



Sentinel™ Functional Description

May 1, 2010

Sentinel represents the most advanced Asset Protection System on the market today. Sentinel is the perfect fit for applications requiring protection of critical assets, be they items for retail, research, or other property. Additional applications include protection of individuals in assisted living establishments, infants in hospitals, incarcerated people, etc.

A Sentinel system is comprised of a Master RAD, Auxiliary RAD, EAS RAD, Sales RAD, Sentinel tags and other optional accessories. The quantities of each will vary depending on the number of items to be protected, size of the area to be protected, the number exits and the number of controlling stations (e.g. registers). This description assumes a retail establishment with a rectangular sized area, one egress point and a single register. Sentinel tags are available in a variety of physical styles, all designed to protect specific type items such as apparel, fishing equipment, firearms, tools, electronics, people, etc.

Master RAD

Master RAD is installed in the ceiling generally centered over the area to be protected. Area coverage is dependent on the height of the ceiling and signal strength. It radiates the area outward with a fixed 120° cone with strength adjustment range of up to 20 meters (65 feet). It periodically radiates the area with an RF coded signal and when the tags detect the signal they will keep their alarms silent. This RAD also provides synchronizing signals to the Auxiliary RADs for optimum operation.

Auxiliary RAD

Auxiliary RADs also create a conical protection zone of the same size as the Master. Four of these ceiling-mounted modules are typically installed around the ceiling to cover the areas where the Master does not cover. Again, tags that detect the signal will keep their alarms silent. Auxiliary RADs are synchronized with the Master for optimum performance.

EAS RAD

RF protection signals are radiated in a conical fashion and therefore can easily extend past the exit. This means that someone removing an item from the protected zone could possibly be well out of the protected area before an alarm is emitted. This module is placed at the exit and radiates an RF signal of a different frequency than the Master and Auxiliary RADs. Its function is to radiate its area, effectively jamming the protection zone at the exit and in turn causing tags present in that area to alarm. The EAS RAD includes an output port to set off an audible or visual alarm.

Sales RAD

The Sales RAD is located at the register counter alongside a magnetic detacher. The Sales RAD communicates directly with the tag, arming or disarming it. The magnetic detacher is simply a device for physically unlocking the tag to remove it from the protected article.



Sentinel Tag

Sentinel tags can be made in a variety of shapes and sizes, be they shell, lanyard, golf, firearm, etc, depending on the application. Regardless, each tag includes microprocessor electronics to detect signals emitted by the various reader types and react accordingly. Optionally the tag can also include EAS technology for compatibility with standard EAS systems.

Protection zone signals are received by the tags to keep them silent. Should the tag be prevented from receiving the signal (such as from a foil bag or other blocking device), it will automatically self-alarm. If the tag is opened without first disarming, it will self-alarm. Likewise any tampering or cable cutting will cause the tag to self-alarm, even if within the protection zone.

