

## Comparing the invisible Systems:

	Typical application	Detection and exit width description:	Installation and site survey	Remote Tuning	Antenna size	Controller
Sky Guard III	invisible system at small exits (~180cm) even with labels or luxurious wide entrances using powerful hard tags.	Good detection achieved in exit widths between 400-500 cm on WG Super Pencil, 300-350 on WG Pencil, 200 cm on WG Micro pencil and 180 cm using Sensormatic DR/APX labels or Super Tag. Weakest point in the center of the exit. Detection height can be configured by Turbo antenna position.	Loop to be mounted or integrated in / on portal. 4 turbo antennas needed. Sky Gurd looks best when antennas and loop are installed in a profile color-red in the RAL-tone of the non magnetic portal. Parallel loop to be avoided.	no	Loop antenna (Standard or WG Global Loop cable for individual configuring) + + 4 x Turbo	1xSKG controller, 1x24VAC PSU
Floor Guard Wi-Fi	Invisible system for small entrances up to 200 cm width.	Best detection height with WG Super Pencil (135-150cm), or Pencil / Shell tags (115-125cm).	Easy integration of the solid 150x40x2,8 cm antenna in concrete or Knauf Stretto (or equal) at new built stores.		solid 150x40x2,8 cm floor antenna	1x individual programmed Adapter Box (up to 6 m from the antenna) 1x WiFi Control box (Product code WG WFCB includes 1xSPS)
Floor Guard Hybrid Wi-Fi	Highest performing invisible system for small to medium entrances up to 250 cm width, even with labels. Hybrid Loop needs to be installed / integrated on the portal.	Superior detection. With WG Super Pencil detection height of 2m and more achievable, around 150 cm with WG Pencil, 120 cm with APX La-bels.	Easy integration of the solid 150x40x2,8 cm antenna in concrete or Knauf Stretto (or equal) at new built stores. Loop needs to be installed / integrated on the non magnetic portal. Parallel loop to be	yes Remote tuning via WiFi	solid 150x40x2,8 cm floor antenna, 15m Hybrid loop cable (to be configured and terminated on site)	Control box (Product code WG WFCB includes 1xSPS) Controller can be installed up to 15 away from Adapter Box.
Floor Guard 2A 1.8 Wi-fi	Invisible system for medium entrances of 200-220 cm width.		Easy integration of them antenna cables in concrete or Knauf Stretto (or equal) at new built stores by a skilled engineer. Performance test before sealing the floor recommended. Typical installation requires 2-3 visits by installer.		180 x90 cm floor antenna cables	
Floor Guard 2A 3.0 Wi-fi	Invisible system for small entrances up to 300 -340 cm width.	Best detection height with WG Super Pencil (135-150cm), or Pencil / Shell tags (115-125cm).			300 x90 cm floor antenna cables	
Floor Guard 2A 3.6 Wi-fi	Invisible system for small entrances up to 360 - 400 cm width.				360 x90 cm floor antenna cables	



**Floor Guard Hybrid Wi-Fi**



**Zero False Alarm\* 58 KHz Acoustomagnetic EAS**

\*Our patented system algorithm avoids false alarms when walking through the system.

# Floor Guard Hybrid Wi-Fi



Invisible System is visibly better

Your store will impress your customer. And with the WG Wi-Fi Floor Guard Hybrid at your entrance nothing interferes with this impression.

Fully invisible with cutting edge technology. Just the way your store was planned and implemented by your architect.

The Wi-Fi Floor Guard antennas disappear completely in the floor an additional loop antenna integrates into a nonmagnetic door frame or wall.

Compared to other Floor EAS Antennas the invisible Wi-Fi Floor Guard Hybrid lifts the detection area and allows the use of smaller tags.



Floor Guard Hybrid Wi-Fi applications



Wi-Fi Floor Guard Hybrid is specifically designed for exclusive Fashion, Outdoor, Sport and Luggage stores. Its best used with our small high-performance ferrite tag "Super Pencil" (2.3"), the (1.9") Pencil tag or the Shell tag (2.1"). But because of the improved pick-rate it the system works very well with small adhesive labels.



