

# Photo EXPRESS 3000



Operating Manual

™  
**EXPRESS**



# **GSM MOTION DETECTOR EXPRESS E3**

## **OPERATING MANUAL**

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### **Dear Customer!**

Thank you for choosing our state of the art high tech security product. In order for this product to serve you for a longtime, please familiarize yourself with this operating manual. In the event that you would like to make any suggestions or comments, please do not hesitate to contact us by using the information located at the back of this manual. Your opinion is important to us.

This Operating Manual was specifically written in order to cover all aspects of EXPRESS E3 installation and operation.



## 1 DESCRIPTION AND FUNCTION

### 1.1 Purpose

This **EXPRESS E3** GSM Motion Detector (further referred to as **Motion Detector**) was specifically designed to detect penetration of a protected zone and to transmit notification via a call and SMS text message to a GSM standard telephone; also to photograph the penetrated protected zone and transmit an E-mail via GPRS. The wireless "Prisma-S" Siren (sold separately) can be connected in order to receive audible sound and flashing light notifications. The Motion Detector can also cooperate with the **Mobile Monitoring Control Panel (MMCP)** which is available at our official website.

**EXPRESS E3** Motion Detector features:

- Installs in any location that has GSM mobile service;
- Arms and disarms the alarm via a three button Keychain Remote Control BN-3S (further referred to as **RC**);
- Configures by mobile telephone, an online service or an iOS/Android app- "Express-GSM Configurator";
- Operates on two AA batteries for up to six months;
- Power saving economy mode available;
- Automatically detects remaining balance and GPRS settings (four major service providers);
- Request remaining balance using the **RC**;
- Controlled via a mobile telephone;

The Motion Detector performs the following functions:

- Determines human movement in a protected zone;
- Places an alarm call and transmits an SMS text alarm;
- E-mails a photograph via GPRS;
- Sends a SMS text message confirming armed/ disarmed alarm mode;
- Sends a remaining balance status SMS;

### 1.2 Technical specifications

Basic technical specifications are shown in chart 1.

Chart 1 - Basic Technical Specifications

Parameter Description	Value
Maximum distance at which human presence is determined	10m
Maximum RC operating range	15m
Maximum distance required to photograph with no lighting	2m
Trigger time required to activate camera after penetration	1sec
Quantity of photographs at penetration	1 or 2
GSM module operating standards	GSM 900/1800/1900
Maximum number of telephone numbers to be notified	6
Maximum number of RC units for arming/ disarming	6
Elapsed time for notification	20-40 Sec
Battery type	2 x AA/ LR6 1.5v
Un-interrupted operating duration using one set of batteries	up to 6 months
Quantity of dispatched photographs via e-mail during un-interrupted operation	up to 60
Operating temperature range*	-10°C-+50°C
Relative humidity at a temperature of +35°C without moisture condensation not to exceed	93%
Operating duration at a temperature of +25°C	up to 6 months
Overall dimensions	110 x 66 x 57.5 mm

\*- The Motion Detector can operate under temperatures as low as -25°C with a reduction in the uninterrupted operating span resulting in fewer SMS messages and photographs being sent.

### 1.3 Motion Detector package contents

Motion Detector package contents in accordance with chart 2.

Chart 2 - Motion Detector contents

Description	Quantity
GSM Motion Detector EXPRESS E3	1
AA Batteries LR6 1.5v	2
User manual	1
Keychain (RC) Remote Control BN-3S	1

### 1.4 Motion Detector design structure

Structurally the Motion Detector consists of a main body base, a front cover, a rear lid (removable), detector circuit board and GSM module circuit board (refer to fig. 1, 2). The detector and GSM module circuit boards attach to the main body base with stand off tabs.

A SIM card holder is installed on the GSM module circuit board; and a battery holder, GSM light diode signal indicator, a built-in announcer and button (refer to fig. 2) are installed on the detector circuit board.

Batteries are installed in the device and are insulated from the contacts by means of a plastic protective insulating insert (refer to fig. 2).

The Motion Detector is designed for use on a wall and can be mounted using a screw that utilizes a special cutout found on the back of the Motion Detector main body base (refer to fig. 2).

