Use instruction
EasyAlarm MAN-DOWN®

MAN-DOWN-Sensor

Receiver

Alarm

Table of contents

1. INTRODUCTION

EasyAlarm® is an easy to use and reliable auto-dialler including announcement unit that can be used in many ways. The most important functions are listed below. Please read the instruction manual carefully before you start installation. Especially pay attention to the safety notes.

- ✓ **EasyAlarm® includes an automatic personal security transmitter**. This microprocessor-controlled transmitter is designed for use by employees in a large industrial complex (as an industrial signalling device for safety). In areas that one person is not allowed to work alone. It can also be used for elderly people or patients who live alone at home.
- ✓ **EasyAlarm® calls automatically**, when the emergency button is pressed. Up to three calling numbers can be stored. In case of an alarm these numbers will be called one after another until someone acknowledges the alarm.
- ✓ **EasyAlarm® puts in contact.** After the individual recorded message has been announced a *hands-free communication* is established and the alarmed person is in immediate contact with the person seeking assistance and can take appropriate action!
- ✓ **EasyAlarm® provides security**. An authorised person can start a check call (dialling-in using PIN-Code) at any time. Connection can be established in two ways (*listening-in* or *hands-free connection*).
- ✓ **EasyAlarm® is simple**. All you have to do is to program the calling numbers and connect the alarm unit to the telephone line and power supply.
- ✓ **EasyAlarm® monitors for noise activity**. An alarm can be triggered, if the selected noise level in the monitored room exceeds several times. The alarm is passed on without any indication to the person inside the monitored room => *listening-in connection* (acoustical monitoring of patient/baby/children or home-security application). If necessary a *hands-free communication* can be established.
- ✓ **EasyAlarm® is remote programmable**. An authorised person can re-program the calling numbers and the calling number sequence during *phone connection.*

Declaration of Conformity

According to the R&TTE Directive 1999/5/EC of 09.March 1999

Manufacturer's Name:	Leitronic AG
Manufacturer's Address:	Engeloostrasse 16 CH-5621 Zufikon, Switzerland

declares that the product

Product Name:	EasyAlarm
Model Number:	EA-8-EXT / EA-8-433

conforms to the following product specifications:

Safety (R&TTE, Article 3.1a):	EN60950: 1992+A1+A2+A3+A4
EMC (R&TTE, Article 3.1b):	EN 50081-1, 1992 EN 50082-1, 1997 Class B
Radio spectrum:	EN 300 220 (EA-8-433 only) ETS 300 683 (EA-8-433 only)
Telephone:	CTR21 as specified in Council Decision 98/482/EC

Supplementary Information

The product herewith complies with the requirements of the following Directives and carries the **CE** marking accordingly:

the EMC directive 89/336/EWG
the Low Voltage Directive 93/68/EEC

Zufikon, 1. April 2005 Silvan Tognella

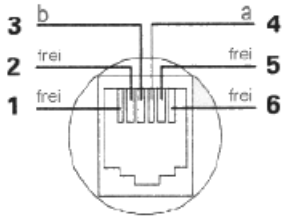
2. SAFETY INSTRUCTIONS

2.1 Approval

EasyAlarm® is in compliance with R&TTE 1999/5/EC, Article 3.1a, 3.1b, 3.2 and is conform to the following product specifications:

Safety:	EN60950, 1992+A1+A2+A3+A4
EMC:	EN 50081-1,1992
	EN 50082-1, 1997 Class B
Telephone connection:	CTR-21
Radio spectrum:	EN 300 220 Class1 (EA-8-433 only)
	ETS 300 683 (EA-8-433 only)

2.2 Telephone connection



- **EasyAlarm®** must be connected to an analogue telephone line. Voltage of this network (TVN=Telecommunication Network Voltage) is defined in directive EN 41003. It is a telecommunication circuit that should not be touched.
- **EasyAlarm®** can be used in configuration with approved serial terminal equipment.

This equipment has been approved to [Council Decision 98/482/EC - "CTR 21"] for pan-European single terminal connection to the Public Switched Telephone Network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN termination point. In the event of problems, you should contact your equipment supplier in the first instance"

2.3 Wireless sensors

Approval Switzerland: BAKOM 99.0135.K.P (WT-201, WT-211, MDT-122)
Approval other countries according to description of wireless-sensors.

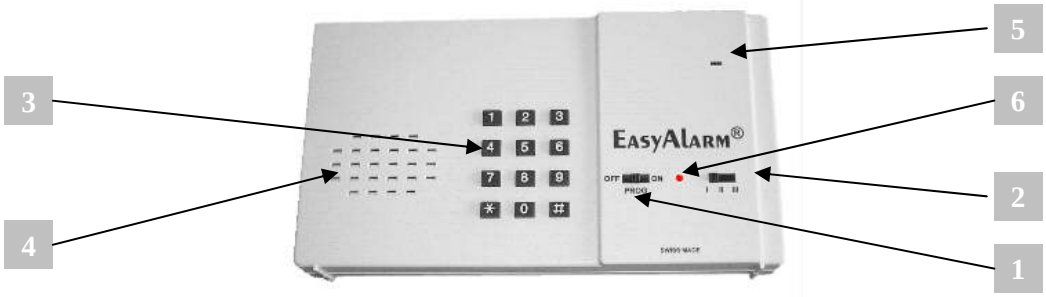
2.4 Power supply

A transformer according to the safety regulation EN60950 provides power supply. 9V battery is used as a back up in case of power failure. It is located on the rear side oft the device.

2.5 Safety notes

- Do not bring the device into contact with a liquid (water).
- Do not open the device (exception: opening of battery compartment).
- Replace the 9V-battery as soon as the announcement “battery error” is announced.
- Check alarm functions and start a *test-call*, before the system is put in service.
- Check from time to time the range of the emergency button
- **In case that EasyAlarm® is used to monitor children, the supervising person must be in a suitable distance to take immediate care for the child.**
- **The same as above applies to handicapped persons, EasyAlarm® is not a substitute of a personal care taker!**
- **Please note, an alarm by telephone is only successful if the alarmed party takes care of the following points:**
  - ➥ **Alarm must not be answered by an answering machine or equal equipment**
  - ➥ **Mobile phones can be out of range (e.g. underground car park, shielded rooms, remote areas and so on)**
  - ➥ **Take care of the charging condition of the mobile phone**
  - ➥ **Loud noise can prevent you from hearing the ringer**
- **All the electrical connections have to be potential free. Observe the regulation according to EN60950.**

3. SET VIEW / FUNCTION ELEMENTS



1 **Function switch**

Position	Information
OFF	Device is switched off
PROG	Entering of calling numbers, calling number sequence, PIN-Code and further parameters
ON	Device is in *supervision mode*

2 **Selection switch**
Selection of the alarm scenario:

A) Supervised alarm conditions independent if alarm-unit is armed or disarmed

„Default“ Cause of alarm	Active on I	II	III	Entry-Delay/ Pre-alarm signalisation	Connection mode	Alarm announcement
Man-Down	✔	✔	✔	delayed	*Hands-free*	„Alarm due to Sensor-3”
Emergency button	✔	✔	✔	delayed	*Hands-free*	„Emergency call activated“

B) Supervised alarm conditions only if alarm-united is armed

„Default“ Cause of alarm	Active on I	II	III	Entry-Delay/ Pre-alarm signalisation	Connection mode	Alarm announcement
Failure (L.Bat/Inact/Tamper)	✔	✔	✔	delayed	*Hands-free*	„Alarm due to Sensor-1“
Mains failure	✔	✔	✔	1 minute	*Hands-free*	„Alarm due to mains failure”
Acoustical monitoring	✘	✘	✔	Un-delayed	*Listening-in*	„Alarm due to noise“

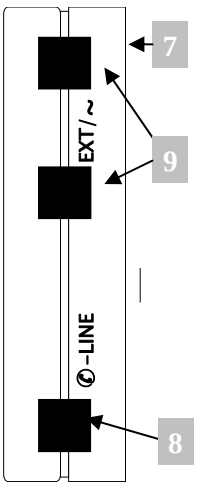
3 **Keypad**
When *function switch* is on position PROG, you can enter the calling numbers or do further programming. If *function switch* is on position ON pressing any key will start a *test call.*
Keys are marked with **1 2 3 4 5 6 7 8 9 * 0 #** in the following sections.

4 **Loudspeaker**
The integrated loudspeaker is used for voice guidance during the programming as well as for hands-free communication during *phone connection*.

5 **Microphone**
Is used during *hands-free connection* and for recording of *individual message*.

6 **LED**

Status of LED	Operation mode
Green	*Waiting period*
Green brief flashing every 4 seconds, also if acoustical monitoring is active by exceed set noise level	Supervision mode activated
Green is on and off for 4 seconds alternatively	Supervision mode deactivated
Orange	*Phone connection*



7 **Battery compartment**
The 9V-battery is used as a backup during power failure.

- ***Please note: The telephone cord must be disconnected before opening the battery compartment because otherwise you can get in contact with the telecommunication voltage!***

8 **Telephone jack (✆-LINE)**
The plug must be locked in the jack. To disconnect press pawl.

