Operation Manual for RF Motion Detecting Alarm

The alarm consists of a transmitter and a receiver. The transmitter is incorporated with a PIR motion detector. Whenever a motion of human or large warm blood animal is detected, the transmitter will send out a RF alarm signal. Upon receipt of the RF alarm signal, the receiver will make calls of pre-stored phone number(s) and play a pre-recorded warning voice message.

A.   Installation of the system

1.   Select the **SAME** ID for both transmitter and receiver with DIP-switches provided.
2.   Connect the receiver to telephone line with the cable provided.
3.   Insert the DC jack of the Power Adapter provided to the DC socket. Plug the adapter to the mains socket.
4.   The receiver will generate repeated beep sounds and the following display will appear.

E 00-00-00	blinking
(hh-mm-ss)	

(E) indicates that transmitter with the same ID has not been detected.

Press [disarm] will stop the beep sounds and display blinking. The (E) will not disappear until a valid acknowledgement signal of same ID is received. The receiver can not be "armed" until the (E) disappears.

5.   Take the transmitter to where intended to install. Install batteries to the transmitter to initiate its operation. *[Remove and re-install the batteries even batteries have been installed before]*

6.   The beep sounds stop and the (E) disappear indicating that the transmitter and receiver are working properly.

If the receiver keep on beeping and the display remain no change, please check

1.   If the IDs of the transmitter and receiver are not the same.

2.   If batteries are installed in the transmitter properly.

3.   If the DC jack is inserted to the receiver and the adapter is plugged to the mains socket properly.

4.   If the transmitter is located within the transmission range of the receiver (normally 10m from the receiver).

B. Transmitter

When batteries are installed, the transmitter will run automatically. No special operation is necessary.

The transmitter will send out signal on the following conditions:

1. Power up -

    Upon installation of batteries, the transmitter will send an acknowledgement signal to indicate its presence.

2. Acknowledgement -

    The transmitter will send an acknowledgement signal for every 70 minutes to tell the receiver that it is still exist and working properly.

3. Motion detected -

    When motion is detected, the transmitter will send an alarm signal.

A 4-bit user selectable ID is embedded in signals sent out. Only the Receiver with same ID will accept the signals.

A 4-bit DIP switch is provided for selecting ID from (16 selection from 0000 to 1111).

Detection Range of the PIR motion detector
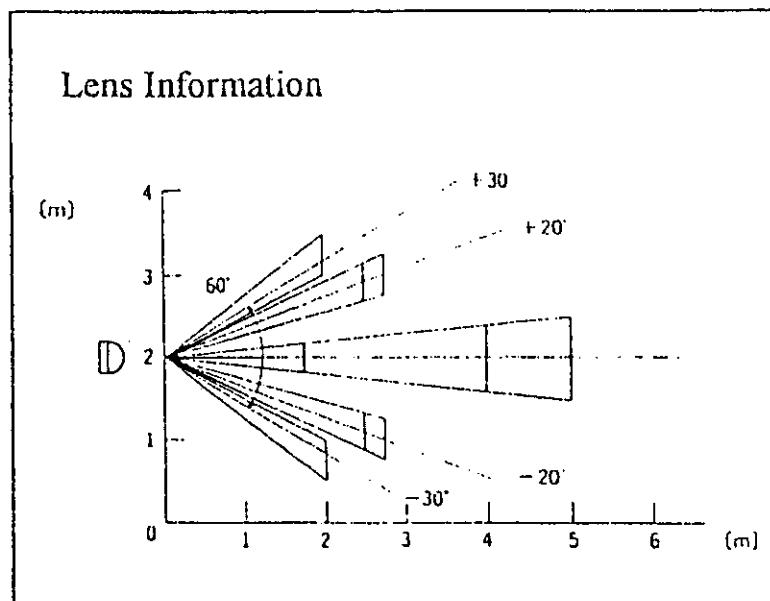
C. Receiver

The receiver normally works as a clock of 24-hrs format. Even no transmitter is detected, the clock will start to run after power up.

Function keys

[set/del]	set time; backspace when setting time and editing phone number.
[arm]	enter into alarm mode
[disarm]	exist from alarm mode
[mem]	edit phone number
[0] to [9]	for time and phone number input
[*], [#]	for phone number input

When a key is pressed, the receiver will generate a continuous beep sound until the key is released. No action will be taken whenever an invalid key is pressed during normal operations.

Operation

1. Set Time

    a. Press [set/del] for at least three seconds, the beep sound will stop. The display begin to blink and (_) appear on the M.S.B. of Hour.
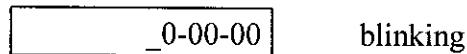
_0-00-00	blinking

    b. Press number keys [0-9] to set the correct time. The (_) will shift to the digit to be set after a valid is key is pressed. After input of 4 digits of time (HH-MM), the clock will start running again with second reset to 00 and return to normal clock mode.

    c. [set/del] serves as backspace when setting the time.

2. <u>Edit Memory (Phone Number)</u>

    2.1   Inspect memory

    a.   Press [mem], blinking (P) will appear on the left most digit of the display indicating that memory location is expected.

```
| P              |          blinking
```

    b.   Press [1] or [2] or [3] to select corresponding memory location

    c.   The memory content of the selected location will be shown on the display. If the location is empty, (E) is shown at the right most digit.

```
|              E |          empty location
```

    d.   Press [mem] again to return to clock mode

    2.2   Add new phone number

    e.   Repeat (a) to (c) to access the selected memory location. (E) shown on the display indicates that the location is empty. Simply input the phone number with keys [0 to 9], [*] and [#].

    f.   [set/del] serves as backspace when adding phone number.

    g.   After the phone number is entered, press [mem] again to store the number in memory and return to clock mode.

    h.   If 12 digits (including [*] and [#]) are entered, the number will automatically stored in memory and return to clock mode.