Alarm zone:	
Type of Tag	Detection Height
Shell, Mid Pencil	3.6 - 4.4 ft
Super Pencil	3.77 - 4.75 ft

\* Since the influence of metal in the soil can not be determined reliably in advance, we recommend the use of powerful tags like WG Super Pencil WG Pencil or WG Shell tags. Under performing labels will reach lower detection levels. And lower detection height.

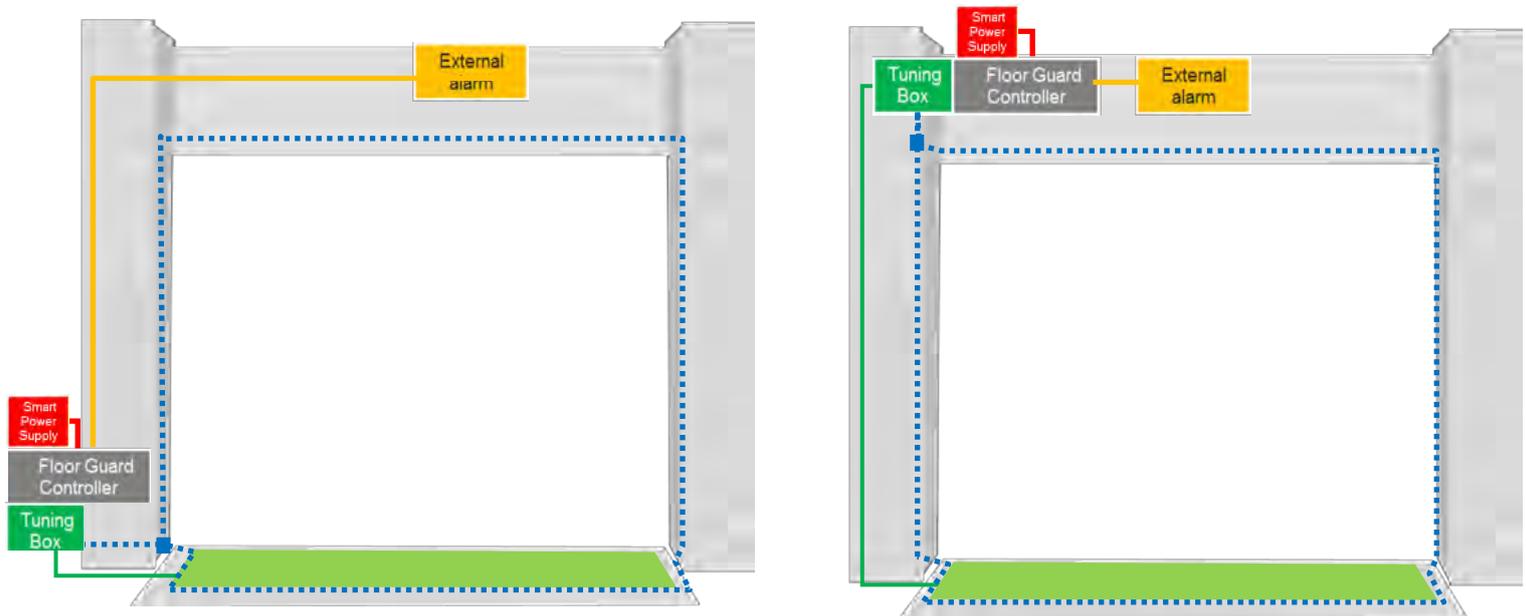
To avoid alarms by labels in the close proximity of the antennas, a safety zone with no tags ( about 40-45% of the exit width) should be kept on all sides. AM EAS systems are radio transmission systems on the approved working frequency of 58 KHz. Devices being unsuppressed or not corresponding to recent standards (EN 300330 / EN 301489-3) can cause interference and negatively affect system performance. Changes in the environment and surrounding may require a retuning of any EAS System.

The new Wi-Fi Floor Guard Controller can use the existing Wi-Fi access point or a GSM network provided by WG.

External alarm units can be flush mounted into the store ceiling.