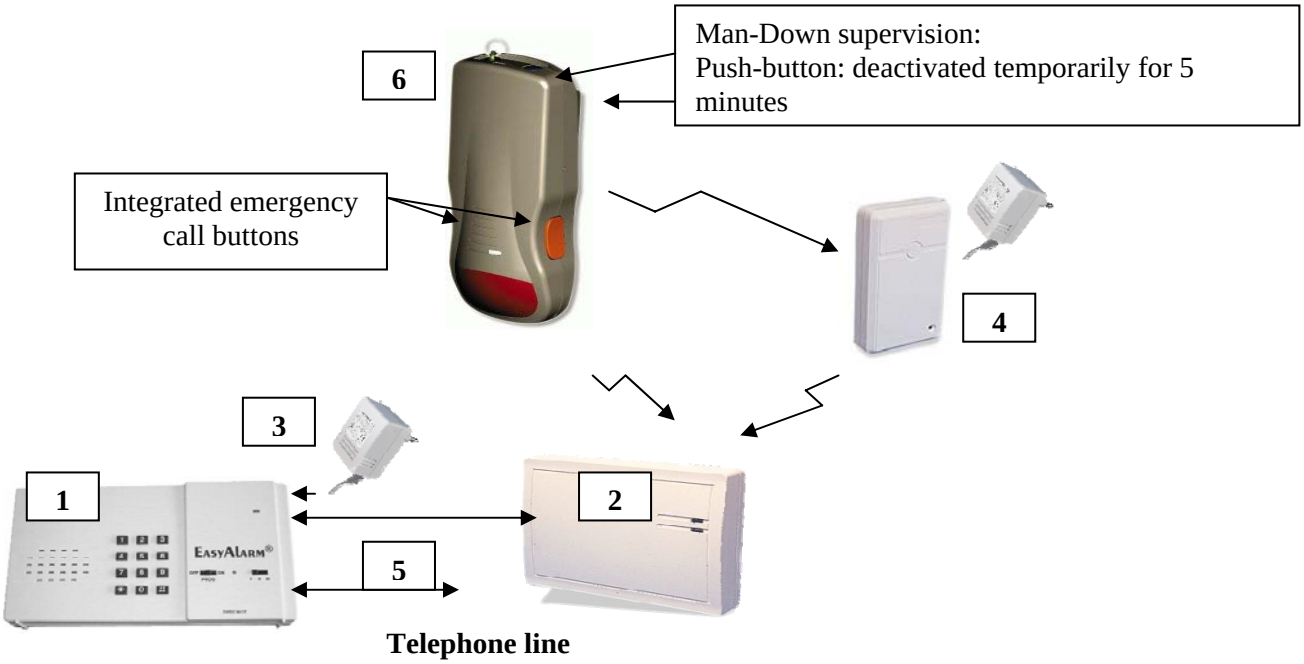
9 **External port (EXT/≈)** for accessories (as motion sensor) and power supply.

4. SETUP

4.1 Safety instructions

- ***Function switch*** **must be shifted to OFF and telephone-cord must be disconnected before any wiring work is done on the AC-adapter or connecting cable.**
- **Be shore that the telephone-cord is disconnected before you open the receiver box!**
- **Do not plug the phone cable (5) into the EXT/≈-jack, only into ✆-line jack of alarm unit (1)!**

To provide 100% reliability the use of an uninterruptible power supply (UPS) is necessary!
Without UPS an emergency-call or Man-Down-alarm cannot be triggered because the receiver (2) is not supplied!
If the mains-power loss remains more then 20 minutes a "alarm due to mains failure" will be generated!



4.2 Installation

In delivery state the Man-Down transmitter is already learn into the receiver-box (2) and all the necessary wiring are done, so you just have to plug the receiver cable into the EXT-plug of the unit (1)
☞ Details according to section 5

1. Open housing of the Man-Down transmitter (6), activate battery by removing red separation and close housing.
2. Slide *function switch* of alarm unit (1) to OFF
3. Insert 9V battery into compartment on rear side of alarm unit (1)
   - **Be shore that the telephone-cord is disconnected before opening the battery compartement!**
4. Plug cable from the receiver (2) into one of the EXT/≈-ports of the alarm unit (1)
5. Plug cable of AC-adapter (3) into the other EXT/≈-port of the alarm unit (1) and into mains
6. Plug telephone cord (5) into ✆-Line-port of the alarm unit (1) and connect it to the telephone line

Telephone connection

7. Plug enclosed telephone-cord (5) into **✆-Line-Jack** of alarm unit and connect it with the telephone network
   ➥ ***If you share line with modem/telephone please proceed according to section 10.5***

Program calling number(s) ☞ Details according to section 6.1

8. Slide *function switch* to PROG
9. Enter ***** ***** **<n>** (selected calling number: Standard **n** = 1..9)
   ➥ ***Corresponding calling number will be announced, followed by message "to modify press star"***
10. Press ***** and enter calling number
11. Slide *function switch* to OFF

Select user language / record individual message ☞ Details according to section 6.3

12. Slide *function switch* to PROG
13. Enter ***** ***** **#**
    ➥ ***Current individual message will be announced followed by "to modify press * , to stop press # "***
14. Select language for user announcements: (facultative)
    Press key **1** for first user language or key **2** for second user language
15. Press ***** and start speaking
16. Press **#** to finish recording, max. duration is 12 seconds
    ➥ ***New individual message will be announced. You can repeat steps 14 to 16 until text is fine!***
17. Slide *function switch* to OFF

Adjust Man-Down-Sensor alarm behaviour

18. Slide *function switch* to PROG
19. Enter sequence ***** **9** **3** **1** **7** 6 1 **#** **#**
    ➥ ***Current value <n> will be announced followed by "to modify press *, to stop press #"***

<*n*>	**Notes**
3	Un-delayed alarm with *listening-in connection* (Silent alarm)
35	Un-delayed alarm with *handsfree connection*
99	Delayed alarm with *handsfree connection*. During pre-alarm period an unwanted alarm can be cancelled

20. If you do not want to modify continue with step 22. Otherwise change by entering ***** <New value n> **#**.
    ➥ ***New value <n> will be announced***
21. Slide *function switch* to OFF

Adjust emergency-button alarm behaviour

22. Slide *function switch* to PROG
23. Enter sequence ***** **9** **3** **1** **7** 5 7 **#** **#**
    ➥ ***Current value <n> will be announced followed by "to modify press *, to stop press #"***

<*n*>	**Notes**
3	Un-delayed alarm with *listening-in connection* (Silent alarm)
35	Un-delayed alarm with *handsfree connection*
99	Delayed alarm with *handsfree connection*. During pre-alarm period an unwanted alarm can be cancelled

24. If you do not want to modify continue with step 26. Otherwise change by entering ***** <New value n> .
    ➥ ***New value <n> will be announced***
25. Slide *function switch* to OFF

Adjust low battery alarm behaviour

26. Slide *function switch* to PROG
27. Enter sequence ***** **9** **3** **1** **7** 5 6 **#** **#**
    ➥ ***Current value <n> will be announced followed by "to modify press *, to stop press #"***

<*n*>	**Notes**
3	Un-delayed alarm with *listening-in connection* (Silent alarm)
35	Un-delayed alarm with *handsfree connection*
99	Delayed alarm with *handsfree connection*. During pre-alarm period an unwanted alarm can be cancelled

28. If you do not want to modify continue with step 30. Otherwise change by entering ***** <New value n> .
    ➥ ***New value <n> will be announced***
29. Slide *function switch* to OFF

Program PIN-code ☞ Details according to section 6.4

30. Slide *function switch* to PROG
31. Press key **#** ***=> You can prevent the alarm unit from unintended re-programming by pressing*** *****.
32. Enter PIN-code (4 to 7 digits)
33. Press key **#**
34. Re-enter PIN-code for confirmation
35. Press key **#** ***= >New PIN-code will be announced***
36. Slide *function switch* to OFF

Alarm unit is now ready for operation ☞ Details according to section 7

37. Slide selection switch to the requested position (I/II/III)

5. MAN-DOWN TRANSMITTER/RECEIVER

The following listed wirings and programming are already done in factory state!

Important note:

- **Be shore that the telephone cord is disconnected before you open the receiver box!**

5.1 Wiring

Antenna

DIP-Switch (During operation only DIP 6 is on position ON)

Terminal A)
both yellow to –12V
both red to +12V

Tamper-spring

Terminal B)
Green on L.Bat* (Sensor 1=Failure)
Black on output 2 (Sensor 2=Emergency)
Blue on output 1 (Sensor 3=ManDown)
*) connect INACT and TAMP to L.BAT

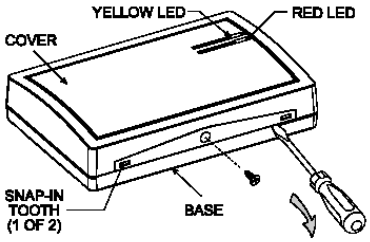


Figure 4. Removing the Top Cover

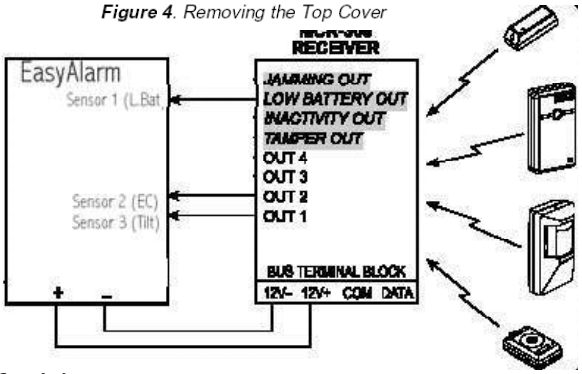
5.2 MCR-308 Receiver

Receiver:	433,92 MHz Superhet
Supply:	10.5 - 16V
Current Consumption:	45mA (Operation)
Alarm-/Status-outputs:	4xOpen-collector max. 100mA (NC)
Tamper-output:	0.1A/30V
Dimensions (H x W x D):	108x 165 x 38 mm
Compliance with Std:	FCC Part 15, ETS 300220, ETS 300683

