



Peace of mind

Keeping your at-risk people safe

It happens. Wandering puts the people under your care at risk of becoming lost or having a serious accident - not to mention the stress and worry it causes for staff and families. Fortunately there is a solution.

WanderShield is an easy to use system that immediately alerts you when an at-risk person wanders. WanderShield gives you the peace of mind that your at-risk people are safe and nearby. It uses small wireless bracelets to detect wandering behaviour. Read on for the benefits to your organisation - there's some that may surprise you!

How WanderShield Benefits Your Organisation

Increased safety

WanderShield eliminates the risks of wandering to your at-risk people such as becoming lost or having a serious accident. It does this by automatically alerting care staff when an at-risk person attempts to wander.

Save time, money and hassle

Prevent wandering and you eliminate the time and costs involved with searching for lost people. WanderShield also saves time by eliminating false alarms. Other wander products are prone to time wasting false alarms, but this problem has been solved by WanderShield (see box "Unique Technology" inside).

Free up dementia beds

Dementia beds are always in short supply. Relocating wander prone people into a dementia unit is often a necessary but excessive solution. WanderShield lets you manage wandering in a residential care environment and free up dementia beds for those people that really need them.

Leave doors open

WanderShield keeps your people safe even if the doors are open. Other wander systems require you to keep the doors shut - creating a confined and unwelcoming environment.

WanderShield lets you keep doors open so that you can create a more friendly environment for the people under your care.

Enhanced quality of life

Being moved to another facility can be traumatic for people who are starting to wander.

WanderShield allows their wandering to be managed in their present facility, meaning they can stay where they are for longer and enjoy the proximity to their family and a familiar environment.

Expandable and Future-Proof

WanderShield is easy to extend. The parts of a WanderShield system can be reconfigured to suit building alterations or changes to how rooms are used.



3 Ways to Keep Your People Safe

WanderShield works where other systems can't. Providing 3 methods to manage wandering, it ensures a perfect fit for your situation:

- **WanderShield Doorway** monitors doorways and alerts you when an at-risk person attempts to wander through (details on p3).
- **WanderShield Driveway** monitors the ends of driveways. Ideal if there are too many doors to monitor, or if you want to keep your people safe while they are outside (details on p5).
- **WanderShield Comprehensive** is a complete wander management system that includes reporting, self-checking, and unique name (bracelet ID) functions. It can monitor doorways, driveways, and offers a third function called "Presence Mode", as explained in the separate WanderShield Comprehensive brochure.

Read on and discover which solution is best for your organisation ►

Bracelet Features

WanderShield uses a small bracelet to detect wandering behaviour:



LED light indicates that bracelet is functioning and that the battery is ok.

Speaker alerts you when the battery is running low.

Waterproof case is ultrasonically welded and made of tough polycarbonate.

Strong disposable strap.

The small bracelets are worn on the wrist or ankle of the people you wish to protect. WanderShield uses these bracelets to detect wandering behaviour.

The bracelets feature soft rounded corners, and can use a variety of standard disposable bands. The band is cut off should you wish to remove the bracelet.

The bracelets can be worn in the shower or bath because they are ultrasonically welded to make them completely waterproof.

An internal battery powers the bracelet - this has a lifespan of 12 months. When the battery is running low the LED light on the bracelet will flash and the speaker will beep occasionally. This lets you know that it is time to fit a new bracelet. The old bracelet can be returned to your supplier for recycling.

WanderShield bracelets are easily transferable and can be reused as needed.

The bracelet is only 15mm high, by 28mm wide, by 42mm long.

WanderShield Doorway

WanderShield Doorway monitors selected doorways at your facility. It alerts you when a person wearing a bracelet wanders through one of these doorways.

How it works

WanderShield Doorway detects wandering using ceiling mounted sensors - one on either side of the doorway. When a person wearing a bracelet walks through a monitored doorway, WanderShield will alert staff by raising an alarm.

The ceiling sensors are mounted approximately 1 meter from each side of the doorway. For exterior doors without an eave or overhang to mount the sensor on, a special "exterior light" sensor is used. This resembles an exterior light and extends the sensor away from the doorway.

Find out how WanderShield Doorway alerts your staff on the next page.

