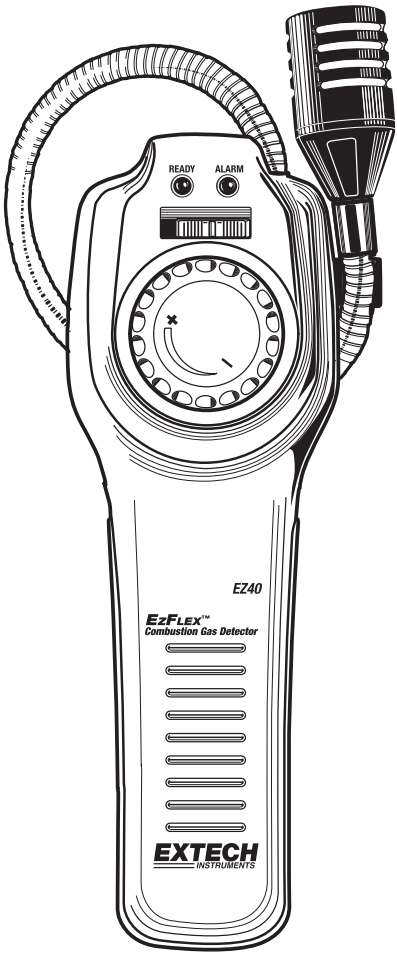
User's Guide

EXTECH INSTRUMENTS

# EzFlex™ Combustible Gas Leak Detector

## Model EZ40



## *Introduction*

Congratulations on your purchase of the Extech EZ40 Combustible Gas Leak Detector. The EZ40 detects the presence of combustible gas and nuisance vapors (Natural Gas, Methane, Ethane, Propane, Butane, Acetone, Alcohol, Ammonia, Steam, Gasoline, Jet Fuel, Hydrogen Sulfide, Smoke, Industrial Solvents, Lacquer Thinner, Naphtha) in concentrations as low as 10% LEL for Methane and alerts the user with audible and visual alarms. The 16" (406mm) flexible gooseneck provides easy access in difficult to reach locations. This meter is shipped fully tested and calibrated and with proper use will provide years of reliable service.

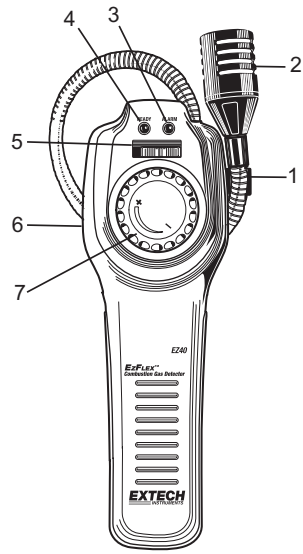
## *Warranty*

EXTECH INSTRUMENTS CORPORATION warrants this instrument to be free of defects in parts and workmanship for one year from date of shipment (a six month limited warranty applies on sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 ext. 210 for authorization or visit our website at *www.extech.com* for contact information. A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

## *Description*

1. Probe clip
2. Sensor tip guard & sensor
3. Alarm light
4. Ready light (Power-on)
5. On/Off slide switch
6. Earphone jack
7. Tick rate (sensitivity) adjustment

**Note:** Battery compartment is on rear of unit



## *Operation*

**WARNING!** **Always turn the meter on in an atmosphere free of combustible gas.**

**Read and understand this manual before using the meter.**

**Do not replace the batteries in an explosive atmosphere.**

**Frequently check meter operation using an unlit gas burner or lighter**

**Warm-up**

1. In a gas free atmosphere, slide the ON/OFF switch to the right to power on the detector.
2. Hold the EZ40 in the clean ambient air during its 5 minute (typical) warm-up, self-zero cycle.
3. Some intermittent ticking and warbling alarm tones may be experienced for a short time as the meter warms up.
4. The alarm will slowly decrease and a steady ticking rate will indicate that the EZ40 ready for use. If the meter is in an area where combustible gas is present, the alarm may not decrease.

