elmes® electronic

# Wireless Photoelectric Smoke Detector Elmes GNS (EN)

The detector includes internal Elmes wireless alarm module and is intended for smoke detection and alarming in apartments and houses. Detection of smoke obscuration generates loud 85dB horn alarm along with wireless alarm transmissions sent to corresponding Elmes CB32 wireless control panel or receiver where emergency state is further notified. Operated with Elmes receivers may constitute a smoke alarm zone as part of any existing or designed wired security alarm system installation in households. Powered by ordinary carbon-zinc battery the detector operates up to two years while up to four years operation may be achieved when powered by alkaline or lithium battery. Detector features monitoring of radio link and battery voltage level when operated with Elmes CB32 panel or dedicated Elmes receivers CH8HR or CH20HR. The cease of radio signaling by detector or its low battery voltage level are signaled in control panel or receivers. Due to random alarm transmission timing feature the detector is better interference resistant allowing many Elmes GNS detectors to be installed in close vicinity. Elmes GNS detector does not emit ionization radiation and its operation is entirely based on photoelectric chamber obscuration by incoming smoke.

***Locating and installing smoke detectors.***

Proper location of detectors is a critical factor for early smoke detection and fire alarming. Prior to installation a judgment of potential fire hazards and ways of smoke penetration is recommended. When installing, avoid areas where there is no air circulation e.g. corners of rooms. For maximum protection detectors should be fitted in every room.

**Smoke detectors should be installed** in center of ceiling in sleeping and living room areas as well as in ways of expected smoke distribution in stair ways, hallways and their immediate vicinity. Place detector at least 300mm from light fittings or decorative objects that may obstruct smoke entering the detector. When mounting detector on wall, put top edge of detector at 300mm distance from ceiling. Installing detector in areas with sloping ceilings or walls keep 900mm distance from the highest point measured.

**Do not install detector** in room corners where there may not be sufficient smoke circulation to trigger fire detection. Do not fit detectors in kitchen, bathroom, workshop or garage where natural cooking fumes, steam, dust or car exhaust fumes may trigger false alarms.

Elmes GNS smoke detector is battery powered and requires no additional wiring. Having established a mounting location take the mounting bracket and mark two installation holes to be drilled in ceiling or wall. Insert supplied wall plugs into drilled holes and screw bracket to the surface. Clip (note polarity) and insert a new 9V battery firmly into battery compartment on the rear of the detector. Fit detector to mounting plate by aligning two projections on the mounting plate with two keyhole slots in the detector and turn it quarter turn clockwise. After battery replacement always test correct operation of the smoke detector by depressing front positioned TEST button. The unit should emit a loud pulsating alarm.

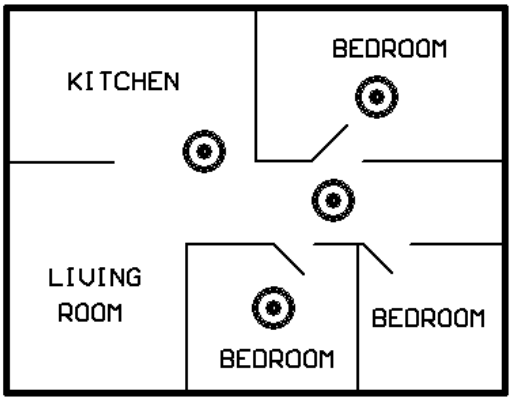

Fig. 1

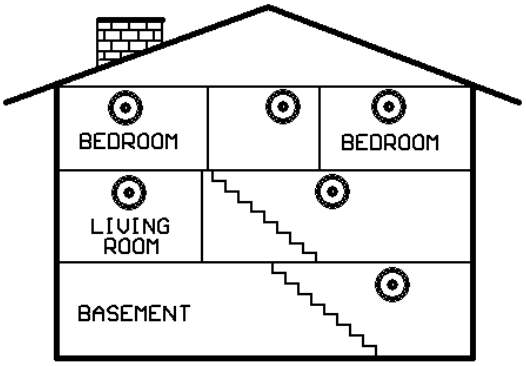

Fig. 2

**NOTE! For the safety of the end user the smoke detector cannot be properly fitted without 9V battery.**

Suggested installation places of the Elmes GNS detectors in apartments and houses are shown on side figures with detector marked ⊙ .

***Learning detector to Elmes CB32 control panel or Elmes receivers.***

To learn wireless Elmes GNS smoke detector to CB32 panel or to Elmes receivers, detector's learning mode must be activated in the devices (see devices' manuals) and TEST button in GNS detector depressed for circa three seconds. The detector emits loud pulsating alarm and sends series of wireless signals that are decoded and used to learn the detector to the control panel or receiver. If, by any means, the attempt is unsuccessful, learning procedure has to be repeated. Deleting GNS detector in control panel or receiver devices memory should be followed according to programming instructions described in the devices' manuals. Number of detectors that can be learned to one receiving device depends on memory capacity of the device listed in its specification.