### Floor Guard Hybrid Wi-Fi Installation Description:



The Wi-Fi **Floor Guard Antenna** is installed into a recess floor. Due to the 1inch cable diameter its much easier and more feasible than in previous floor antenna systems. The antenna is cast in thin set and can be covered by non metallic floor materials such as brick, wood, carpet, marble etc. If an entrance-mat is framed by metal this must not form a closed circuit to avoid the effect of a Faraday cage, with negative influences on the signal field. A single cut of 1mm at a hidden position will solve the problem. To any magnetic metal a proximity of about 3.1" - 3.9" is recommended. The floor antenna is connected through a max 20 ft long system cable to a tuning box.

The **Hybrid Loop Antenna** adds another transmitter/receiver field which is processed by the same controller. It is a special seven conductor cable of 8 mm diameter and can be run even inside non magnetic metal frames. Approximately 7 – 12 inches to magnetic metal such as copper board frame construction or regular steel supports shall be maintained. The two ends of the Hybrid loop are connected in a regular PVC connection box and a twisted pair cable of max. 2mm continues to the tuning box. A revision door, close to the connection box is needed for maintenance.

In the **Adapter box** the raw antenna signals are processed and made resistant against interferences. Therefore the shorter this cable is, the better it is. With the 20 ft cable from the floor antenna usually the ceiling can be reached and the box can be located next to the controller. On very wide openings, where the cable length is not sufficient to reach the ceiling, the tuning box may be positioned behind a Revision-door in the wall or in the furniture. The tuning box is connected to the system controller.

The **System controller** processes all transmitter and receiver signals. Usually it is located behind a revision door in the false ceiling or a cabinet. It offers audio-alarm and WiFi connection for remote service. If the alarm volume is too low because the controller is mounted covert, an optional digital remote alarm (audible + optical alarm) unit can be used. Cables between tuning box and controller can be up to 50ft long. The controller is powered by a 24 V low voltage WG Smart Power Supply.

**The ideal position for Controller, Tuning Box and Power supply is in a hatch left or right side of the door. Alternatively a soffit in the ceiling close to the exit can be used.**

The SPS has connection joints for dry contacts to trigger a CCTV-system in case of EAS-alarm or jammer-alarm. Also the alarm volume can be adjusted remotely from the SPS. The exclusive TX-switch is a great support for the store people if they search for labels in the security zone. SPS can be clicked on a standard DIN-rail (Din 46277-3) holder system.

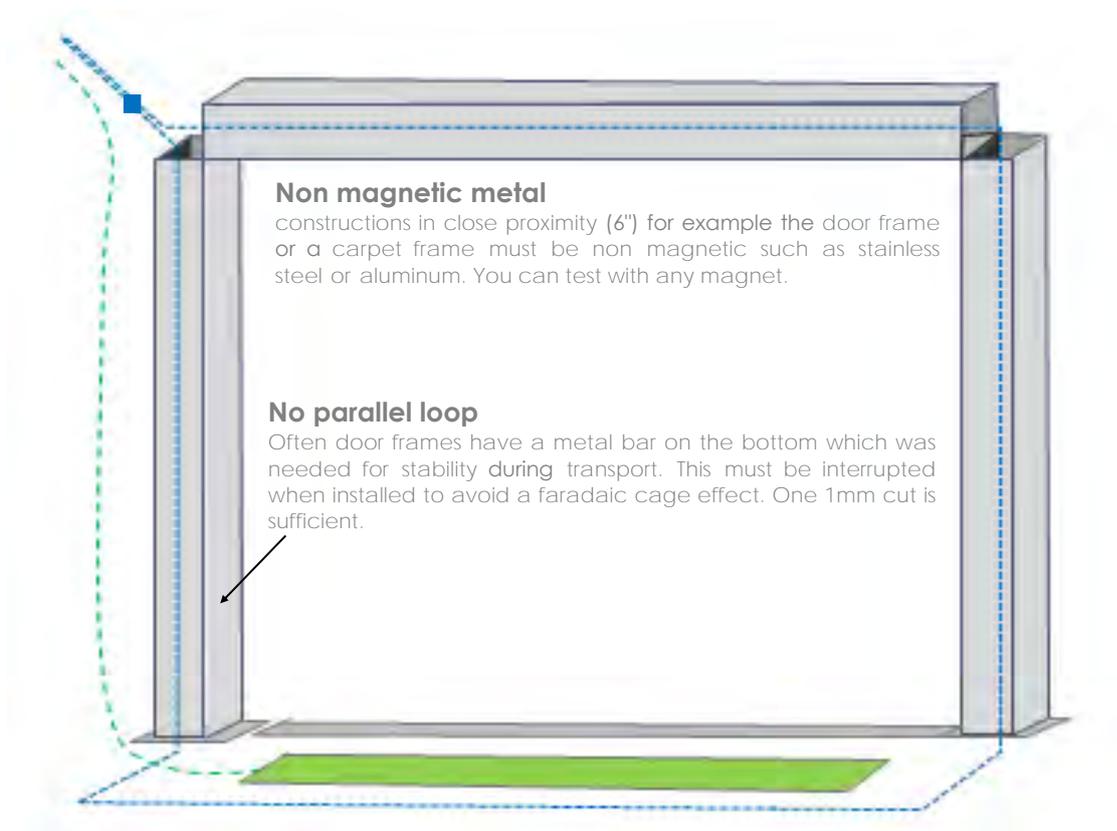
### Floor Guard Hybrid Wi-Fi Specifications for the door frame:

