wLSN* – 2-way wireless network
The fast way to more reliable security

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* wireless Local SecurityNetwork

What is wLSN?

The wireless Local SecurityNetwork wLSN from Bosch Security Systems is a state-of-the art, multiple-point alarm system. Instead of employing wires and cables, it uses two-way wireless (radio frequency) transmissions to communicate. This offers decisive advantages:

The system consists of an intrusion control panel and an RF Hub, plus wireless detectors, key fobs, sirens and output modules. System components can be easily positioned to maximize performance and reliability. Because there is no wiring, installation is much faster and less invasive. Two-way communications ensure that all signals from wireless components reach the Hub/panel because they are present until acknowledged. The following features enhance the system's security and facilitate installation:

▶ Automated Device Discovery and System Auto-configuration
▶ wLSN Installation Tool
▶ Multiple-channel, frequency-hopping technology
▶ Detectors with built-in RF signal strength indicators
▶ Use of the 868 MHz European Security Band
▶ Pre-installed batteries with pull-tab activation in many devices

Fast and Easy Installation

Thanks to wireless technology, you can deploy all these devices almost anywhere – without having to lay cables. This saves both time and money. It's as easy as 1-2-3:

1. First you position the controlling devices (panel, Hub). You can locate them almost anywhere to optimize the system's coverage and performance.

2. Then you position the detectors and output devices. In Signal Strength Verification Mode, LEDs light up on each device to show you where the signal is strong enough to ensure reliable communication between it and the RF Hub. The wLSN Installation Tool makes it even easier and better: besides a "go/no go" indication, it also shows the relative signal strength, RF noise level and signal-to-noise ratio.

3. Next comes Device Discovery and Auto-configuration. During Discovery, the system compiles a list of the devices present and automatically assigns addresses to them. Meanwhile, all devices assess local frequency use at their locations and report this information to the Hub, which then chooses the best frequency for the overall system.

An added plus is that you can also remotely configure and program the network. This means fewer on-site visits and the ability to provide fast remote support.

How You and Your Customers Can Benefit from the wireless Local SecurityNetwork:

▶ Faster installation allows you to serve more customers without taking on extra personnel. This boosts your bottom line.
▶ The system's outstanding robustness and reliability give you and your customers greater peace of mind.
▶ Remote servicing of installed systems lets you work even more efficiently.
▶ Two-way supervised communications in the 868 MHz European Security Band ensure reliability.

Reliability: Peace of Mind for Your Customers

The wireless Local SecurityNetwork offers many benefits. Its numerous innovative features add up to an extremely reliable, robust system that will let your customers stop worrying once and for all.

Two-Way Wireless Communications

True two-way wireless communications mean greater security, robustness and reliability, and fewer service calls. They provide greater immunity to jamming, prolong battery life, and enable the time-saving convenience of device discovery. A key point is that alarm signals dependably reach the panel: For example, a detector will keep sending an alarm signal until the Hub/panel acknowledges it. In fact, all communications between the remote devices and the Hub/panel are continuously monitored and acknowledged.
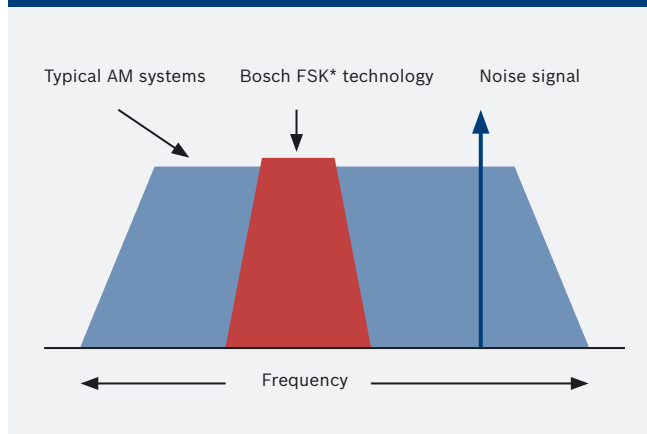
Intermittent Time Beacons

At designated time intervals, the system Hub and remote devices briefly communicate with one another. However, devices don't have to wait to report a detected event. There are additional time slots for this in between the time beacons. The result is a highly accurate network timebase and a synchronized communication protocol. This eliminates RF signal collisions between wLSN devices while greatly prolonging battery life.

wLSN Creates a Closed Network

The wLSN Hub only communicates with devices it has discovered and confirmed as part of the system. This makes it possible to install multiple wLSN systems, for example in apartment houses, without any conflicts.

