

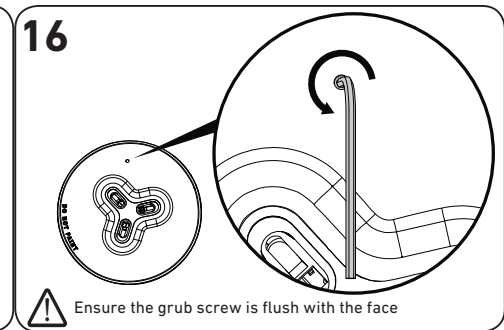
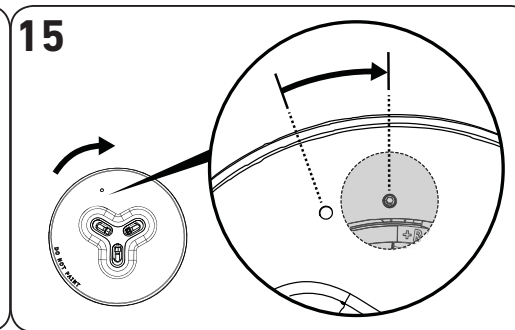
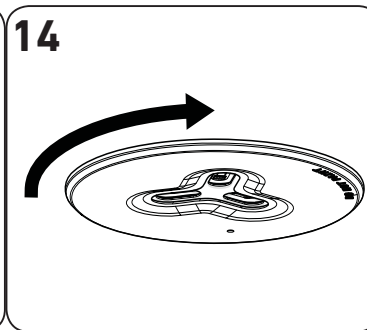
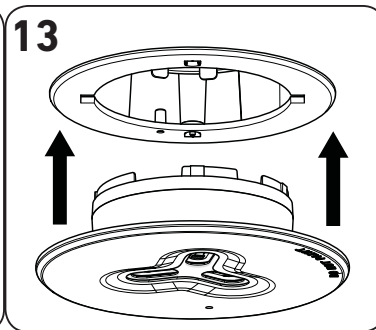
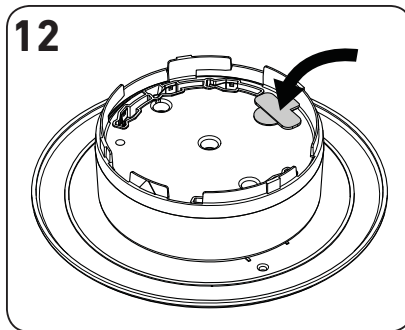
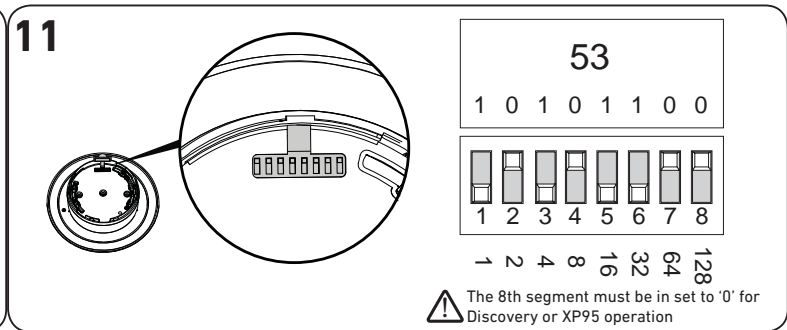
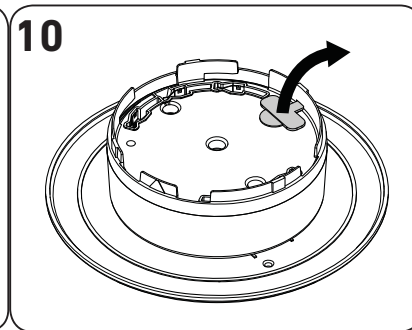
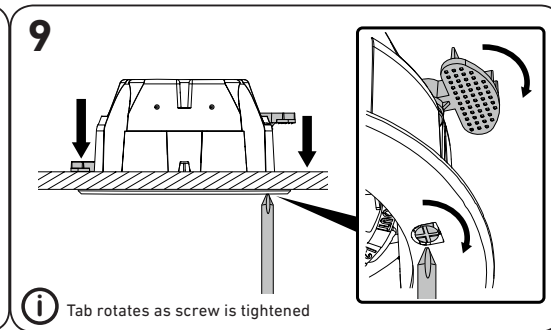