5.2.1 Programming

Factory settings

1. Disconnect AC-adapter, wait for 10 seconds and reconnect power
   ➥ This will cause buzzer to beep 10 times – 1 beep per second
2. Within this 10 seconds, mount a jumper across the two clear pins, remove it immediately and then mount and remove quickly again
   ➥ A series of rapid beep acknowledges clearing



5.2.1.1 Learn-in ONE MDT-122 transmitter (factory default)

Man-Down zone 1 (Output 1)

3. Set DIP-Switch 1,6,8 to ON, other to OFF
4. Press Tamper 1x (Red LED starts to flash)
5. Topple Man-Down sensor until he sends his protocol (approx. 15 seconds) => The received protocol will be acknowledged with a tone-signal => Red LED is on
6. Set DIP 6 remains ON, others to OFF

Emergency zone 2 (Output 2)

7. Set DIP-Switch 2,8 to ON, others to OFF
8. Press Tamper 1x (Red LED starts to flash)
9. Press both emergency buttons => The received protocol will be acknowledged with a tone-signal => Red LED is on
10. Set DIP 6 remains ON, others to OFF

5.2.1.2 Learn-in MULTIPLE MDT-122 transmitter (3 transmitters in maximum)

Man-Down Zone 1 (Output 1)

3. Set DIP-Switch 1,6,8 to ON, other to OFF
4. Press Tamper <***n***>-***times*** (Red LED starts to flash, yellow LED shows sub-zone <***n***>)
   => (n=2 for first transmitter, n=3 for second transmitter, n=4 or third transmitter) => as Sub-Zone 2 to 4
5. Topple Man-Down sensor until he sends his protocol (approx. 15 seconds) => The received protocol will be acknowledged with a tone-signal => Red LED is on
6. Set DIP 6 remains ON, others to OFF

Emergency zone 2 (Output 2)

7. Set DIP-Switch 2,8 to ON, others to OFF
8. Press Tamper <***n***>-***times*** (Red LED starts to flash, yellow LED shows sub-zone <***n***>)
   => (n=2 for first transmitter, n=3 for second transmitter, n=4 or third transmitter) => as Sub-Zone 2 to 4
9. Press both emergency buttons => The received protocol will be acknowledged with a tone-signal => Red LED is on
10. Set DIP 6 remains ON, others to OFF

5.3 MDT-122 Transmitter

Transmission Type:	Radio Frequency (RF) 433.92MHz
Alarm Messages:	Tilt activated, Emergency call
Power Source:	3.6 V, Lithium battery, size 1/2 AA / 1.2 Ah (Tadiran TL-2150 or equivalent.)
Current Consumption:	15µA standby, 10mA (operation).
Battery Life:	3-4 years in normal use
Housing:	3mm ABS plastic box, weather proof
Compliance with Std.:	FCC Part 15, CE (ETS 300220, ETS 300683)

5.3.1 Battery test

The battery is automatically tested every hour, under load condition. If the battery voltage is low, "low battery" message is sent every transmission and whenever supervision message is sent. In addition, when the battery voltage is low, the LED blinks while pressing the left or right push-button switch. If the battery is low an "alarm due to sensor-1" will be triggered!

Important note:

- **the transmission power is directly related to the power of the battery**

5.4 Test mode (sensor wiring / reception)

You can check or optimise location of alarm unit as follows:

1. Slide *function switch* to PROG
2. Enter ***** ***** ***** ***** and press wireless button/sensor
   - ➥ ***Any time a sensor contact changes to alarm state you will hear the announcement"<n> activated". If the contacts changes to idle state you will hear "<n> deactivated.***
   - ➥ ***Check reception by pressing the emergency buttons of the ManDown-transmitter => As long as you are within range, you will hear: " 2 activated" and if you release button: " 2 deactivated". Optimize the location of the alarm unit so that an emergency call can be triggered at any place. Using an optional Repeater (=> accessory) you can enlarge the protected area.***
3. Slide *function switch* to OFF

Notes:

- <***n***> = 1 (Sensor 1: Low Battery / Inactive / Tamper)
- <***n***> = 2 (Sensor 2: Emergency Button)
- <***n***> = 3 (Sensor 3: Tilt sensor)

6. PROGRAMMING

Important note:

- **All the programmed parameters remain stored even without battery.**
- **You can prevent your system from unintended re-programming according to section 6.4.1. If you use this protection feature message „programming deactivated, PIN“ will be announced when the *function switch* is on position PROG.**
- **Three beep: Mains power loss AND battery low at the same time!**

6.1 How to program new calling numbers

EasyAlarm® supports nine calling numbers that can be programmed as follows:

1. Slide *function switch* to PROG
2. Enter ***** ***** **<n>** (selected calling number: Standard **n** = 1..9)
   ➥ ***Select number will be announced followed by “to modify press star“***
3. If you like to change this calling number, press *****, otherwise proceed with step 5
4. Enter new calling number. To delete an existing number enter ***** and proceed with step 5
5. Slide function switch to OFF

Notes:

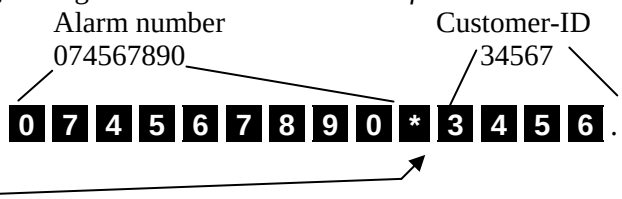
- Every keystroke will be acknowledged by a beep
- Key **#** programmes a dialling delay of 5 seconds, provided it is entered between two digits, e.g. a delay is essential in a private exchange (first digit + **#** + calling number).
- If your private exchange needs a flash pulse to start an internal call, following programming is possible: **2** **#** followed by the extension number.
- Key ***** is used as separator for Point-ID protocol ☞ section 6.1.1.
- If a programming error occurs, put *function switch* to OFF and repeat point 1 to 5.

Important notes:

- **Calling number 1 cannot be deleted due to safety reasons.**

6.1.1 Point-ID (Contact-ID) alarm protocol

If the alarm should be transferred to a alarm organisation using the Point-ID (Contact-ID) protocol, the alarm number has to be followed by key ***** and the customer-ID. EasyAlarm forwards the protocol to this alarm number and connects hereafter to the following calling number in standard *hands-free connection* mode



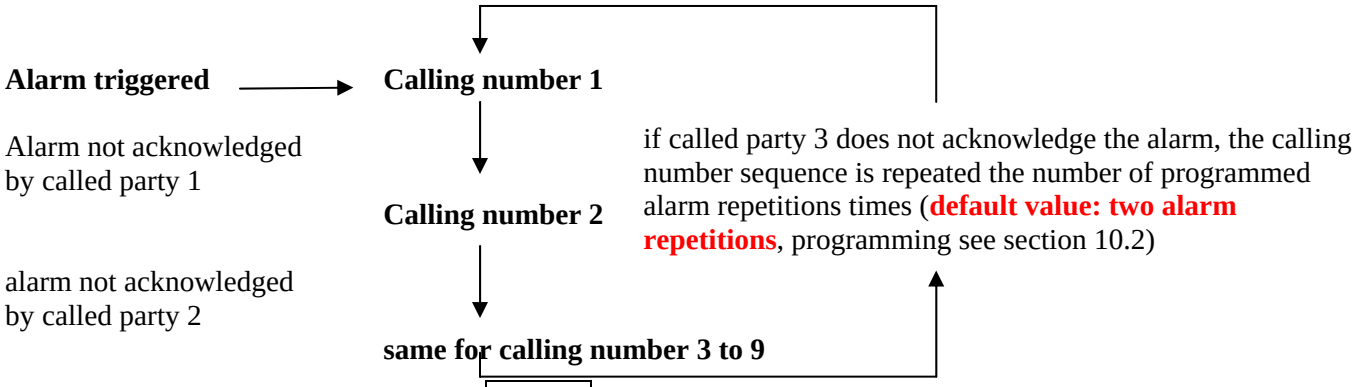
Note:

- The first character *****, that follows the alarm number will not be transmitted (=> separator). The customer ID is a four digit code. In case of an alarm the following codes are transmitted according to the **<Alarm reason>** and the **<Zone>**.

Code	**<Alarm reason>**	**<Zone>**
602	Alarm due to cyclic test	900
602	Alarm due to remote programming "**#"	900
301	Alarm due to power failure	900
601	Alarm due to key-press (test-call)	900
132	Alarm due to noise monitoring	900
140	Alarm due to hardware sensor 1 (L.Bat/Inact/Tamper)	901
140	Alarm due to hardware sensor 3 (Man-Down-Sensor)	903
120	Alarm due to Emergency button	902

6.2 Designation of the calling number sequence

6.2.1 Standard sequence



The alarm is acknowledged by pressing DTMF 0 (☞ section 7.6.5).
The alarm is passed to next party immediately by pressing DTMF 8 or after *connection time-out*.

