

## How to proceed with emergency calls after cancelling analogue landline?

As you learned from the press in recent days, Swisscom stops providing the analogue, emergency call-secure landline by 2017 and switches existing lines to VoIP ( Voice over IP = Internet telephony).

Since VoIP is not fail safe, Leitronic developed several mobile solutions (GSM with SIM card) to grant an emergency call free of analogue landline.

Because most emergency equipment these days still operates with an analogue landline, the question arises about the consequences for the emergency call after 2017.

For us it is important to inform our customers as early as possible about the options, so you can take timely steps for a smooth adaptation with our help.

Using this information brochure, we may show you the consequences and introduce ways to solve problems in order to ensure safe emergency in the future.

Do not hesitate to contact us in order to remove any uncertainty and to discuss further steps. We are ready!

☞ Section 1.1 of EasyAlarm / Exicall manual is now „red hot“!

### 1.1 Telephone connection

EasyAlarm® is designed to connect to an analogue telephone line. This connection must remain in service for at least one hour after a mains power loss according to EN81-28.

These are:

- analogue PSTN (with EA-8-DPXN in combined use with downstream existing subscriber as modem/fax).
- analogue port of an ISDN terminal:
  - ISDN-NT has to be reprogrammed for emergency operation at the ab-port.
  - One line must be available at any time.
- GSM Interface with approval, i.e. EA-GSM-Interface or EA-GSM-DIN from Leitronic ☞ 10.7.1.
- analogue port of a private exchange using UPS (Interruptible power supply 1h buffering).
- DECT-Interface ☞ 10.7.2.



Multiple EasyAlarm® sharing one line:

- Ensure that the first alarm number is always available, because if multiple alarms triggered at the same time it is possible that only first number can be reached.
- A maximum of three units can share one line.
  - In case of star cable routing (max. 15 Ω difference per connection = Calc 2 x conductor resistance!) up to 4 diallers can be connected. Example: AWG 24 (U72) = 2 x 90 Ω / km => difference in length max. 15 Ω / (2 x 90 Ω / km) = 0.083km.
- In case of a two-step-dialling-in ☞ 6.9.2 the number of diallers is doubled.

Not suitable:

- Voip or cable modem, as in case of power loss they are not functional.

## 1 Emergency call using VoIP

### 1.1 Analogue telephone over ATA-box (Analogue-Telephone-Adaptor)

To connect analogue devices, a junction box ATA is necessary. Normally, this includes an Ethernet port (for Internet access), and an interface for connecting to one or more analogue telephone(s). This box is usually powered from a 230V AC-adaptor. In contrast to the analogue landline connection, these **ATA and all existing links between the dialler and the "Swisscom" exchange, repeaters, fiber optic networks are a not power failure safe** (as no backup) and therefore this type of connection is not emergency-call ready, especially in lift application because people may be trapped in the cabin during a power failure!

Furthermore, existing analogue modem (data transfer to elevator control) are not usable over VoIP/ATA!

### 1.2 Is there a „safe“ solution possible using VoIP?

Yes, if the lift has an automatic evacuation in case of power failure. In this case, that functionality must be upgraded

- using a continuously internet monitor, so the elevator could be stopped when VoIP/internet is not ready
  - ☞ similar to our ready relay-output on GSM-interfaces, when the GSM network is out of order!
- Furthermore, it must be ensured that "DTMF in-band" is selected for all VoIP installations, otherwise DTMF protocol transmissions does not work correctly.

#### 1.3 Pure VoIP-dialler

- Same problem in respect to the network reliability. Could only include permanent internet monitoring functionality
- Must be programmed using various parameters, which is a lot more difficult than an analogue device. Requires PC and network knowledge!

## 2 Consequence for the elevator emergency

Swisscom communicates openly, that VoIP is NOT emergency-ready and refers to use GSM network instead.