A special configured Hybrid antennae cable is run inside a non magnetic door frame or can be mounted on top of the door frame. Various aesthetic covers are available from WG or can be made by the store fitter.

Every non magnetic material is possible. i.e. Aluminum, stainless steel, bronze, and of course timber, plastic or fiberglass.

To test If the door frame is magnetic (iron or regular steel inside the portal construction), a strong detacher can be used, to sense the magnetic force.

**Important** the door frame does not make a parallel loop. Some doors are delivered with a supporting bar at the bottom, to avoid bending during the transport and mounting. This bar must be cut to avoid the parallel loop and the effect of a Faraday cage.



Floor Guard Hybrid Wi-Fi Specifications:



System controller with SPS Smart Power supply on the mounting plate



Floor Guard Adapter box

Options:



Optional external alarm units can be flush mounted into the store ceiling

Dimensions

Metal mounting plate:	18 x 13 x 18 inches	1.1lbs
System Controller:	15 x 5.5 x 2.8 inches	5.3lbs
SPS power supply:	4.4 x 5.4 x 3.1 inches	7lbs
Adapter-Box:	9.5 x 7.5 x 3.5 inches	2.5lbs

Floor antenna dimensions:

Floor antenna WF FG	60 x 16 x 1.1 inches	11lbs
Hybrid Loop cable	length according project, diameter 1/2"	

Max. Cable length:

Antenna / tuning box:	20ft
Hybrid loop cable to Controller	max 6ft
Tuning box / controller	50ft
Controller to external SPS	250 ft with WG EA-Type 2 cable

Power Preparations:

110 V (min. 3x2.5 mm<sup>2</sup>) Fuse 16 A min.. on dedicated circuit, at the same phase (L1 recommended) for all systems and deactivators at the cash desks. Current consumption max. 50 W per system, and 10/120 W (continuous / peak-pulse) per deactivator . Terminal connection or untwist able sockets. Plastic conduits (1")with inserted pull string is required

**External alarm connection** 2 conductor alarm cable or CAT 5/6 cable can be used.

Product Codes:

- WG WFFG WG Floor Guard antenna\*
- WFCB WG Floor Guard Controller
- WFFG2A6 6ft Floor Guard antenna coil set\*
- WG WFFG2A10 10ft Floor Guard antenna coil set\*
- WG WFFG2A12 12ft Floor Guard antenna coil set\*

\*includes adapter box dedicated for this configuration.





Floor Guard Wi-Fi



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The Wi-Fi Floor Guard antennas disappear completely in the floor an additional loop antenna integrates into a nonmagnetic door frame or wall.

Compared to other Floor EAS Antennas the invisible Wi-Fi Floor Guard Hybrid lifts the detection area and allows the use of smaller tags.



