Wander-Alarm
"DOORWAY SENSORS"

Doorway Master Sensor
(Part No. MB-001)

Doorway Controller/Sounder
(Part No. DCS-003)

Wander Alarm

PRESS — Alarm (Reset)
PRESS — Night Mode

Sense   Power

SMART LINK
Tomorrow's Technology Today

Bracelet
(Part No. TAG-W-002)

INSTALLATION MANUAL

1. CONTENTS

2. EQUIPMENT LIST

Wander-Alarm Doorway Sensors Kit (Part No. WAN-DW-KIT)

1. **Doorway Master Sensor (Part No. MB-001)**
2. **Doorway Controller/Sounder (Part No. DCS-003)**
3. **Doorway Controller/Sounder Mounting Block**
4. **12VDC Plug Pack (500mA)**
5. **Reed-Switch**
6. **Installation Manual**

7. **Bracelet (Part No. TAG-W-002) Sold Separately**
8. **Extra Strong Strap – Pack of 10 (Part No. BND-460-50) Sold Separately**
9. **Doorway Slave Sensor (Part No. SB-001) Sold Separately**

3. INTRODUCTION

3.1 Overview

The Wander-Alarm "Doorway Sensor" System employs **Bracelets** worn by residents, and ceiling mounted **Doorway Sensors** to raise an alert when a Bracelet passes through the doorway.

Each doorway requires a master **Sensor** to create a magnetic field which the **Bracelets** detect. The **Bracelets** then communicate their presence to the master **Sensor**, which can generate an alarm locally using a **Door Controller/Sounder** unit, or via an existing nurse call system.

Note: The Wander-Alarm system works with as many Bracelets as you have dementia patients.

If a patient wearing a **Bracelet** opens a monitored door, an alarm will sound, warning staff of the breach. For security at night the Wander-Alarm System can be switched to **Night Mode** (Flashes every 3 Seconds), where **any opening of a monitored door,** an alarm will sound/beep.

If a monitored patient wearing a **Bracelet** opens a monitored door, the Door Station indicates the alarm via a buzzer and alarm light. The alarm can also be extended to a Nurse Station, to operate a beeper, flashing lights, pagers etc.

3.2 Handling Alarms

Go to the door indicated by the **Alarm** and look for any of your monitored patients. It is possible that the patient opened the door, then turned around and went back inside. Alternatively a monitored patient may have been standing near the door when someone else opened it. Look for any of your monitored patients near the door.

When the patient has been located and brought back inside, press the **Alarm (Reset)** button on the **Controller/Sounder Unit**. You may Reset/Cancel the alarm as soon as you get to the door, however this may cause the alarm to sound again when the patient is brought back through the doorway.

3.3 Activating, Fitting or Removing a Bracelet

To Activate, ensure that the **back of the bracelet** is in light **contact with the skin/palm for ten seconds** and it will indicate when it **awakens with a chirp**. The bracelet is now **Activated**.

The **Bracelet is in deep sleep mode** when left attached to the **cushion/box to prolong its battery life**.

The **Bracelet is fitted** to the Patient by threading the "snugfit" strap over the top of the bracelet and through the other side. Snap the retaining clip onto both ends of the band.

Removal of the Bracelet requires cutting the band, so a new band and clip are required for each fitting. Contact or Email smartlink@ness.com.au to obtain packs of ten replacement straps with clips (**Part No. BND-460-50**).

