

AL2001AET SMS ALARMBOX **Automated information and notification system by SMS**

AET Austria has been a force in communications engineering since 1970 and started with the development of SMS information and notification systems via GSM – the SMS Alarm Boxes – in 1998. The AL2001AET series is the result of continuous further development plus solutions as responses to customer wishes.

All the devices in this series are independently functional with integrated GSM module operating in dual band 900/1800 MHz on SMS (Short Message System) basis sent out in all GSM networks. A SIM is all that is needed for operation.

SMS messages have developed into telegrams of the 21st century and can be used for a huge variety of vital tasks.

These range from sending simple messages to SOS and emergency calls, control, monitoring and enquiry tasks through to opening and closing of doors; there are simply no limits to what can be done with this technology.

The essential requirement, though, is the right hardware and software. This is why we developed the AL2001AET series with its division in three product groups:

a) SMS Alarm Boxes for emergency fire / ambulance and help organisations

For an automatic alarm notification of a large number of persons at different locations in a matter of seconds.

b) SMS Alarm Boxes for industrial applications

For automatic monitoring, control and error message transmission by SMS. Customer-specific extensions plus tailoring to your individual requirements is possible.

c) SMS Alarm Boxes for private use

For totally effective theft prevention monitoring (cars, etc.) and anti-burglary use (in buildings etc.). Any disturbance or unusual activity in your absence can be picked up immediately from linked sensors such as water, gas, smoke, movement detectors etc. and transmitted fully automatically to your mobile phone.

And naturally any switching response action that must be taken, previously only possible on site can now also be done with your mobile phone. All SMS Alarm Boxes from AET are fully compatible with existing alarm systems (sensors).

It is clear from this that there is a **limitless range of applications** with these Alarm Boxes.

INDIVIDUALITY is a word we write BIG. You get your ideal Alarm Box from us. Because our motto is: "We are only satisfied when our customers are satisfied"

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GENERAL INFORMATION ON THE AL2001AET SERIES

All messages, call numbers and control information is transmitted in SS7 transmission channel. Your device can always send your SMS messages, even when the GSM network is overloaded with phone calls. This means the SMS reaches the receiver with total reliability even on the busiest nights such as Christmas Day or New Years Eve.

A message text with a maximum of 160 characters can be sent as an SMS message for each alarm group. Each alarm group is ascribed to a phone directory. The configuration is simple and easily done using the PC software supplied.

STANDARD / FLASH SMS

The SMS message can be sent as a standard or a FLASH SMS. With a FLASH SMS the message appears directly on the mobile phone display (even while you are phoning). This means you can react instantly.

FAX CONFIRMATION

Using this function the alarm message is also transmitted to a fax. This means you can perform complete logging of every alarm actuation incident.

EMERGENCY POWER SUPPLY WITH POWER CUT MESSAGE

All AL2001AET series SMS Alarm Boxes (except the AL2SL, AL3STD and AL6SL) can be fitted with an integrated emergency power supply (USV8) as an optional feature. An automatic switchover to emergency power supply is made in the event of power cuts. The power cut message with date and time is displayed at the mobile phone numbers saved for the "emergency power group" after about 20 seconds. Operation with USV8 can be maintained for about 8 hours.

PLAIN-TEXT DISPLAY

The AL2001USB and AL2001DBZ models are provided with an additional plain-text display for a more extensive display of the functional status and improved ease and clarity. The display shows for example:

- signal level
- functional test
- SMS memory
- network acknowledgement
- alarm for group x
- error messages
- radio alarm
- programming run etc.

Consult the User Manual for further information.

ADDITIONAL SOFTWARE – MESSENGER AL633AET

This special add-on software is for sending an SMS directly with the Alarm Box. Up to 3000 alarm groups can be created and managed; additional phone directories plus a direct SMS text entry provide extended use of the Alarm Box without changing any of the data stored in it. In an emergency the alarm message SMS text stored in the box is sent out. This add-on software provides for flexible entry and relieves the burden on the Alarm Box memory.

