



# Photoelectric Smoke Alarm User Guide

## Model DY29

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### For 9 Volt Battery Operated Smoke Alarm

Thank you for purchasing this smoke alarm. It is an important part of your family's home safety plan. You can trust this product to provide the highest quality safety protection. We know you expect nothing less when the lives of your family are at stake.

Please take a few minutes to read this User Guide and save it for future reference. Teach children how to respond to the alarms, and that they should never play with the unit.

**ATTENTION:** Please take a few minutes to thoroughly read this User guide which should be saved for future reference and passed on to any subsequent owner.



0333-CPR-292164  
0333 - 18  
EN14604:2005 + AC: 2008

0306-7276-00 Rev.A

**Do not try to repair the smoke alarm yourself. Refer to the instructions in Section 9 for service.**

**⚠ WARNING!** UNIT WILL NOT ATTACH TO MOUNTING PLATE UNLESS BATTERY IS PRESENT. REMOVAL OF BATTERY WILL RENDER THE SMOKE ALARM INOPERATIVE.

**IMPORTANT!** READ ALL INSTRUCTIONS BEFORE INSTALLATION AND KEEP THIS USER GUIDE NEAR THE ALARM FOR FUTURE REFERENCE.

**IMPORTANT:** ADDITIONAL MARKINGS CAN BE FOUND ON BACK OF THE ALARM.

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## 1. RECOMMENDED LOCATIONS FOR ALARMS

- Locate the first alarm in the immediate area of the sleeping rooms. Try to protect the exit path as the sleeping rooms are usually farthest from the exit. If more than one sleeping area exists, locate additional alarms in each sleeping area.
- Locate additional alarms to protect any stairway as stairways act like chimneys for smoke and heat.
- Locate at least one alarm on every floor level.
- Locate an alarm in every sleeping room.
- Locate an alarm in every room where electrical appliances are operated (i.e. portable heaters or humidifiers).
- Locate an alarm in every room where someone sleeps with the door closed. The closed door may prevent the alarm from waking the sleeper.
- Smoke, heat and combustion products rise to the ceiling and spread horizontally. Mounting the smoke alarm on the ceiling in the centre of the room places it closest to all points in the room. Ceiling mounting is preferred in ordinary residential construction.
- When mounting an alarm on the ceiling, locate it at a minimum of 10cm (4") from the side wall (see Diagram "A").
- For wall mounting, use an interior wall and place the top edge of the alarm at least 10cm (4") and not more than 30.5cm (12") from the ceiling.
- Install smoke alarms on sloped, peaked or cathedral ceilings at or within 0.9m (3ft) of the highest point (measured horizontally). Smoke alarms in rooms with ceiling slopes greater than 0.3m in 2.4m (1 foot in 8 feet) horizontally shall be located on the high side of the room. A row of detectors shall be spaced and located within 0.9m (3ft) of the peak of the ceiling measured horizontally.(see DIAGRAM "C")
- Put smoke alarms at both ends of a bedroom hallway or large room if the hallway or room is more than 9.1m (30 feet) long.
- Install Smoke Alarms on tray-shaped ceilings (coffered ceilings) on the highest portion of the ceiling or on the sloped portion of the ceiling within 12" (305mm) vertically down from the highest point (see DIAGRAM "D").

### Mobile Home Installation

Modern mobile homes have been designed and built to be energy efficient. Install smoke alarms as recommended above (refer to DIAGRAM A and C). In older mobile homes that are not well insulated compared to present standards, extreme heat or cold can be transferred from the outside to the inside through poorly insulated walls and roof. This may create a thermal barrier which can prevent the smoke from reaching an alarm mounted on the ceiling. In such units, install the smoke alarm on an inside wall with the top edge of the alarm at a minimum of 10cm and a maximum of 30.5cm below the ceiling (see DIAGRAM A).

If you are not sure about the insulation in your mobile home, or if you notice that the outer walls and ceiling are either hot or cold, install the alarm on an inside wall. For minimum protection, install at least one alarm close to the sleeping rooms. For additional protection, see SINGLE FLOOR PLAN in DIAGRAM B.