3.4 Bracelet Battery

The **Bracelet is in deep sleep mode** when left attached to the **cushion/box to prolong its battery life**.
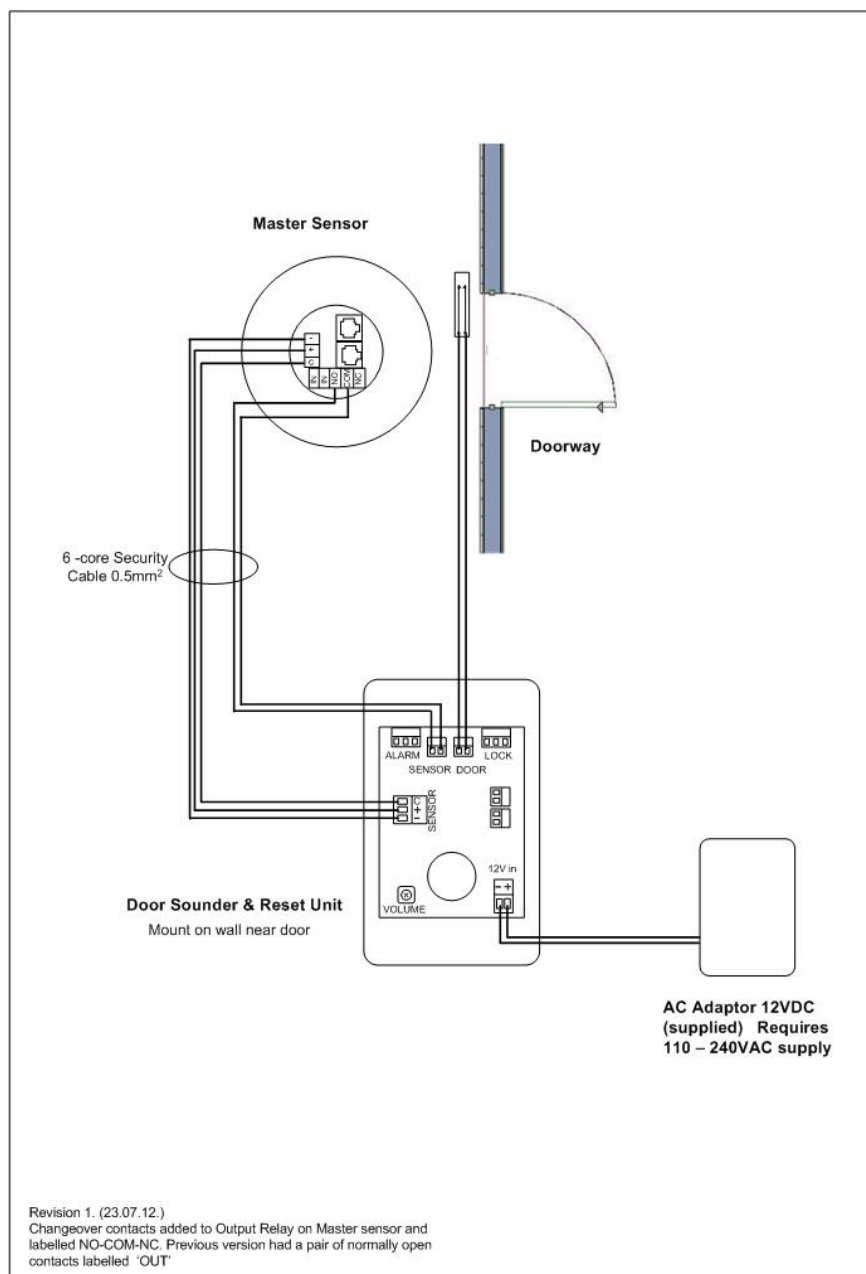
The Bracelet are **fully sealed from factory** which means they are resilient to wet conditions and are usually only damaged by physical abuse or through excessive environmental temperature (e.g. in a tumble-drier) which can melt the plastic case.

The battery is a 3V Lithium Type (CR2032), it should last **approximately 12 months** and the battery it is **not replaceable** since it is totally waterproof.

When the **battery is running low**, the LED light on the Bracelet will flash and beep occasionally. Contact or Email smartlink@ness.com.au for a new Bracelet.

4. SYSTEM INSTALLATION

Example A: *Typical Wander-Alarm "Master Sensor" Installation*

FIG 1

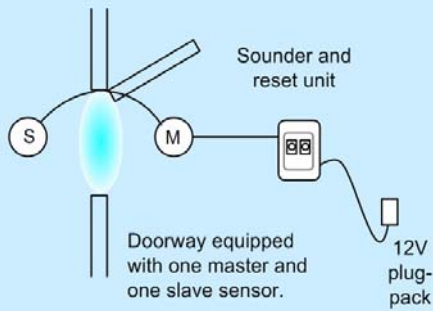- A master sensor and a door switch monitor the door.
- The sensor is connected to a sounder - reset unit.
- Power is supplied from a 12V plug-in power unit.
- A tag within the range of the sensor will trigger the door sounder-reset unit when the door is opened. It will continue to sound the alert until the reset button is pressed.
- The Sounder-Reset unit has outputs which can be connected to a nurse call system, paging system, or used the lock the door.

