

## **Motion detector Standalone Security System SA-2000**

### **Question and Answer for the SA-2000 system**

#### **What is included in an extension pack of magnetic sensor?**

2 magnetic sensors and connection lines of 20meters are included. You may use it by cutting it to meet your requirement. If you need more, you may purchase an extension pack. For your reference, our magnetic sensor is a product of AMSECO in USA that has been widely recognized of its excellent quality worldwide. Of course, it is much more expensive compared with other products. In addition, we specially manufactured the connecting cable in white color. White connecting line is not readily available in the market. You can purchase it only at the dealer you bought SA- 2000 from.

#### **Can SA-2000 detect intruder if we put it on a TV or a refrigerator instead of wall?**

This product takes the form of beam with the detection distance of 8 meters, detection range of 80 degrees in horizontal and 20 degrees in vertical. Hence, it can detect even if you install it on a desk with the height of 75 cm on the average. But please note that the detection degree of vertical direction can be decreased if you install deep inside of say table and desk.

#### **When I connect the magnetic sensor, it doesn't work?**

First, please check whether you have correctly installed the magnetic sensor. Since the sensor is operated magnetically, it does not work if the magnetic sensor gap is too wide and direction is not correct. Make sure you are fully familiar with the installation angle and direction in a straight line shown in the manual. Before installing the magnetic sensor at the place you want, be sure to place it on the desk or the floor. Then check whether the LED light on if you turn on the switch of the main body. Attach the sensor, and LED is switched off, if you set it apart with some interval. You'd better check it in advance whether main body itself has some problem.

#### **In case of magnetic line connection, can normal electric cord or phone wire be used?**

Yes. But if wire is too thick, installation job can be difficult and more electricity will be used. Therefore recommended wire should be used.

#### **Is there any way to use the SA-2000 with key phone?**

No. It is impossible to use SA-2000 with the phone line connected to key phone system. But if an office has a keyphone it doesn't mean that SA-2000 can't be connected to other phone. Only key phone can't be used. If all the phones in an office are key phones, you can still connect the SA-2000 to the fax machine line.

#### **In case of magnetic sensor connection, does infrared sensor also detect?**

Attention should be given in installing magnetic sensor so that they head toward same direction and two sensors should not be apart each other by more than 5mm. With wrong magnetic sensor installation, LED light will not appear when the user puts power switch on level 2. Then in two seconds, beeping warning sound will go off. If the wrong installation remains incorrect and the user goes outside, both the sensors will not function.

**The first paging comes but the second paging fails. What is wrong?**

First accurate understanding of A, B, C input buttons are needed. A, C are for phone and B is for pager only. Therefore it should be checked whether B button had been used. And the first and second paging occur consecutively not simultaneously. (Just as one phone is only able to make one call at a time) If it is not the case, the flaw may lie in cell phone and product input button defect.

**Can siren sound be turned up?**

In case of SA-2000, the siren level is 90dB. (When measured 1M away from it.) As SA-2000 is for indoor usage only and such level means that the siren can be heard from hallway with door closed in 1,067 Square Feet apartment. This is enough for scaring off intruder at home and office. Raising siren level is up to the design of other parts like output and speaker. It is desirable to set proper siren level relative to the product size.

**Though power switch is turned on, there is still no light?**

In this case, there are three possibilities. The user's mistake, battery defect and incorrect installation of magnetic sensor. User's mistake : check whether battery is properly inserted or there had been any shock to the product.

Battery defect : It is possible that a faulty battery had been inserted. Even one faulty battery can cause malfunction/like no lighting. In this case, new batteries should be inserted. Wrong installation of magnetic sensor: In case of using magnetic sensor, the wrong installation (direction is not right or chasm is made) causes no lighting with power switch on. In particular, if the user puts power switch on level 2, a beeping warning sound will go off. Check again whether magnetic sensor is properly installed. If none of the three is the case, there is a product defect. Replace it with new one at dealer.

**In case of listening to site sound, is the listening time shortened according to how late user picks up the phone?**

Yes. Our product is programmed with **Motorola chip** and is activated only within the standard-approved time frame. Therefore, all products will be activated with the same time frame. The later the user picks up the phone, the shorter the listening time gets. (For example, if the user picks up cell phone after five rings, the listening time will be 35 seconds minus 15 seconds (the ringing time) from 50 seconds (total time))

**What is the anti-malfunction program explained in the manual?**

The anti-malfunction program is designed to prevent instant sensor detection due to external factors by letting it alert to user if same sensor detection occurs twice. It is programmed in case external factors like wind and strong light affect detection.

**After power switch is turned off, the light is still on.**

In this case, the user must have pushed keypad and Reset Key. User of our product requires pushing each button on 'OFF mode'. If key is input on 'ON mode', one of internal components (as electronic features) cause Short. Such problem is caused by measures designed against an instant high voltage flow.

**Phone alert doesn't occur but siren keeps going off. What is wrong?**

In this case, basic check is first needed. It should be checked whether keypad input sound can be heard after switch off, the number is properly input (check A, B, C) , and phone line is properly connected. If none of the above is the case, the flaw lies in the phone line itself, it may have been directly connected to key phone, an instant problem with mobile base station, or defective product. Accurate input as well as phone connection check is important.