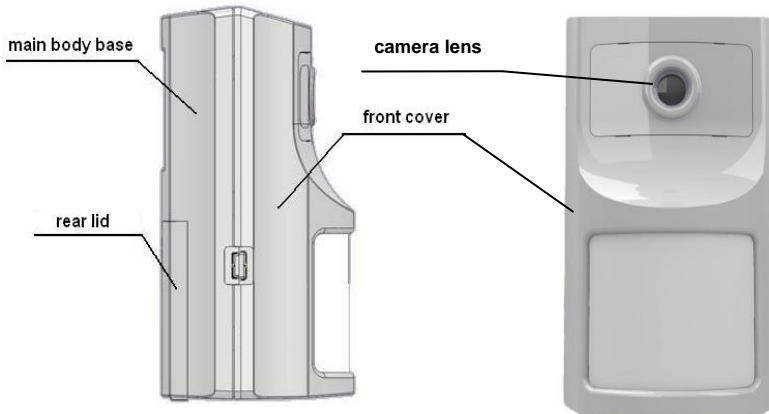
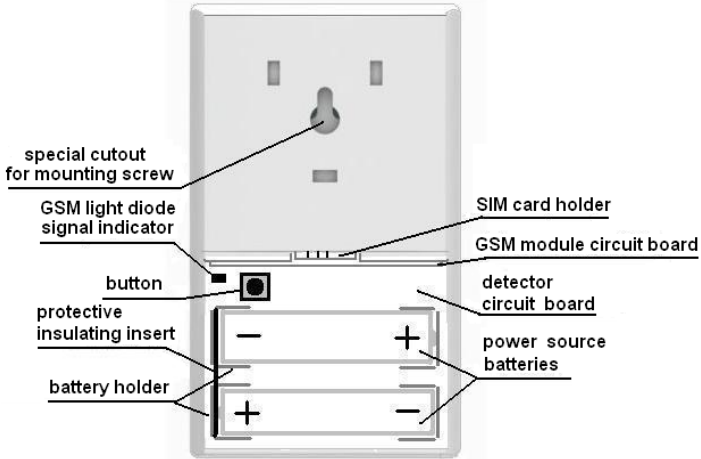


Fig. 1 Overview of the Motion Detector structural design.

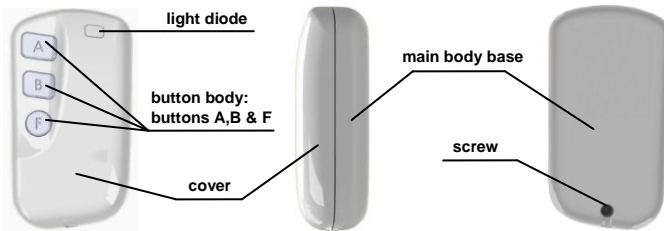


**Fig. 2 Motion Detector structural design with rear lid removed.**

### 1.5 Keychain Remote Control structural design

The Keychain Remote Control structural design consists of a base, a cover, button unit (3 button) and a light diode (refer to fig. 3).

Inside the Keychain Remote Control is a CR2032 Lithium 3v battery. In order to replace the power source, it is necessary to remove the screw, lift the cover, remove the depleted battery and then, observing polarity, install a new battery. Replace the cover and tighten it using the screw.



**Fig. 3 Overview of the Keychain Remote Control structural design.**

### 1.6 Device set-up and operation

#### Basic Motion Detector functions

The Motion Detector executes the following functions:

- detects movement within a 10m protected zone;
- places calls and transmits triggered SMS alarm messages to the telephone numbers registered on the Motion Detector SIM card;
- photographs the protected zone when triggered by penetration;
- transmits a photograph via GPRS to the e-mail address registered on the Motion Detector SIM card;
- transmits an SMS message confirming armed/ disarmed modes;

- requests remaining Motion Detector SIM card balance and transmits an SMS to the handheld mobile device;
- auto reset to armed mode;
- auto detection of telephone number for remaining Motion Detector SIM card balance and of GPRS\* settings;
- disarm alarm mode via a telephone call after triggered alarm.

\*Footnote- for mobile providers T-Mobile, AT&T, Orange & Vodafone.

### Basic Keychain Remote Control functions

The Keychain Remote Control executes the following functions:

- arms the Motion Detector using button "A";
- disarms the Motion Detector using button "B";
- requests remaining Motion Detector SIM card balance using button "F";
- quick exit out of programming mode using button "F" (see 2.3)

### Keychain Remote Control and Motion Detector indicators

The Motion Detector was designed with light and sound indicators. The GSM light diode on the detector circuit board indicates the state of the GSM network. The light diode on the Keychain Remote Control indicates armed/ disarmed mode, communication with the Motion Detector and balance inquiry. Indicator descriptions are detailed in Chart 3.