HOW TO ACTUATE FIRE AND AMBULANCE ALARMS

➤ **Manual:**

Using the keypad.

➤ **BS radio transmitter module internal:**

A BOS radio module can be integrated in the Alarm Box as an optional feature. This module is programmed with the desired channel and appropriate looping. The relevant group is actuated automatically as soon as there is a radioed actuation from fire headquarters, police, etc. Up to 64 analog radio loops or 16 digital radio loops can be analysed setting off the desired alarm signal. (Quiet alarm for the fire service, pager alarm for ambulance,...)

➤ **BOS radio transmitter module internal:**

An external radio receiver can be connected to the Alarm Box in the same way. This must have an external, potential-free contact switch (with a minimum of 2-3 seconds switching). The connected group is alarmed automatically when this detector is triggered. It is only possible to trigger a loop with this variant.

➤ **Remote alarm**

The appropriate group can be alerted by SMS alarm using a safe-code remote alarm. The short command can be configured using the software.

➤ **Distributor function**

This function is used for sending SMS messages that can be varied by mobile phone using the Alarm Box.

Example: Group 1 usually fire service alarms. With distributor functions e.g.: Meeting Saturday.

➤ **Input contacts:**

If the device connected to the input contact switches ON or OFF the relevant group triggers and a message is sent automatically. 8 potential-free contacts (extensible to 32) plus a special siren input contact are available as a standard. Using these sirens, fire detection units, alarm systems etc. can be connected as detectors.

FIRE SERVICE VERSION – UNIQUE ADVANTAGES

➤ **Transferring calls:**

Call transfers that are required can be programmed using a second time window. This makes it possible for the emergency call-out team to distinguish between an emergency alarm and a test alarm. The sending of the SMS message can also be restricted to a limited circle of people. The Alarm Box can also be switched off altogether for a desired period of time using a third time window.

➤ **CONNECTION CONTACT S1:**

This contact is programmed so as to analyse only one impulse with each impulse then absorbed at this terminal after approx. 1.5 minutes. After this period expires the contact can be used again. This ensures that when there is a siren alarm, group 1 only gets the alarm message once and not three times.

ACTUATION FOR INDUSTRIAL ALERT USES

➤ **Input contacts:**

When contact to the connected device goes either on or off members of the allocated group get an alert message. Up to 32 potential-free contacts are available as a standard depending on the model.

Contact possibilities:

water, movement, gas, smoke, access detectors, building heating systems, production machines, alarm systems, pump systems, various types of controls etc.

➤ **Remote switching – distributor**

The device required can be switched on and off remotely by SMS using a safe-code short message. Each of these switching processes is then confirmed by SMS (or if desired by fax). The short command can be configured using the software.

A further possibility offered is to perform an action when a specific machine state is reached, to open a gate for example or to switch on the lighting automatically etc.

➤ **Temperature monitoring**

The Alarm Box is fitted with integrated temperature monitoring. On exceeding or falling below a freely definable temperature value individual alert messages are sent out to the group 1 phone numbers. An external temperature module can also be linked as an optional feature.

The industrial versions of the AL2001AET model series are compact, top quality devices fitted in an industrial standard housing to IP 67.

The Alarm Boxes are very easy to program, this is done in an intuitive simple to follow process using the Windows programming software supplied. They are also simple to install and can be put to use at once when the SIM card is inserted.

The power supply for the Alarm Box can either be by plug connection to the mains voltage or direct from a 12V DC source. This means they are also suited for operation in a car or vehicle cabin.

The Alarm Box can also be assembled and operated without problems wherever a mobile phone has poor or bad reception (for example in basements) using the external antenna sleeves, since the GSM antenna can be assembled externally.