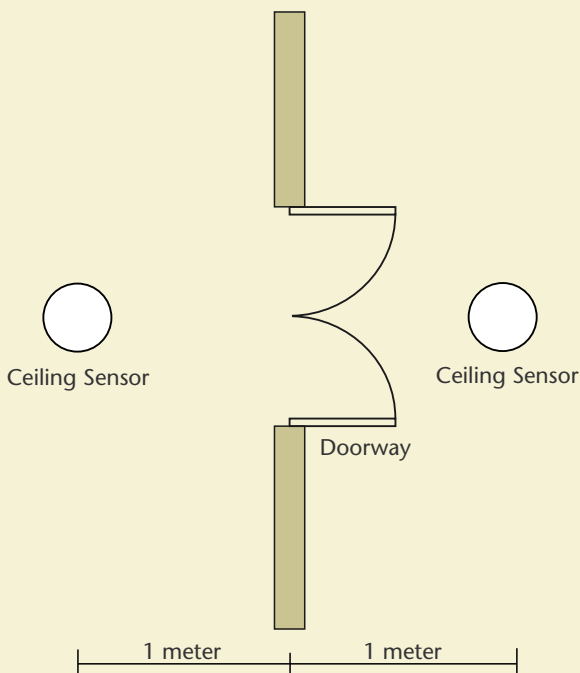


Diagram showing ceiling mounted sensors used by WanderShield Doorway

Unique Technology

The unique technology used by WanderShield Doorway **prevents false alarms**. Other systems work by detecting when an at-risk person is within several meters of a closed door. If the door is opened an alarm will be raised, regardless of whether the monitored person or someone else opened the door. This means that a monitored person simply sitting in the next room could trigger an alarm because someone else has opened the door.

WanderShield doesn't care if the door is open or closed - in fact it doesn't need a door at all. The "invisible barrier" created by WanderShield can even be placed in the middle of a corridor or entranceway for maximum flexibility. WanderShield lets you leave doors open while still keeping your at-risk people safe.



WanderShield Doorway uses ceiling mounted sensors that look like a smoke detector



"Exterior light" sensor is used where there is no eave or overhang on which to mount a sensor.

WanderShield Doorway

How it alerts you

There are 3 different ways that WanderShield can alert you:

➤ **Call System Integration** - When a wandering event happens a 'call' will be made on your Call System. This 'call' indicates the exact door where the event happened via your existing Call System. WanderShield can integrate with any modern Call System.



Existing Call System Display Device

➤ **Doorway Sounder** – a Doorway Sounder is mounted next to each doorway. It generates an audible alarm when a wandering event occurs. Staff reset the alarm by going to the doorway and pressing the built-in reset button. Extension sounders are available to extend the audible alarm over a greater area.

Doorway Sounders can also integrate with your Call System. This provides an audible alarm at the doorway in addition to an alarm on your Call System.



Doorway Sounder

➤ **Wireless Display** – a Wireless Display can be placed anywhere within your facility. It features an audible alarm and an LCD display to tell staff exactly which doorway to go to when a person wanders. One Wireless Display can work with up to 16 doorways.

Multiple Wireless Displays may be used if you require alerts to be displayed in more than one location.

This solution is ideal for facilities that have a Call System that is too old to integrate with, or where integration is undesirable.

Doorway Sounders are required at each door when using a Wireless Display.



Wireless Display

WanderShield Driveway

WanderShield Driveway monitors the end of the driveways at your facility. It is ideal for facilities with many doors but few points of egress from the property (e.g. driveways, gates etc.).

How it works

WanderShield Driveway detects wandering people using a solar powered sensor that is mounted near the end of a driveway. When a person wearing a bracelet wanders within six meters of this unit, WanderShield will alert your staff by raising an alarm.

Because WanderShield Driveway is solar powered and wireless, it is quick and inexpensive to install. It doesn't require any cabling and can simply be bolted to the ground near the driveway.

Find out how WanderShield Driveway alerts your staff on the next page ►



Driveway Sensor

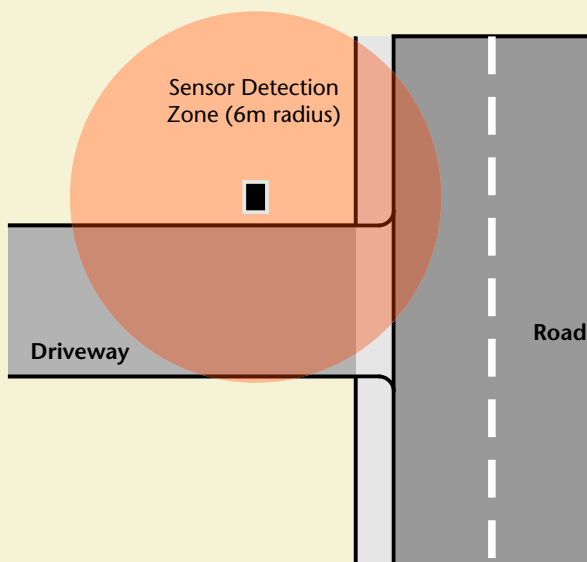


Diagram showing WanderShield Driveway mounted near end of driveway

WanderShield Driveway

How it alerts you

WanderShield Driveway can alert your staff in 2 different ways:

- **Wireless Display** – a Wireless Display can be placed anywhere within your facility. It features an audible alarm and an LED indicator to tell staff exactly which driveway to go to when a person wanders. One Wireless Display can connect to up to 4 driveways.