12V plug-pack

Doorway equipped with one master sensor, a door switch and a door Sounder-Reset unit

Master Sensor

Doorway

6 -core Security Cable 0.5mm^2

ALARM   LOCK
SENSOR DOOR

SENSOR

12V in

Door Sounder & Reset Unit
Mount on wall near door

VOLUME

AC Adaptor 12VDC (supplied) Requires 110 – 240VAC supply

Revision 1. (23.07.12.)
Changeover contacts added to Output Relay on Master sensor and labelled NO-COM-NC. Previous version had a pair of normally open contacts labelled 'OUT'
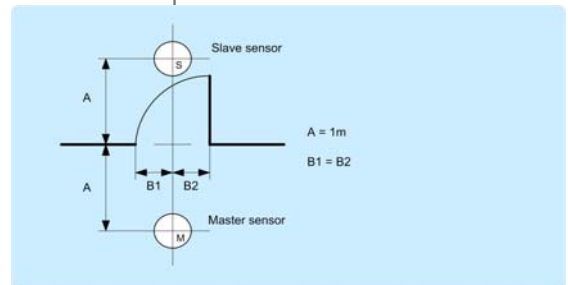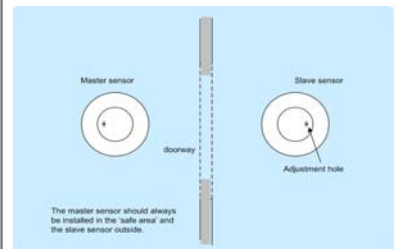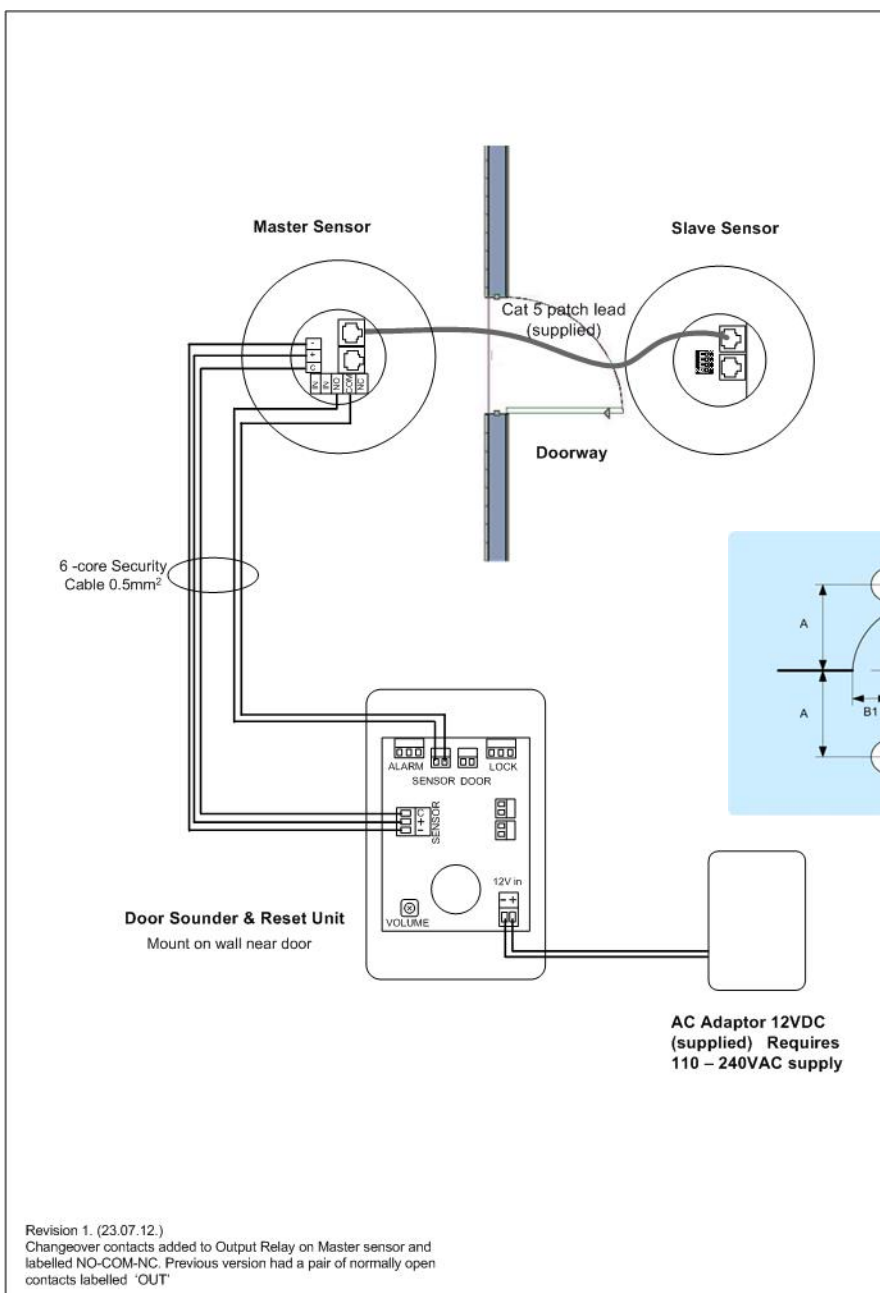
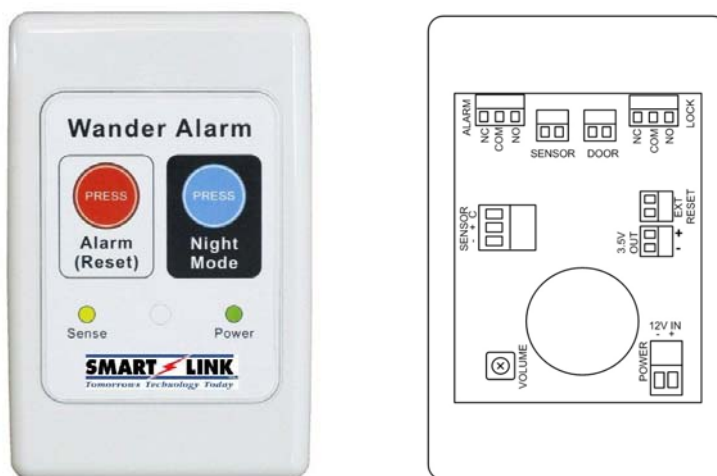# Example B: Wander-Alarm "Master-Slave Sensor" Installation