6.2.2 How to program calling number sequence

1. Slide *function switch* to PROG
2. Enter * * 0
   ➥ ***Current calling number sequence will be announced followed by "to modify press * , to stop press # "***
3. To maintain the current programming, go to point 5. Otherwise enter *
4. Enter the desired sequence (max. 9 digits)
5. Slide *function switch* to OFF

Sample for programming calling number sequence:

a) '123' => calling number 1 will be dialled, followed by calling number 2, followed by calling number 3.
b) '111133322' => first calling number1 will be dialled (4 call attempts are made), followed by calling number 3 (3 call attempts are made), followed by calling number 2 (with 2 call attempts).

Notes:

- The calling number sequence is factory set to '123456789', but a general **reset according to section 10.1 will NOT RESET the calling number sequence!**
- In case of an un-programmed or deleted calling number, the calling number sequence will continue with the next number of the sequence.
- If a dialled number is busy and another call attempt is programmed, the *waiting period* before re-dialling is 30 sec.
- If the calling number changes within the sequence, dialling of a new number starts without delay

6.3 How to select user language / How to record individual message

An individual announcement can be recorded as follows:

1. Shift *function switch* to PROG
2. Enter * * #
   ➥ ***Current individual message will be announced followed by "to modify press * , to stop press # "***
3. Select language for user announcements: (facultative)
   Press key 1 for first user language or key 2 for second user language
4. Press * and start speaking
5. Press # to finish recording, max. duration is 12 seconds
   ➥ ***New individual message will be announced***
6. Shift *function switch* to OFF

Notes:

- Repeat step 3 and 5 until you are satisfied with individual message.
- During recording the LED is lit.

6.3.1 Remote recording of individual message during handsfree connection

1. Enter DTMF * * # #
   ➥ ***Current individual message will be announced followed by "to modify press * , to stop press # "***
2. Start recording by sending DTMF *, start talking (max. 12 s) and finish by sending DTMF #.
   ➥ ***New individual message will be announced***
3. Wait until the message "Abort" confirms the end of the programming

Notes:

- Repeat step 2 until you are satisfied with individual message.
- Remote recording can be enabled / disabled according to section 10.7.1.

6.4 How to program PIN-Code

You can change remote access PIN-code as follows:

1. Slide *function switch* to PROG
2. Press **#**
   ➥ ***You can prevent the alarm unit from unintended programming by pressing* * .**
3. Enter desired PIN-code (4 to 7 digits!)
4. Press **#**
5. Re-enter PIN-code for confirmation
6. Press **#**
   ➥ ***If PIN-code is re-entered correctly it will be announced. If you selected program locking the additional message „programming inactive: PIN" will be announced. In case of an incorrect programming the message announced „Error" will not be stored => old PIN-code remains active.***
7. Slide function switch to OFF

6.4.1 Lock program mode

If you initiated programming new PIN-Code with key * the program mode is locked unless you unlock by re-entering PIN-code. This feature prevents from unintentional reprogramming during operation.

6.4.2 Unlock program mode

Having the programming blocked as described in section 6.4.1, you can unlock as follows:

1. Slide *function switch* to PROG
   ➥ ***Message „Programming inactive: PIN" will be announced***
2. Enter PIN-code and press **#**
   ➥ ***By entering correct PIN-code you will hear a confirmation beep, otherwise message „Error"***
3. Slide function switch to OFF

6.5 Acoustical monitoring

The acoustical monitoring is enabled if *selection switch* is on position III. In case the alarm conditions is fulfilled a *listening-in connection* is established without any delay If you want to change this factory default you can proceed as following:

Example: Acoustical monitoring enabled on II and III starting a handsfree connection without delay.

1. Shift *function switch* to PROG
2. Enter sequence *** 9 3 1 7** [5] [9] **# #**
   ➥ ***Current register value <n> will be announced followed by "to modify press [*], to stop press [#]"***
3. If you want keep current value proceed with step 6. Otherwise start modifying register by pressing [*]
4. Enter sequence **0 0 1 1 0 0 0 1**

Factory default for acoustical monitoring
00 0 110 01, => un-delayed alarm in listening-in connection only on position III, inactive if disarmed

W-Siren	Entry-Delay	Connect. mode	Disable on..	Type
0: off	**0:off**	0: Listening-in	I / II / III	00: Monitoring independent from arm/disarm state
1: on	1:on	**1: Handsfree**	**1 0 0**	**01: Monitoring only in armed state**

5. Press key [#]
   ➥ ***The new register value <n> will be announced***
6. Shift *function switch* to OFF

The sensitivity of the acoustical monitoring depends on selected position of the selection switch:

Position	Alarm conditions (selection switch auf ON)
I	Low sensitivity (LOW) => Alarm will be triggered if the noise level exceeds several times within a long period (approx. 8 activations)
II	Medium sensitivity (MED)
III	Highest sensitivity (HIGH) => Alarm will be triggered if the noise level exceeds a few times within a short period (approx. 3 activations)

7. OPERATION

7.1 Self check at power on

After power on the alarm unit checks battery, mains power and telephone-line conditions. If one of these tests fails an appropriate message will be announced (battery error/power failure/line-check error).

Three beep: Mains power loss AND battery low at the same time!

Quickly handle the announce problem, otherwise the alarm functions are not guarantied.

7.1.1 Detection of wired sensor

EasyAlarm® detects the connected motion sensor automatically during the switching on procedure (factory setting). This sensor is activated for presence verification

Attention:

- **By disconnecting the motion detector during operation, an alarm is triggered with the announcement: „Emergency call due to sensor failure"!**
- **By connecting the motion detector during operation, an alarm is triggered with the announcement: „Emergency call activated, sensor 1 activated"!**

7.2 Inactive waiting period

7.2.1 After power on or changing position of selection switch (exit delay)

EasyAlarm® remains inactive for 20 seconds (LED is on continuously), to leave time to quit your room/house without triggering an alarm. An emergency call by pressing the emergency button is still possible.

Note:

- The entry/exit period can be adjusted according to section 10.3.
- If there are unacknowledged alarms, their quantity and the reason of the last alarm will be announced.
- If presence verification is activated, following announcement is made: "sensor supervision activated".

Key	Action
5	*Announcement of the monitored functions* (*inactive waiting period* will be restarted)
7	Bypass *waiting period* and change to inactive supervision mode ➥ Attention: by switching from activated to inactivated supervision mode, an announcement of the supervision modes is made and the waiting period starts again.
9	Bypass *waiting period* and change to active supervision mode ➥ Attention: by switching from inactivated to activated supervision mode, an announcement of the supervision mode is made and the waiting period starts again.
others	*Test-call* will be made to the first calling number

7.2.1.1 Announcement of the supervision functions

The supervision functions can be activated or deactivated individually on each position of the selection switch

EasyAlarm® deactivated => **announcement:** **"Supervision I/II/III deactivated"**
EasyAlarm® activated => **announcement:** **"Supervision I/II/III"**

followed by the supervision mode of the ***activated*** type of monitoring:

acoustical monitoring => **announcement:** **"due to noise"**
sensor-1-monitoring => **announcement:** **"due to sensor 1 activated"**

7.2.2 ..after an successful alarm

EasyAlarm® remains inactive for two minutes (LED is on continuously) to avoid too many alarms due to sensor contacts. An emergency call is still possible during this period. **Any key-press** results in a test call to the first calling number.

7.3 Supervision mode

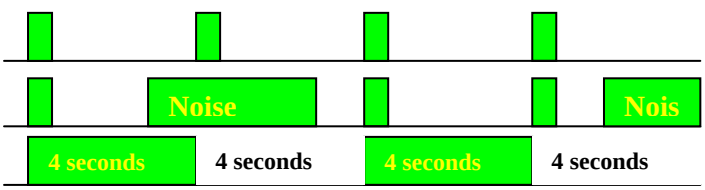
7.3.1 active supervision mode

In *active supervision mode*, the LED is flashing every 4 seconds. The LED is also lit, if the acoustical monitoring is activated and the selected noise level is reached.

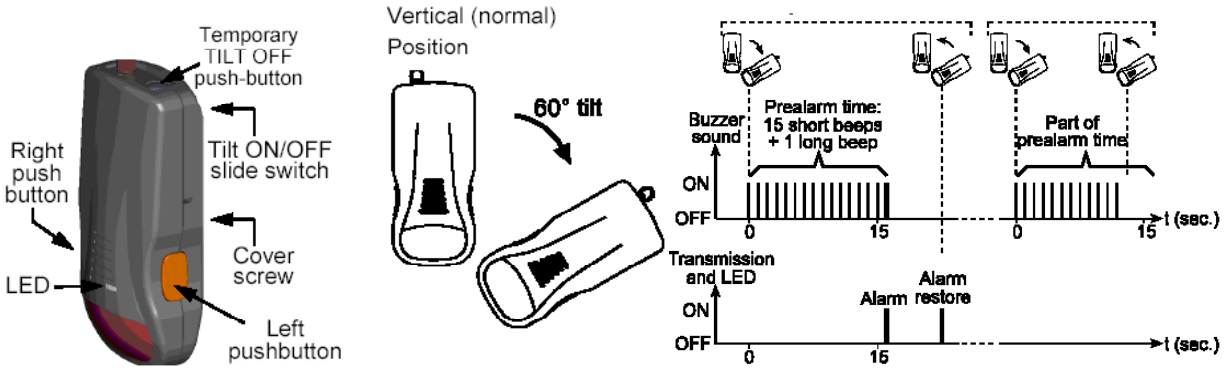
LED: acoustical monitoring inactive

LED: acoustical monitoring activated

LED: inactive mode



7.4 Alarm release



7.4.1 .. due to Man-Down sensor (Sensor-3)

An alarm is transmitted if the Man-Down sensors is tilted down by more 60° and does not recover during the local signalled pre-alarm time (15 seconds). After receiving the Man-Down signal **EasyAlarm®** starts dialling calling number(s) after another pre alarm period of 20 seconds and a *hands-free connection* is established

➥ ***Alarm announcement: „Alarm due to sensor 3“***

7.4.2 .. due to emergency button (Sensor-2)

An emergency call will be triggered in armed state, if both emergency buttons have been activated for at least two to three seconds. After a pre alarm period of 20 seconds **EasyAlarm®** starts dialling calling number(s) and a *hands-free connection* is established

➥ ***Alarm announcement: „Emergency call activated“***

7.4.3 .. due to LOW-Bat/Inactive/Tamper

If the Man-Down battery is low or one of the tampers (transmitter or receiver) is activated, **EasyAlarm®** starts dialling calling number(s) after a pre alarm period of 20 seconds and a *hands-free connection* is established.

