

# CAB300 analogue addressable detectors

## Specifications

Supply Voltage	18 - 30 V DC
Cable Size	0.5 - 2.5mm <sup>2</sup>
Mounting Hole Centres	FIRETUF or FP200
Recommended cable types	50 - 80mm

## Order codes

CAP320-UK	Analogue Addressable Photoelectric Smoke Detector
CAH330-UK	Analogue Addressable Heat Detector
CAPT340-UK	Analogue Addressable Photo/Thermal Detector

## Installation

### Wiring Hints

- Each terminal is suitable for clamping up to 2 wires.
- Clamping of 2 wires of very different diameters under one screw is not recommended.
- DO NOT USE A POWER TERMINAL DRIVER.
- Suitable for mounting to mounting boxes with 50-80mm fixing centres.

### General

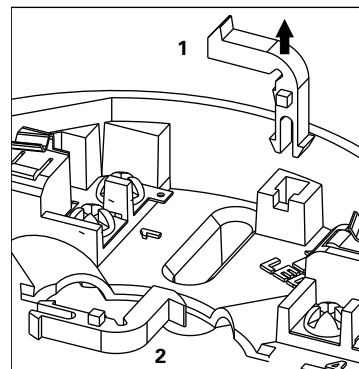
If difficulty is experienced when mounting the detector, this may be due to the following:

- Wiring causing an obstruction - move or shorten wires.
- Although the base is tolerant to uneven mounting surfaces, a very uneven surface may cause the base to deform when the mounting screws are tightened down - loosen screws to reduce this or slide base to a more flat position.

## WARNING

**DO NOT USE HIGH VOLTAGE TESTERS WHEN DETECTORS OR CONTROL PANEL ARE CONNECTED TO THE SYSTEM.**

## Utilising Locking Tab

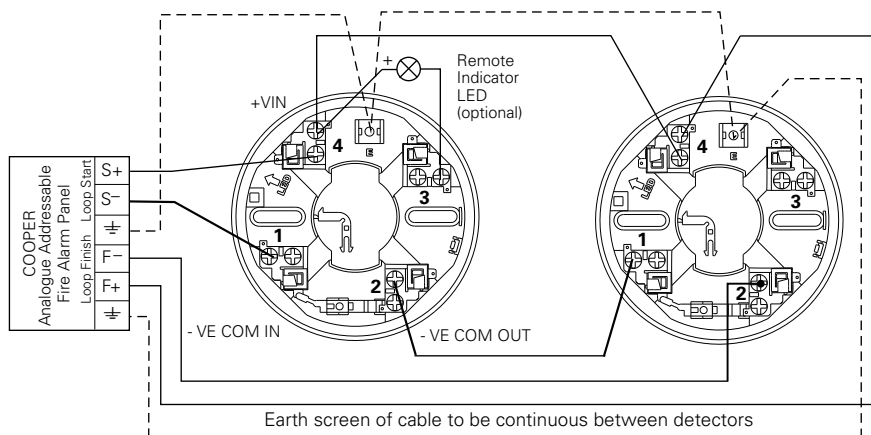


The mounting base includes an optional feature to prevent the removal of the detector without the use of a tool.

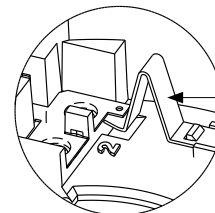
1. Remove the standard fit retaining clip.
2. Insert the locking clip which is located at the centre of the base as shown.

Mount the detector onto the base as described in Detector Installation (see over) and rotate fully clockwise until it finally clicks.

The detector is now locked into position. Remove by utilising a suitable tool (eg a thin screwdriver) into the hole in the detector cover. Gently push the tool into the detector and rotate anti-clockwise



**Attention: If using the outer connection on terminal 2, ensure the operation of the switch is not impeded and that there no shorts between terminal 2 and the switch contact.**