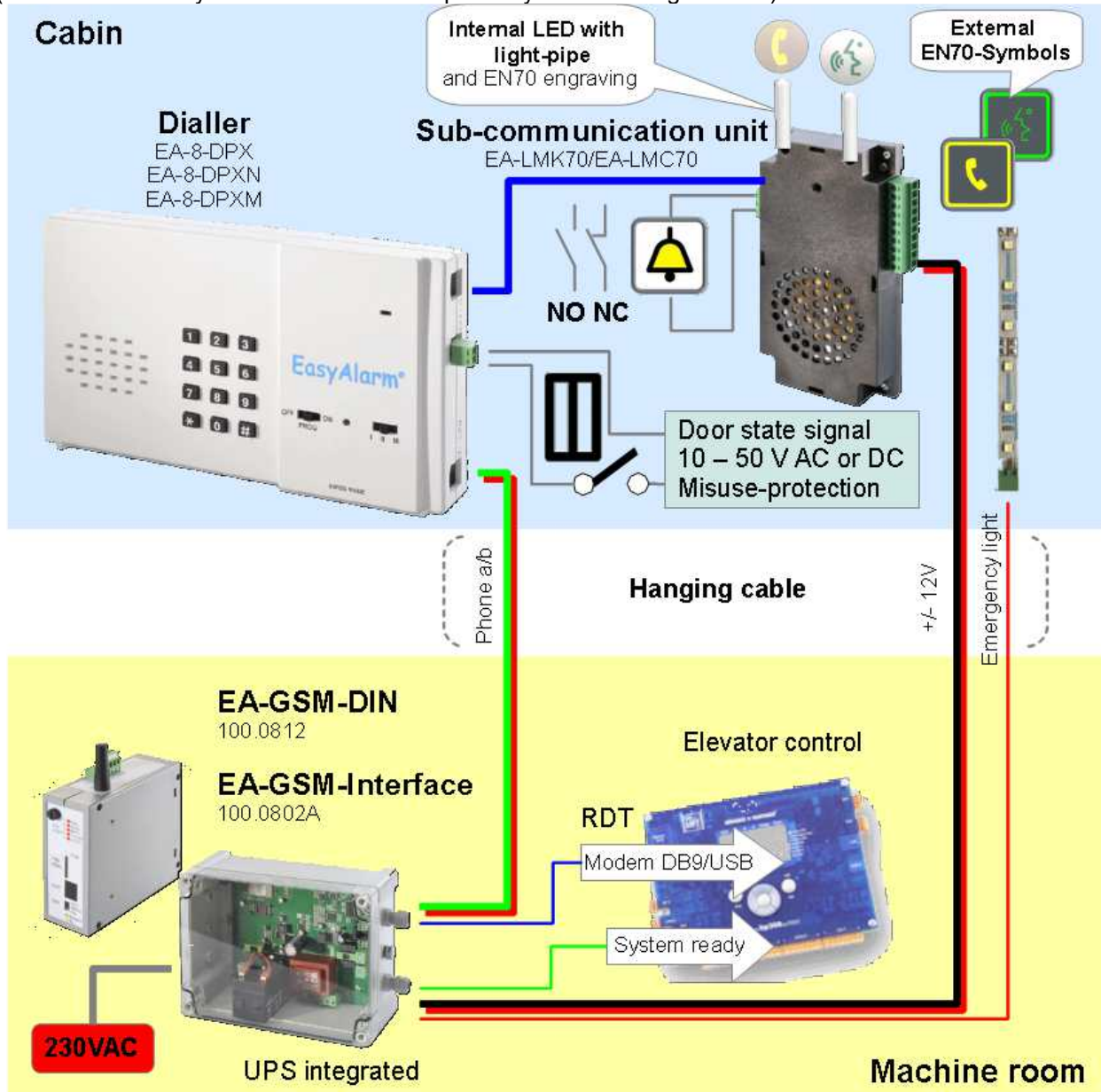
### 2.1 New installations / Retrofits

Switch to mobile network GSM as soon as possible so no need to change in 2017!

The following solutions are ready:

#### 2.1.1 Multiple installations: EasyAlarm/Excicall using GSM-Interface

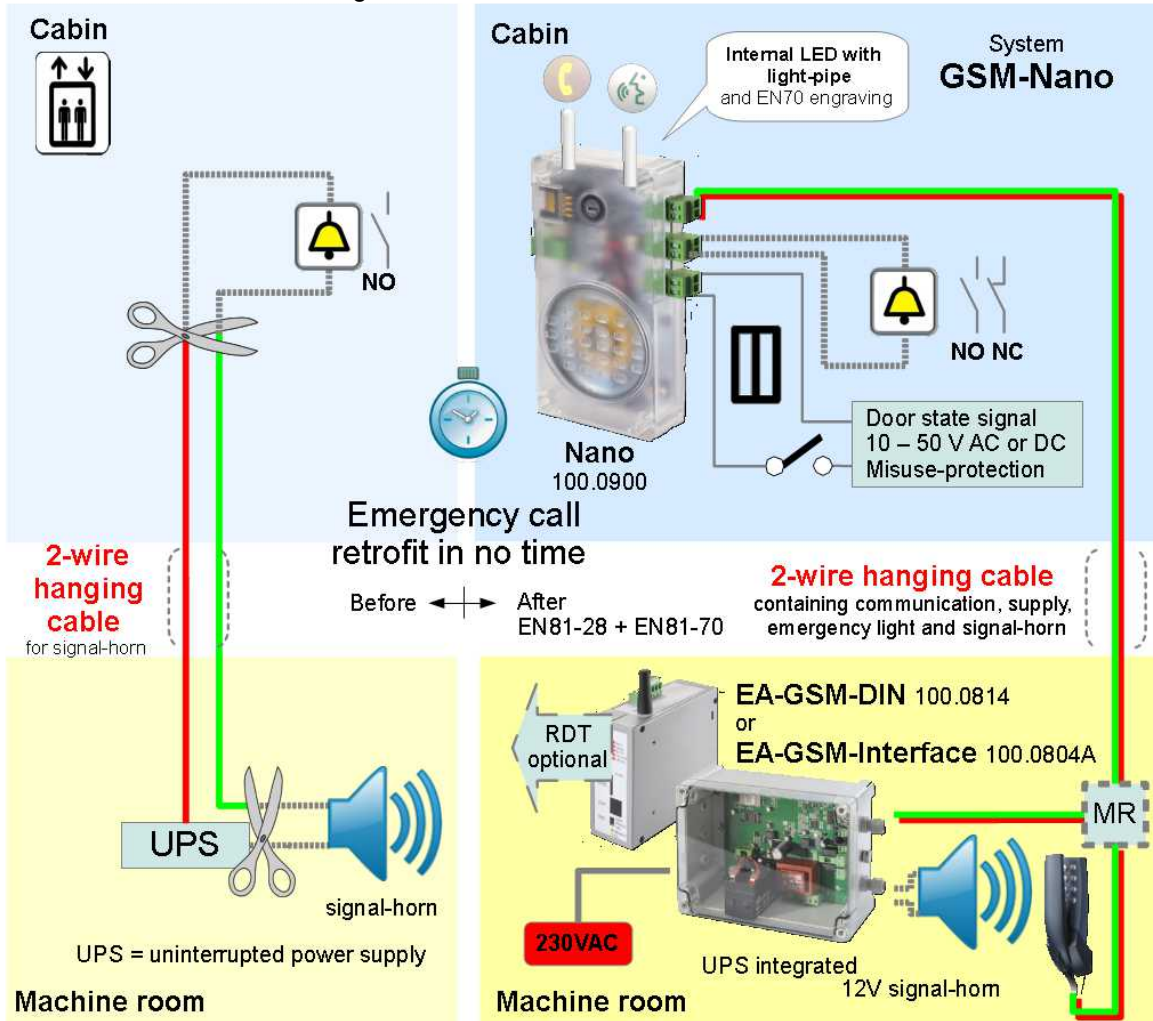
- ☞ Cost saving due to multiple use of GSM-interface / SIM-card
- ☞ Same restrictions using several units in parallel as with analogue landline (Section 1.1 of EasyAlarm-manual => Multiple EasyAlarm sharing one line)



GSM-material list see section 2.2 (Data connection optional)

#### 2.1.2 Single installation

Same as multiple installations using EasyAlarm / Exicall in combination with GSM-Interface, or more cost effective and easier to install, using GSM-Nano



Important notes:

- Communication unit Nano using same hole pattern as sub-communication units LMK70/LMC70  
 No change in panel necessary!
- Call-Center software WinMOS ready for GSM-Nano and EasyAlarm!

Picture	System GSM-Nano	Art.No.
	<b>Communication unit Nano</b> (inside cabin) incl. misuse protection input incl. internal / external emergency light functionality	100.0900
	<b>EA-GSM-Interface</b> (IP-Box) incl. patch-antenna Supply voltage: 230 VAC/50 Hz / Backup: 12 V-battery ↗ 100.0880	100.0804A
	<b>EA-GSM-DIN</b> as 100.0802A, but for DIN-rail-mounting 1AC.0814: incl. DIN-Adapter 118.0117 for 230 VAC 1DC.0814: incl. DIN-Adapter 118.0118 for 16 – 35 VDC	1AC.0814 1DC.0814
	<b>Data-Module DB9</b> serial interface for elevator controls	100.0850
	<b>Data-Module USB</b> interface for elevator controls MiniUSB	100.0851
	<b>Backup-Battery</b> 12V / 1.2Ah ↗ 100.080x und 100.081x	100.0880
	<b>External GSM-Antenna cable</b> 5m ↗ 100.080x	100.0864
	<b>Antenna extension cable</b> 10m SMA ↗ 100.080x / 100.0864	100.0863