## Wi-Fi Floor Guard applications



Wi-Fi Floor Guard is specifically designed for the exclusive Fashion, Outdoor, Sport and the Luggage market. Its best used with our small high-performance ferrite tag Super Pencil (2.3"), the (19")

Pencil tag or the Shell tag (2.1"). Detection performance will be in one level with the best visible retail security systems.

Entrances are protected and completely invisible.



Wi-Fi Floor Guard Antenna prior to pouring concrete

Alarm zone:	
Type of tag	Detection Height
Shell, Mid Pencil	3.7 ft - 4.2 ft
Super Pencil	3.7 ft - 4.75 ft

\* Since the influence of metal in the soil can not be determined reliably in advance, we recommend the use of powerful tags like WG Super Pencil, WG Pencil or WG Shell tags. Underperforming labels will reach lower detection levels. And lower detection height.

To avoid alarms by labels in the close proximity of the antennas, a safety zone with no tags ( about 40-45% of the exit width) should be kept on all sides. AM EAS systems are radio transmission systems on the approved working frequency of 58 KHz. Devices being unsuppressed or not corresponding to recent standards (EN 300330 / EN 301489-3) can cause interference and negatively affect system performance. Changes in the environment and surrounding may require a retuning of any EAS System.

Floor Guard Hybrid Wi-Fi Installation Description:



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If an entrance-mat is framed by metal this must not form a closed circuit to avoid the effect of a Faraday cage, with negative influences on the signal field. A single cut of 1mm at a hidden position will solve the problem. To any mag-netic metal a proximity of about 3 - 4 inches is recommended. The floor antenna is connected through a max. 20ft long system cable to a tuning box.

In the **Adapter box** the raw antenna signals are processed and made resistant against interferences. Therefore the shorter this cable is, the better it is. With the 20ft cable from the floor antenna usually the ceiling can be reached and the box can be located next to the controller. On very wide openings, where the cable length is not sufficient to reach the ceiling, the tuning box may be positioned behind a Revision-door in the wall or in the furniture. The tuning box is connected to the system controller.

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**The ideal position for the Controller, Tuning Box and Power supply is to left or right side of the door. Alternatively a soffix in the ceiling close to the exit can be used.**

The SPS has connection joints for dry contacts to trigger a CCTV-system in case of EAS-alarm or jammer-alarm. Also the alarm volume can be adjusted remotely from the SPS. The exclusive TX-switch is a great support for the store people if they search for labels in the security zone. SPS can be clicked on a standard DIN-rail (Din 46277-3) holder system.

**Floor Guard Wi-Fi Specifications:**



System controller with SPS Smart Power supply on the mounting plate



Floor Guard Adapter Box

**Options:**



Optional external alarm units can be flush mounted into the store ceiling

**Dimensions**

Metal Mounting pPate:	18 x 13 x 3.3 inches	1.1 lbs
System Controller:	15 x 5.5 x 2.8 inches	5.3 lbs
SPS Power Supply:	4.4 x 5.5 x 3.1 inches	7 lbs
Adapter Box:	9.5 x 7.5x 3.3 inches	2.5 lbs

**Floor antenna dimensions:**

Floor Antenna WF FG	60 x 16 x 1.1 inches	11 lbs
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**Max. Cable length:**

Antenna / Tuning box:	20 ft
Hybrid Loop Cable to Controller	max 6ft
Tuning box / Controller	50 ft
Controller to External SPS	250 ft with WG EA-Type 2 cable

**Power Preparations:**

110 V (min. 3x2.5 mm<sup>2</sup>) Fuse 16 A min.. on dedicated circuit, at the same phase (L1 recommended) for all systems and deactivators at the cash desks. Current consumption max. 50 W per system, and 10/120 W (continuous / peak-pulse) per deactivator . Terminal connection or untwist able sockets. Plastic conduits (1 inch) with an inserted pull string is required.

External alarm connection- 2 conductor alarm cable or CAT 5/6 cable can be used.