    2.3   Delete/Change stored phone number

    i.   Repeat (a) to (c) to access the selected memory location. The stored phone number will be shown of the display (The number can not be revised by number keys).

    j.   Press [set/del] to delete the whole number. (E) will be shown at the right mode digit to indicate that the location is now empty (same as in c).

    k.   Repeat (e) to (h) to enter a new phone number if necessary. If no new phone number is necessary to be added, press [mem] to return to clock mode and the location will remain empty.

3. Arm

Press [arm] to enter into alarm mode.

At least one phone number should be stored in memory in order to enter into alarm mode. If all 3 memory locations are empty, press [arm] will return to clock mode after (E) appear at the right most digits of the display for 1 second.

```
┌──────────────────────┐
│                    E │
└──────────────────────┘

┌──────────────────────┐
│            12-30-01  │    after 1 second
└──────────────────────┘
```

After entering into alarm mode, the location number stored with phone number will appear on the display together with the clock. The display will blink for about 4 minutes. The receiver will not accept alarm signal until the display stop blinking.

```
┌──────────────────────┐
│ 123       12-35-04   │
└──────────────────────┘
```

Whenever alarm signal is received from a transmitter with same ID, the receiver will first wait for 2 minutes, then dial the phone number(s) stored in memory and play the voice message recorded.

Operation upon receipt of alarm signal

a. alarm received
b. wait for 2 minutes
c. 1. dial phone in memory location 1, play the pre-recorded warning
        voice message for 6 times
    2. repeat (1) for memory location 2
    3. repeat (1) for memory location 3
d. wait for 4 minutes
e. repeat (c) & (d)
f. repeat (c)   *[each number will be dialed for three times]*
g. f. the display will blink for 30 minutes

● In (b), press [disarm] exit from alarm mode and stop dialing.
● Starting from (c), all keys except [record] and [play] are disabled until completion of (f).
● In (g), the receiver will not accept alarm signal until the display stop blinking. Press [disarm] will stop the blinking and return to clock mode.
● When all number has been dialed for three times (after (f)), three blinking dots will appear at the left most digits indicating alarm has been triggered. The dots will disappear only when [disarm] is pressed.

```
┌──────────────────────┐
│ 1...      12-45-26   │    only the dots blink
└──────────────────────┘
```

● When the receiver is waiting for dialing, the dot of the right most digit blinks in (b), while appears constantly in (d).

4. Disarm

Press [disarm] will exit from alarm mode and return to clock mode. Memory location number(s) will disappear from the display.

5. Recording warning voice message

Press [record] key to record warning voice message of about 12 seconds.

a. Press [record] key to start recording
b. LED turn on.
c. Approach to the panel of the receiver and speak out the expected warning message.
d. Release the [record] key to terminate the recording procedure
e. the LED turn off. *[The recording procedure will terminate as well when the recording capacity is used up.]*

Press [play] key to hear the recorded message. Repeat the recording procedure for changing warning message.

6. Periodic Acknowledgement

The receiver should receive acknowledgement signal from the transmitter within 2 hours. If no valid acknowledgement signal is received, the receiver will assume the transmitter is not present, run out of batteries or out of order, repeated beep sounds will be generated, (E) will appear at the left most digit of the display and the display will blink.

| E   14-28-09 | blinking

Press [disarm] will stop the beep sounds and display blinking. However, the beep sounds and display blinking will appear again after 2 hours if valid acknowledgement signal is still absent. The (E) will disappear only if a valid acknowledgement signal is received.

Check the batteries and repeat the installation procedure to restart the system if so happen.

7. Optional Memory Backup Battery

2 AA batteries may be installed for retaining stored phone number(s), warning message and the working status of the receiver, but not the operation of the receiver. Installation of the batteries at any time will not affect the normal operation of the receiver.

It is recommended that the installation procedure should be performed if the DC power supply of the receiver is disconnected or switched off even the memory backup battery is installed.

D. Important Notes:

- If two or more alarm systems are installed closed to each other (within 20 m), make sure the IDs of each system are NOT the same. It is recommended to select ID with both 0 and 1, i.e. 0000 and 1111 should be selected with lowest priority.

- According to comments from the manufacturer of the PIR motion detector, the transmitter is not recommended to be used in the following or similar conditions:

  a. environment with rapid temperature change
  b. strong shock or vibration area
  c. obstructing material (e.g. glass, wood and etc.), through which IR cannot pass, between the sensor and the object to be detected
  d. direct exposure to sun light, heater or air conditioner

- The transmitter must be installed within detection range of the PIR motion detector from where motion-detection is expected. Please note that detection range of the detector is NOT the same as the RF transmission range.

- The RF transmission range of the transmitter is 10m from the receiver. However, if obstructing material (e.g. concrete wall, metallic partition and etc.) is located between the transmitter and receiver, the effective range would be much shorter, or they even could not communicate properly.

- The receiver should not be located near to equipment with high RF radiation.

- The receiver should not be located within the transmission range of other RF transmitters of the same operation frequency, namely 315MHz. Conversely, the transmitter would influence the performance of other RF receivers of the same operation frequency.

- Rechargeable batteries are not recommended.

USED MANUAL INSERTS FOR PART 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning : Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.
- Consult the dealer or an experienced radio / TV technician for help.

Model number : 50101
Product nane   : SmartScan Security System

The Responsible party information:-

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