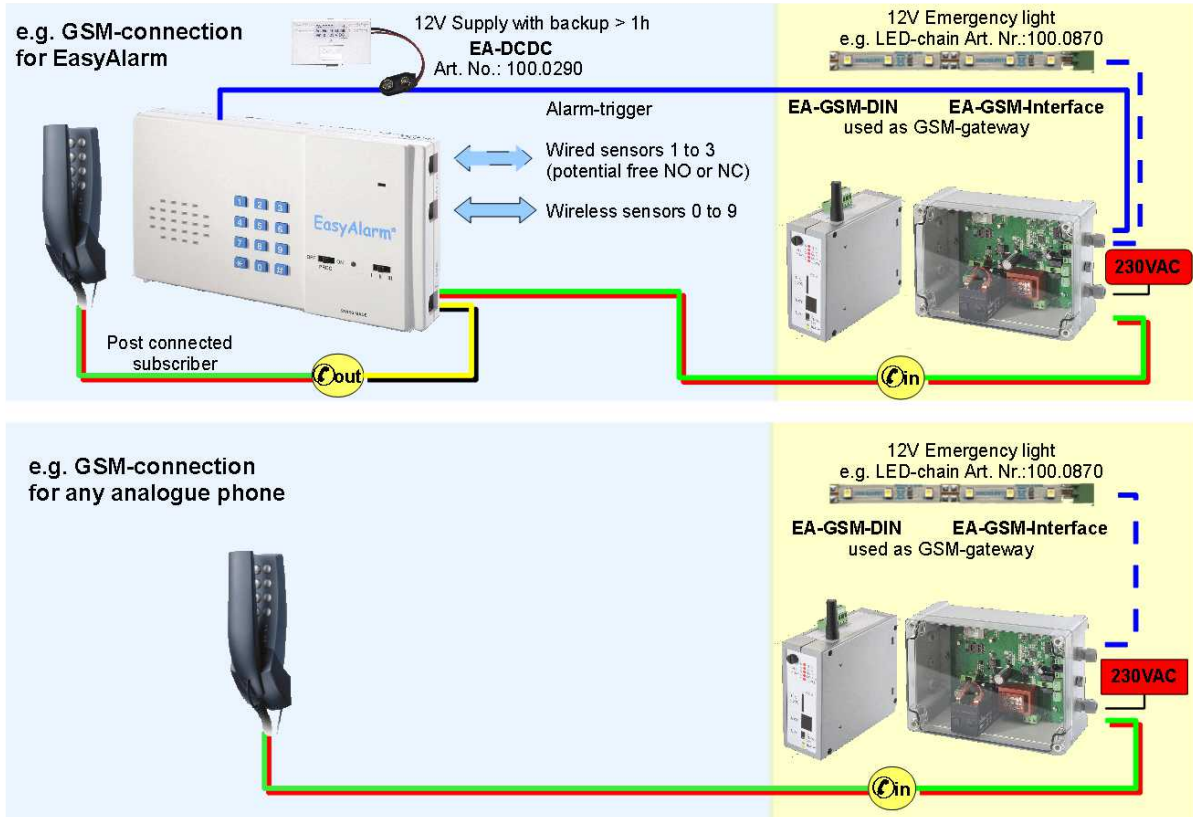


## 2.2 Existing installations

Offer your customer a GSM-gateway:

Existing analogue dialler

GSM-Expansion/Retrofit



- ☞ Company provides SIM card and adds an annual fee Fr??? for emergency calls in the service package
- ☞ Customer saves  $\geq$  Fr. 300 for analogue landline, which is not necessary
- ☞ Data connection optional

Picture	Alarm transmission over GSM	Art.No.
	<b>EA-GSM-Interface</b> (IP-Box) incl. patch-antenna Supply voltage: 230 VAC/50 Hz / Backup: 12 V-battery ☞ 100.0880 RDT-Data ☞ use Data-Modules 100.085x	100.0802A
	<b>EA-GSM-DIN</b> as 100.0802A, but for DIN-rail-mounting 1AC.0812: incl. DIN-Adapter 118.0117 for 230 VAC 1DC.0812: incl. DIN-Adapter 118.0118 for 16 – 35 VDC	1AC.0812 1DC.0812
	<b>Data-Module DB9</b> serial interface for elevator controls	100.0850
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	<b>Backup-Battery</b> 12V / 1.2Ah ☞ 100.080x und 100.081x	100.0880
	<b>External GSM-Antenna cable</b> 5m ☞ 100.080x	100.0864
	<b>Antenna extension cable</b> 10m SMA ☞ 100.080x / 100.0864	100.0863

## 3 Open points

When there is no GSM network present, the only safe emergency would be..

Elevator with evacuation functionality and permanent VoIP/internet monitoring ☞ 1.2