**Product Codes:**

WG WFFG	Floor Guard antenna*
WG WFCB	Floor Guard Controller
WG WFFG2A6	6ft Floor Guard antenna coil set*
WG WFFG2A10	10ft Floor Guard antenna coil set*
WG WFFG2A12	12ft Floor Guard antenna coil set*

\*includes adapter box dedicated for this configuration.





# Floor Guard 2A Wi-Fi



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### Wi-Fi Floor Guard Applications



Wi-Fi Floor Guard is specifically designed for the exclusive Fashion, Outdoor, Sport and the Luggage market. It's best used with our small highperformance ferrite tag "Super Pencil" (2.3"), the (1.9") Pencil tag or the Shell-tag (2.1"). Detection performance will be in one level with the best visible retail security systems.

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Alarm Zone:	
Type of tag	Detection Height
Shell, Mid Pencil	3.6 ft - 4.4 ft
Super Pencil	3.77 ft - 4.75 ft

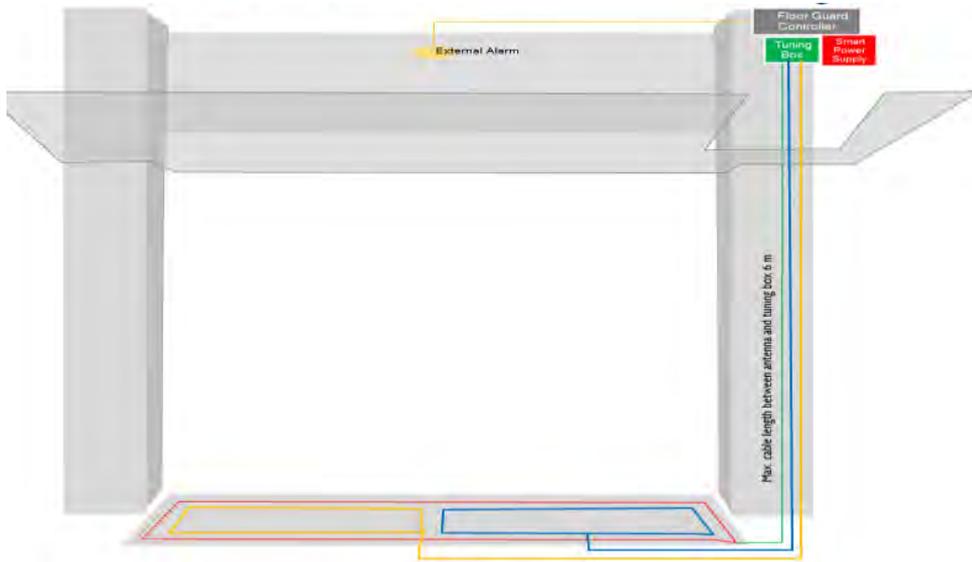
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AM EAS systems are radio transmission systems on the approved working frequency of 58 KHz. Devices being unsuppressed or not corresponding to recent standards (EN 300330 / EN 301489-3) can cause interference and negatively affect system performance. Changes in the environment and surrounding may require a retuning of any EAS System.

Wi-Fi Floor Guard 2A laid on the floor for testing. This is done prior to the antenna channel being cut into the floor.



Floor Guard 2A Wi-Fi Installation Description:



The WiFi **Floor Guard 2A Antenna** is a configured antenna cable set, available in three sizes:

<b>WG WFFG2A6</b>	<b>Wi-Fi Floor Guard "2A"</b>	<b>6ft antenna floor loops</b>
<b>WG WFFG2A10</b>	<b>Wi-Fi Floor Guard "2A"</b>	<b>10ft antenna floor loops</b>
<b>WG WFFG2A12</b>	<b>Wi-Fi Floor Guard "2A"</b>	<b>12ft antenna floor loops</b>

Consisting of three loop cables and a dedicated adapter box to connect to a WG Wi-Fi Control Box (WFCB). Other than all other floor antennas that are a solid plate of 2" the 2A antennas do not need a massive hole in the floor. They can either be cut into concrete or laid inside the tile glue or integrated inside the floor construction below wood-en floors. The antenna coils can be covered by non-metallic floor materials such as brick, wood, carpet, marble etc..