FSK* gives better noise immunity and high range

Typical AM systems   Bosch FSK* technology   Noise signal

Frequency

*Frequency shift key

Frequency band	Comments
868.000 - 868.600	Open band
868.600 - 868.700	Security band
868.700 - 869.200	Open band
869.200 - 869.250	Social alarms
869.250 - 869.300	Security band
869.300 - 869.400	Open band
869.400 - 869.650	Open band
869.650 - 869.700	Security band
869.700 - 870.00	Open band

Use of the 868 MHz European Security Band greatly reduces the risk of RF interference, making the system even more reliable.

High Security Against Sabotage Attacks

In addition to physical protection against device tampering, the protocol also uses encryption and authentication to protect transmitted data and prevent "replay" attacks.

European Security Band

All transmissions take place within the European Security Band at 868 MHz. This band may only be used for intrusion and fire alarms, so there's less chance of interference — other RF systems can be used without encountering problems (for instance, cordless phones and baby monitors). The individual channels are only 25 kHz wide and on-air time is highly restricted, which also prevents collisions with other security systems.

Multi-Channel Operation

Immunity to RF interference is increased by dynamically changing the operating frequency. Depending on the signal strength and signal-to-noise ratio, the system automatically switches between several possible channels to optimize transmission quality.

Excellent Installation Range

The wLSN Hub is very sensitive and uses sophisticated error detection and correction algorithms for better reception of marginal signals. Its ability to decode transmissions with a low signal-to-noise ratio is also extraordinary. This leads to an outstanding installation range.

Major Benefits for You and Your Customers

Unobtrusive Installation

There is no need to drill through walls and ceilings for device wiring and cabling. This means faster and lower cost installations. Plus, batteries last longer (most up to five years). Energy consumption is reduced by not transmitting unnecessary signals while the system is disarmed and using only brief signal pulses synchronized with intermittent "time beacons" for device supervision. And additional cost savings result from the outstanding reliability of the wireless Local SecurityNetwork: There will be fewer service calls and interruptions.
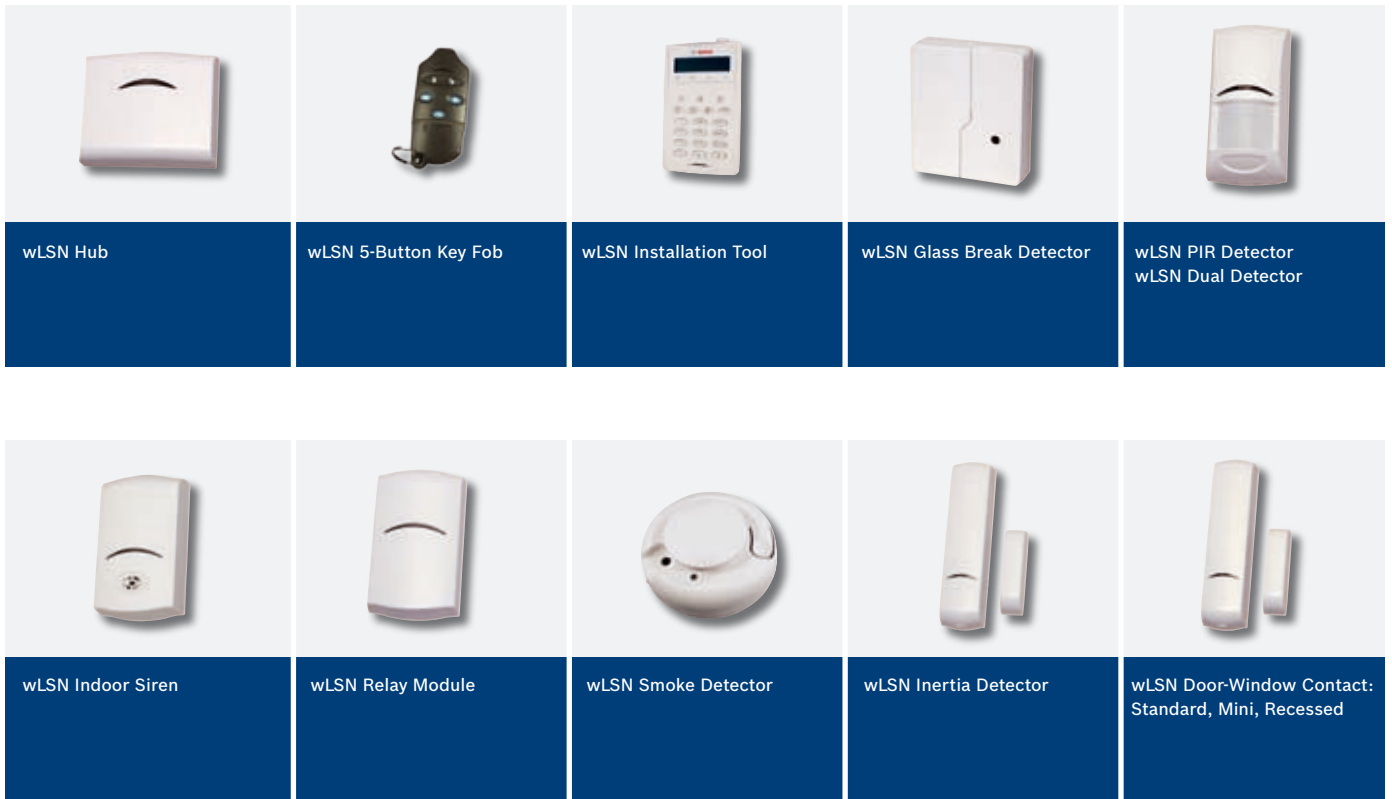
Convenience and Comfort Applications

