clock. To change date and time there two options:

Manually

Type in the actual values and press „Ok“

Over the air

By using POCSAG on-air commands (OAP) a manual setup of date and time can be resign

Configuration of basic settings

Configuration

Language	English ▼	Fade Menu out after __ sec.	30 ▼
Show date in message	Yes ▼	Fade text out after __ min	3 ▼
Show RIC in message	Yes ▼	Textsize	1 ▼
Update	Start	Auto scrolling text	No ▼
Change admin password?	No ▼		

Cancel
Ok

Select the parameters in the pull-down-menus and press „Ok“

Text sizes

Dynamically: depending on text in full-screen mode

1: small font : 9 x 28 (252) characters

2: midsize font: 6 x 18 (108) characters

3: large font: 5 x 16 (80) characters

Update

The software of the ToM can be updated via an USB-Stick containing the new software file : „Patch.zip“. More details see page 23.

Change Admin Password:

The administrator can set a new password with 4 ... 30 characters

Relay switching times

Relay Settings

Select RIC for Relay ▼

0 Sec. + -

0 Minute + - ∞ Until confirmation

∞

Cancel Ok

Select RIC first in the pull-down menu.

Then type in the relay switching (closing) time in seconds and minutes and press “Ok”. When an alert will be received, the relay **closes** (short-circuit between the two pins of the green connector) for the time specified.

The confirmation of an alert doesn’t affect the closing time of the relay, only if the time is set to ∞ .

∞ = infinite switching (closing) time. When confirming the alert by a touch-click, the relay will open again.

RIC and sound combination, volume adjustment

Sound Assignment

Default Sound: Start [v] [v]

RIC: 265608 - 265608 D [v] [v]

Repetition: 12 X [+] [-] [∞]

Volume: 1 [+] [-]

Add/Remove Soundfiles: [+/-] [▶]

[Cancel] [Ok]

At „Start“ a start-up sound can be allocated in the pull-down menu.

At „Default“ a sound can be allocated to a RIC or RIC-range, which don't need an individual sound.

Select RIC/RIC-ranges with sub-addresses needing an individual sound. Then allocate the sound in the right pull-down menu.

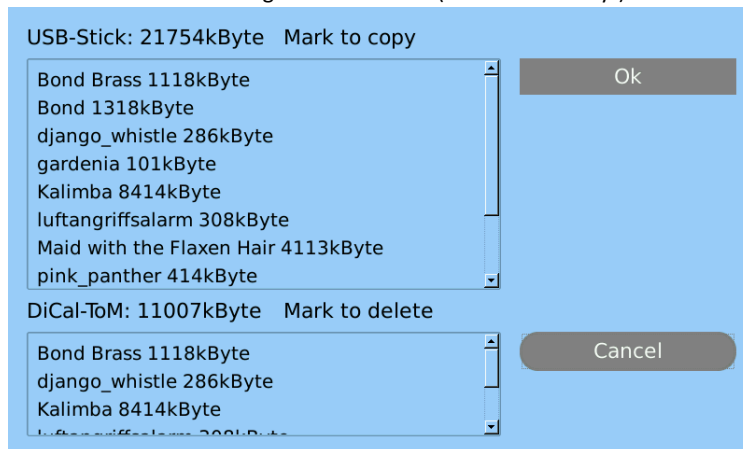
Adjust Repetition and Volume with “+” and “-” buttons. [∞] = infinite

By pressing [▶] the selected sound can be played.

By pressing [+/-] soundfiles can be added and removed.

Adding & deleting of soundfiles

Put an USB-Stick containing MP3-soundfiles (in main directory!) into the “USB” -connector



When pressing the  button in the „Sound Assignment“ menu, the left window opens:

The highlighted files in the upper list will be **copied** and **stored** into the ToM memory, the highlighted files in the lower list will be **deleted** when pressing “Ok”.

Maximum memory size for soundfiles in total:
40 MB

Formatting of text, adjustment of print-copies

The text format can be configured individually for each RIC or RIC-range.

Text Format

RIC Area

Text flashes (s)

Message color

Number of copies

Print corrected messages

Select RIC or RIC-range

The Flashing duration of a message can be set in seconds or to infinite.

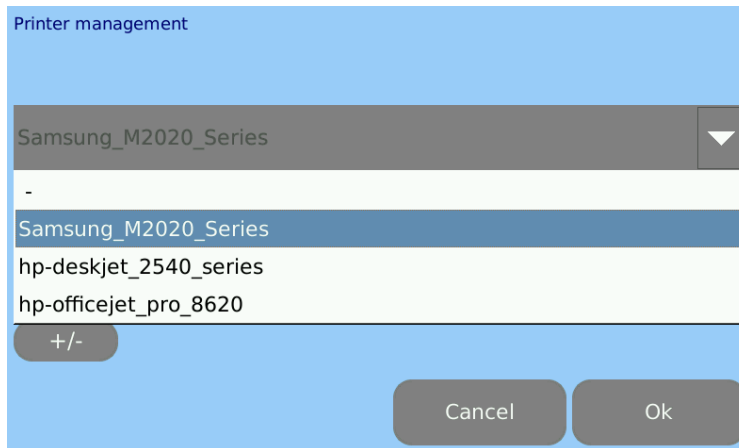
Select one of seven text colours.

Configure the number of print copies depending of RIC or RIC-range.