Chart 3 - Motion Detector and Keychain Remote Control Indicators:

Event	RC Indicator	MD Sound Indicator	"GSM" light diode Indicator
Power on	----	1 audio beep	----
GSM network search	-----	-----	Constant flashing 20-40 sec.
Successful GSM network registration	-----	3 beeps	1 time in 5 sec.
Erasing Phone book memory	-----	multiple short beeps	-----
MD Receive/ send SMS	-----	1 or multiple beeps	-----
RC successfully programmed	alternate red/ green flashes	1 beep	-----
RC previously programmed	alternate red/ green flashes	2 beeps	-----
Waiting for MD to confirm armed/ disarmed mode	briefly glows yellow	1 beep	-----
Enter armed mode	briefly glows red	-----	-----
Enter disarmed mode	briefly glows green	2 beeps	-----
Remaining balance inquiry via F button	flashes yellow	-----	-----

## Notifications

The Motion Detector transmits an armed/ disarmed status SMS message to "1SMS" (the 1st notification telephone number, refer to chart 4) as recorded in the SIM card memory and a triggered alarm SMS notification to the telephone numbers designated at "1SMS" – "6SMS" (figs. 4-6). Additionally, the telephone number designated at "1SMS" receives status and setting messages.

Status messages are dispatched at the time intervals programmed. The time schedule reference point is initiated and established upon receipt of the setting SMS.

The status message contains the remaining SIM card account balance.

When an alarm event is triggered, the Motion Detector transmits an SMS message and places an outgoing call to the 1st (primary) telephone number and then subsequently calls the additional telephone numbers.

The Motion Detector will terminate the outgoing call and proceed to call the next telephone in the following case:

- When the subscriber is in network, but does not pick up after 30 seconds.
- When the subscriber is in network, but the line is busy after 5 seconds.
- When the subscriber is in out of network, after 10 seconds.

Dialing out will cease when one of the dialed subscribers responds to the call (by picking up and/ or hanging up). Next, the Motion Detector will transmit an SMS "Alarm" text message to the telephone numbers located at "2SMS" – "6SMS".

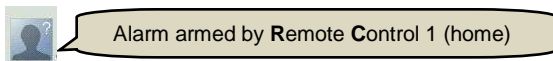


fig. 4 SMS "Armed"

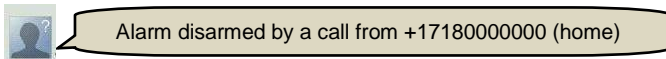


fig. 5 SMS "Disarmed"



fig. 6 SMS "ALARM"

(home)- Motion Detector label name- (see 2.5)

## Photographs

The protected zone is photographed not later than 1 second after penetration of the protected zone is detected. After all the SMS messages are transmitted, the photograph is e-mailed via GPRS. In the event the default settings are changed (see Chart 4, Cell#26 and Value#4); the protected zone can be photographed 2 times after penetration. The second photograph is taken with a delay of 6 to 30 seconds after the initial photograph, depending on the selected value parameter setting.

## 2 SET-UP PROCEDURE

### 2.1 Preparing the device for operation

Unpack and visually inspect the Motion Detector to make sure nothing is damaged or missing.

Prior to proceeding with set-up, de-activate the PIN code feature on the Motion Detector SIM card with the assistance of a GSM mobile telephone. (see user manual for the mobile telephone). Confirm that the SIM card has a credit balance and connects to GPRS/ Data.

In the event the SIM card was previously used, erase/ reformat the SIM card memory (see 2.4).

**Caution!** While handling and working with the Motion Detector, take care not to touch the camera lens with your fingers (fig.1). Touching the lens may result in poor picture quality.



## 2.2 Setting up the Motion Detector

At the initial power up using a new or an erased/ reformatted SIM card (see 2.4), the Motion Detector will create an entry in accordance with chart 4. Motion Detector settings 1-26 are stored in the SIM card memory and settings 27-31 are stored in the memory of the Motion Detector device.

