



Secur*alert*™

HYBRID SYSTEM

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I- ABOUT THE TECHNOLOGY

A- There are choices related to technology

- Radio frequency (RF)
- Infrared
- Ultrasound
- Mix (hybrid) technologies (IR and RADIO or Ultrasound and radio)

TECHNOLOGY COMPARISON CHART

	Radio	Infrared	Ultrasonic	HYBRID IR & RADIO	SECURALERT GEN II
GENERAL					
Signal goes through wall and ceiling	YES	NO	NO	NO	NO
Signal travels	(omni directional) All direction	Straight line	(omni directional) All direction	Straight line and OMNI	(omni directional) All direction
Precision	None or very small	1 room	1 room	1 room	1 room
Multi floor	NO	YES	YES	YES	YES
OUTDOOR operation	YES	NO	NO	YES	YES
Position calculation	Triangulation or signal statistic	statistic	DIRECT no calculation	Triangulation or signal statistic	DIRECT no calculation
Time required to associate a transmitter with a room	Does not work	5 sec. to unlimited	2 sec. typical	5 sec. to unlimited	2 sec. typical
Time from alarm activation to message on pager or display under 5 seconds typical	NO	NO	YES	NO	YES
SUPERVISION	YES	NO	NO	YES	YES
Works alone (without hybrid technology)	YES	NO	YES	----	---
Maintenance cost and calibration	REGULAR & COMPLEX	REGULAR	ANNUAL,SIMPLE	REGULAR & COMPLEX	ANNUAL,SIMPLE
TRANSMITTER					
User must point out receiver	NO	YES	NO	NO/YES	NO
Works if the unit is partially covered by shirt or smock	YES	NO	YES	YES/NO	YES
RECEIVER					
Receiver may be hidden	YES	NO	YES	YES/NO	YES
Position of receiver is critical	YES	YES	NO	YES/NO	NO
Will work, no matter the position or situation of the user (falling down behind a bed, moving fast, running, staying still)	YES	NO	YES	YES/NO	YES
Battery operated for more than 2 years	NO	NO	YES	NO	YES

= GOOD, = PARTIALLY

➤ Ultrasound is the best technology when you have to pinpoint the exact location inside a building.

No matter what happens:

- 1) The button doesn't have to be in line of vision with the receiver.
- 2) The signal from the panic button will be received by the receiver in a few seconds.

➤ RF is not a reliable localization technology as radio waves are not a perfect circle. They are not stable (each time you send the signal, the waves are different) and also the radio waves cross walls, ceilings and floors but they are stopped by water, steel/iron, armed concrete, human body, etc.

➤ Infrared does not work alone.

➤ HYBRID TECHNOLOGY

When you combine IR and radio you still have a weakness in precise localization because both use indirect method and calculation resulting in longer reaction time and margin of error.

In conclusion

Combining Ultrasound and Radio enable outdoor and full supervision to basic precision of ultrasound.

B- Installation: easy and fast

➤ We put an ultrasound receiver (RS900) in each room where you want to know the exact location. The RS900 is wireless (can be also linked with hardwire) with a battery life of 5 years (they are very easy to install and also can be moved if required). In a room of 50 feet by 50 feet, the receiver is placed in the middle of the room. A larger room will need more receivers and a smaller room can have a receiver installed anywhere. We can also put radio beacons on each floor and outside areas if needed. Where some areas have a low risk of aggression, a zone will usually appear when an alarm is activated.

➤ We install the Securalert central in the appropriate room and make sure we will receive the signal from all the receivers (RS900). We put the repeater if it's needed.

➤ The RS200 can be link (with dry contact) easily to a third party system.

➤ We adapt to your specific needs (warning devices):

- Use pagers or display panels located on strategic spots.
- Tie to your existing overhead paging system.
- Give you the opportunity to have additional graphic display and also to manage the events if you want it with a simple network cable so that you will be able to see what happens on a bigger screen in your office.