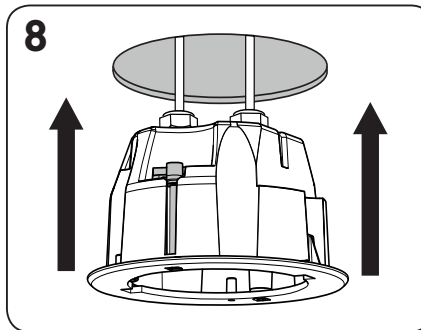
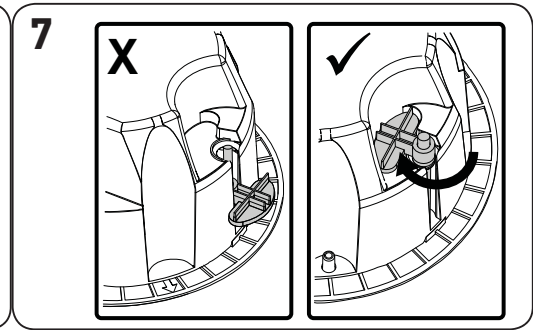
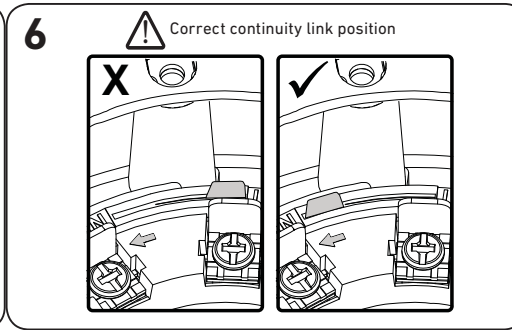
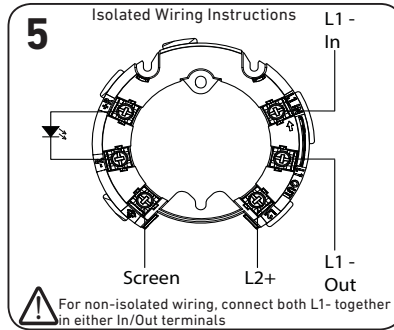
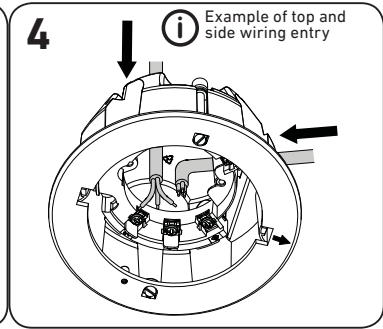
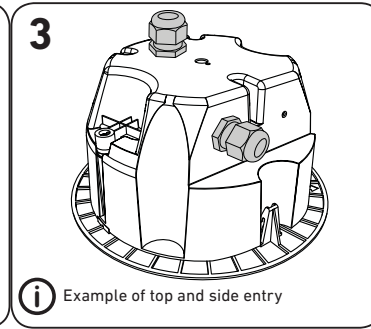
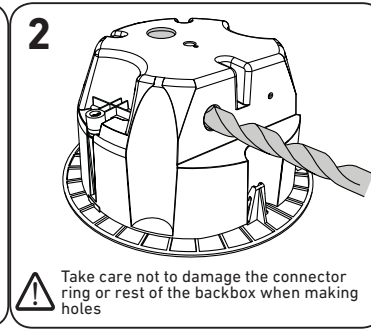
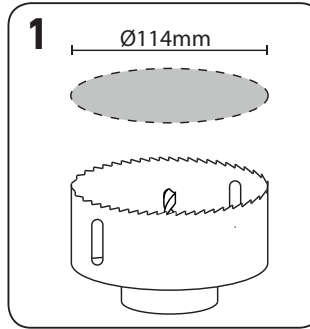
# SOTERIA<sup>®</sup> DIMENSION