Chart 4 - Motion Detector Settings

Cell# position	Cell label	Default value	Description	Available values
1	1sms	000	1st telephone number (primary) for notification	Enter number in the following format +1***** e.g.:+1718000000
2	2sms	000	Telephone numbers for notification	Enter number in the following format +1***** e.g.:+1718000000
3	3sms	000		
4	4sms	000		
5	5sms	000		
6	6sms	000		
7	BALANS	0	Remaining balance inquiry USSD	Auto detection of balance inquiry telephone number; manual entry of tel.# is possible; e.g.: *225#
8	RC#1	000000000	Unique individual Remote Control ID number; 000000000 value defines RC as not registered	Registers by pressing button on RC while in programming mode
9	RC#2	000000000		
10	RC#3	000000000		
11	RC#4	000000000		
12	RC#5	000000000		
13	RC#6	000000000		
14	TEST	7	Time interval for test/status SMS notifications	Sets time interval for test/status SMS notifications. Interval sets in days, hrs & min. (up to 30 days using two digits). e.g.: 2 - every 2 days 12* - 12 o'clock 40# - 40 min. 0- test/status notice not to be sent.
16	ArmDisarm	2	Sends SMS when armed/disarmed mode activated	0- do not send 2- send
17	AutoArm	60	Reset time interval after a triggered Alarm. After sending an Alarm notification, the Motion Detector pauses for 30-250 seconds prior to re-arming. A notification that the MD has re-armed is not sent.	Interval parameter must be between 30-250 seconds. e.g.: 0- one time Alarm 60- seconds 120- seconds
18	AlarmNot	1	Type of Alarm notification	0- Only SMS to 1sms...6sms 1- Call + SMS (SMS sent to 1sms, then calls placed to all tel. numbers, followed by SMS transmittal to all remaining tel. numbers @ 2sms... 6sms.

				2- Only determines detection zone & emits short audio tone; SMS not sent & calls not placed. 3- Only calls placed to 1sms...6sms
19	ArmDelay	40	Arming delay in seconds	Parameter should be between 15-250 sec.
20	NotDelay	0	Notification delay, after triggered alarm, in order to facilitate disarming in seconds	Parameter should be between 0-250 sec.
21	EcoBat	2	Battery economy mode	0- Battery economy mode. Disarms via Remote Control only after triggered Alarm. Efficient when the Motion Detector is on guard for long periods without the need for disarming. 2- Normal mode. Disarming via the Remote Control is possible anytime.
25	TriggerAlarm	1	Turns Motion Detector sound off/on during triggered alarm	0- on 1- off
26	Camera	2230	Camera Adjustments(four value digits)	Value digit #1: Image resolution: 1- 320 x 240 2- 640 x 480 Value digit #2: Image type 1- Monochrome 2- Color image Value digit #3: Image compression quality: 1 (low)...4(best) Value digit #4 0- Single photo only Delayed second photo: 1-(6sec.)... 9-(30sec.)@3 sec. intervals
27	Settings stored in device memory	---	Motion Detector name (signature on the photograph)	Up to 20 characters of text using the Latin or Cyrillic alphabet
28	Settings stored in device memory	---	E-mail	Typical format using Latin characters: abc@provider.com
29	Settings stored in device memory	---	Gateway address of the mobile operator (APN server address)	Up to 30 characters of text using the Latin alphabet

30	Settings stored in device memory	---	User name for the mobile operator	Up to 30 characters of text using the Latin alphabet
31	Settings stored in device memory	---	User password for mobile operator	Up to 30 characters of text using the Latin alphabet

### 2.3 Entering the programming mode

In order to access the Motion Detector programming mode, execute these following steps in consecutive order.

1. Install the SIM card as shown in fig. 7

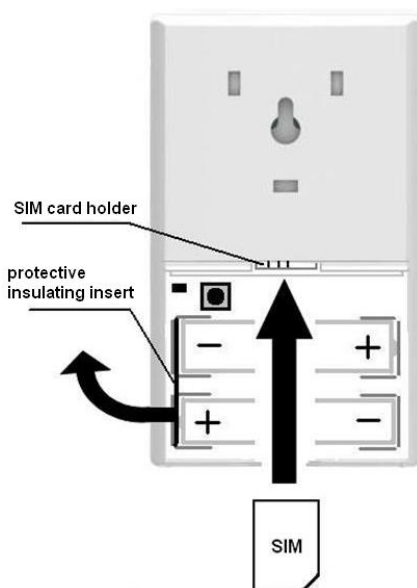


fig. 7 SIM card installation

2. Remove the protective insulating insert from the battery contacts as shown in fig. 7. If the protective insulating insert was previously removed, then remove the battery, wait 2 minutes, then re-insert the batteries making sure to observe proper polarity.

3. Wait until you hear a long single tone. The "GSM" light diode will glow for 3 seconds and will then proceed to flash rapidly.

4. Wait for the SIM card to register on the network. During the registration process, the "GSM" light diode will continue to flash. At the completion of the registration cycle, the "GSM" light diode will flash once every five seconds and will emit 3 audible tones. This confirms that the Motion Detector has entered the programming mode. If the "GSM" light diode continues flashing rapidly, it might mean that the SIM card is improperly installed is missing, access blocked by a PIN code or the GSM network is unavailable.



For a span of 3 minutes, the Motion Detector stands by to receive SMS notification(s) containing setting changes, inquiries from Remote Controls and incoming calls. At the conclusion of which, the Motion Detector will return to "Disarmed" mode and will transmit an SMS notification containing the settings to the primary telephone number.

