

Heimdall Installation 'Quick Reference' Guide for an On Crossing Detector

Electrical Connections

Important Notes:

- a) When connecting this detector to a 24V AC source, please ensure that the 24V AC source is derived from an earthed secondary transformer (as used in standard traffic and pedestrian installations).
- b) Particular attention should be paid to the correct termination of the power supply wires. The RED wire should be used for the 24V AC/DC supply feed and the Black wire for the EARTHED supply return.
- c) When using a 24V AC supply, only use battery powered interface equipment (e.g. laptop, PDA). **DO NOT** connect mains powered/connected equipment to the Heimdall series of detectors, as this will cause the detectors to fail.
- d) When installing this detector with a Siemens ELV controller or a Siemens ELV controller additional supply, please ensure the RED wire of the interface cable is connected to the POSITIVE (common) connector, the BLACK wire is connected to the NEGATIVE (-24VDC) source and the GREEN (screen) is connected to the POSITIVE (common) connector.

All Heimdall detectors are equipped with a captive lead and a standard 9 pin 'Buccaneer' connector. The pin out for this connector is as specified in the Highways Agency Specifications: TR2505, TR2506 & TR2507. The Heimdall series of detectors provide additional facilities, to that specified in the HA documents, using the spare connections within the 9 way connector. The wires from this connector should be terminated in accordance with the details shown in the table below.

Output Cable (Standard)

Output Cable (Standard) configuration – for variants: 667/1/31900/xx0 & /xx2.

Connector Pin No.	Comment	Colour Code
1	Detector Supply (24V AC/DC)	Red
2	Detector Supply Common (0v)	Black
3	Screen	Green
4	Detector O/P #1&2 (Common)	White
5	Detector O/P #1 (Normally Open)*	Yellow
6	Detector O/P #1 (Normally Closed)*	Blue
7	Not Used	Violet
8	Not Used	Orange
9	Not Used	Brown

Note: * This signal condition refers to the state when the detector is un-powered (detect state).

For pinout and wiring details of the output cable for either the SiTOS or 2nd output detector options, please refer to the installation guide.

DIP Switch Settings

All Heimdall detectors are equipped with switches that enable the unit to be installed, for the majority of applications, without the need for any special terminal (handset) equipment. The initial calibration of the kerbside detector is carried out using the Dip Switches. Access to these switches is gained by removal of the side cover. Before removal, note the cover's orientation and ensure it is replaced the same way round (Led window should face forward)

The switches on the first PCB (Digital Processor) control the basic functions of this detector and are as listed in the following table:

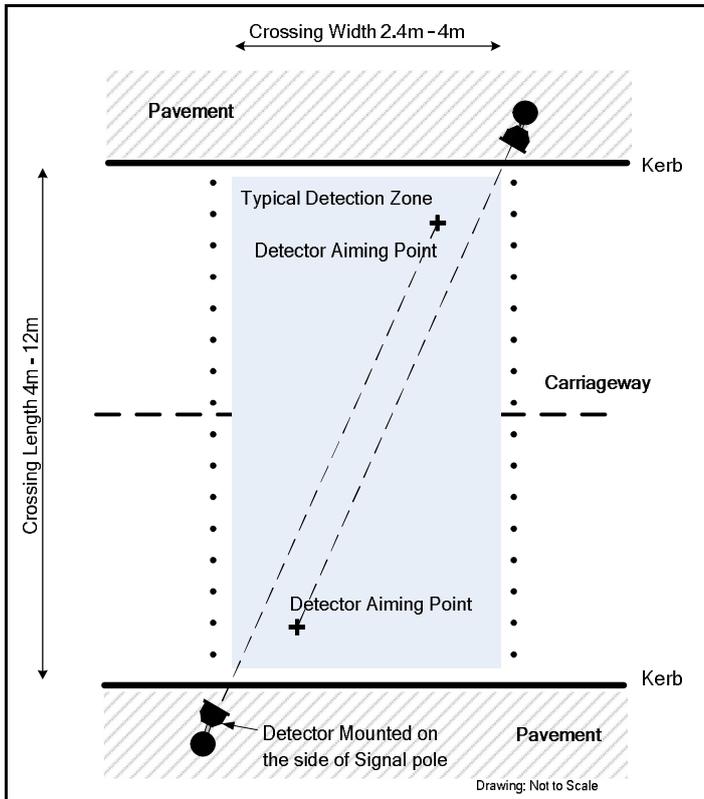
Note: Default settings are with all DIP switches set to '0'/ OFF.