The wander alert is reset by pressing the reset button on the Wireless Display.

Multiple Wireless Displays may be used if you require alerts to be displayed in more than one location.

- **Call System Integration** - When a wandering event happens a 'call' will be made on your Call System. This 'call' indicates the exact driveway where the event happened via your existing Call System. WanderShield can integrate with any modern Call System.



Wireless Display



Call System Annunciator Panel



Next step

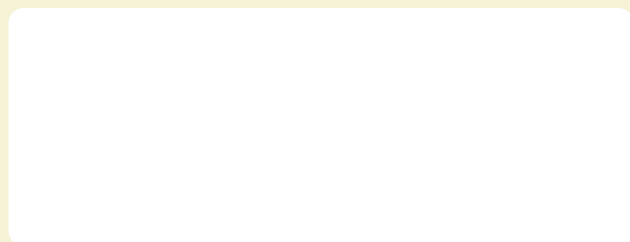
WanderShield gives you the peace of mind of knowing your at-risk people are safe and nearby.

It helps you to:

- ✓ Increase safety
- ✓ Save time, money and hassle
- ✓ Free up dementia beds
- ✓ Leave doors open while protecting at-risk people
- ✓ Enhance quality of life
- ✓ Adapt to changes within your organisation



To find out how WanderShield can work for you, please contact:



Technical Specifications

DOORWAY SENSOR

Supply voltage	12 VDC
Power consumption	300 mW per ceiling sensor
Sensing method	Magnetic field RFID, 125 KHz
Tag communication	Two-way, 500 Kbs, 300 MHz band
Sensing accuracy of transition	+/- 250mm typical
Mounting height	2.0 – 3.0 m
Spacing from doorway	Typically 1.0 m either side
Dimensions	Ø 150 x H 48 mm
Weight (master)	220 g
Weight (slave)	180 g
Output	Momentary, isolated SSR, 100mA 40V

DRIVEWAY SENSOR

Supply voltage	12 VDC
Power consumption	300 mW
Solar photovoltaic panel	Polycrystalline 10W 17.2V
Battery	7Ah Gel Cell
Sensing method	Magnetic field RFID, 125 KHz
Tag communication	Two-way, 500 Kbs, 300 MHz band
Sensing distance	6.0 meters
Dimensions	H 745 x W 370 x D 260 mm
Weight	6.8 Kg
Transmission to receiver	915-928 MHz (AU), 921-928 MHz (NZ), 902-928 MHz (USA)

BRACELET

Battery	3 V Lithium
Sensing method	Magnetic field RFID, 125 KHz
Communication with beacons	Two-way, 500 Kbs, 300 MHz band
Heartbeat repetition rate	10 seconds
Dimensions	42 x 28 x 15 mm
Weight	15 g
IP rating	IP 67 (immersion up to 1m)

EXTERIOR ENCLOSURE FOR DOORWAY SENSOR

Dimensions	H 87 x W 180 x D 180 mm
Weight	460 g
IP rating	IP 65
Arm length	1 meter (if required)
Arm weight	1.3 Kg including fastenings

DOORWAY SOUNDER

Supply voltage	12 VDC
Sound pattern	3 KHz tone burst every 2 seconds
Dimensions	H 115 x W 90 x D 55 mm
Weight	260 g
Output	Relay NO-COM-NC latching
Wireless Transmitter (if fitted)	915-928 MHz (AU), 921-928 MHz (NZ), 902-928 MHz (USA)

DOORWAY WIRELESS DISPLAY

Supply voltage	110 - 240 VAC (12VDC adaptor supplied)
Dimensions	H 92 x W 162 x D 28 mm
Sound pattern	3 KHz tone burst every 2 seconds
No. of doorways (channels)	16
Display	8 character alphanumeric

DRIVEWAY WIRELESS DISPLAY

Supply voltage	110 - 240 VAC (12VDC adaptor supplied)
Dimensions	H 92 x W 162 x D 28 mm
Sound pattern	3 KHz tone burst every 2 seconds
No. of driveways (channels)	4
Output	Relay NO-COM-NC latching or momentary

WanderShield is compatible with 13.65MHz RFID tags as used in access control systems. Contact Miracle Electronics if an older generation 125KHz type system will operate near WanderShield products.