In order to shorten, conclude and exit the programming mode, press the button on the Motion Detector circuit board for 1-2 seconds (prior to the 3 minute conclusion beep) or press the "F" button on the Remote Control.

#### **2.4 Erasing the phonebook and SMS messages**

In the event that the SIM card was previously used in a Motion Detector, it is mandatory to erase all previous SMS messages and phone book entries. To accomplish this, execute the following in consecutive order.

1. Confirm that the SIM card is installed as shown in fig.7.
2. Remove the protective insulating insert from the battery contacts as shown in fig. 7 or install batteries observing correct polarity in the event they were previously removed.
3. Not later than 5 seconds after the initial beep, press the button located on the Motion Detector circuit board, keeping it depressed until the start of numerous beeps.  
The erasure of the telephone book has commenced and is accompanied by the sound of numerous short beeps.
4. Wait for the short beeps to cease and after 3 seconds, the Motion Detector will re-boot.  
After erasure, the SIM card can now be utilized in future programming and set-up.

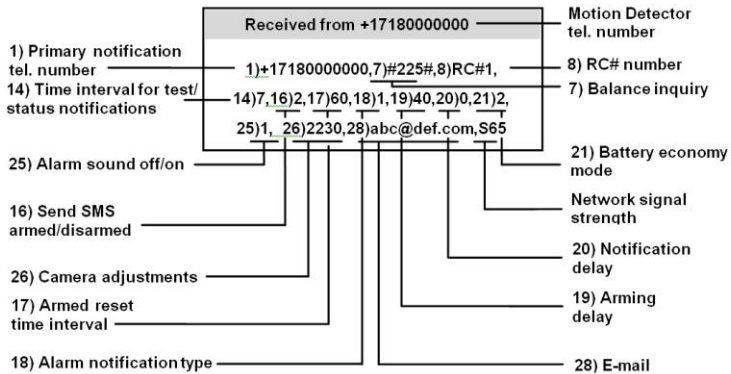
#### **2.5 Initial programming (set-up)**

After the Motion Detector powers up for the first time, cells with default values will be created in the SIM card telephone book. Later, you will be able to edit these values.

Execute the following in consecutive order.

1. Prepare, using the telephone you intend to designate as the primary number for notifications, an SMS message to be sent to the SIM card contained in the Motion Detector.
2. The text message must contain the Motion Detector designated name, the symbol & your E-mail. For example: home&abc@yourprovider.com; Home as the name of the Motion Detector is selected arbitrarily at your discretion.
3. Access and enter the programming mode on the device (see 2.3).
4. Within the span of 3 minutes after accessing and entering the programming mode of the Motion Detector, send the previously prepared SMS text message to the SIM card in the Motion Detector. The telephone number will register at cell#1- 1sms, the Motion Detector designated name at cell#27 and the E-mail at cell#28 (see chart 4).  
Should the registration of additional notification telephone numbers be required (see 2.7).
5. Press the button on the Remote Control in order to register it in the SIM card memory. This Remote Control will be registered at cell#8- RC#1 (see chart 4).  
During the registration process, the indicator on the Remote Control will alternately flash red/green. At the conclusion of the registration process, a beep is heard and the indicator light on the Remote Control will turn off.  
In order to register additional Remote Controls, repeat instruction- 4. for each Remote Control.
6. In order to shorten, conclude and exit the programming mode, press the button on the Motion Detector circuit board for 1-2 seconds (prior to the 3 minute conclusion beep) or press the "F" button on the Remote Control.
7. The primary designated notification telephone number will receive an SMS message containing the settings (see fig.8).

In the event you were not able to complete all the operations (e.g. send the SMS and register the Remote Control), remove the batteries, wait 2 minutes and repeat the procedure from the beginning.



**Fig. 8 Settings and values SMS**

After transmitting an SMS containing settings and values, the Motion Detector resets to the "Disarmed" mode.

### Set-up verification

1. Press the "A" button on the Remote Control. The indicator diode will flash yellow, then red and the Motion Detector device will emit a single confirmation beep. The Motion Detector will continue to emit beeps for 40 seconds, during which time the protected zone must be vacated (e.g. exit the room).
2. Wait for an SMS message to arrive containing the text "Armed RC 1 (Home)".
3. Wait 2-3 minutes and then enter the protected zone.
4. Wait for an SMS text message to arrive containing "ALARM (Home)" and for a telephone call from the Motion Detector.
5. Place a telephone call to the Motion Detector telephone number within 30 seconds.
6. Wait for an SMS text message to arrive containing "Disarmed via call from +1XXXXXXXXXX (Home)"
7. Check your e-mail for a photograph sent by the Motion Detector device.