➥ ***Alarm announcement: „Alarm due to sensor 1“***

7.4.4 .. due to mains loss

EasyAlarm® monitors mains voltage and triggers an alarm if power loss is longer than 20 to 30 minutes. During a pre warning period of 1 minute the following message is announced: „Alarm due to power failure“. After this period **EasyAlarm®** dials the programmed number and a *hands-free connection* is established.

➥ ***Alarm announcement: „Alarm due to power failure“***

Note:

- If **EasyAlarm®** does not detect mains power during start up the monitoring remains inactive => „Power failure“ is announced! As soon as mains power is detected, **EasyAlarm®** starts to supervise mains power.

7.4.5 .. due to noise (acoustical monitoring)

If **EasyAlarm®** is *in active supervision* mode and the acoustic monitoring is activated (☞ section 6.5), **EasyAlarm®** starts dialling calling number(s), when the noise level has exceeded several times according to the selected position of the *selection switch*. The alarmed person can listen into the room, but the loudspeaker remains inactive. (☞ *listening-in connection*).

➥ ***Alarm announcement: „Alarm due to noise“***

Note:

- To avoid false alarm while acoustical monitoring, close windows and try to eliminate sources of noise.

7.5 Alarm delay / Pre warning period / Entry delay

An alarm can be delayed due to following reasons:

A pre warning announcement is used to avoid false alarms (i.e. technical error like power failure, unwanted emergency calls). During the pre warning period the alarm can be cancelled by pressing key **0**.

➥ ***Announcement: „Alarm acknowledged“***

Notes:

- The entry/exit period can be adjusted according to section 10.3.
- If an alarm has been triggered by pressing the emergency button, cancellation of the alarm is only possible, if the button has been released for min. 3 seconds before pressing it again.

7.5.1 Siren activation during pre warning period

If you use a siren (☞ section 11.2) which is activated as described in section 10.4.2, the pre alarm period is signalled by a periodical siren tone.

7.6 Phone connection

The colour of the indicator LED changes to orange during telephone connection.

7.6.1 Time-out

There is a timer running in the *phone connection* mode. *Phone connection* is kept up for two minutes in case of *alarm call*, and ten minutes in case of *test call*. Ten seconds before disconnection, the called person hears the announcement "abort". He/she can restart timer using DTMF 3 at any time.

7.6.2 Announcements

At the beginning of each *phone connection* the following information will be announced: *Individual message* followed by the cause of alarm and the instruction to acknowledge alarm by pressing DMTF 0. In a *Listening-in* connection you get announcement: „to speak press 1". This announcement is repeated every 8 seconds, until a *tone-dialling command* is entered.

Notes:

- At the beginning of any *phone connection* battery state will be checked and announced if low
- The numbers of unacknowledged alarms is announced.

7.6.3 Listening-in connection

Possible *tone-dialling commands* during the *listening-in connection*

DTMF	**=> Every valid command will be signalled**
0	Terminate *phone connection* and acknowledge alarm
1	Switching to hands-free mode and restart *connection time-out*
2	Repeat announcements (*Individual message* / Cause of alarm)
3	Restart *connection time-out* (2 minutes)
4	Deactivate output (i.e. switching **off** alarm siren)
5	Announcement of current supervision mode as well as condition of the output
6	Activate output (i.e. switching **on** the alarm siren)
7	Change to *inactive supervision mode* (I, II, III) => monitoring for noise and sensor-1 (failure) is deactivated. Man-Down and emergency call are is still possible.
8	Terminate *phone connection* without acknowledgment
9	Change to *active supervision mode* (I, II, III) => All monitoring functions re-activated
* * 0	Announcement of calling number sequence
* * <***n***>	Announcement of calling number <***n***> (n: 1..9)
Possible *Tone-dialling command* if re-mote programming is enabled according to ☞ section 10.7	
* * #	Trigger an alarm for test reasons ➡ Cause of alarm announcement "alarm due to programming"
* * <***n***> * followed by the new calling number	announcement and change of calling number <***n***>
* * # #	Record individual message => according to section 6.3.1.

7.6.3.1 Use of siren during listening in connection

The activation of a siren (☞ section11.2) can be done either manually during a *listening-in connection* using DTMF 6 or 4 or automatically in accordance to the reason of the alarm (☞ programming section 10.4.2).

7.6.4 Hands-free connection

The commands during *hands-free connection* are identical to the commands during *listening in connection*, except DTMF 1.

Important note:

- ***Hands-free connection* must be terminated using DTMF 0 or 8. Otherwise a busy tone signal appears until *phone connection* is terminated due to time-out.**
- **By selecting *hands-free connection* an activated siren (optionally) is automatically deactivated. If requested, the siren can be activated or deactivated by DTMF 6 or 4 .**

7.6.4.1 Adjustment of hands-free volume

During *hands-free connection* you can increase volume by pressing local key # or decrease by pressing locale key *. Level can be adjusted in fifteen steps (1dB each) and remains stored.

7.6.5 Acknowledge alarm / Terminate connection

A called party can choose between acknowledgment by pressing DTMF 0 or passing on alarm to next party in calling number sequence by pressing DTMF 8.

Important notes:

- **There is no alarm repetition, if an alarm is triggered by pressing any key of the alarm unit (test call).**
- **An alarm can be confirmed and terminated by pressing key 0 of the alarm unit or by pressing the wireless emergency button for a second time.**
- **If the alarm is programmed to a pager, the called person can confirm alarm during remote-access after dialling-in.**

7.7 Alarm repetition

If an alarm has not been acknowledged by passing all the calling numbers in the sequence, a number of alarm repetitions can be programmed (☞ programming 10.2). Factory setting: two alarm repetitions.

7.7.1 Re-Alarm

After any alarm **EasyAlarm®** remains in inactive waiting period for two minutes. After this period another alarm can only be re-triggered, if the alarm sensor has returned to the passive state and re-activates once again!

7.8 Test call

If alarm unit is switched to ON it is possible to start a test call as follows:

1. Select calling number by pressing key **<*n*>** (***n***= **1** .. **9**)
   ➥ ***Announcement: „Calling number <n>“ => If selected calling number is not programmed the message “Error” will be announced and the first calling number will be dialled instead***
2. Wait until *hands-free connection* is established and speak
3. Terminate *phone connection* by pressing **0** or slide *function switch* to OFF

Notes:

- After two minutes *phone connection* will automatically terminate if called party does not give any *tone-dialling commands* (i.e. called subscriber can disconnect using DTMF 0 or restart timer using DTMF 3).
- During *inactive waiting period* after power on key **9** and **7** activate or deactivate the monitoring of the supervision. Key **5** starts the announcement of the current supervision mode (☞ section 7.3)
- The volume of *hands-free connection* can be adjusted as described in section 7.6.4.1

7.9 Dialling-in (check call)

If the alarm unit is switched to ON you can dial in from any telephone set as follows:

1. Dial phone number of the **EasyAlarm®**
2. Let it ring for two ringing cycles and disconnect (hang up)
3. Redial after 20 seconds => **EasyAlarm®** answers call after two ringing cycles and waits for the PIN-Code

After entering the correct PIN-Code **EasyAlarm®** establishes a *listening-in connection*

➥ ***Announcement „to stop press 0,to speak press 1“***

If no *tone-dialling command* is entered, the *phone connection* will be terminated after two minutes *connection time-out*. The supervised person can also terminate the phone connection by pressing the emergency button.

Important: In case that there are unconfirmed alarms, the quantity as well as the last reason of the alarm will be announced! An unacknowledged alarm will be confirmed by entering DTMF 0!

Notes:

- The two-step dialling in procedure is for security reasons to avoid detecting of the alarm unit coincidently by an unknown caller. Direct dialling in as well as other number of ringing cycles can be selected (☞ section 10.6)
- If the PIN-code is incorrect or not entered within 15 seconds, **EasyAlarm®** disconnects after the announcement „PIN error, abort“ => try again and enter correct PIN.
- PIN-code is factory set to 9797. For safety reasons we recommend changing PIN-code and program your individual code according to the manual.
- If a successful dialling-in should be signalled with five gong-signals (to alert/inform the supervised person), **EasyAlarm®** can be programmed according section 10.6.3.

7.10 Answering an incoming call

An incoming call, signalled by a parallel connected phone, can be answered as follows (*Function switch* ON):

7.10.1 ..by pressing the emergency button

a *hands-free connection* is established => Disconnect by pressing the emergency button once again.

