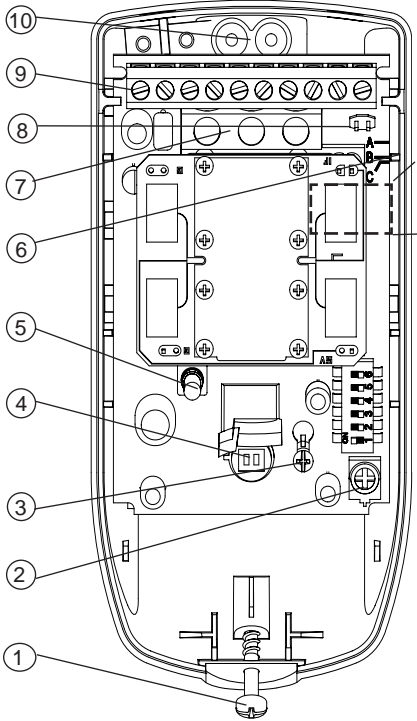


Diagram 1 - Unit Explanation

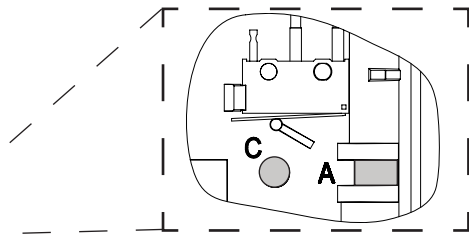


1. Cover Screw (loosen only - do not remove)
2. Microwave Range Control
3. PCB Retaining Screw
4. PIR Detector (do not touch)
5. Cover Tamper
6. Declination Indicator
7. LEDs
8. Off the Wall Tamper Connection
9. Terminal Block
10. Cable Knockout Positions

Diagram 2 - Terminal block

⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
1	2	3	4	5	6	7	8	9	10
-	+	NC	Test	Ctrl	NC Aux	NC Tamper			
12 V		Alarm							

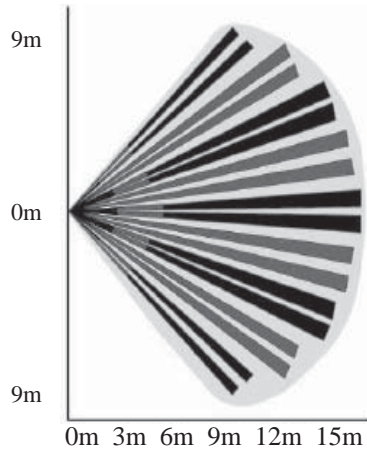
Diagram 3 - Tamper Switch



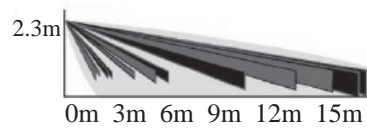
Off the wall tamper fitting is required for EN Grade 3 - the screw should be fitted in location A or C.

Diagram 4 - Coverage Diagrams

Volumetric Plan View 15m



Volumetric Side View 15m



Installation Instructions

DTSx+

Part No. 320998-0B

Guardall Limited
Lochend Industrial Estate
Newbridge, Edinburgh EH28 8PL
Technical Hotline: 0131-333-3802
Website: www.guardall.com





1. Technical Specification

Voltage:	12 V (9 V to 16 V dc)
Current:	Quiescent – 14 mA @ 12V Max – 30 mA @12V (All LEDs ON)
Alarm, Aux & Tamper:	Normally closed (NC). Rated at 24 V dc, 50mA
Test Input:	Positive supply to enable LEDs and control Remote Self Test
Control Input:	Positive supply for system Set. Otherwise Unset
Microwave range:	50% to 100% of range via potentiometer

See datasheet for full information

Use in EN50131 Compliant Systems

DTSx+15 meets the requirements of TS50131-2-4:2004, Grade 3, Class II with SW3 OFF, SW4 and SW5 ON. Coverage shown applies with unit mounted 2.3m high, SW2 OFF, microwave at max and PCB in position B. Changing these may affect approval compliance.

Declaration of Conformity :  

Hereby Guardall Ltd, declares that DTSx+15/100 is approved for use in UK, Italy & Eire and is in compliance with the essential requirements and other relevant provisions of EU Directive 1999/5/EC.

Intended use: Within a building as an intruder detection device.
Safety Information: The power feed must be fused at 5A or less.

2. Installation Location

The recommended mounting height of the detector is 2.3m. Ensure the detector's field of view is not obscured. Please refer to Installation Guidance Notes available on our website or call the Technical Hotline for further information.