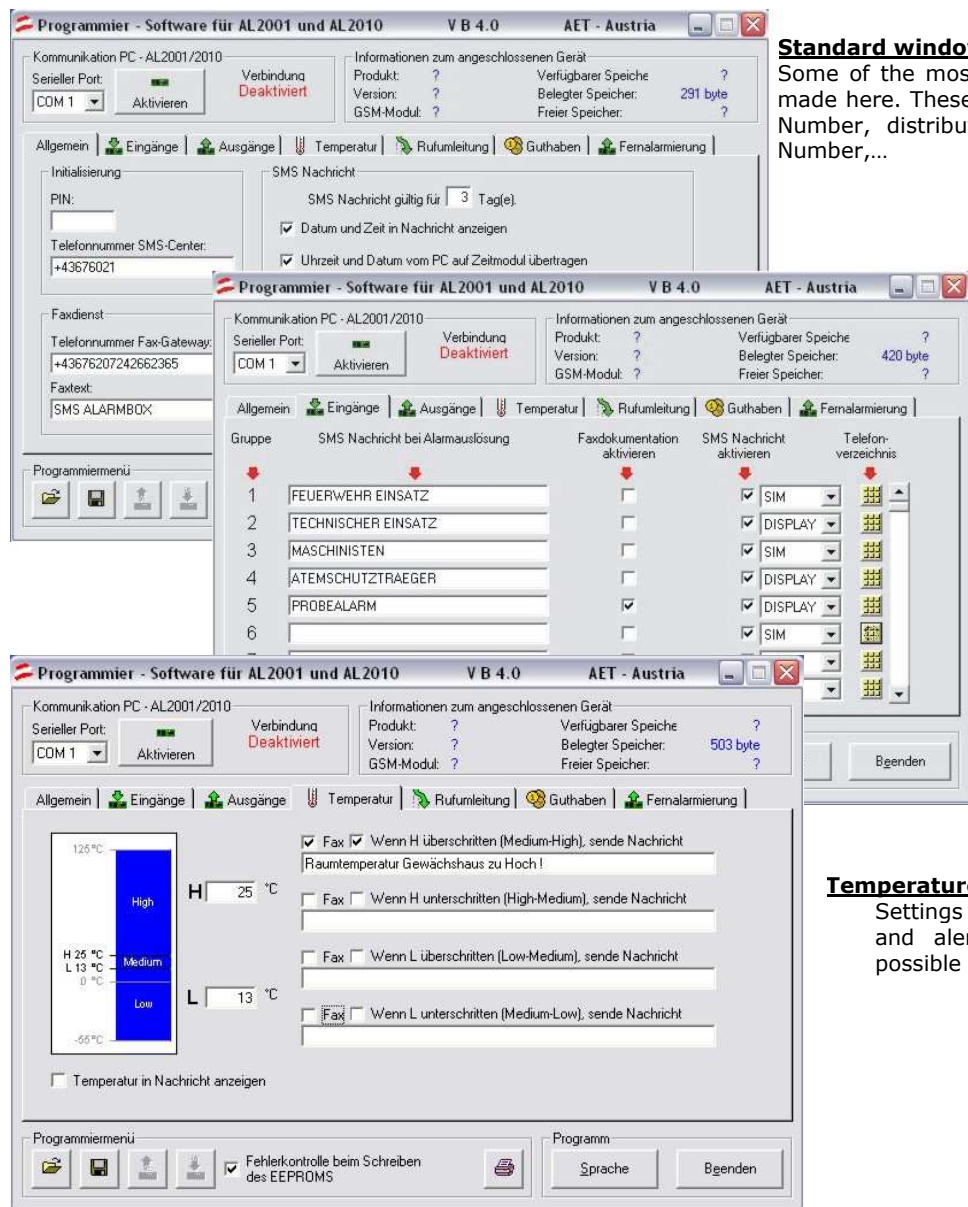
The Alarm Box model AL2SL is outstandingly suitable for assembly at locations where very little space is available (e.g. in vehicles as alarm transmitters) thanks to the very small dimensions of the housing (115x65x57mm).