## Optical Detector Installation Guide

Part No	Product Name
FL5100-600APO	Soteria Dimension Optical Detector
FL5000-200APO	Soteria Dimension Backbox

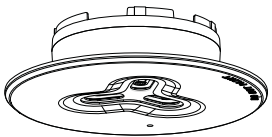
For all technical information please refer to the documents that follow, which are available from [www.apollo-fire.co.uk](http://www.apollo-fire.co.uk):

- PP2550 - Soteria Dimension Optical Detector - Datasheet
- PP2090 - Short-Circuit Isolator - Datasheet

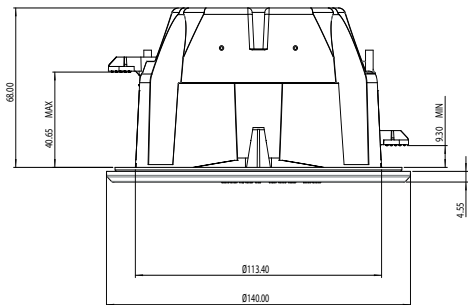
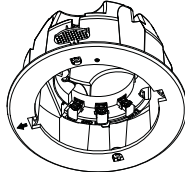


## Required:

1 x FL5100-600  
Soteria Dimension Optical Detector



1 x FL5000-200  
Soteria Dimension Backbox



## LED Status Indicator

### Note:

Not all LEDs can be on simultaneously.

Continuous Red	Alarm
Continuous Yellow	Isolated
Flashing Yellow	Fault
Flashing Green	Device Polled

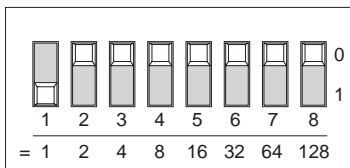
## Operating Modes

Mode	Response Value		Minimum Time to Alarm	Minimum Time to Proximity Fault
	%/m*	dB/m**	Seconds	Seconds
1	4.8	0.27	15	10
2	4.8	0.27	30	10
3	4.8	0.27	15	20
4	4.8	0.27	30	20
5	4.8	0.27	30	30

\* Tested in grey smoke

\*\* Tested in oil mist to EN 54-7 standard

## Address Setting Example



101  
1 0 1 0 0 1 1 0



## Commissioning

The installation must conform to BS5839-1 (or applicable local codes). Because of the way Soteria Dimension works, it is imperative that the windows are kept free from damage, scratches and dirt. The protective label supplied in the detector head carton must be affixed onto the faceplate before any installation work is carried out. Before commissioning please remove the label and ensure the windows are free of fingerprints and dirt.

### Detector Location

The alignment can be determined by referring to the position of the 'DO NOT PAINT' text on the faceplate or features in the backbox as detailed in diagram C. For optimum performance, when installing:

Close to a wall or in a corridor: align parallel to the wall(s) (Diagram A)

Near a corner: align out of the corner (Diagram B)

- Always maintain the minimum clearance of 0.5m (Diagram D)
- The detectors are not intended for outdoor use
- The detector fits into the backbox one way, ensure the backbox is fixed in the desired orientation

### Maintenance & Cleaning

Maintenance should be performed in accordance with applicable local codes. Clean the detector with either a dry, lint free cloth or use a non-abrasive cleaning product suitable for use on plastics. Ensure the fire system is suitably isolated before cleaning detectors. For full cleaning and recalibration, detectors should be returned to Apollo Fire Detectors Limited.

