

Cig-Arrête Master Flame Detector with Voice Alarm (Part No CSA-FDV)



Precautions for use

The detector emits ultraviolet radiation in operation. When using two or more detectors at the same time in close proximity, care should be taken to avoid optical interference.

Do not use in humid environments where surface condensation is likely, and avoid icing.

Do not drop or allow the detector to sustain a strong shock

Keep the optical surfaces clean. Surface contamination will reduce sensitivity. Periodically clean with a cotton bud and alcohol.

When positioning the sensor, avoid the following conditions, which may otherwise lead to an unwanted alarm:

- Fires or other flames
- Mercury lamps, sterilization lamps, halogen lamps (not glass protected)
- Direct or reflected sunlight
- Electrical sparks e.g. welding
- Radiation sources
- Lightening

Positioning

The detector can be mounted in any orientation on a wall or ceiling. For optimum detection and security from vandalism/tampering, mount the detector as high as possible. In its vertical plane, the higher the detector is mounted, the greater the coverage at near to ground level. Unless the ceiling is high, mounting the detector on a wall will provide greater coverage. However, the successful detection of a flame or match can be compromised if the source of light is shielded from view e.g. a persons back is shielding the light. In this instance, consider mounting two or more detectors on opposite walls.

Tips: Pointing the detector down at 45 degrees will fully utilize the field of view. Likewise, when the detector is mounted in the corner of a wall, pointing diagonally across the room, detection coverage is also optimised.

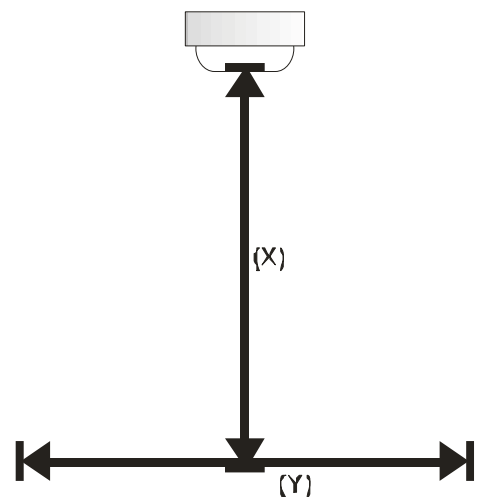
General

During normal operation, the red alarm LED may periodically flash. During an alarm condition, the same LED will pulse continuously for a period of 5 minutes following its last activation.

Coverage

The flame detector has a field of view of 120°. The table below provides a guide to the coverage area for a given installed height.

Height Metres (x)	Coverage Metres (y)	Height Feet (x)	Coverage Feet (y)
1	3.5	3	10
2	7	6	20
3	10	9	31
4	14	12	42
5	17	15	52
6	21	18	62



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Installation

DO NOT INSTALL THE CSA-FDV IN AN EXTERNAL ENVIRONMENT WHERE RAIN CAN PENETRATE THE UNIT.

By default the stand alone module is factory set to DIP switch 2 and 8 in the ON position. (see table below for configuration)

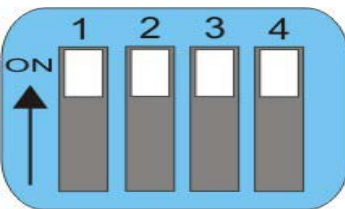
Voice Message No 1 – **"This is a no smoking area. Please extinguish your cigarette. Staff have been contacted."**
 Full volume – Adjustable via potentiometer
 1 message Play - (DIP Switch 3 and 4 OFF)
 Set for 4 x AA batteries - The preferred battery size due to longevity of the product (DIP Switch 8 ON)

Install the unit on a ceiling or on a wall in line with the operating parameters shown overleaf. Please ensure that the sensing window is clean and free from dust and grease as this may affect the sensitivity of the unit. Test the unit by operating a lighter within 6 metres. If the unit is sensing the flame the LED will flash and the unit will initiate an alarm.

Battery Operation Instructions

Remove detector head, by rotating anti-clockwise. Remove battery holder from the rear of detector. Insert 4 x good quality AA alkaline batteries into battery holder - observing polarity and replace holder (or 1 x 9V PP3 battery) . Fix to ceiling using appropriate fixing screws. Either accept factory default settings or configure as required and refit detector head and lock into position using anti-tamper screwdriver. Fit anti-vandal cage (part no. CSA-AVC2) if additional protection is considered necessary.

Note: Detector can be locally powered if necessary, using optional plug-in daughter board. (see PIN CSA-DBD)
THE CSA-FDV DOES NOT FLASH ITS LED. THE ONLY TIME THE LED WILL FLASH IS WHEN THE DETECTOR HAS SENSED A FLAME, AND WHEN THE DETECTOR HAS INITIATED AN ALARM CONDITION.



Detector Sensitivity Adjustment

High Sensitivity = SW1 ON + SW2 OFF + SW3 OFF
 Normal Sensitivity = SW1 ON + SW2 ON + SW3 OFF
 Low Sensitivity = SW1 ON + SW2 ON + SW3 ON

SW4 Used only on CSA-FDV / R model (see separate installation guide)

DIP SWITCH SETTINGS		1	2	3	4	5	6	7	8
Infra Red Remote	Enabled	ON							
	Disabled	OFF							
Sound Output	Alert Tone		OFF						
	Speech		ON						
Message Repeats (or tone)	1			OFF	OFF				
	3			OFF	ON				
	5			ON	OFF				
Silent (no tone or speech)	Relay On 20 Secs			ON	ON				
Message Select	1					OFF	OFF	OFF	
	2					OFF	OFF	ON	
	3					OFF	ON	OFF	
	4					OFF	ON	ON	
	5					ON	OFF	OFF	
	6					ON	ON	ON	
	7					ON	ON	OFF	
Battery Monitor	9V Battery								OFF
	6V Battery								ON

Fault Indication

Low Battery 0.5 (S) blip, once every 150 seconds - high tone
 Head Removal 0.5 (S) blip, once every 150 seconds - low tone

Specification

Temperature -10 to +50 C
 Humidity 0 – 95% non condensing
 Operating Voltage 4 to 12V dc
 Operating Current 60µA standby, 100mA during alarm @6V dc

Battery Life based on quality DURACELL alkaline batteries.

Duracell	Capacity	Standby Time	Max No of Plays (10 secs)
AA 6V	2.85 A/hr	5 Years	10,000
PP3 9V	0.58 A/hr	1 Year	2,000
D 6V	15.00 A/hr	10 Years	50,000

Note:

The life of the battery is dependant on the number of message plays. In areas where smoking occurs frequently then utilise the D Cell battery box (Part No CSA—EBB) or purchase a plug in power supply e.g. (Part No CSA—246)