FIG 2

- A master and a slave sensor monitor the door.
- The master sensor is connected to a sounder-reset unit mounted near the doorway.
- Power is supplied from a 12V plug-in power unit.
- A bracelet passing through the door will sound an alert, which will continue until reset by pressing a button on the sounder-reset unit.
- The Sounder-Reset unit can be connected to a nurse call system, paging system, or used the lock the door.
- Using two sensors prevents alarms occurring when a tag in near the door and the door is opened by another person. With two sensors the alert is not triggered until the tag wearer actually pass through the doorway. If the unit is required to lock the door, this will happen as a tag approaches the door.

Sounder and reset unit

S   M

Doorway equipped with one master and one slave sensor.

12V plug-pack

Master Sensor

Slave Sensor

Cat 5 patch lead (supplied)

Doorway

6 -core Security Cable 0.5mm²

ALARM   LOCK
SENSOR DOOR

SENSOR

12V in

VOLUME

Door Sounder & Reset Unit
Mount on wall near door

AC Adaptor 12VDC (supplied) Requires 110 – 240VAC supply

Master sensor

Slave sensor

doorway

Adjustment hole

The master sensor should always be installed in the 'safe area' and the slave sensor outside.

Slave sensor

A

A = 1m
B1 = B2

A   B1   B2

Master sensor

Revision 1. (23.07.12.)
Changeover contacts added to Output Relay on Master sensor and labelled NO-COM-NC. Previous version had a pair of normally open contacts labelled 'OUT'

5. SPECIFICATIONS

5.1 Doorway Controller/Sounder (DCS-003)

Jumper Settings		
	Jumper ON	**Jumper OFF**
J1	**Alarms may be Reset/Cancel by a Switch connected to the "Ext. Reset" terminals.**	Alarms may ONLY be Reset/Cancel by a Switch connected to the "Ext. Reset" terminals.
J2, J3, J7	Not Implemented	
J4	"Night Mode" Disabled.	**"Night Mode" Enabled.**
J5	"Alarm" relay output is ON momentarily (approximately 5 seconds).	**"Alarm" relay output Latches ON permanently until Cancel/Reset is Pressed.**
J6	"Lock" relay output is ON momentarily (approximately 5 seconds).	**"Lock" relay output Latches ON permanently while a Bracelet is within range of the Sensor(s).**