7.10.2 ..by pressing any key of the alarm unit

a *hands-free connection* is established => Disconnect by pressing key **0** (☞ section 10.6.4).

8. USEFUL NOTES

8.1 Tone-dialling command

If you want to use **EasyAlarm®** to its full potential a tone-dialling telephone is necessary. Nowadays most of the telephones in use are working on tone dialling, also called DTMF or in-band signalling. Older telephones are using pulse dialling. In case there is no tone-dialling telephone available, the features shown in section 7.6.3 cannot be used

Note:

- An acoustic coupler can be purchased in electronic shops.

8.2 User information

8.2.1 Signals (beeps)

A single beep tone is used as a confirmation

Three beep: Mains power loss AND battery low at the same time!

8.2.2 Announcement audible in loudspeaker of EasyAlarm®

Announcement	**Message / Cause**
„Individual message“	First message in case of an alarm
Abort	Disconnection caused from the change of the position of the *selection switch*
Alarm acknowledged	Disconnection
Alarm due sensor-1	Alarm triggered by low battery of the Man-Down transmitter or a tamper is activated (transmitter or receiver)
Alarm due sensor-3	Alarm triggered by Man-Down sensor
Battery error	Battery is low => battery test after power on
Calling number error	First calling number in the calling number sequence is not programmed
Calling number ***n***	Calling number ***n (=1..9)***
Calling number sequence	Calling number sequence
Emergency call deactivated, alarm acknowledged	Emergency call confirmed
Error	Incorrect programming => the old value remains stored
Line check error	Telephone line check after power on was negative => dial tone missing
Output activated	The output is activated after power on.
PIN	Request to enter PIN-Codes by locked programme
Power failure	Mains power missing => Mains power is tested after switching on the unit
Programming deactivated: PIN	Request to enter PIN-Code to unlock programming
Sensor supervision activated	Motion sensor is set to presence verification
Supervision (I/II/III) <due to noise/sensor ***n***> activated	Announcement of the monitored alarm functions at current position of the *selection switch* (I/II/III) triggered by pressing key [5] during the *inactive waiting period*(☞ section 7.2.1.1)
Supervision (I/II/III) activated	Announcement in active supervision mode at current position of the *selection switch* (I/II/III)
Supervision (I/II/III) deactivated	Announcement in active supervision mode at current position of the *selection switch* (I/II/III)
to modify press * , to stop press #	Recording of *individual message*
Unacknowledged alarms: ***n***	Quantity of unacknowledged alarms

8.2.3 Announcements audible in the handset of called subscriber

as well as during *hands-free connection* in loudspeaker of **EasyAlarm®**

Announcement	**Message / Cause**
„Individual message”	First message in case of an alarm or reaction on [DTMF 2] .
Abort	*Phone connection* will be terminated
Alarm due to noise	Alarm triggered by noise activity (Note: according to *selection switch* position I,II,III the alarm can be delayed)
Alarm due to programming	A test call was initiated due to remote programming (☞ section 10.7.2)
Alarm due sensor-1	Alarm triggered by low battery of the Man-Down transmitter or a tamper is activated (transmitter or receiver)
Alarm due sensor-3	Alarm triggered by Man-Down sensor
Battery error	Battery is low => battery test before *phone connection* is established
Emergency call activated	Alarm triggered by emergency buttons of the Man-Down transmitter
Output <activated /	confirmation of < [DTMF 6] / [DTMF 4] >

deactivated>	
PIN	Request to enter PIN-Code after dialling in (remote access)
PIN error, abort	Wrong PIN-code => *Phone connection* terminated
Power failure	Mains power loss => Mains power is tested every time before *phone connection* is established
Programming acknowledged	Successful remote programming of a calling number or calling number sequence
Programming, abort	Faulty remote programming of a calling number or calling number sequence
Sensor ***n*** activated	Announcement if sensor ***n*** is still in alarm mode
Supervision (I/II/III) < due to noise / sensor ***n***> activated	Confirmation of DTMF 5: announcement of the activated supervision functions, indicating the supervision modes in accordance to the position of the *selection switch* (I/II/III)
Supervision (I/II/III) activated	Confirmation of DTMF 9: Switch to *active supervision mode* an announce monitoring functions at current position of the *selection switch* (I/II/III)
Supervision (I/II/III) deactivated	Confirmation of DTMF 7: Switch to *inactive supervision mode* an announce monitoring functions at current position of the *selection switch* (I/II/III)
Unacknowledged alarms: ***n***	Quantity of unacknowledged alarms

8.3 Functional checks

8.3.1 Test-call

We strongly advise to make a *test-call* to check functionality of **EasyAlarm®** before starting operation.

8.3.2 Test alarm functions

Even though the alarm unit is maintenance free (except the battery) a periodical function test should be carried out, especially:

- Emergency button
- Wired sensors
- Acoustical monitoring

8.4 Battery check / replacement

If the announcement „Battery error“ is initiated after switching on **EasyAlarm®**, the battery should be replaced immediately as follows:

1. Slide *function switch* to OFF
2. Disconnect **EasyAlarm®** from the **telephone network, by removing the telephone cord**
3. Open battery compartment and remove old battery
4. Insert new battery and close battery compartment
5. Reconnect telephone cord to **EasyAlarm®**

Notes:

- Always use fresh 9V-batteries
- Dispose the old battery properly

8.5 Maintenance

Slide *function switch* to OFF and remove telephone cord. Clean **EasyAlarm®** if necessary using a moistened cloth and dry it afterwards.

Note:

- Do not use cleaning agents or solvent

9. TROUBLE SHOOTING / ERROR HANDLING

Most problems can be checked and solved with help of the following chart. If the problem remains after consulting this chart in details, please get in touch with your local dealer or contact the info line of your country, see section 12.2

9.1 Telephone connection / Telephone communication

Symptoms	Cause and /or remedy
LED is not lit after switching ON	Replace battery
Announcement „programming deactivated: PIN“ by an attempt of reprogramming	Programming function is locked => to be unlocked according to section 6.4.1
Announcement „Beep Beep Beep“	Mains loss and low battery at the same time!
Announcement „battery error”	Battery is low => replace battery
Announcement „power failure”	Power failure, transformer not connected
Announcement „line check error “	No dial tone has been detected: ▪ Unit is not connected with the telephone network ▪ Telephone network failure ▪ Another telephone working on the same phone line is occupying the line already ⇨ Plug in telephone cord ⇨ Check the telephone cord ⇨ Start *test-call* with different telephone
No dial tones are audible during *test call* => no tones are audible during the dialling procedure	
Test call does not call first calling number in the calling number sequence: Announcement „calling number error“	▪ Calling number (**n=2..9)** is not programmed => Calling number 1 was dialled instead
Test call does not establish *phone connection:* Announcement „calling number **n**“ => dial tone audible	▪ Calling number is wrong ▪ Called party is not answering the phone
Remote access using dialling-in not possible => **EasyAlarm®** is not responding to the call	▪ The dialling function is programmed for the two step modus (☞ section 10.6.2)
Remote access using dialling-in not possible => disconnection after entering of PIN-code	Wrong PIN-code entered => call again
EasyAlarm® does not react on *tone-dialling commands*	Current telephone does not support *tone-dialling commands* or has not been configured => for example pulse dialling

9.2 Emergency/Tilt

You can check the three sensor in test mode => check section 5.4

Symptom	Cause and /or remedy
▪ No Tilt-Beep if transmitter is in tilt position / Emergency call still possible	▪ Tilt monitoring is disabled because switch on the backside of the transmitter is on position OFF (not on TILT) ▪ Tilt monitoring is temporarily disabled (5 minutes) by pressing button on top of the transmitter
▪ Either emergency call nor tilt is triggered	▪ Mains power loss => Receiver is not powered ▪ The transmitter is not learned-in properly (☞ section 5.2) ▪ Transmitter battery is low => Check and change according to specific user manual of the ▪ Problem with radio range => Check location of the receiver or use optional repeater to increase range ▪ External interference in the 433.92MHz-Band prevents a reception

▪ Alarm due to sensor 1 => LED Trouble on receiver is lit	▪ Transmitter battery is low => Check and change according to specific user manual of the => (☞ section 5.3.1)
	▪ Tamper-Alarm
	  ▪ Housing of transmitter is not closed => probably increase lever
	  ▪ Housing of the receiver is not closed

9.3 Acoustical monitoring

Symptom	Cause and /or remedy
noise is not triggering an alarm	▪ Factory setting supports monitoring of acoustics only on pos. III of selection switch. (☞ programming can be altered, see section 6.5) ▪ The unit has been deactivated by DTMF 7 => LED alternatively 4s on / 4s off ▪ By switching on the unit or after triggering an alarm, the acoustical monitoring is not active during the *waiting time* of 20 seconds (☞ section 7.2) => LED is lit constantly during the *waiting time*! ▪ Depending on the position of the selection switch, an alarm is triggered with a different delay. Every time the noise exceeds the pre set level, the LED is on. (☞ section 7.3.1)

10. SPECIAL PROGRAMMING

Important notes:

- **All parameters remain stored even if EasyAlarm® is switched off or without battery. Therefore reprogramming is only essential if parameters have to be changed.**
- **Programming mode can be locked to secure against unintended programming during operation (section 6.4.1). If lock is activated, the announcement „programming inactive: PIN“ will be announced if *function switch* is shifted to PROG.**
- **Attention: Changing these parameters below does influence the operating mode. Only necessary parameters should be changed! Please test behaviour before putting the unit back into operation!**
- **A programming error can be corrected by repeating the programming steps accordingly.**

10.1 Factory settings (Default-Values)

EasyAlarm® can be reset to default values as follows:

OFF ON PROG	**Keep 3 and # pressed simultaneously**	OFF ON PROG	Release keys	Prog. 6	OFF ON PROG

10.2 Alarm repetition

An alarm is triggered, as soon as the alarm criteria is fulfilled and the *waiting period* has expired. In some cases it might be useful to repeat an alarm as long until an acknowledgement is received.