**How can we distinguish the calls between SA-2000 and a normal phone?**

Call from SA-2000 has "beeping" sound every four second, which is easily distinguished from a phone.

**The ON/OFF function is inconvenient. Can the function be controlled outside?**

Outside control and remote control function are in the development for our next model. If the user finds ON/OFF function inconvenient, it is because the SA-2000 is mounted at a high place. Without any obstacle, installing SA-2000 0.8-1.5 M above ground is enough for detection. SA-2000 can be put on desk, table or electronic appliance at home or office in order to get the easiness of installing SA-2000.

**When an alert comes by a wire or cell phone, does voice message come with it?**

In order to receive voice message, a voice chip must be built in. In this case, it notifies where the alert come from. However, the use of voice chip prevents an immediate sending of site sound to the user. Our SA-2000 gives off the beeping sound at the interval of four seconds.

**Can adapter be used on the SA2000 and what is the voltage and ampere?**

The most used adapter for this product is 9VDC/600mA which is adopted for standard approval. Therefore 9VDC/600mA (for SA-2000 only) is advised but the user still can use normal 9VDC/500mA or 9VDC/300mA.

**Is it possible to install magnetic sensor at steel door?**

Yes but this magnetic sensor is a special type not supplied in this system. If you need them please contact your security system dealer, they will be able to supply you. As it is already known, magnetic sensor has magnetism. In case of steel door, the magnetism will be directed to the door, which will keep the sensor from functioning properly. Therefore, it is wise to avoid installing sensor at a steel door but in an inevitable case, a pad (cardboard, two-way sticky tapes, wood piece) should be laid at the steel door.

**Is it possible to detect in dark places?**

Yes as SA-2000 detects the heat of a living creature, it can detect in dark place.

**If an obstacle obscures the SA-2000, can it still detect an intruder?**

No, Since it detects the heat of a living creature, if conduction of heat is hampered, the detection will be difficult. Therefore special care should be taken in order for any object not to obstruct the sensor. And it will be effective if provided magnetic sensors are used for doors (windows, room doors) where detection is expected to be difficult.

**Can pet birds or small insects like cockroaches be detected?**

SA-2000 uses PIR sensor. It means SA-2000 detects moving objects with heat detecting sensor. Therefore, it detect not only large animals but also small pet dog, bird and mouse. But in case of small animal like a mouse. It's possible that the sensor fails to detect if it isn't right in front of the sensor. (Cockroaches can't be detected)

**The phone in use has extension number system. However, although pager number dialed with extension number, no alert occurs after detection. What should be done?**

In this case, the switcher in use is an old model. Push extension number first, then push the PAUSE key and the phone number to call. It should be checked first whether local call, long distant call or a call to mobile phone are possible with the phone connection to SA-2000.

**If the intruder detected by SA-2000 is not an intruder but a family member, how can the user distinguish?**

In case of a family member, they should previously agree to pick up the receiver at the site in order to have two-way communication. The mutual identification will prevent the mishap of reporting an intrusion by a family member and if necessary, a message can be delivered.

**If to install at more than two places, should the user buy two units of SA-2000?**

Yes. If not, the user can use many magnetic sensors. However, if more infrared sensors are needed for spatial reason, user should buy more SA-2000. Even with one phone line, multiple SA-2000 can each be connected to them.

**What if a call is coming from SA-2000 but the user can't pick it up or the line is busy?**

For such case, two communication devices can be installed for ensuring the user receive the warning. For more security, it is advisable to use extra phone services like call waiting service or incoming call conversion service. Or use pager with high receiving rate. It may be asked if it is safer to have multiple alert time functions. Technologically, it is possible but practically it will be difficult and ineffective as each alert function has to be input and above all the total alerting time will be lengthened (about 7 minutes) because of the inability of simultaneous alert through wired phone. It will also cause a problem in re-sensor function. It will be far more effective to have two well- functioning time alerts rather than multiple alerts giving off a quick warning sound and re-send the warning (SA-2000 can do this within 2 minutes.)

**If SA-2000 is turned off due to discharged battery and the user doesn't know it, isn't it dangerous?**

If battery is dead, red light at display lamp will not be on at the time of turning on the power switch. That works as the first warning. If power is weakened, the user will hear lower beeping warning sound until the battery is replaced with new one. So it is unlikely that battery will dead without user know it. It should be noted that the warning sound would keep going off even when the power switch is off without new battery.

**Is there any way to de-activate the siren when user wants to check coming or going person only?**

Place power switch at level 1. This will give the user an intrusion alert without setting off the siren. If the user puts the switch on level 2, siren will go off after alerting phone number in order to expel the intruder. On the contrary, if the user wants siren function only minus phone call warning, all he/she has to do is to remove the phone jack attached to the back of the product. If the user wants magnetic sensor function only, cover the sensor window with sticky tape or large POST-IT.

**How long can the magnetic sensor line be?**

According to Lab test, up to 100m possible. However, it is advisable to use the line within 50m. If more than one sensor is connected, the usable time of the battery will be reduced because it consumes more power. Therefore, we recommend to purchase and use the AC adapter for SA-2000.

**What is the life span of the battery life?**

The battery can be used for approximately one month even with 24 hours operation. However, it will be reduced if the detecting sensor and siren are frequently activated.