DIP Switch Number							
1	2	3	4	5	6	7	8
Detection Direction 0,0 = Detects pedestrians moving in both directions (default) 0,1 = Detects pedestrians moving away from unit only 1,0 = Detects pedestrians moving towards unit only 1,1 = As per 0,0		Detector LED 0,0 = Normal Detector O/P 0,1 = Permanently Off 1,0 = Detector O/P for 20 minutes after power applied 1,1 = Normal Detector O/P		Detector Hold Time 0 = 600mS 1 = 2000mS	Detection Sensitivity 0 = Normal 1 = High	DFM 0 = Default monitor time (20 hours inactivity) 1 = 'fault monitor time' is set by the Engineer's Terminal	Remote Configuration 0 = Disabled 1 = Enabled

Key:

0	OFF
1	ON

Note: The switches provided on PCB 2 (Special Serial Interface card) control the operation of the Siemens Serial Interface (SiTOS), details of the switch settings for this PCB are shown in the installation guide.



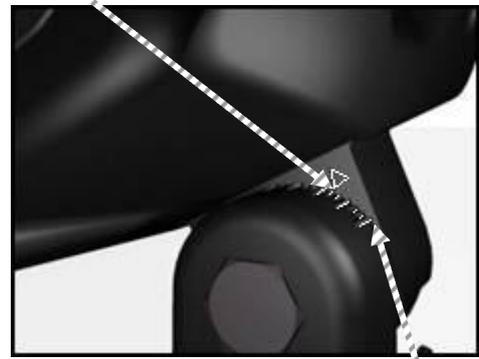
Detector Mounting

The detector must be mounted where the whole crossing can be "seen" by the detector with no brackets, cables or other street furniture masking it.

The detector uses a movement detection algorithm. Thus, the detector is aimed towards oncoming pedestrians, at the right of the centre line of the on crossing area and towards the far side of the carriageway.

As a starting point the mounting angle may be pre-set to:

- 25 degrees (One Large & Two Small Notches) from horizontal for a 12 m crossing



Arrow here would mean detector is vertical (zero degrees)

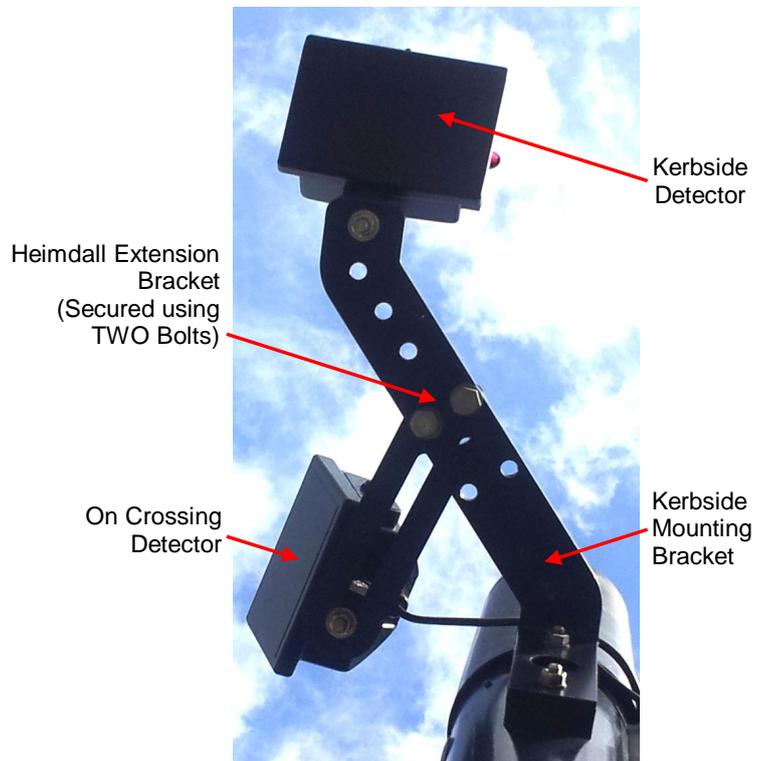
Zone Testing

Once the detector has been installed the crossing coverage must be tested, this is done by walking towards the detector.

For ease of use when testing with only one person the 'Inline Installation Assistance Cable' (667/1/31912/000), can be used to allow the detect LED to be more visible.

1. From a standing position several feet back from the kerb, walk along each dotted white line either side of the crossing towards the detector.
2. The detector should start to detect as you step off of the kerb until you get near to the opposite side in both cases. If this is not the case re-align detector and start perform step 1 again.
3. Again from a standing point several feet back from the kerb, walk the centre of the crossing towards the detector.
4. The detector will probably pick you up before you leave the kerb, this is perfectly normal, and should detect almost all the way across.
5. Repeat these steps for the opposite detector to ensure the whole crossing is covered.

Note: In cases where the alignment and calibration is not returning expected results please refer to the Heimdall Detector General Handbook (667/HB/31900/000) or the On Crossing Detector Installation Guide (667/HB/31900/350)



On crossing Mounted with Extension Bracket to Heimdall Kerbside Bracket