3. Walk testing

Select switch 1 to ON.
 The yellow LED displays PIR activity. The PIR coverage is adjusted by loosening the PCB retaining screw, moving the PCB up or down, then re-tightening the PCB screw. Position A=Horizontal, B=15m & C=8m.
 The green LED displays microwave activity. Range is adjusted via the microwave range control (2 in diagram 1).
 The microwave should be set to the minimum necessary to give the required coverage. Note that coverage under the unit may also change.
 The red LED displays unit alarms.
 Walk test the area checking that alarms are indicated at the control panel.
 Check tamper operation if wired.

4. Operating Feature Selection

No.	Function	1	2	3	4	5	6
1	LED Enable	Enabled	Disabled	Disabled	Disabled	Disabled	Disabled
2	Pulse Count	ON	OFF	Disabled	AM on Aux	Standard	Disabled
3	UW Day disable	Enabled	Disabled	AM on Aux	Standard	Disabled	OFF
4	AM / Faults O/P	Enabled	Disabled	AM on Aux	Standard	Disabled	ON
5	AM Sensitivity	Enabled	Disabled	AM on Aux	Standard	Disabled	ON
6	Anti-Stealth	Enabled	Disabled	AM on Aux	Standard	Disabled	ON

SW1: LED enable - See LED indications section.

SW2: Pulse Count
 In harsh environments select switch 2 ON (pulse count).

SW3: Microwave Day Disable
 OFF - the microwave will be permanently active.
 ON - microwave is disabled when system Unset.

SW4: Anti-mask / Fault Output

SW4	Faults Signalled On	Mask Signalled On
ON	Aux + LED (if enabled)	Alarm + Aux + LED (if enabled)
OFF	LED	Aux + LED

To reset a mask: Remove the mask, wait 30 secs, generate an alarm. If Switch 3 (UW day disable) is ON the Anti-mask is disabled.

SW5: Anti-Mask Sensitivity
 In harsh environments, select switch 5 to OFF.

SW6: Anti-Stealth

SW6 ON - Enhances detection for high security applications. Please refer to Installation Guidance Notes available on website or call the Technical Hotline for further information.

5. Remote Self Test (RST)

With switch 4 ON, an **RST** is generated when the TEST Input is taken high to low. The alarm output will signal a successful **RST**. A failure will generate a fault condition. This is only reset by a successful **RST**.

6. Alarm Memory

* System Set
 Should an alarm occur the alarm will be memorised.
 * System Unset and SW1 OFF
 TEST Input Low : the red LED will remain ON (if an alarm is memorised).
 TEST Input High: the LEDs display normally without losing alarm memory.

Memory reset occurs the next time the system is set.

7. LED Mode Setting

System Set: No LED indications

System Unset:
 With SW4 OFF, the following table applies.
 With SW4 ON, the following table applies except NO **Faults** are displayed unless SW1 is ON or Test is High.

SW1	Test	Red		Green		Yellow	
		a	b	Fault	Other	Fault	Other
OFF	Low	√	-	√	-	√	-
ON	x	-	√	√	√	√	√
x	High	-	√	√	√	√	√

x =don't care

8. LED Indications

Red LED Indications:

a) Latched Alarm : ON constant.
 Anti-Mask **Fault** : With latched alarm: Flicker..ON..Flicker..ON.. etc.
 No latched alarm: Flicker..OFF..Flicker..OFF.. etc.
 Low Voltage : One Flash every second.
 b) Low Voltage : One Flash every second.
 Unit Alarm : ON for 3 secs.
 Anti-Mask **Fault** : Flicker..OFF..Flicker..OFF..etc.

Green LED Indications:

Microwave Alarm : ON for 3 secs.
 Microwave detection: One Flash.
 Microwave Masked : 2.5 Flashes every second.
 Microwave **Fault** : ON Dull (while Faulty).

Yellow LED Indications:

PIR Alarm : ON for 3 secs.
 PIR Alarm event (pulse count only) : One Flash.
 PIR Masked : 2.5 Flashes every second.
 PIR **Fault** : ON Dull (while Faulty)

9. Warranty

All Guardall products are warranted against defects in workmanship in materials (details available on request). In the interests of improving quality and design, Guardall reserve the right to amend specifications without giving prior notice. Faulty product should be returned to your supplier.

Note: Guardall recommend that the detector is regularly walk tested back to the control panel and that installers advise their customers to do this.