Large-scale applications can also be implemented with the 24 alarm inputs of the Alarm Box AL100USL model.

This Alarm Box has already been put to good use in offices with air-conditioned server rooms for the transmission of an air-conditioning failure message where a very fast reaction time is essential to prevent a major data loss and the resultant administrative and financial catastrophe this can bring a company.

4) The programming software – a brief outline

The programming software supplied as a standard accessory, is very easy to use and can be installed in PC's with operating systems from Windows 98.



Standard window

Some of the most important settings are made here. These include: Service Center Number, distributor code, Fax Gateway Number,...

Inputs window

The SMS text messages to be sent by the mobile, are programmed here. Also the mobile numbers, the SMS type (flash or standard SMS), activating the fax log record,...

Temperature

Settings for temperature messages and alert to mperature level is possible with this menu point.

The software is very clearly structured and is sub-divided into various register sections as can be seen from the screen shot:

➤ Transferring calls:

Call transfers that are required can be programmed using a second time window. This makes it possible for the emergency call-out team to distinguish between an emergency alarm and a test alarm. The sending of the SMS message can also be restricted to a limited circle of people. The Alarm Box can also be deactivated altogether for a desired period of time using a third time window.

➤ Credit information

This register window is used to activate the credit information if a prepaid card is used and the net operator permits this function.

OVERVIEW OF THE AL2001AET FIRE SERVICE GSM ALARM SYSTEMAL2001AET Model AL5SLF - Set**Technical data:**

- 1) **4 groups**; 4 alarm inputs, 4 relay outputs switched by SMS
- 2) Alarm goes out to 200 emergency service people
- 3) Industrial housing (222x146x75mm)
- 4) 7 Segment service LED display for functional control
- 5) Choice of FLASH SMS or Standard SMS messages for each group
- 6) Code-secured SMS remote alarm (8 groups) from the mobile phone
- 7) Credit information for prepaid cards
- 8) Time, date, temperature are sent out when an alarm is sent
- 9) **Functional Security Electronics (FSE)** for SMS bundling (only Austria/Germany)
- 10) Integrated GSM module for 900 or 1800 MHz
- 11) **Keypad** for manual alarms
- 12) **Integrated remote detector** for 1 analog or digital radio loop
- 13) **Emergency power supply USV8**

Standard accessories:

- ✓ 15V stabilised mains plug model 299
- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple PC programming
- ✓ GSM plug-in antenna

AL2001AET Model AL5SL

Technical data as for Model AL5SLF – but this set without integrated remote detector and emergency power supply.

AL2001AET Model AL5SLF - Set

Illustration and technical data as for Model AL5SLF – but this set with 8 groups and 8 alarm inputs. The integrated analog remote detector can have 2 loops.

AL2001AET Model AL10SL

Technical data as for Model AL10SLF – but this set without integrated remote detector and emergency power supply.

AL2001USL**Technical data:**

- 1) **24 groups**; 8 alarm inputs, 8 relay outputs switched by SMS
 - 2) Alarm goes out to 200 emergency service people
 - 3) Keypad for manual alarms
 - 4) 7 Service LED display for functional control
 - 5) Code-secured SMS remote alarm (24 groups) from the mobile phone
 - 6) SMS transmitter/distributor function (sending of varied SMS text messages by mobile phone via the box)
 - 7) Siren and quiet alarms separation possible
 - 8) Call transfer module for analysing test alarms
 - 9) Choice of FLASH SMS or Standard SMS messages for each group
- 10) Credit information for prepaid cards
 - 11) Time, date, temperature module messages also sent out when alarm triggered
 - 12) Integrated GSM module for 900 or 1800 MHz
 - 13) **Functional Security Electronics (FSE)** for SMS bundling (only Austria/Germany)
 - 14) Dust and splash proof housing to IP67

Standard accessories:

- ✓ 12V stabilised mains plug model 9722
- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple PC programming
- ✓ GSM plug-in antenna