**Note:** Warm-up time will vary depending on when the last time the meter was used.

**Zero**

The EZ40 will automatically zero itself on activation. If the sensor was overexposed, the EZ40 will enter into an automatic cycle to reset. In this instance, the unit will alarm at peak level and decrease to zero.

**Earphone Jack**

In an area with high levels of background noise, an earphone can be plugged in to the EZ40. In addition, the speaker is disabled when an earphone is connected so the ticking and alarm will not disturb others in the general area.

**Caution:** Tick and alarm sounds through the earphone are very loud.

**% LEL, a definition:**

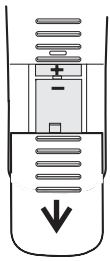
The LEL of a flammable gas is the minimum concentration of that gas, at normal ambient conditions, at which it will burn if there is a source of ignition present. At a concentration below the LEL, the gas will not burn. Gas detectors for flammable gases are calibrated in the range 0-100% LEL

**Leak Detection**

1. Adjust the sensitivity to establish a slow constant tick rate
2. Trace the sensor around the source of the suspected leak. When leaking gas is detected the tick rate will increase.
3. If the level of gas is approximately at 10% LEL of Methane, the Alarm LED will blink and the warbling tone will increase in pitch with increasing gas concentration.
4. In areas of high gas concentration, the tick rate can be readjusted to pinpoint the location of the leak.
5. Turn the sensitivity dial counterclockwise to reset the tick to a lower rate.
6. The tick will increase as you get closer to the source of the leak.

## *Maintenance*

**Caution!** Storing in a damp environment will damage the sensor!



**Battery Replacement**

If the green READY LED flashes or does not illuminate, the batteries need to be replaced. The battery compartment is located at the rear of the EZ40. Replace the three "C" batteries by sliding the battery compartment door and accessing the battery compartment. Ensure that the compartment cover is securely fastened when finished.

**Cleaning and Storage**

Wipe the meter only with a damp cloth as needed. Do not apply abrasive, solvents, or other cleaners to the surface of the meter or sensor. Store with the batteries removed and avoid extreme temperature and humidity.

## *Specifications*

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|---|---|
| Gases Detected | Natural Gas, Methane, Ethane, Propane, Butane, Acetone, Alcohol, Ammonia, Gasoline, Jet Fuel, Hydrogen Sulfide, Smoke, Industrial Solvents, Lacquer Thinner, Naphtha, Carbon Monoxide (indication only, not to quantify), |
| Sensitivity | 50 ppm methane |
| Sensor | Solid State |
| Alarm | Visual and Audible at minimum 10% LEL (40% max) for Methane |
| Warm-up | Approx. 5 minute |
| Response Time | Less than 2 seconds (up to 40% LEL) |
| Duty Cycle | Intermittent |
| Power supply | 3 x "C" 1.5V alkaline batteries |
| Battery life | Approx. 8 hours continuous use typical |
| Operating Temperature | 32 to 122°F (0 to 50°C) |
| Storage Temperature | -22 to 140°F (-30 to 60°C) |
| Operating Humidity | 10 to 90% RH (non condensing) |
| Approvals | CE |
| Dimensions | 8.7 x 2.83 x 1.8" (221 x 72 x 46mm); gooseneck 16" (40cm) |
| Weight | 18.4oz (520g) |

## *Calibration and Repair Services*

Extech offers repair and calibration services for the products we sell. Extech also provides NIST certification for most products. Call the Customer Service Department for information on calibration services available for this product. Extech recommends that annual calibrations be performed to verify meter performance and accuracy.

**Support Hotline (781) 890-7440**
Tech support: Ext. 200; Email: support@extech.com
Repair/Returns: Ext. 210; Email: repair@extech.com

**Product specifications subject to change without notice**

For the latest version of this User's Guide, Software updates, and other up-to-the-minute product information, visit our website: www.extech.com

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