OFF ON PROG	* 9 7 1 3 5 3 # #	Value	*	**Value**	#	OFF ON PROG

Value	Comment
0	**EasyAlarm®** calls the alarm numbers within the calling number sequence just once
1..9	**EasyAlarm®** starts calling the calling numbers within the calling number sequence until the alarm is confirmed by DTMF 0 or until the programmed value is reached! *(factory setting=2)*

10.3 Entry / Exit period

The appropriated register **4 8** an be read-out or modified as follows:

OFF ON PROG	* 9 7 1 3 4 8 # #	Value	*	**Value**	#	OFF ON PROG

Value	Comment
0..255	Time in seconds *(factory setting=20)*

10.4 Signalling

10.4.1 .. through alarm unit

It is possible to signal the inactive waiting period with one beep every two seconds. Proceed as follows:

OFF ON PROG	* 9 7 1 3 0 5 # #	Value	*	**Value**	#	OFF ON PROG

Value	Signalling..			
	Mains loss at power-on	**Selected mode** after power-on	**Exit** Beep every 2 sec.	**Entry**: 2 Beep
0	✘	✘	✘	✘
1	✔	✘	✘	✘
2	✔	✔	✘	✘
3	✔	✔	✔	✘
4	✔	✔	✔	✔

10.4.2 .. through external siren

Operating mode of the siren can be programmed as follows:

OFF ON PROG	* 9 7 1 3 0 7 # #	Value	*	**Value**	#	OFF ON PROG

Value	Comment
0	No signalisation by the siren *(=factory setting)*
1	periodical signalisation of the delay for exit / entry
2	periodical signalisation of the delay for exit / entry permanent siren tone in case of an alarm during *listening-in connection* (exception: silent panic call)

10.4.3 .. during phone connection (announcements)

The cause of alarm will be repeated every 8 seconds during connection until a DTMF command is received.

OFF ON PROG	* 9 7 1 3 2 0 # #	Value	*	**Value**	#	OFF ON PROG

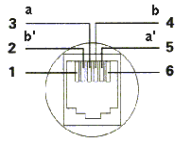
<*n*>	**Comment**
0	no repetitions => one announcement a the beginning of the connection
1..254	Cycle of repetition in steps of seconds *(factory setting=8)* i.e: ***Value***= 30 ☞ announcement every 30s
255	Special case: *Individual message* announced just once (**WITHOUT** cause of alarm)

10.5 Shared line with telephone/modem

If you want to use **EasyAlarm®** in combination with a downstream telephone/modem you must set dialling delay as follows:

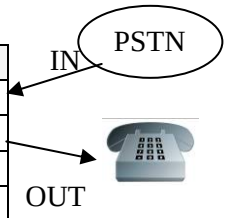
OFF ON PROG	* 9 7 1 3 2 4 # #	Value	*	**Value**	#	OFF ON PROG

<*n*>	**Comments**
0	No dialling delay *(=factory setting)*
1	Dialling delayed *(=Option PLUS)*



10.5.1 Wiring with cord with end-sleeves

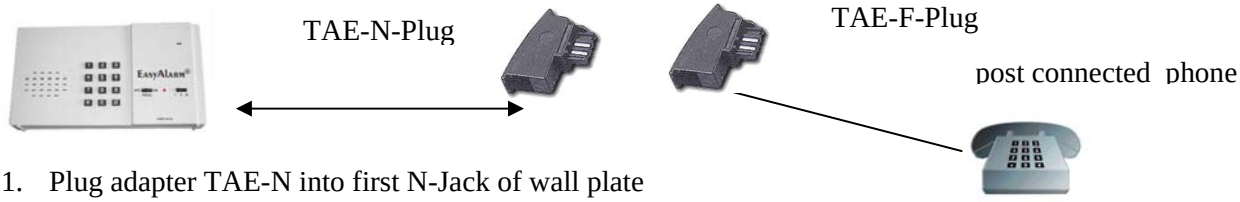
✆-LINE	**End-sleeves of telephone cord**
PIN 2: OUT	Black => to downstream modem/phone b'
PIN 3: IN	Red <= from PSTN (Terminal a)
PIN 4: IN	Green <= from PSTN (Terminal b)
PIN 5:OUT	Gelb => to downstream modem/phone a'



10.5.2 Wiring Switzerland with T+T- SW06

1. Plug adapter SW06 into wall plate
2. Connect FCC-cord between alarm unit and adapter SW06
3. Plug „post connected" phone into T+T-Jack of adapter SW06

10.5.3 Wiring Germany with TAE-N-Plug

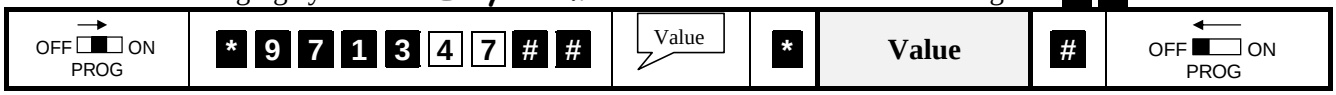


1. Plug adapter TAE-N into first N-Jack of wall plate
2. Connect FCC-cord between alarm unit and adapter TAE-N
3. Plug „post connected" phone into TAE-F-Type-Jack of wall plate

10.6 Dialling-in (Remote-access)

10.6.1 Program ringing cycles

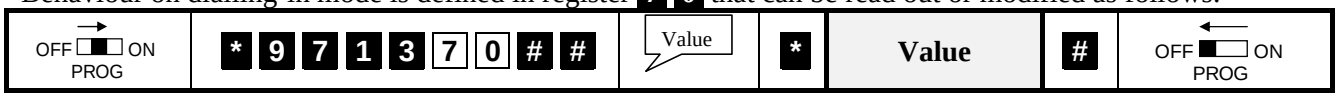
The number of ringing cycles until **EasyAlarm®** answers the call is defined in register **4** **7**:



Value	Comment
0	**EasyAlarm®** does not answer any call
2..9	**EasyAlarm®** answers call after ***Value*** ringing cycles *(factory setting=2)*

10.6.2 Dialling in sequence

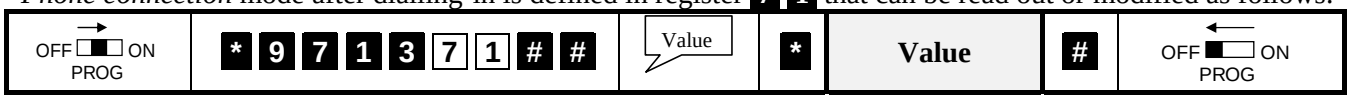
Behaviour on dialling-in mode is defined in register **7** **0** that can be read out or modified as follows:



Value	Comment
0	**EasyAlarm®** answers call directly after the programmed ringing cycles *(=factory setting)*
1	**EasyAlarm®** answers call after a two-step dialling -in sequence

10.6.3 Connection mode after dialling-in

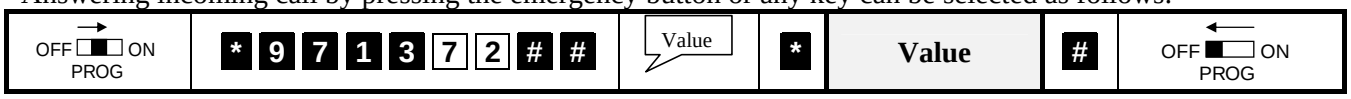
Phone connection mode after dialling-in is defined in register **7** **1** that can be read out or modified as follows:



Value	Comment
0	**EasyAlarm®** does not signal a successful dialling in and switches in *listening-in connection* (*=factory setting)*
1	**EasyAlarm®** establishes hands-free connection announced by three gong signals.

10.6.4 Handling of incoming calls

Answering incoming call by pressing the emergency button or any key can be selected as follows:



Value	Comment
0	**EasyAlarm®** is not responding by activation of the emergency button or any key of the alarm unit
1	The call can be received by pressing the emergency button or any key of the alarm unit *(=factory setting)*

10.7 Remote programming

The calling numbers as well as the sequence of the calling numbers are programmable during *phone connection*. This function is disabled (factory setting), but can be enabled as follows:

10.7.1 Enabling of remote programming

Remote programming is defined in register **7** **6** that can be read out or modified as follows:

OFF ON PROG	* 9 7 1 3 7 6 # #	Value	*	**Value**	#	OFF ON PROG

Value	Comment
0	**EasyAlarm®** cannot be remote programmed *(=factory setting)*
1	**EasyAlarm®** is ready for remote programming

10.7.2 Remote programming of calling number and calling number sequence

If remote programming is enabled calling numbers/sequence can be re-programmed during *phone connection:*

1. Enter DTMF * * n (***n*** => see chart below)
   - ➥ *Current calling number/ calling number sequence will be announced. If you want to change, continue at point two. otherwise enter DTMF #.*
2. Enter DTMF *
3. Enter new number/sequence
   - ➥ *After entering of the last digits, wait ten seconds. New number/ sequence will be announced, followed by the request to enter* DTMF n *to confirm change. If you do not confirm within 10 seconds or if another key is pressed the message „programming: abort“ will be announced. In this case the old value remains active.*

<***n***>	Comment	Programming according to
0	Calling number sequence (max. 9 digits)	Section 6.2.1
1	Calling number 1 (max. 24 digits)	Section 6.1
2	Calling number 2 (max. 24 digits)	
..	Calling number .. (max. 24 digits)	
9	Calling number 9 (max. 24 digits)	
#	SPECIAL - CASE: Phone connection is terminated and a test call is initialised with the current calling number sequence and calling numbers => announcement: “Alarm due to programming“	

11. ACCESSORIES

Further accessories can be found on our homepage on www.easyalarm.ch.