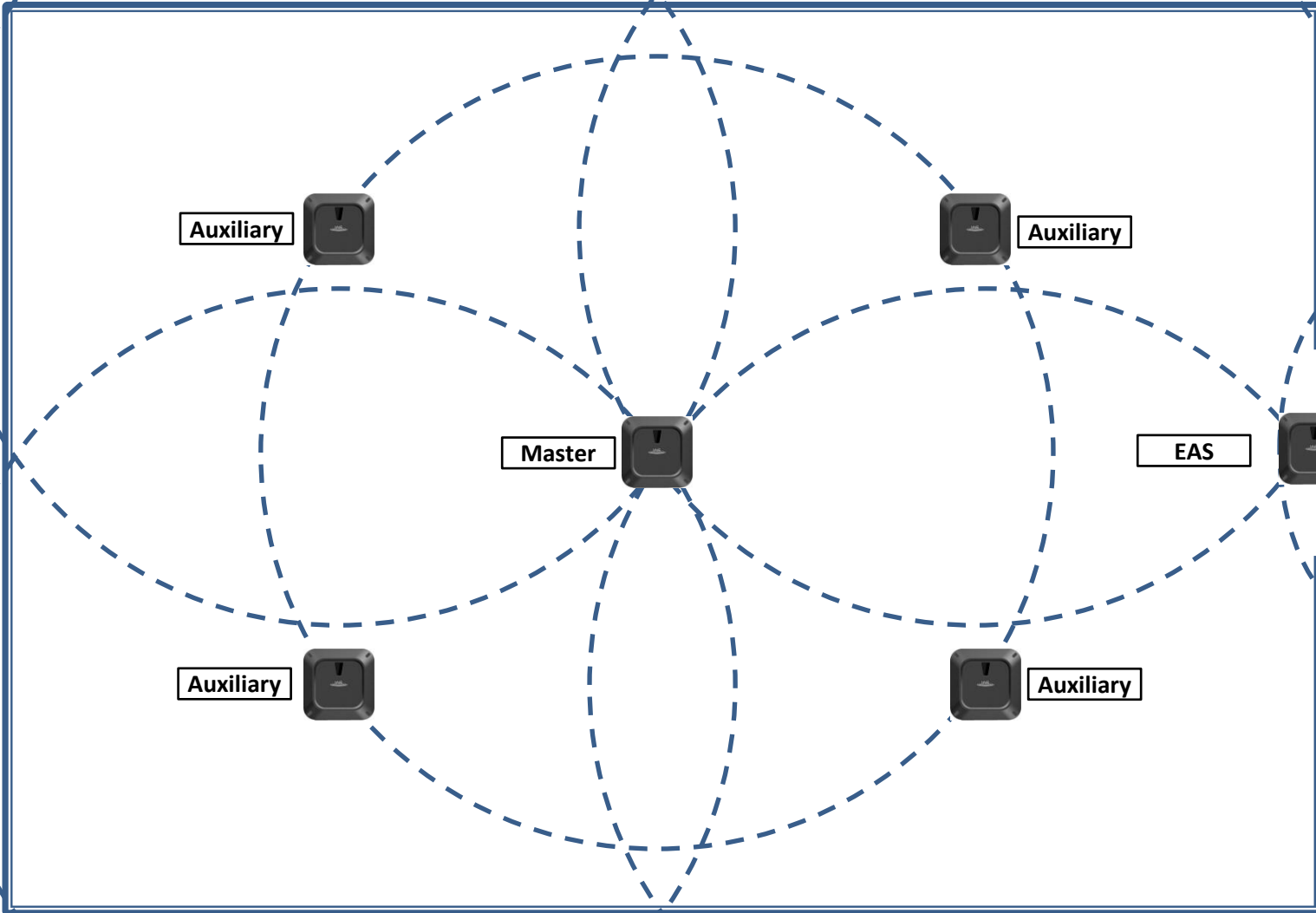
As the tag enters the exit threshold it will lose the protection zone signal because of the jamming properties of the EAS RAD. At that moment the tag will self alarm. Alarming tags will also transmit a specially coded RF signal that will be picked up by the EAS RAD which will in turn cause an alert signal out of the RAD to an audible/visual alarm, alerting store personnel that a tag has been detected at the exit. If the person returns back into the protected zone the tag will stop alarming.

Summary

Sentinel is a very powerful system that blends into the retail décor and does not obstruct the entrances. Protection zone shaping means that items can be placed quite near the entrance without setting off false alarms. Sentinel tags will self-alarm when tampered with, and also when removed from the protection zone. Bringing the article back into the protection zone quiets the tag without having to take it back to the register for quieting. Sentinel will tie into external alarms, be they audible and/or visual, to alert store personnel that a tag has been detected at the exit. Sentinel is perfect for a wide variety of applications where assets need protection. Wherever smart protection is needed, Sentinel is the answer.

WG Security Products Inc. ♦ 3031 Tisch Way, Suite 602 ♦ San Jose, CA 95128 (USA)
Tel 408-241-8000 ♦ Fax 408-241-8082 ♦ info@wgspi.com ♦ <http://www.wgspi.com>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



Sentinel Asset Protection System



**All RADs are distributed around the area to be monitored.
Actual quantities of each depend on the total area size.**

Master RAD

- Tag monitoring
- Wireless synchronization of Auxiliary RADs for optimum performance.

Auxiliary RAD

- Tag monitoring

EAS RAD

- Searches for tags at exits.
- Generates alerts when tags enter its zone.

Sales RAD

- Arms/Disarms tags (clerk function)

Detacher (optional)

- Opens tags (clerk function)

Alarms (optional)

- Controlled by EAS RAD when tags are detected in its zone.



Product Features

- Tag monitoring
- Wireless arming/disarming
- External alarm
- Tags self-alarm on tampering
- Tags self-alarm out of protection zone
- Tags self-alarm at exits

Applications

- Retail
- R&D
- Infant Nursery
- Assisted Living
- Corrections Institutes

Sentinel Asset Protection System