**⚠ WARNING: Test your smoke alarm operation after RV or mobile home has been in storage, before each trip and at least once a week during use.**

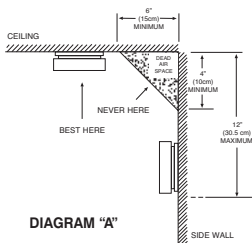
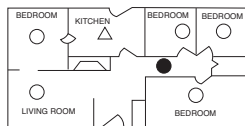


DIAGRAM "A"



SINGLE FLOOR PLAN

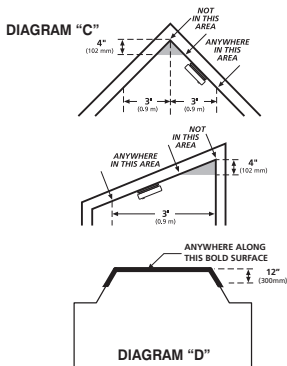
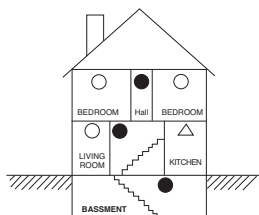


DIAGRAM "D"



MULTI FLOOR PLAN

- Smoke Alarms for Minimum Protection
- Smoke Alarms for Maximum Protection
- △ Smoke Alarms with "HUSH" Control

DIAGRAM "B"

## 2. LOCATIONS TO AVOID

- In the garage. Products of combustion are present when you start your car.
- In front of forced air supply ducts used for heating and air conditioning, near ceiling fans, or other high air flow areas.
- Less than 10cm (4") from the peak of an 'A' frame type ceiling.
- In an area where the temperature may fall below 0°C or rise above 40°C such as garages and unfinished attics; this should also include electrical boxes exposed to these environments.
- In dusty areas. Dust particles may cause nuisance alarm or failure to alarm.
- In very humid areas. Moisture or steam can cause nuisance alarms.
- In areas where the Relative Humidity (RH) is above 93%.
- Do not install where the ventilation openings in the unit could be impeded by items such as newspapers, table-cloths, curtains, etc.
- Near fluorescent lights. Electronic "noise" may cause nuisance alarms.
- In insect infested areas

- Smoke alarms should not be installed within 0.9m (3ft) of the following: the door to a kitchen, the door to a bathroom containing a tub or shower, ceiling or whole house ventilating fans or other high air flow areas..
- Kitchens: Normal cooking may cause nuisance alarms. If a kitchen alarm is desired, it should have an alarm silence feature or be a photoelectric type.
- Smoke alarms are not to be used with detector guards unless the combination (alarm and guard) has been evaluated and found suitable for that purpose.

**⚠ WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

### 3. INSTALLATION INSTRUCTION

**⚠ CAUTION: THIS UNIT IS SEALED. THE COVER IS NOT REMOVABLE!**

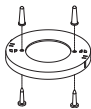
- 1). Remove the mounting plate from the back of the alarm by holding the mounting plate and twist the alarm in the direction indicated by the "REMOVE" arrow see Figure 4.
- 2). To ensure aesthetic alignment of the alarm with the hallway, the "A" line on the mounting plate should be parallel with the hallway when ceiling mounting.
- 3). After selecting the proper smoke alarm location as described in Section 1, attach the mounting plate to the ceiling as shown in Figure 1. Use the screws and anchors provided to secure the mounting plate. For wall mounting, see FIGURE 2. Be sure to turn the text "UP" and the arrow up.
- 4). When installing the battery, press the battery reminder finger down into the battery compartment and install the battery (see Figure 3).