## 2.6 Adjusting the settings

The settings that were installed during the initial power up are adjustable. The setting values can be changed utilizing three methods.

### First method:

The settings can be changed by using an online service such as <http://express.alpha-safe.com/en2/index.php> or by using the Express GSM Configurator, available for download in both Android and iOS applications.

An SMS message formatted by the Configurator will sent to the Motion Detector SIM card.

### Second method:

1. Remove the batteries from the Motion Detector.
2. Create an SMS message using parameter values in accordance with chart 4. For example, in order to change "Type of Alarm Notification", an SMS message should be sent to the Motion Detector containing the text: "18)0"; 18) being the cell# and 0 the parameter value. In order to change multiple parameter values, it is necessary to separate the parameter values using a comma. For example: "16)1, 18)0, 26)2121" etc.
3. Install the batteries observing correct polarity.



4. Wait for the SIM card to register on the network. During the registration process, the "GSM" light diode will continue to flash.  
At the completion of the registration cycle, the "GSM" light diode will flash once every five seconds and will emit 3 tones.
5. Send the previously prepared SMS message to the Motion Detector telephone number.
6. Wait to receive an SMS message confirming the changes.

*Third method:*

It is possible to change the parameter values utilizing a GSM mobile telephone. Install the Motion Detector SIM card into the GSM mobile telephone. In order to access the necessary parameter value, dial the cell# parameter value in question on the telephone in accordance with chart 4 and then press#. The telephone will enter the cell and the parameter value can be changed in accordance with chart 4.

For example; dial "1" and then "#". Cell#1 will open up. This is where the primary notification telephone number can be registered.

**Warning!** *Certain telephones do not support this function.  
This method cannot be employed to register Remote Controls.*

## 2.7 Adding a telephone number for notification messages

There are two methods to add a telephone number notification messages.

*First method:*

1. Access the Motion Detector programming mode (see 2.3). For a span of 3 minutes, the Motion Detector will stand by to receive incoming calls.
2. Place a call from the telephone number to be added to the Motion Detector.
3. Wait for the Motion Detector to drop the call.
4. Wait for the Motion Detector to emit a tone. The telephone number will be saved in an available cell at "2sms"... "6sms".
5. If it is necessary to add additional telephone numbers, repeat 2.-4. (In total, not exceeding 5 telephone numbers)
6. In order to shorten, conclude and exit the programming mode, press the button on the Motion Detector circuit board for 1-2 seconds (prior to the 3 minute conclusion beep) or press the "F" button on the Remote Control.
7. The primary telephone number for notification messages ("1sms") will receive an SMS containing the changed settings.

*Second method:*

1. Access the Motion Detector programming mode.
2. Send a previously prepared SMS message to the Motion Detector telephone number containing the following text (text is entered without the angle brackets): "2) +1xxxxxxxxxx, 3)+1yyyyyyyyyy, ..., 6)+1zzzzzzzzz", 2)...6) being the cell# position (see chart 4).  
+1xxxxxxxxxx, ...+1zzzzzzzzz - Notification telephone numbers.  
The numbers will be recorded in available cells "2sms"... "6sms".

For example:

- "2)+17182222222"- to add one additional notification number;  
"2)+17182222222,3)+17180000000"- to add two additional notification numbers;  
"2)+17182222222,3)+17180000000,4)+17181111111,5)+17183333333,6)+17184444444"- to add five additional notification numbers.

3. The Motion Detector will beep once for each telephone number added.
4. In order to shorten, conclude and exit the programming mode, press the button on the Motion Detector circuit board for 1-2 seconds (prior to the 3 minute conclusion beep) or press the "F" button on the Remote Control.
5. The primary telephone number for notification messages ("1sms") will receive an SMS containing the changed settings.

## 2.8 Erasing notification message telephone numbers

In order to erase a telephone number from the notification list, perform the following operation.

1. Access the Motion Detector programming mode (see 2.3).
2. Send an SMS to the Motion Detector telephone number containing the following text (text is entered without the angle brackets): "2)000"- to erase the second notification telephone number, "3)000"- to erase the third notification telephone number, etc.. In order to erase a few telephone numbers at once, separate the designated parameter values with a comma. For example: "2)000,3)000,4)000,5)000,6)000"- this erases all the additional notification telephone numbers.
3. The Motion Detector will beep once for each telephone number deleted.

## 2.9 Erasing a Keychain Remote Control

In order to erase a previously registered Keychain Remote Control, perform the following step by step operation.