- **Power (-/+) SK1** Terminal**: 12VDC Input** (a 12VDC Plug Pack is Supplied).
- **Beacon (C/+/-) SK9** Terminal: connects to the **Master Sensor MB-001 (SK5 C/+/-)**.
- **Sensor (NO/COM) SK4** Terminal: connects to the **Master Sensor MB-001 (SK3 NO/COM)**.
- **Alarm (NO/COM/NC) SK7** Terminal: voltage-free changeover contacts rated at 1A 24VDC.
- **Door (C/NC) SK3** Terminal: connects to the **Reed Switch or PIR**.
- **Lock (NO/COM/NC) SK5** Terminal: voltage-free changeover contacts rated at 1A 24VDC can be use to operate an Electro-Magnetic Door Lock. The Relay is activated when a Bracelet comes within the Master Sensor and illuminates the Sense LED. The Door will remain locked until the Bracelet moves out of range of the Master Sensor.
- **Ext Reset SK8** Terminal: an External Momentary Switch (Normally Open) can be connected, allowing remote Resetting of the Wander Alarm. The Alarm (Reset) button can be **Disabled** by removing the **J1 Link** , allowing Remote Resetting only.
- **3.5V Out (-/+) SK6** Terminal: an internal 3.5V supply is available to power accessories (maximum current 50mA).
- **R17 Volume** Adjustment: 3KHz Tone burst every 2 seconds.
- **Cabling: 5 wires (6-core Security Cable 0.5mm)** to the Wander Alarm Sensor.
- **Dimensions (H x W x D):** 115mm x 78mm x 15mm
- **Weight:** 220 grams

5.2 Doorway Master Sensor (MB-001)

Sensing Range:
Adjustable: 2 to 4 metres
Warning! 3/4 TURN (Minium to Maximum)

- **SK3 (NO/COM) Terminal:** connects to the **Doorway Controller/Sounder (SK4 Sensor).**
- **SK5 (C/+/-) Terminal:** connects to the **Doorway Controller/Sounder (SK9 Beacon C/+/-).**
- **SK6 Terminal:** connects to the **Doorway Slave Sensor SB-001** using a Cat-5 Patch Lead.
- **Sensing Method:** Magnetic Field **RFID 125 KHz**
- **Sensing Range:** Adjustable (from 2 metres to 4 metres)
- **Sensing Accuracy of Transition:** +/- 250mm Typical
- **Power Consumption:** 300 mW
- **Current:** 250mA (50mA average)
- **Bracelet Communication:** Two-Way, 500Kbs, 300Hz Band
- **Output:** Momentary, isolated SSR, 100mA 40V
- **Cabling:** 5 wires (6-core Security Cable 0.5mm) to the Doorway Controller/Sounder
- **Mounting Height:** 2.0 to 3.0 metres
- **Spacing from Doorway:** Typically 0.5 metre away from the Doorway
- **Dimensions (W x L x D):** 150mm x 150mm x 48mm
- **Weight:** 330grams

5.3 Bracelet (TAG-W-002) *Sold Separately*

**Bracelet
(Part No. TAG-W-002)**

- **To Activate**, ensure that the **back of the bracelet** is in light **contact with the skin/palm for ten seconds** and it will indicate when it **awakens with a chirp**. The bracelet is now **Activated**.
- The **Bracelet is in deep sleep mode** when left attached to the **cushion/box to prolong its battery life**.
- The **Bracelet is fitted** to the Patient by threading the "snugfit" strap over the top of the bracelet and through the other side. Snap the retaining clip onto both ends of the band.
- **Removal of the Bracelet** requires cutting the band, so a new band and clip are required for each fitting. Contact or Email smartlink@ness.com.au to obtain packs of ten replacement straps with clips (part no. BND-460-50).
- The **Bracelet** are **fully sealed from factory** which means they are resilient to wet conditions and are usually only damaged by physical abuse or through excessive environmental temperature (e.g. in a tumble-drier) which can melt the plastic case.
- The battery is a 3V Lithium Type (CR2032), it should last **approximately 12 months** and the battery it is **not replaceable** since it is totally waterproof.
- When the **battery is running low**, the LED light on the Bracelet will flash and beep occasionally and eventually NO flash/beep (indicates that the Bracelet is completely dead). Contact or Email smartlink@ness.com.au for a new Bracelet.

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December 2019
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