**Ensure that the cable does not short onto the contact**

	CAP320-UK	CAH330-UK	CAPT340-UK
Operating Voltage		18 to 30 Vdc	
Standby Current (max)		220µA	
Alarm Current (typ)		5mA	
Ambient temperature (max)	60°C	A1R 50°C BS 65°C CS 80°C	50°C
Ambient temperature (min)		-10°C	
Alarm temperature (static)	N/A	A1R 60°C BS 77°C CS 90°C	60°C
Heat detector class – as defined by EN54-5:2000	N/A	A1R, BS, CS Control Panel Selectable	A2S
Relative Humidity (non condensing)		0 to 95%	
Height (without base)	34mm		43mm
Height (with base)	47mm		56mm
Diameter		100.5mm	
Weight (without base)		78g	
Material		PC/ABS	
Colour		White	

### Short Circuit Isolators

Each of the detectors in his range contain an integral short circuit isolator, which operates between the -VE COM IN terminal and the -VE COM OUT terminal (terminals 1 & 2; see base wiring diagram overleaf). The isolator operates in conjunction with the DF6000 Control Panel when a low parallel resistance fault of typically 200Ω is presented between the +VE and -VE of the loop wiring.

#### Short Circuit Isolation Data (Integral with each detector)

Total Loop Resistance for correct operation of short circuit isolator	50Ω (max)
Parallel Fault Resistance to be seen at the Control Panel for isolators to open	200Ω (typ)
Continuous Current allowable through isolator	700mA (max)
Isolator Resistance in closed state	0.26Ω (max)
Leakage Current into direct short circuit with isolator open	14mA (max)
Voltage at which isolator changes from open to closed or closed to open state	3.8V to 11V
Maximum switching current of isolator	1.5A

### Detector Installation

- Fit detector to mounting base and rotate clockwise until the detector drops into place.
- Continue to rotate clockwise until the detector clicks and no further rotation is possible.
- If the detectors are required to be locked into position, refer to the mounting base installation instructions (see over leaf).
- Smoke detectors are supplied fitted with dust covers for general protection against airborne contaminants. These must be removed from all detectors before the fire system is commissioned.
- NB. These dust covers do not provide adequate protection against quantities of dust generated by building work, sanding etc. Therefore, detectors should not be installed until this type of work has been completed.

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### Testing

All detectors must be tested following installation or routine service and maintenance. It is recommended that these tests are carried out by a competent person. Authorised personnel must be informed that the fire system will be temporarily out of service before commencing testing. To prevent unwanted alarms, ensure that the control panel is in the 'One Man Walk Test' mode. When all tests are complete, re-enable the previously disabled zones and notify authorised personnel that the system is operational.

### Smoke Detectors; Photo/Thermal Detector

- Subject the detector to be tested to a controlled amount of an approved synthetic smoke aerosol via a smoke detector test pole. Suitable products are available for example, from No Climb Products Ltd.
- Check that the red LED on the detector lights within 30 seconds and the appropriate alarm address indication is displayed on the control panel. If an optional remote LED is fitted, check that this also lights.
- Ensure that the control panel activates into alarm.
- The control panel will automatically reset after a few seconds.
- This procedure will test the smoke sensing circuitry of the Photo/Thermal Detector.

### Heat Detectors; Photo/Thermal Detector

- Using a heat gun or hair dryer capable of generating temperatures of up to 95°C, direct the heat source towards the heat sensing elements, visible through the side of the outer cover, from a distance of 15 to 30cm. Care should be taken not to allow the plastic surface temperature to exceed 110°C otherwise damage may occur.
- When the temperature reaches the 'Alarm Temperature' (see Specifications above), check that the red LED on the detector lights and the appropriate alarm address indication is displayed on the control panel. If an optional remote LED is fitted, check that this also lights.
- Ensure that the control panel activates into alarm.
- The control panel will automatically reset after a few seconds.
- This procedure will test the heat sensing circuitry of the Photo/Thermal Detector.

### Maintenance

Only minimal maintenance can be performed on this range of detectors as they do not contain any site serviceable parts. The frequency of maintenance will depend on the environment to which the detector is exposed but should be at least annually. Dusty or damp environments will demand more frequent maintenance.

- Remove the detector from its mounting base.
- Use a vacuum cleaner to remove dust build up from around the smoke entry apertures of a smoke detector, or from around the heat sensing element of a heat detector.
- For smoke detectors, visually inspect the insect mesh for blockages. If these can not be cleared by vacuuming, the detector must be replaced.
- Re-fit detector to its mounting base and test as described above.
- Detectors that fail the testing procedure must be replaced.