AL2001USB**Technical data:**

- 1) **24 groups**; 8 alarm inputs, 8 relay outputs switched by SMS
 - 2) Alarm goes out to 200 emergency service people
 - 3) Keypad for manual alarms
 - 4) Extensive display function with plain-text message and additional service LED display
 - 5) Code-secured SMS remote alarm (24 groups) from the mobile phone
 - 6) SMS transmitter/distributor function (sending of varied SMS text messages by mobile phone via the box)
 - 7) Siren and quiet alarms separation possible
 - 8) Call transfer module for analysing test alarms
 - 9) Choice of FLASH SMS or Standard SMS messages for each group
- 10) Credit information for prepaid cards
 - 11) Time, date, temperature module messages also sent out when alarm triggered
 - 12) Integrated GSM module for 900 or 1800 MHz
 - 13) **Functional Security Electronics (FSE)** for SMS bundling (only Austria/Germany)
 - 14) Dust and splash proof housing to IP67

Standard accessories:

- ✓ 12V stabilised mains plug model 9722
- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple PC programming
- ✓ GSM plug-in antenna

AL2001DBZ**Technical data:**

- 1) **32 groups**; 8 alarm inputs, 8 relay outputs switched by SMS
- 2) Alarm goes out to 1850 emergency service people
- 3) Keypad for manual alarms
- 4) Extensive display function with plain-text message and additional service LED display
- 5) Code-secured SMS remote alarm (32 groups) from the mobile phone
- 6) SMS transmitter/distributor function (sending of varied SMS text messages by mobile phone via the box)
- 7) Siren and quiet alarms separation possible
- 8) Call transfer module for analysing test alarms
- 9) Choice of FLASH SMS or Standard SMS messages for each group
- 11) Time, date, temperature module messages also sent out when alarm triggered
- 12) Integrated GSM module for 900 or 1800 MHz
- 12) Dust and splash proof housing to IP67

Standard accessories:

- ✓ 12V stabilised mains plug model 9722
- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple PC programming
- ✓ GSM plug-in antenna

OVERVIEW OF THE AL2001AET INDUSTRIAL GSM ALARM SYSTEM

AL2001AET Model AL2SL



Technical data:

- 1) 4 alarm inputs, 1 relay outputs switched by SMS
- 2) Alarm goes out to 200 emergency service people
- 3) Industrial housing
- 4) 7 Segment service LED display for functional control
- 5) Choice of FLASH SMS or Standard SMS messages for each group
- 6) Credit information for prepaid cards
- 7) Integrated GSM module for 900 or 1800 MHz

Standard accessories:

- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple programming on the PC

supply voltage 9 – 15V DC

***dimensions (WxHxD): 115x65x55 mm ***

AL2001AET Model AL3STD



Technical data:

- 1) 2 digital alarm outputs
- 2) 2 relay outputs with SMS adjustable switch duration (capacity: 250V AC / 6 A)
- 3) 1 call number per call programmable
- 4) Industrial housing to IP64
- 5) Standard SMS text message
- 6) SMS message after input status change
- 7) Integrated GSM module for 900 or 1800 MHz

Standard accessories:

- ✓ GSM antenna

supply voltage 9 – 15V DC

***dimensions (WxHxD): 122x120x57 mm ***

AL2001AET Model AL4SL



Technical data:

- 1) 4 alarm inputs, 1 relay outputs switched by SMS
- 2) Alarm goes out to 200 emergency service people
- 3) Industrial housing
- 4) 7 Segment service LED display for functional control
- 5) Choice of FLASH SMS or Standard SMS messages for each group
- 6) Credit information for prepaid cards
- 7) Integrated GSM module for 900 or 1800 MHz

Standard accessories:

- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple programming on the PC

supply voltage 9 – 15V DC

***dimensions (WxHxD): 115x65x55 mm ***

AL2001AET Model AL5SL



Technical data:

