

**CD100A  
COMBUSTIBLE GAS  
DETECTOR**

**Kane International Ltd**  
Kane House, Swallowfield  
Welwyn Garden City  
Herts, AL7 1JG

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Stock No: 17129-2      January 2005

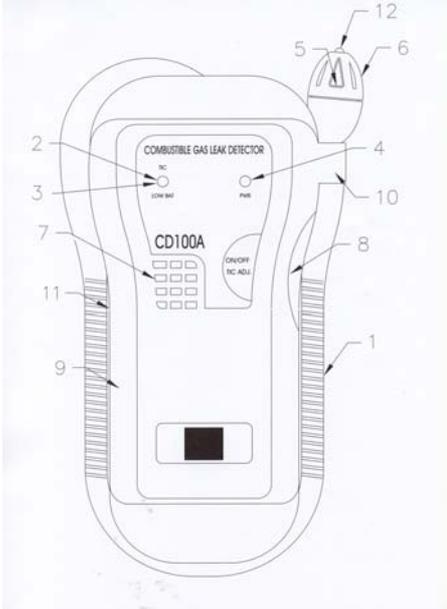
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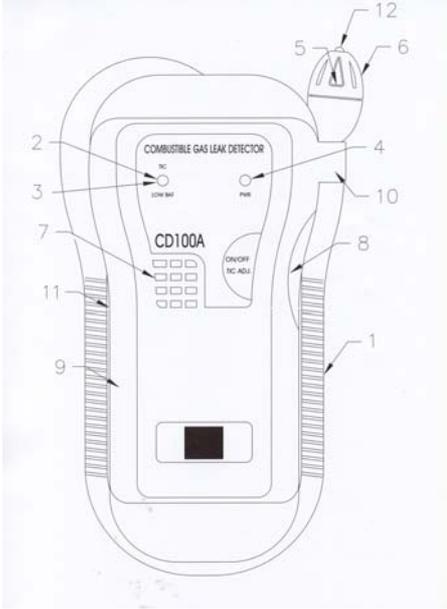
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**PRODUCT FEATURES**



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1. Flexible Gooseneck
2. Visual Leak Indicators
3. Low Battery Indicator
4. Power On Light
5. Solid State Semi-Conductor Sensor
6. Sensor Cover
7. Audible Leak Indicator
8. Tic Adjustment (located on the side of the unit)
9. Protective Boot
10. Gooseneck Clip
11. Socket for Optional Earphone
12. Tip Light

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## **GENERAL DESCRIPTION**

This instrument is an advanced combustible gas leak detector, capable of locating many combustible, non combustible and toxic gases.

A partial list of these gases include:

Acetone	Industrial Solvents
Alcohol	Jet Fuel
Ammonia	Lacquer Thinners
Benzene	Methane
Butane	Naphtha
Ethylene	Natural Gas
Gasoline – Petrol	Propane
Hydrogen	Toluene

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Hydrogen	Toluene

The detector is factory calibrated for methane in air.

## Operation

1. Turn the instrument on by rotating the thumbwheel downwards in a non-contaminated environment. i.e. Fresh Air.
2. The green Power LED will be illuminated when the unit is turned on. If the battery level is low then the red LED will not flash and the tic rate will not be adjustable. The battery will need replacing.
3. Adjust to a slow uniform tic rate with the use of the thumbwheel (approximately 2 ticks per second). This sets the instrument to the background level, you should start your testing by setting in fresh air. The red LED indicator will flash in correspondence with the tic rate. Please allow around 10 seconds for the sensor to stabilise indicated by a steady tic rate. However it may occasionally require up to 2 minutes to stabilise under some conditions.

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4. The unit responds to gas with a variable audible ticking sound. The audible tic increases in volume when exposed to gases with 50 parts per million or more. When gas is detected the tick rate will increase, rotate the thumbwheel back to the steady tick, resetting the instrument to this new background level. Move the instrument into higher concentrations of gas (indicated by increased tick rate) until the leak is found.
5. The 'Tip-light' is used to see around the area of the leak when in a dark environment.
6. When this instrument is used in noisy environments, look at the red LED which flashes more rapidly as the tick rate increases. The optional earphone can be plugged into the unit's side if there is high background noise or the operator does not want to disturb other people. This also disables the speaker.

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7. If the tic rate becomes uncontrollable, it may be necessary to change the sensor.
8. The detector will respond to some leak finding solution (e.g. Soap), so please use your detector first. If over exposed to some gases, the detector may take an extended period of time to return to normal.

## **Battery Replacement**

1. Remove the battery case cover.
2. Replace the 9V alkaline battery. An alkaline battery should always be used. Ensure the polarity of the battery matches that shown in the compartment.
3. Replace battery case cover.

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## **ELECTROMAGNETIC COMPATIBILITY**

The European Council Directive 89/336/EEC requires that electronic equipment does not generate electromagnetic disturbances that exceed defined levels and has an adequate level of immunity to enable it to be operated as intended. The specific standards applicable to this product are detailed in the appendices.

Since there are many electrical products in use that pre-date this Directive and may emit electromagnetic radiation in excess of the standards defined in the Directive there may be occasions where it would be appropriate to check the analyser prior to use. The following procedure should be adopted:

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- Switch on all localised electrical equipment that might be capable of causing interference.

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- Check that performance is as expected. (A level of disturbance in the performance is acceptable). If not adjust the position of the instrument to minimise interference or switch off, if possible, the offending equipment for the duration of the test.

At the time of writing this manual (April 1998) there is no awareness of any field based situation where such interference has ever occurred and this advice is only given to satisfy the requirements of the Directive.

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## **Sensor Filter and Sensor Replacement**

The sensor is housed at the tip of the gooseneck assembly.

To remove the sensor:

1. Turn the unit off.
2. Pull off the top half of the sensor housing. Pushing to one side aids removal.
3. With care move the 'Tip-light' LED to one side to gain access to the sensor (small silver can).
4. Unplug the sensor and replace it with a new one.

Note: The sensor can be fitted in either one of two ways without affecting instrument operation.

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5. Realign the LED ensuring it sits above the sensor.
6. Replace sensor cover by pushing it firmly in place. Note ! the locating pin between the body and sensor cap.

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## Specifications

Power Supply :	1 x 9V battery (Alkaline preferred)
Sensor :	Solid state semi conductor
Sensitivity :	<50ppm methane
Inidcators :	Audible : Adjustable tic rate Visual : Flashing LED
Warm-up :	10 seconds
Response Time :	Instantaneous
Duty Cycle :	Continuous
Battery Life :	5 hours typical use
Dimensions :	8" H x 4" W x 1.5" D 205mm x 100mm x 36mm
Weight :	15 oz / 460 gm
Probe Length :	18 inches / 460 mm
Operative :	0-50°C / +32-122°F

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**Protection Against Electric Shock**

(in accordance with  
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This instrument is designated as  
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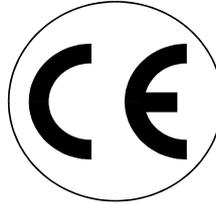
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APPENDIX

**ELECTROMAGNETIC  
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This product has been tested for compliance with the following generic standards:

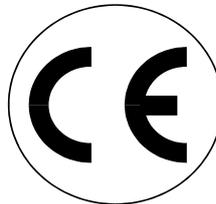
EN 61000-6-3  
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Specification  
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