If an entrance mat is framed by metal this must not form a closed circuit to avoid the effect of a Faraday cage, with negative influences on the signal field. A single cut of 1mm at a hidden position will solve the problem. To any magnetic metal a proximity of about 3" is recommended. The floor antenna is connected through a max. 20 ft long system cable to a tuning box.

In the **Adapter box** the raw antenna signals are processed and made resistant against interferences. Therefore the shorter this cable is, the better it is. With the 20 ft cable from the antenna usually the ceiling can be reached and the box is located next to the controller. On very wide openings, where the cable length is not sufficient to reach the ceiling, the tuning box may be positioned behind a Revision door in the wall or in the furniture. The tuning box is connected to the system controller.

The **System controller** processes all transmitter and receiver signals. Usually it is located behind a revision door in the false ceiling or a cabinet. It offers audio alarm and WiFi Connection for remote service. If the alarm volume is too low because the controller is mounted covert, an optional digital remote alarm (audible + optical alarm) unit can be used. Cables between tuning box and controller can be up to 50 ft long. The controller is operated by 24 V low voltage coming from a WG Smart Power Supply.

The SPS has connection joints for dry contacts to trigger a CCTV-system in case of EAS alarm or jammer alarm. Also the alarm volume can be adjusted remotely from the SPS. The exclusive TX-switch is a great support for the store people if they search for labels in the security zone. SPS can be clicked on a standard DIN-rail (Din 46277-3) holder system.

### Wi-Fi Floor Guard 2A - specifications

Wi-Fi Floor Guard 2A is a special variation of WG's Floor Guard technology, using pre configured transmitter and receiver antenna cable coils that can be cast with liquid concrete, cut into solid concrete or laid inside tile glue. It is available in three dimensions, 6ft, 10ft and 12ft. The width is always 3ft the diameter of the cables below 0.4 inch

Each antenna consists of three coils. A large one, with two small ones inside. Each coil is connected to the dedicated Adapter Box (20ft cable) which first processes the raw antenna signals. The Adapter Box is connected to the Wi-Fi Floor Guard Controller (WFCB) controller with two max 50ft long system cables.



Floor Guard Wi-Fi Specifications:



System controller with SPS-Smart Power supply on the mounting plate



Floor Guard Adapter box

Options:



Optional external alarm units can be flush mounted into the store ceiling.

Dimensions

Metal Mounting Plate:	18 x 13 x 3.3 inches	1.1lbs
System Controller:	15 x 5.5 x 2.5 inches	5.3 lbs
SPS Power Supply:	4.4 x 5.4 x 3.1 inches	7 lbs
Adapter Box:	9.5 x 7.5x 3.5 inches	2.5 lbs

Floor antenna dimensions:

	60x 16x 1.1 inches	11lbs
2A Floor Antenna Coils 6ft	6 x 3 x 10 inches	1.1lbs
2A Floor Antenna Coils 10ft	12 x 3.5 x 10 inches	4.75 lbs
2A Floor Antenna Coils 12ft	15 x 3.5 x 4 inches	5.3 lbs

Max. Cable length:

Antenna / Tuning Box:	20ft
Hybrid Loop Cable to Controller	max. 6ft
Tuning Box / Controller	50 ft
Controller to External SPS	250 ft with WG EA-Type 2 cable

Power Preparations:

110 V (min. 3x2.5 mm<sup>2</sup>) Fuse 16 A min.. on dedicated circuit, at the same phase (L1 recommended) for all systems and deactivators at the cash desks. Current consumption max. 50 W per system, and 10/120 W (continuous / peak-pulse) per deactivator. Terminal connection or untwist able sockets. Plastic conduits (30 or 32mm)with inserted pull wire are recommended.

**External alarm connection** 2 conductor alarm cable or CAT 5/6 cable can be used.

Product Codes:

WG	WFFG	Floor	Guard	Antenna*
WG	WFCB	Floor	Guard	Controller
WG	WFFG2A6	6ft	Floor Guard antenna coil set*	
WG	WFFG2A10	10ft	Floor Guard antenna coil set*	
WG	WFFG2A12	12ft	Floor Guard antenna coil set*	

\*includes adapter box dedicated for this configuration.