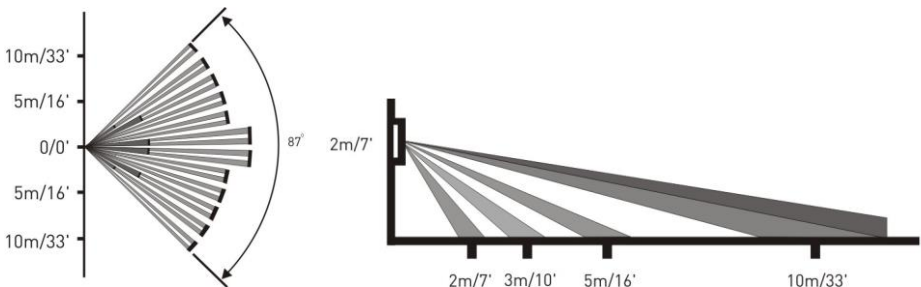
1. Access the Motion Detector programming mode (see 2.3).
2. Send an SMS to the Motion Detector telephone number containing the following text (text is entered without the angle brackets): "8)000000000"-erasing remote control 1, "9)000000000" erasing remote control 2, etc.. In order to erase a few Remote Controls at once, separate the designated parameter values with a comma. For example: "8)000000000, 9)000000000, 10)000000000, 11)000000000, 12)000000000, 13)000000000"- this erases all the registered keychain Remote Controls.
3. The Motion Detector will beep once for each Keychain Remote Control deleted.

## 2.10 Installing the Motion Detector

Install the Motion Detector in the zone to be protected at a location where it will be protected from exposure to atmospheric precipitation, physical damage and access by any unauthorized personnel.

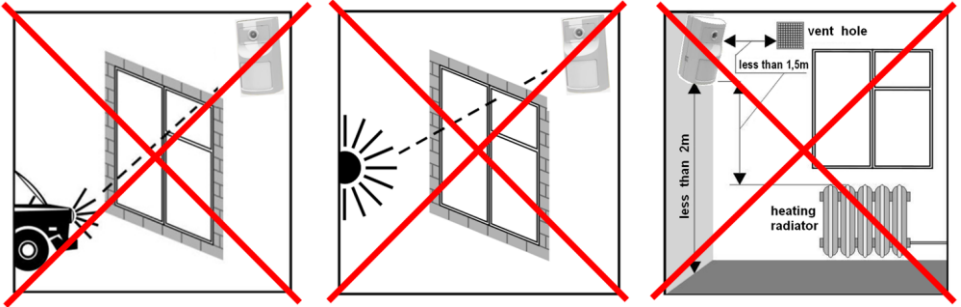
The Motion Detector should be installed in a manner that takes into account the likely path of a violator crossing into and through the axis of the protected zone. The recommended installation height is approximately 2 to 2.5m or 6 to 8 ft..

At an installation height of 2m/ 6.5 ft., the detection range is approximately 10 m/ 32 ft., at a field of view of 87 degrees (see fig.9)



**Fig.9 Diagram of the detection zone**

Do not install the Motion Detector near heat sources (fireplaces, stoves, air conditioners, heating radiators) or in any location exposed to strong air flow or direct sunlight (see fig. 10)



**Fig. 10 Examples of improper installation**

The wall on which the Motion Detector is mounted should not be subject to vibration. The Motion Detector should be kept at a distance from high voltage electrical wiring.

The presence of objects in the protected zone, such as furniture, screens, plants, etc., might create "blind spots", possibly hindering the detection of human presence.

Follow these steps in order to install the Motion Detector:

1. Select a location on the wall for installation taking into account the special cut out opening on the back of the Motion Detector main body base (special cut out opening- see fig. 2).
2. Install the screw.
3. Attach the Motion Detector.

In order to evaluate the sensitivity of the Motion Detector in the detection zone, set the parameter value at "AlarmNot"=2 (see chart 4, cell 18).

Move about thru out the zone in order to evaluate the sensitivity of the Motion Detector.

**Warning!** After evaluating the detection zone, reset the parameter values at "AlarmNot" to 0 or 1.

### 2.11 Arming and disarming the Motion Detector device

Armed/disarmed alarm modes of the protected zone are controlled via the Keychain Remote Controls programmed and registered with the Motion Detector.

To arm alarm mode briefly (1-2 sec.) press the "A" button on the Keychain Remote Control. While waiting for the Motion Detector to respond, the Keychain Remote Control light diode glows yellow. Wait for the Keychain Remote Control light diode to blink red. The armed mode delay will be activated (40 second default setting, see chart 4, cell 19). At the conclusion of the delay, the Motion Detector will enter armed mode.