- 1) **4 groups**; 4 alarm inputs, 4 relay outputs switched by SMS
- 2) Alarm goes out to 200 emergency service people
- 3) Industrial housing to IP64
- 4) 7 Segment service LED display for functional control
- 5) Choice of FLASH SMS or Standard SMS messages for each group
- 6) Code-secured SMS remote alarm (4 groups) from the mobile phone
- 7) Credit information for prepaid cards
- 8) Time, date, temperature are sent out when an alarm is sent

9) Integrated GSM module for 900 or 1800 MHz

Standard accessories:

- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple PC programming
- ✓ GSM plug-in antenna

***supply voltage with USV 8: 13.5 – 15V DC; without USV 8: 9 – 15V DC ***

***dimensions (WxHxD): 222x146x75 mm ***

AL2001AET Model AL6SL



Technical data:

- 1) **8 groups**; 8 alarm inputs
- 2) 8 relay outputs: with either impulse or switch operation: SMS message sent on switching on or off
- 3) 8 storable phone numbers for confirming SMS message
- 3) Industrial housing to IP64
- 4) Choice of FLASH SMS or Standard SMS messages for each group
- 6) Emergency power supply message for external emergency power supply
- 7) SMS Alarm Box status inquiry by SMS

8) Integrated GSM module for 900 or 1800 MHz

Standard accessories:

- ✓ Programming interface with USB programming cable
- ✓ Programming software for simple PC programming

supply voltage 9 – 15V DC

***dimensions (WxHxD): 122x120x57 mm ***

AL2001AET Model AL10SL



Technical data:

- 1) **8 groups**; 8 alarm inputs, 4 relay outputs switched by SMS
- 2) Alarm goes out to 200 emergency service people
- 3) Industrial housing to IP64
- 4) 7 Segment service LED display for functional control
- 5) Choice of FLASH SMS or Standard SMS messages for each group
- 6) Code-secured SMS remote alarm (8 groups) from the mobile phone
- 7) Credit information for prepaid cards
- 8) Time, date, temperature are sent out when an alarm is sent

9) Integrated GSM module for 900 or 1800 MHz

Standard accessories:

- ✓ 15V stabilised mains plug model 299
- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple PC programming
- ✓ GSM plug-in antenna

***supply voltage with USV 8: 13.5 – 15V DC; without USV 8: 9 – 15V DC ***

***dimensions (WxHxD): 222x146x75 mm ***

AL2001AET Model AL100USL



Technical data:

- 1) **24 groups**; 24 alarm inputs, 8 relay outputs switched by SMS
- 2) Alarm goes out to 200 emergency service people (can be extended to 450)
- 3) Industrial housing to IP64
- 4) 7 Segment service LED display for functional control
- 5) Choice of FLASH SMS or Standard SMS messages for each group
- 6) Code-secured SMS remote alarm (24 groups) from the mobile phone
- 7) Credit information for prepaid cards
- 8) Time, date, temperature are sent out when an alarm is sent

9) Integrated GSM module for 900 or 1800 MHz

Standard accessories:

- ✓ 15V stabilised mains plug model 299
- ✓ Programming interface with RS232 programming cable
- ✓ Programming software for simple PC programming
- ✓ GSM plug-in antenna