Elmes GNS detector learned to CB32 control panel (version 3.00 and up) is automatically detected as smoke detector and assigned to 24hour alarm line. In emergency, control panel displays "fire alarm" message along with "line number". Moreover, if the control panel operates with Elmes GSM monitoring module connected, appropriate SMS messages are sent to registered phone number. Older versions of CB32 panel would recognize the smoke detector as wireless


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PIR detector and signal robbery alarm in the line of the detector when smoke is detected. It is very important then to assign a 24h alarm line type to the line of the detector.

Operating GNS detectors learned to Elmes receivers connected to wired alarm systems, it is advisable that outputs of the receivers must be connected to proper fire alarm or other 24hour lines/zones (inputs) of the host wired alarm.

Elmes GNS smoke detectors learned to Elmes receiving devices must be operating within safe wireless distance range and **must not be installed on limits of maximal operating range.** Prior to firm installation, practical operating range tests should be conducted to ensure safe wireless connection. To assess the level of radio signals received from activated GNS detector a signal level test mode should be selected in wireless CB32 control panel or dedicated Elmes RMF3 signal level gauge used when operating with Elmes receivers. In the case of GNS detectors installed in distant locations, the use of Elmes TRX signal repeater is suggested to ensure reliable operation.

***Operating and Testing your smoke alarm.***

As soon as battery is installed and detector fitted, a small LED indicator positioned under the TEST button, starts flashing approximately once a minute in normal operation. If smoke is detected the unit produces a loud (85dB) acoustic, pulsating alarm until the air is clear of smoke. Along with sound alarming the detector emits wireless signals that received by Elmes CB32 control panel or receiver set on alarm state in fire or security monitoring system. The detector is equipped with **Hush (Silence) Feature** incorporated into the TEST button: If cooking or other non-hazardous sources cause the alarm to sound it, it can be temporarily silenced by depressing the test button and holding for 2-3 seconds, then release. The alarm will enter into a dormant period for 10 minutes and then reset to normal mode after this period. NOTE - If the smoke density increases during this period (i.e. from a fire) the unit will go into alarm mode.

If the smoke detector emits a short “beep” once a minute, the battery is at the end of its life and requires immediate replacement. Battery low voltage warning “beep” is indicated by at least seven days. If the red LED indicator does not flash every minute then replace the battery.

**NOTE**! **After battery replacement, battery test or silencing smoke alarm by the use of TEST button, detector is in low sensitivity period lasting ca 10 minutes and signaled by short sound pulses.**

Elmes GNS detector operating with Elmes CB32 panel or Elmes CH8H & CH20 receivers indicates in the receiving devices smoke alarm, low battery warning and its presence in the system.

Test your smoke detector regularly to ensure its working properly. Push and hold the TEST button for approximately 3 seconds until loud, pulsating alarm indicates its correct function. Always test your detector after battery replacement. Replace battery once a year to maintain your detector in highest alert level.

***Specification***

- smoke alarm detector GARVAN®366S(*) with sensitivity 0,65 – 1,52 % obstruction per foot.
- wireless alarming module Elmes (433.92MHz, <10mW) with up to 20m operating range in building,
- power supply: 9V battery (carbon-zinc up to 2 years operation, alkaline or lithium up to 4 years operation),
- current consumption up to 30mA in alarming,
- operating temperatures range from 0°C to +40°Celsius,
- operation ambient humidity from 10% to 90%,
- internal horn level 85 decibels at three meters.

(*) The name GARVAN and graphic marking are property and registered trademarks of GARVAN ENTRPRISES Ltd. Hong Kong.

***Wireless adaptation:*** ELMES ELECTRONIC, 54-611 Wroclaw - PL, Avicenny 2 Str., tel. (+4871) 784-59-61,

***Limited Manufacturer’s Warranty.***

Elmes GNS detector is guaranteed to be free from defects in material and workmanship under normal use and service for a period of two years as from date of purchase. Damage, faulty use or improper handling by user or installer as well as any unauthorized by manufacturer changes or repairs violate manufacturer’s guarantee and all due repair costs will be charged. In all cases, customer covers product repair delivery costs to and from manufacturer or service station.

Elmes Electronic shall not bear any liability for any personal or material injury, damage or material loss resulting from its products’ direct or indirect or partial failure to operate properly. Smoke detector or alarm that this smoke detector is a part of is not a substitute for property, disability, injury, life or other insurance of any kind. Appropriate fire protection measures and insurance coverage is the product end-user responsibility.

Place & date of product purchase (confirmed by the seller)…….


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