To disarm alarm mode, press the "B" button on the Keychain Remote Control. While waiting for the Motion Detector to respond, the Keychain Remote Control light diode glows yellow. When the Motion Detector enters disarmed mode, the Keychain Remote Control light diode blinks green.

If the cell "ArmDisarm" (see chart 4, cell 16) is set to parameter value "2", the primary telephone number will receive an SMS containing the text "Armed" (Home) or "Disarmed" (Home) (see fig. 2,3).

In the event the Keychain Remote Control button is pressed more than once, prior to the Armed or Disarmed SMS mode status being sent, the SMS notification will contain and reflect the most recent occurrence.

If a violation occurs during the Armed mode (the protected zone is penetrated), the Motion Detector will transmit an SMS notification containing the text "Alarm(Home)" (see fig.4) and/or start placing calls to the designated telephone numbers depending on the notification parameter value selected (see chart 4, cell 18).





If a notification delay is designated (see chart 4, cell 20), then the Motion Detector will wait out the designated delay and then start the notifications.

If the notification delay is set at 0-20 seconds, the Motion Detector will without any further delay, start the notifications, due to the notification delay compensating for the time required for the GSM module to power up and the SIM card to register with the mobile network. The time needed for the GSM module to power up and for the SIM card to register with the mobile network is approximately 10-30 seconds.

After the Motion Detector concludes transmitting the notifications, it e-mails a photograph via GPRS and then stands by for 30 seconds to receive an incoming call from registered telephone notification numbers at "1sms"... "6sms" to be Disarmed. Upon receipt of an incoming call, the Motion Detector will drop the call and will send an SMS notification containing the text "Disarmed via a call from +1718xxxxxx (Home) (if the "ArmDisarm" cell contains a "2") and will enter "Disarmed" mode. It is also possible to enter disarmed mode after an alarm by using a Keychain Remote Control (The Motion Detector sends an SMS "Disarmed by RC1 (Home)").

### 3 Troubleshooting

Chart 5 – Troubleshooting

Issue	Possible reason	Solution
No sound beeps and GSM light diode flashes on the Motion Detector after installing batteries	<ol style="list-style-type: none"> <li>1. Batteries incorrectly installed;</li> <li>2. Dead batteries.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove &amp; properly re-insert the batteries, check polarity;</li> <li>2. Install 2 new batteries: AA LR6 1.5v.</li> </ol>
When Arming/Disarming (Pressing buttons "A" or "B" on the Remote Control) no response from the Motion Detector (RC light diode glows yellow- no red or green flashes-see chart 3)	No connection with the RC because the distance with the Motion Detector exceeds 15m/ 50ft	Reduce the distance to the Motion Detector (without violating the protection zone)
At Motion Detector power up (Battery installation) the "GSM" light diode frequently flashes, but does not enter the 1 flash every 5 seconds mode (SIM card not registering on the network)	<ol style="list-style-type: none"> <li>1. No SIM card installed</li> <li>2. SIM card improperly installed;</li> <li>3. SIM card PIN code locked;</li> <li>4. GSM network inaccessible.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify the presence of a SIM card;</li> <li>2. Remove the SIM card and re-install as shown in Fig.7 of this manual;</li> <li>3. Turn off the PIN code request mode on the SIM card using a GSM telephone (see tel. user manual).</li> <li>4. Take action to determine reason for no GSM network access.               <ul style="list-style-type: none"> <li>a-Change the location of the MD for better GSM network reception (in accordance with installation instructions described in 2.10 of this manual);</li> <li>b-Change the mobile operator used in the Motion Detector.</li> </ul> </li> </ol>
When pressing the buttons on the RC, no flashing lights and no sounds (in accordance with chart 3)	Dead battery	Install a new battery- 1x CR2032 3v Lithium

#### 4 Contact Information



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#### 5 Warranty Coverage

The warranty period is one year from date of purchase. During the Warranty period, the manufacturer will repair, exchange, adjust, or replace at its discretion, any defective product. This warranty does not cover damage resulting from any unauthorized attempts to repair or from any use not in accordance with the instruction manual. The warranty does not cover physical damage of any kind whatsoever nor does it cover damage caused by any attempt to tamper with or disassemble the product. The warranty coverage does not extend to the batteries. The warranty period commences on the day first purchased from the manufacturer or an authorized reseller as evidenced by a purchase receipt. Without a valid purchase receipt, the manufacturer is relieved of its obligation to provide warranty service.



**FOR NOTES**

EXPRESS E3 - security that never sleeps



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