

# Product Information Sheet

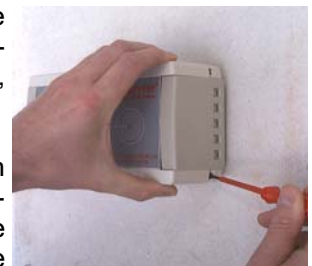
## Installation Guide for the Cig-Arrête System



**PLEASE READ THIS GUIDE CAREFULLY BEFORE INSTALLING YOUR ALARM.**

We would suggest the use of security type multi-core cable to install your Cig-Arrête Smoke Alarm System. The number of cores required will be dependent on your particular system. For example to install five sensors, a proprietary 8-core cable would be sufficient. We would recommend that this type of cable be used in all installations.

1. In order to open the Cig-Arrête Main Controller, (part no. CSA-S5B) use a screwdriver to depress the plastic locking pins on each side of the controller box as shown in the diagram right. As the locking pins are depressed, slide the front cover carefully toward you, away from the back-plate.



2. Once you have removed the front cover, you can disconnect the ribbon cable that connects the front and back printed circuit boards, by simply pulling off the cable, together with its connector. Be sure that you re-attach the ribbon cable in the same way that it was supplied. You can now discard the front cover of the controller until the installation is complete.

3. Decide where your cables will enter the back-plate, and drill a suitable hole in the top or bottom of the back-plate to allow for the cable entry.

4. Fix the bracket to the wall using suitable screws. The back-plate can then be fixed onto the bracket by sliding it on in the direction indicated. Be sure to slide the back-plate fully onto the bracket to ensure a firm fixing.

5. The Cig-Arrête Smoke Sensor (part no. CSA-SGA) can be fitted flush to a suspended ceiling, or can be fixed by means of the conduit base (part no. CSA-DCB) for a concrete or other hard ceiling. The conduit base allows 2 x 20mm knock out points, but may be drilled to provide smaller holes if required.

6. Each Cig-Arrête Smoke Sensor provides two spare terminals for through connection of cabling to the next sensor in circuit labelled Earth and L1 Out. Crimping lugs, such as 'Scotch-lock' or similar may be used if required. There is sufficient room available in each of the Sensor bases to accommodate such crimp connectors.

7. Connect the cables from the Controller back-plate printed circuit board as shown below. If you are not installing the maximum five Sensors to your system, remember to include shorting links between Terminal 'C' and whichever inputs (D1 to D5) that you are not using. Should you fail to do this, those particular zones will be in a permanent fault condition, with the specific Zone LED steady yellow on the controller fascia.

### ***Innovation for a new tomorrow***

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Issue No: CSA/Install 031102

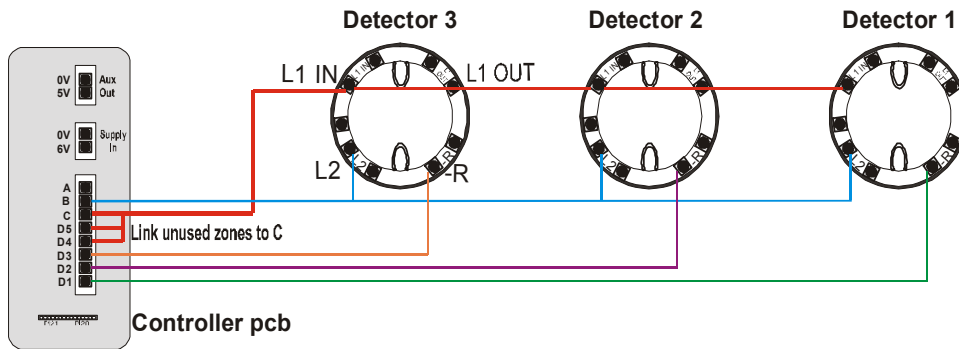
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### Wiring Diagram



8. Once you have connected all the Sensors as shown above, and checked them thoroughly to ensure that they have been done correctly, your system is ready for test. The factory sensitivity setting is normally adequate for most applications and we would recommend that you only change this if you are experiencing false alarms (see section on Siting Sensors). The sensitivity of each sensor may be adjusted as shown in the diagram across. By puncturing the label at the position of the sensitivity adjust with a small jewellers screwdriver, you can access the sensitivity adjust. By turning the screwdriver clockwise or anti-clockwise, the sensitivity may be adjusted to suit your application.



9. Each of the Sensor heads may now be inserted into their bases. This is accomplished by offering them up and twisting them clockwise until they locate and stop rotating in position.