### Testing

The detector may be tested with a Smoke Sabre, Smoke Pen or Solo 365 using a special adapter, with the method described in the test equipment's installation guide. We recommend cleaning detectors after testing. The new FasTest® mode (**CoreProtocol® only**) facility on Soteria Dimension Optical Detector, which can be enabled on a compatible fire control panel, facilitates quicker testing of detectors with appropriate test equipment. The FasTest disables both a portion of the signal processing algorithm and proximity sensing to allow for a faster detector response, whilst ensuring that the detectors absolute sensitivity remains identical to that of mode 3 (refer to Operating Modes Table). This helps to reduce commissioning time.

### Troubleshooting

Before investigating individual units for faults, it is important to check that the system wiring is fault free. Earth faults on data loops may cause communication errors. Many fault conditions are the result of simple wiring errors. Check all connections to the unit.

Problem	Possible Cause
No response or missing address	Incorrect address setting Incorrect loop wiring
Fault condition reported	Object blocking windows Proximity fault
Drift warning or fault	Contaminated windows Incorrect detector orientation
Analogue value unstable	Dual address Loop data fault, data corruption
Constant alarm or pre-alarm	Contamination build-up on windows Obscuration of windows
Isolator LED on	Short-circuit on loop wiring Wiring reverse polarity Too many devices between isolators

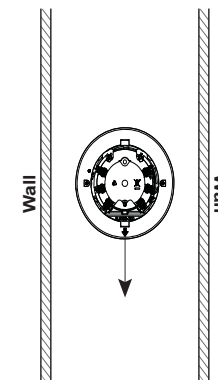
## Addressing

Table 1

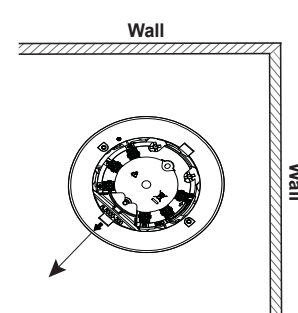
Segment	XP95 & Discovery Systems	Soteria Systems
1	Sets the address	Sets the address
2		
3		
4		
5		
6	Set to '0' (Fault value is returned if set to '1')	
7		
8		

**Note: On mixed systems addresses 127 and 128 are reserved. Refer to system's panel manufacturer for further information.**

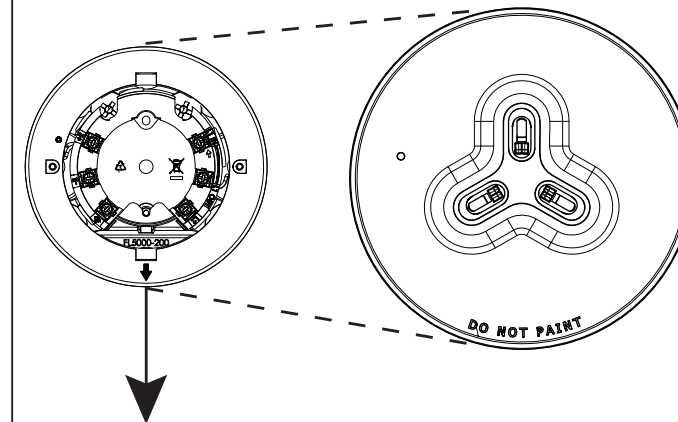
## Corridor Location Diagram A



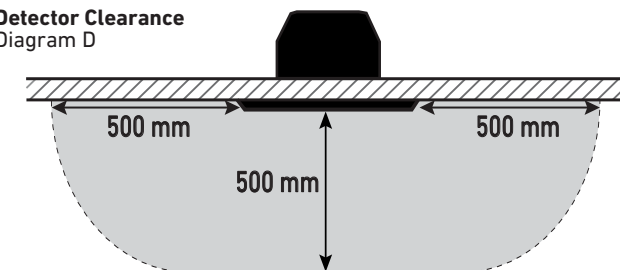
## Corner Location Diagram B



## Soteria Dimension Optical Detector Front View Diagram C



## Detector Clearance Diagram D



A hemispherical space with a minimum radius of 500mm must remain clear of walls, obstructions and light fittings all around the detector.