Automatic correction of an incomplete received message if it will be received twice..

Printer Management

Select the desired printer from the list of printers available.

A screenshot of a "Printer management" dialog box. The title bar is light blue and says "Printer management". Below the title bar is a dark grey header bar with the text "Samsung_M2020_Series" and a downward-pointing arrow. Below the header bar is a list of printer models: "-", "Samsung_M2020_Series" (highlighted in blue), "hp-deskjet_2540_series", and "hp-officejet_pro_8620". At the bottom left of the dialog is a button with the text "+/-". At the bottom right are two buttons: "Cancel" and "Ok".

Printer management

Samsung_M2020_Series ▼

-

Samsung_M2020_Series

hp-deskjet_2540_series

hp-officejet_pro_8620

+/-

Cancel Ok

Check whether the right device is selected.

If you wish to change your selection, please select the desired printer from the pull-down menu and click "Ok".


Currently available printer drivers:

- Samsung Xpress M2020, 2022, 2025 und 2026
- HP Deskjet 2540 All-in-One series
- HP Officejet Pro 8620 e-All-in-One Printer series

Additional print drivers upon request.

E-Mail: vertrieb@swissphone.de

Printing of messages

An alert message can be printed manually with the -button or automatically with a defined number of copies as described before. The printout of the first page lasts between 20-40 seconds, depending on the printer model. It is printed always in maximum character size.



The following picture (left) displays an economic black & white laser printer:

Samsung Xpress M2020, 2022, 2025 und 2026.

Important:

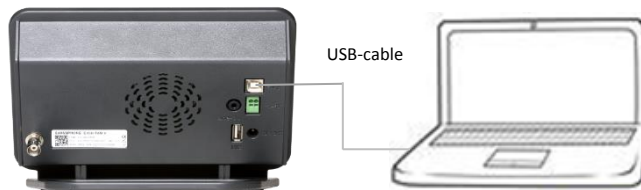
The listed Samsung printers switch-off after 1 hour by default when no print-job exists. For permanent operation, this can be configured with a separate PC and a software for printer configuration.

The instruction for that, as well as more printer drivers in the future, can be downloaded from the **ToM-user group** at <https://swissphone.crmvertex.com>.

Programming

The POCSAG-Receiver module in DiCal-ToM has to be programmed essentially as a Swissphone pager with the programming software **PSWplus** (Standard).

Please be aware of the following specialities in PSWplus:



- Message output SCI has to be active
- Message output has to be active at each RIC (hook at column M)
- Dical-ToM supports 1 profile only, therefore profile 1 has to be active at each RIC.

- The switching pattern within PSWplus must not be selected !
- By using several RIC-ranges, be careful not to double-select a RIC; even an overlapping must be avoided. Every RIC has to be used once only. If necessary a RIC-range has to be separated in two parts.

Decryption with IDEA

By using encryption in a POCSAG network the IDEA-keys must be programmed in ToM with the PSWplus software, as in a pager.

- When a single RIC has to be programmed, the same RIC must be specified in the columns „RIC“ and „to RIC“.
- There is no need to program an EA Delimiter-RIC.
- DiCal-ToM interpretes no Tone-only addresses; therefore there are no fix texts in DiCal-ToM.

Advice:

After programmierung the POCSAG-receiver part with PSWplus in ToM, the programming cable **must be detached** and the device hast to be restarted by unplugging and reconnecting the DC-connector.

Instructions for programming can be found also in the closed user-group for ToM-users at www.swissphone.de/Login/LoginGermany.

Software-Update

Copy the new „Patch.zip“ -file from the closed user group of the Swissphone homepage (see above) to a USB-stick into the **main** directory. Go to menu “Settings” and enter the password. Then press “Configuration” and put the USB-stick into the “USB” – connector. Press “Start” button right next to the “Update” command. After rebooting the device the USB-stick can be removed.

Technical data & accessories:

- Accessories:**
- rod antenna $\lambda/4$ for 2m Band, 165-174 MHz
 - AC-adaptor 100 – 240V AC / 12V DC, 1000 mA

- Interfaces:**
- USB A – connector for printer
 - USB B – connector for programming
 - Audio-line-output (3.5mm) for audio
 - Relay – output (plug-in terminal 3.5mm)
 - Antenna-connector (BNC)
 - 12V DC – connector for AC-adaptor (5.5 / 2.5mm)



- Data:**
- Temperature: 0°C – 40°C (working range)
 - Voltage: 12V DC
 - Current consumption: appr. 500 mA
 - Measures: appr. 197 x 127 x 126 mm
 - Weight: appr. 680g
 - Conformity: RoHS, CE, UL

Further information

Software-Updates etc. for this device will be available in the closed user group for ToM-user at www.swissphone.de/Login/LoginGermany. An activation to that group you can get upon request under vertrieb@swissphone.de

Safety advice

This product must not be used in explosion hazardous areas.

The product must not be opened (a.o. for warranty reason).

Disclaimer

Swissphone Telecommunications GmbH grants no liability or warranty in association with the content of this document.

DiCal-ToM and this manual are subject to changes.

The device meets the requirements of the european guideline R&TTE 99/05/EG («Radio Equipment and Telecommunications Terminal Equipment»).

A copy of the declaration of conformity can be ordered at info@swissphone.de.

Firmware & Software Downloads