10. Once the cabling is completed and checked, you can insert 4 'D' Cell batteries into the battery box located on the back-plate of the controller. **BE SURE TO OBSERVE THE CORRECT POLARITY!** The batteries can then be held in place by means of the Velcro strip supplied. Re-fit the ribbon cable to the terminal printed circuit board, observing the correct polarity, and slide the front cover of the controller over the back-plate until the locating pins snap into position. The installation is now complete!

### OPERATING FEATURES

On the fascia of the controller, are two red buttons, and a series of lamps that warn of the specific functions of the controller. The 'Power' lamp will flash green once every five seconds to instruct the user that all is well. Each of the five 'Zone' lamps has two colours - Red for Alarm; Yellow for Fault. In the event of an alarm from a Sensor connected to that zone, the lamp will illuminate Red and a buzzer will sound continuously, indicating the location of the alarm. Pressing the 'Silence' button, followed by the 'Reset' button can reset this.

In the event of a zone fault, the specific zone lamp will illuminate yellow and the buzzer will beep at 1 second intervals. Again pressing the 'Silence' button, followed by pressing the 'Reset' button can reset this.

The final 'Fault' lamp will illuminate to indicate a fault condition with the Controller. The lamp will flash once every five seconds and the warning buzzer will beep with each flash. In the event that the 'Power' lamp is extinguished, and the 'Fault' lamp continues to show fault, this indicates that the batteries are in a low condition and should be replaced as soon as possible.

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Page 2



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Each Cig-Arrête Smoke Sensor is fitted with an integral red LED lamp, visible once the Sensor has been installed. Immediately after power up, the LED on each of the Sensors will flash for a period of three minutes. This indicates that the Sensor is learning its environment and as such is functioning correctly. If an alarm is sensed, the Sensor transmits the condition to the controller and then flashes its LED for five minutes, thus allowing the location of the alarm to be visually confirmed. The Sensors will reset themselves automatically once the cause of the alarm has been removed. Do not test the system during power up or within five minutes of this period.

Under normal conditions, a set of batteries should operate for up to 12 months, although this will be affected by the number of alarms, and the length of the alarm condition being allowed to remain for a continued period of time. The system may be powered from a 6-Volt D.C. power source, which may be connected to the external supply terminals provided on the terminal block on the controller back-plate. Additionally, a Remote Alarm Indicator (part no. CSA-RAI), may be connected to provide a sounder in a remote location.

The controller has been fitted with a selector switch on the back of the main printed circuit board. The removal of this jumper will facilitate the use of a 'Silent Mode' of operation, when used in conjunction with the Remote Alarm Indicator.

**NOTE: ONCE THE SYSTEM IS POWERED, SHOULD THE BATTERIES BE REMOVED, IT IS NECESSARY TO WAIT FIVE MINUTES BEFORE RE-POWERING THE SYSTEM. FAILURE TO DO SO MAY RESULT IN INACCURATE OPERATION OF THE SYSTEM.**

### ANTI TAMPER SCREWDRIVER



Each of the Cig-Arrête Smoke Sensors can be fixed securely in position within its individual base. This is achieved by means of tightening the Allen screw shown in the diagram across using the Anti-tamper screwdriver (part number CSA-ATS) to turn the screw six full turns clockwise, or until the sensor is locked firmly in its base. This will prevent any unauthorised removal of the sensor, thus ensuring that it remains available to sense an alarm condition. Do not over-tighten the screw as this may cause the sensor head to jam in its base!

### SITING OF SENSORS

When installing your Cig-Arrête Smoke Alarm, it is important that you plan the location of each of the Cig-Arrête Smoke Sensors to optimise the performance of your system. We suggest that for example, when installing in a toilet area, each trap is fitted with its own sensor, so that individual alarms can be identified easily.

Never install the sensors next to an atomiser type air freshener, or in a location that may be subject to wind speeds in excess of 5 metres per second. Remember that the alarm is a highly sensitive piece of equipment, and as such performs better in a clean, calm atmosphere at high sensitivities. You can of course reduce the sensitivity settings as described overleaf should you find that unwanted alarms are being reported due to excessive air movement.

### LAMP TEST

In order to periodically test the lamps on the controller, press both the 'Silence' and 'Reset' buttons simultaneously, and release. All the lamps will illuminate and the buzzer will sound in order to provide a visual and audible confirmation that they are within working limits. Any enquiries regarding the installation of the Cig-Arrête Smoke Alarm or other Radal products can be made by telephoning the number, or writing to the address given below

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Page 3