➤ We make sure everybody has a wireless panic button. When pressed, the panic button (TS300-HYBRID) searches for an ultrasound receiver, usually the first 10 seconds, to give the exact location and if it's a low risk area, the central will receive a zone instead of an exact location. The TS200 is usually use with the RS200 and it operating with Ultrasonic technology only.

➤With the Hybrid system, each floor will be separated by full floor coverage of Ultrasonic Technology. In doing this, you get a very reliable system at a lower price; the best solution on the market. Ultrasound gives you the exact location, no matter what, each time you need it and in only a few seconds.

C-Operating the Hybrid system

➤Normal mode

- The communication between all the components and the central is bi-directional. The different units (receiver, transmitter, and beacon) report themselves to the central at regular intervals. Status of all the components is known in real time, all the time.

➤Trouble mode

- Each component gets information from the central. If the communication stops from the central, the critical component will send an alarm to your communications area (it's a very unusual situation but everything is possible).
- Each component sends information to the central (good operating mode, level of the battery, level of the signal) then an alert will be sent to the central if something unusual happens.
- The user can check the level of the battery of the panic button anytime, simply press the green button and see.

➤ Alarm mode

- The communication between the panic button and its owner:

When a user, for example, presses the panic button, a short vibration will indicate that the signal is sent to the central (all TS300) and a few seconds later a pulse vibration will indicate that help is on the way (TS300-HYBRID only).

➤ Searching mode

- You can also locate a lost panic button (TS300-HYBRID only). The central will send a signal to the panic button; the panic button will send a signal and a receiver will answer the central and give the location.

II ELECTRICAL REQUIREMENTS - STORAGE – SET-UP REQUIREMENTS - IT REQUIREMENTS

A)Electrical requirements: Hybrid System

- The system is almost completely wireless.
- The central includes a power supply in case of lack of power. The central needs a standard power outlet (120Vac 3A).
- The radio beacons and alarm beacons need to be powered with regular power outlet (120Vac .5A).

B) Storage

- A few spare parts are recommended (2 RS, 1 radio beacon, 1 alarm beacon and a few panic buttons). Very easy to change.

C) Set-up requirements

- The best scenario is to train a minimum of 2 technical resources to manage the maintenance of the Securalert system (installation and start-up process).
- We will also train your appropriate staff to the operation of the system as a whole (central operator and administrator) and also the operation of the panic button.

- The panic buttons are rechargeable and a set-up is required to make sure they are recharged each month (TS300) or each week (TS300-HYBRID).
- Staff training is straightforward. You will train the person in charge and a few responsible persons who would be able to train the rest of the staff (1 hour training).

D) IT requirements: Hybrid System

- We give you the opportunity to have the Securalert software on a few of your computers. If the appropriate desktop computers are close to the Securalert central we can process with a network cable directly. If not, we usually use your network system. If it's not possible to use your network system, it's always possible to link with a dedicated (extra) network cable.
- For remote/slave desktop monitor, requirements are Microsoft Windows 2000 or XP.

III WARRANTY AND CUSTOMER SUPPORT

A) Warranty

- The Securalert system comes with a 2-year warranty on all components.
- We will replace all defective components.

B) Customer support

- Build a system easy to maintenance & give a good training to our integrators
- Nordicom service
 - First we make sure that we deliver a 100% operating system with a good training as well as operating the system and also the maintenance on the system.
 - A free support from our office on business hours will be delivered for the 2-year warranty to your technical resources.

IV REFERENCES SECURALERT ULTRASONIC SYSTEM

INSTALLATION 2009

Naval Medical Center, San Diego, CA, USA, Matthew Wick: 619-532-9169

Alamo Integrated Systems, San Antonio, TX, USA Scott Kilborn : 210-674-8041

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Siemens Canada, Montreal, QC, François Cousineau: 514-725-1025 # 300

INSTALLATIONS 2008

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