11.1 Repeater MCX-600

Primary voltage:	13..20 VDC (12 VDC over AC-adapter BBT-DC12-O: included) Backup: Ni-Cd- or Ni-MH-Akku, 9 Volt (not included)
Dimension:	110 x 63 x 25 mm (L x W x H)
Weight:	73 g
Installation:	Connect BBT-DC12 and backup-battery It is not necessary to lean-in ManDown-transmitter(s)! If you want to use more than one repeater you have to select the appropriated level according to section 3.3 of the MCX-600 instructions.
Function:	Each radio signal coming from a ManDown-transmitter will be re-send towards the alarm unit => Amplified

11.2 Siren EA-SIR

Primary voltage	230 VAC / 50 Hz
Secondary voltage:	12 VDC / 3 VA
Dimension:	120 x 65 x 77 mm (L x W x H)
Weight:	200 g
Length of cable:	3 m
Installation:	connect in place of the BBT-DC12V AC-adapter

Functions:

A) periodical ton of the siren (during *inactive waiting period*)
B) in case of an alarm in *listening-in connection*, the siren can be activated permanently
C) the siren can be switched on/off during *phone connection* by entering DTMF 6 / DTMF 4.

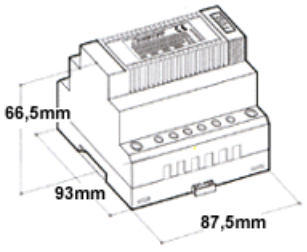
11.3 230V-Switch EA-SWI

Same as EA-SIR, but instead of the siren a 230VAC load (f.e. a light) can be switched on/off during connection. Output cable with Euro-jack-connector with maximum load of 2.5A.

Activation of output:

A) Output is activated automatically, as soon as an alarm criteria is fulfilled (siren, floodlight)
B) Output is activated automatically, if an alarm remains unacknowledged (siren, floodlight)
C) Output is activated during *phone connection* by request (siren, floodlight)

11.4 DIN-Adapter interface EA-ACDC-SWI-RJ12



Primary voltage:	230VAC / 50 Hz
Secondary voltage:	12 VDC / 150 mA (no load < 17.5 V)
Safety label:	EN60950, 1992
Dimension:	52.5 x 93 x 68.5 mm (L x W x H)
Weight:	250 g
Connection:	Screw terminal
Relay output:	max. 2 A / 1000 VA (make contact)
Optocoupler input:	10..230 V (AC or DC) => sensor 1
Dimensions:	120 x 65 x 42 (L x W x H)
Weight:	500 g
Installation:	connect in place of the BBT-DC12V AC-adapter

Activation of output:

A) Output is activated automatically, as soon as an alarm criteria is fulfilled (siren, floodlight)
B) Output is activated automatically, if an alarm remains unacknowledged (siren, floodlight)
C) Output is activated during *phone connection* by request (siren, floodlight)
D) Operation as a remote-controlled system (remote switching of heater, engines and so on)
E) many more applications are possible

Remote Switching procedure: activation of output DTMF 6 / deactivation of output DTMF 4

12. SPECIFICATIONS / WARRANTY

Changes to product and performance can be made at any time without announcement.

12.1 Specifications

12.1.1 Alarm unit EasyAlarm® EA-8-EXT

Supply voltage:	9..16 VDC (by AC adapter at EXT/≈ connector) Backup: 9V-battery (typical duration of operation about 70 hours)
Current input:	Supervision mode: 7mA (typical) / during announcement: 50mA (max.)
Material of housing:	ABS
Dimensions:	200 x 110 x 31mm (L x W x H)
Weight:	320 g without the battery
Telephone cord:	8 m (country specific telephone plug on request)
Calling method:	DTMF (Tone dialling)

12.1.2 AC-adapter BBT-DC12-F (Euro-plug)

Primary voltage:	230 VAC / 50 Hz
Secondary voltage:	12 VDC / 6 VA
Safety label:	EN60950, 1992
Dimension:	62 x 51 x 79 mm (L x W x H)
Weight:	320 g
Cord length:	3 m (RJ45)

12.2 Warranty

Dear customer

Each **EasyAlarm®** is manufactured and tested according to stringent quality rules. If the unlikely case should occur, that due to a manufacturing error the product is malfunctioning, Leitronic AG will guarantee in addition to your sales distributor warranty of repairs without any labour or material costs for 2 years after date of purchase.

Warranty is only granted, if the unit has been used as described in the instruction manual.

Warranty will not be given under following circumstances:

- If there is no invoice or receipt with date of purchase, vendor's name and serial number.
- These documents have been changed or modified.
- If serial number on type label has been changed, cleared, removed or modified in any way.
- If any repair, modification or other adaptation has been carried out by an unauthorized person or company.
- Damage due to tampering with device.
- Damage due to external influence (lightning, water, fire and so on).

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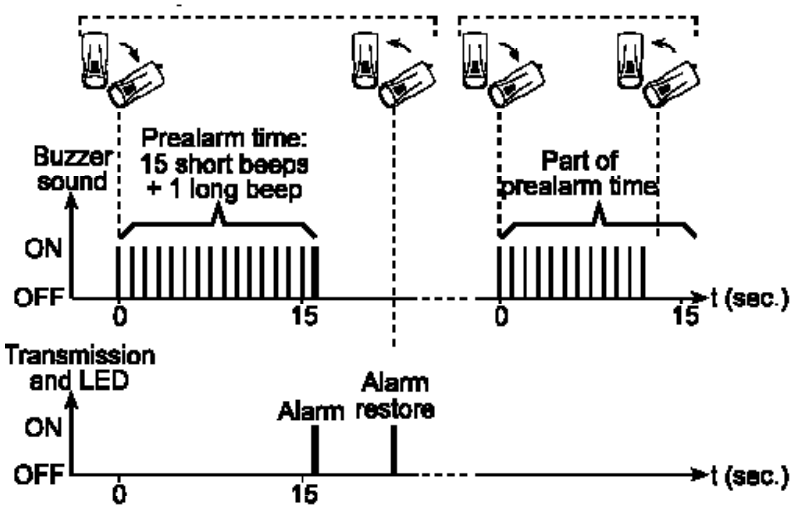
Tel. +41 (0)56 648 40 40
www.easyalarm.ch

13. INDEX

OVERVIEW MAN-DOWN-MONITORING



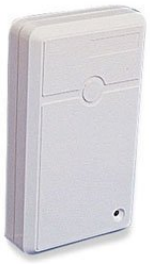
Temporary TILT OFF push-button
Disables Man-Down supervision for five minutes!

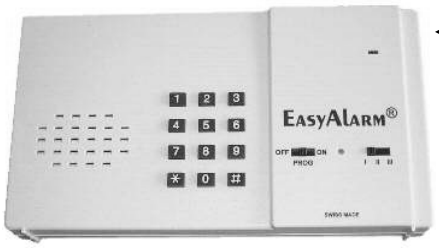
Slide-switch on backside of the sensor
TILT: Man-Down enabled
OFF: Man-Down disabled

Emergency-buttons
Emergency call will be triggered if **both keys** are pressed simultaneity for about three seconds

MDT-122

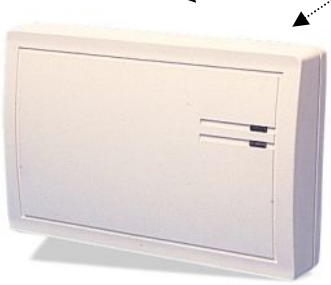
Repeater (Option)
MCX-600





Receiver
MCR-308

Telephone line



To provide 100% reliability the use of an uninterruptible power supply (UPS) is necessary!
Without UPS an emergency-call or Man-Down-alarm cannot be triggered because the receiver (2) is not supplied!
If the mains-power loss remains more then 20 minutes a "alarm due to mains failure" will be generated!

Alarm scenario:

A) Supervised alarm conditions independent if alarm-unit is armed or disarmed

„Default" Cause of alarm	Active on I	II	III	Entry-Delay/ Pre-alarm signalisation	Connection mode	Alarm announcement
Man-Down	✔	✔	✔	delayed	*Hands-free*	„Alarm due to Sensor-3"
Emergency button	✔	✔	✔	delayed	*Hands-free*	„Emergency call activated"

B) Supervised alarm conditions only if alarm-united is armed

„Default" Cause of alarm	Active on I	II	III	Entry-Delay/ Pre-alarm signalisation	Connection mode	Alarm announcement
Failure (L.Bat/Inact/Tamper)	✔	✔	✔	delayed	*Hands-free*	„Alarm due to Sensor-1"
Mains failure	✔	✔	✔	1 minute	*Hands-free*	„Alarm due to mains failure"
Acoustical monitoring	✘	✘	✔	Un-delayed	*Listening-in*	„Alarm due to noise"