LEDs on a convenient key fob show whether the system is armed or disarmed – another benefit of two-way wireless communication. The key fob can also be used to control a wide range of devices via the system's wireless outputs. These can be additional comfort applications such as opening and closing garage doors, operating window blinds or switching lights on and off. There is also a built-in LED "flashlight" feature to help the user see in the dark.

How You Benefit
Faster, more predictable installations
Quick, easy configuration
Easy testing
Fewer service calls
Remote support for technicians on site
Additional business opportunities with wireless output applications (key fob control of garage doors, lighting, etc.)
Batteries included and pre-installed in many devices

How Your Customers Benefit
High system reliability for greater peace of mind
Lower installation and service costs
No need to drill holes through walls and ceilings for wiring
Unobtrusive installation
Key fob visual feedback and flashlight
Due to use of multiple channels in the 868 MHz European Security Band, other RF systems can be used nearby without creating interference problems
Long battery life (up to 5 years)

A Large Selection of Wireless Accessories

wLSN Hub	wLSN 5-Button Key Fob	wLSN Installation Tool	wLSN Glass Break Detector	wLSN PIR Detector / wLSN Dual Detector
wLSN Indoor Siren	wLSN Relay Module	wLSN Smoke Detector	wLSN Inertia Detector	wLSN Door-Window Contact: Standard, Mini, Recessed

Many Excellent Reasons to Choose the wireless Local SecurityNetwork

The wireless Local SecurityNetwork wLSN has everything going for it: It's an extremely dependable system based on state-of-the-art technology and designed for accurate intruder detection and reliable alarm communications. Your customers will rest easy knowing they're securely protected.

It's also very quick and easy to install and program, and you'll find that the time savings really pay off. Adding in the high level of quality, workmanship and reliability that are hallmarks of the Bosch brand, you've got a winner for your business and your customers.

The wireless Local SecurityNetwork offers substantial benefits to both you and your customers.

Tradition of quality and innovation

For over 100 years, the Bosch name has stood for quality and reliability. Bosch Security Systems proudly offers a wide range of fire, intrusion, CCTV, management and communication systems and components to help you find the solution for any application. We are the global supplier of choice for innovative technology backed by the highest level of service and support. When you need solutions you can rely on, choose Bosch.