***supply voltage with USV 8: 13.5 – 15V DC; without USV 8: 9 – 15V DC ***

***dimensions (WxHxD): 300x230x70 mm ***

Optional accessories for the AL2001AET

RX 8004	radio transmitter module (1 - 4 loops)
RX 8008	radio transmitter module (1 -8 loops)
RX 8016	radio transmitter module (1 -16 loops)
RX 8032	radio transmitter module (1 -32 loops)
Mascot power supply unit	stabilised mains plug model 9722, 15V DC 1.1A for AL2001
Power supply unit	mains plug model 299, 15V DC 1.03A for AL2SL, AL5SL and AL10SL
GSM 900	Miniflex GSM plug-in antenna 900 MHz incl. TNC plug
GSM 1800	Miniflex GSM plug-in antenna 1800 MHz incl. TNC plug
GSM external antenna	GSM mobile antenna for external assembly with TNC plug incl. 4.5 m cable
Radio external antenna	external antenna for radio transmitter module incl. BNC plug and 4.5 m cable
Station antenna	Sirtel S4 (stopper top) station antenna 4m band (without cable and plug)
USV 8	emergency power supply with re-charge electronics for 8 hours operation
AL633AET Messenger	optional feature software incl. data chip for direct SMS sending (without training)
Memory IC	memory extension from 200 to 450 call numbers
Temperature sensor	external temperature sensor incl. approx. 1.8m connecting cable for AL10SL, AL5SL models
Keypad	keypad for sending manual alarms in groups 1-8 (4) for AL10SL, AL5SL models
US232B adapter	adapter for programming the Alarm Box via USB interface
Programming	customer-specific initial programming of the Alarm Box (to your specifications)

Accessories for the industrial models:

Smoke detector	for ceiling assembly.
Motion detector	incl. volumetric lens covering a 15x15m area. other lenses available on request and at extra charge.
Door contact	magnetic contact for doors, windows, etc.
Gas warner	for wall assembly. supply voltage 12V DC with Alarm Box electronic adapter.
Breaking glass detector	for assembly on the glass panes
Water detector	for assembly at the lowest point in a room or at appropriate height if you want filled level reporting messages to be made.
Light barrier	for detecting movement (infra-red or reflection)
Temperature sensor TR5	incl. approx 1.8 m connection cable
Radio remote control RT21	remote control (868.30 MHz) for activating or deactivating the Alarm Box

Further accessories for special solutions available on request!

FIRE SERVICE

Already in successful use for:

- ✓ Voluntary fire services with alarm by siren only or for fire services with sirens that do not fully cover their entire area.
- ✓ Voluntary fire services whose members do not all have remote transmitter equipment.
- ✓ Fire department control centres (simultaneous use of one Alarm Box by several fire services)
- ✓ Professional fire services
- ✓ Company fire fighters
- ✓ Ambulance and rescue services
- ✓ Rescue control centres
- ✓ Mountain rescue
- ✓ Flood monitoring services

The advantages:

To call in extra forces in an emergency (private mobile virtually always to hand)
 Additional alerts or alarm for special Activity groups on site by mobile
 Slashing turn out time
 No servicing needed for the mobile
 Fully automatic SMS transmission
 Individual tailoring to customer wishes
 Accessories and extensions
 High operational security and reliability
 Well tried and tested in practice
 Simple start-up
 Splash water resistant casing to IP67

FIRE SERVICE APPLICATIONS

Targetted alarms (gas mask alert,...)
 Triggering sirens
 Adjustable version with offset operating panel
 Building monitoring

INDUSTRIAL

Already in successful use for:

- ✓ Manufacturing plant
- ✓ Servicing and maintenance operations
- ✓ Buildings administrations
- ✓ Winter services
- ✓ Weekend houses
- ✓ Gardens and nurseries
- ✓ Agriculture (animal sheds and stables)
- ✓ Banks
- ✓ Refrigerated transporters
- ✓ Container (load status)
- ✓ Oil industry
- ✓ Security companies
- ✓ Filling stations

The advantages

Simple installation and start-up
 Easy PC programming
 Alerts and call transfers even over great distances
 High reliability through Flash SMS
 Fully automatic SMS transmission
 Individual tailoring to customer wishes
 Temperature monitoring
 Accessories and extensions
 High operational security and reliability
 Well tried and tested in practice
 TÜV tested and CE certified
 Splash water resistant casing to IP67
 12 V or 230 V operation
 External link for GSM antenna
 GSM module for 900 and 1800 MHz
 Credit information for prepaid cards

INDUSTRIAL APPLICATION

Emergency alert system for machine failures
 Remote switching of machines, controls, heating, etc.
 Personal calls and paging info system
 Building monitoring
 Monitoring plant that is not occupied