**⚠ CAUTION! IF THE BATTERY REMINDER FINGER IS NOT HELD DOWN IN THE BATTERY COMPARTMENT BY THE BATTERY, THE UNIT WILL NOT ATTACH TO THE MOUNTING BRACKET.**

- 5). Alignment marks are provided on the edge of the trim plate and the alarm. After installing the mounting plate, place the alarm on the mounting plate with the alignment marks lined up. Twist the alarm in the direction indicated by the "ON" arrow on the alarm cover (see Figure 4) until it locks in place.
- 6). Tamper Resist Feature: To make your smoke alarm tamper resistant, a tamper resist feature has been provided. Activate the tamper resist feature by breaking out the block in the trim ring (see Figure 5). When the blocks are broken out, the tamper resist tab is allowed to engage the mounting bracket. Rotate the alarm onto the mounting bracket until you hear the tamper resist tab snap into place, locking the alarm on the mounting bracket. Using the tamper resist feature will help to deter children and others from removing the alarm from bracket. NOTE: To remove the alarm when the tamper resist tab is engaged, press down on the tamper resist tab with a screwdriver, and rotate the alarm off of the bracket (see Figure 6).

**⚠ CAUTION! EARLY WARNING FIRE DETECTION IS BEST ACHIEVED BY THE INSTALLATION OF FIRE DETECTION EQUIPMENT IN ALL ROOMS AND AREAS OF THE HOUSEHOLD AS FOLLOWS:**

**A SMOKE ALARM INSTALLED IN EACH SEPARATE SLEEPING AREA (see DIAGRAM "B" and "RECOMMENDED LOCATIONS FOR ALARMS") AND HEAT OR SMOKE ALARMS IN THE LIVING ROOM, DINING ROOM, KITCHEN, HALLWAYS, ATTIC, BOILER ROOM, CLOSETS, UTILITY STORAGE ROOM, CELLAR, AND ATTACHED GARAGE.**



When mounting in a hallway, the "A" line should be parallel with the hallway.

FIGURE 1

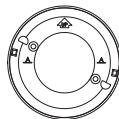


FIGURE 2

Push finger into battery box (see Step No. 4)



Push

FIGURE 3

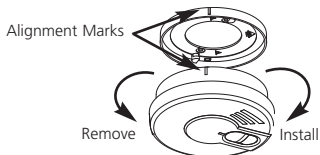


FIGURE 4

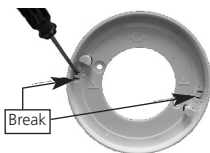


FIGURE 5

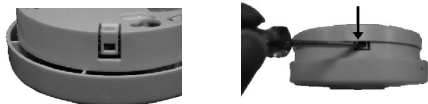


FIGURE 6

## 4. OPERATION AND TESTING

**OPERATION:** The smoke alarm is operating once a fresh battery is installed and testing is complete. When products of combustion are sensed, the unit sounds a loud 85db pulsating alarm until the air is cleared.

**FLASHING LED LIGHT:** This smoke alarm is equipped with a flashing red indicator light. The light is located above the test button and will flash every 5 minutes to indicate that the smoke alarm is operating. During smoke alarm (and during the testing alarm pattern), the LED will flash every second.

**FAULT OR END OF LIFE SIGNALS:** The alarm will chirp 3 times every 40 seconds to indicate a fault, or signal end of life of the alarm at 10 years. In both of these cases, the alarm should be replaced. In the event of low battery, the alarm will chirp once every 40 seconds.

**TESTING:** Test by pushing the test button on the cover and holding it down for a minimum of 5 seconds. This will sound the alarm if the electronic circuitry, horn and battery are working. If no alarm sounds, the unit has a defective battery or other failure.

The alarm sequence is 3 long beeps, pause, 3 long beeps.

**TEST THE ALARM WEEKLY TO ENSURE PROPER OPERATION.** Erratic or low sound coming from your alarm may indicate a defective alarm that should be returned for service.

**NOTE:** If at any time your alarm fails to operate correctly (erratic or low sound, for example), contact Kidde Safety (see Section 9).

**NEVER USE AN OPEN FLAME OR COMBUSTIBLE MATERIALS TO TEST YOUR ALARM, YOU COULD DAMAGE THE ALARM OR IGNITE NEARBY MATERIALS AND START A STRUCTURE FIRE.**

Smoke alarms are designed to minimize nuisance alarms. Cigarette smoke will not normally set off the alarm, unless the smoke is blown directly into the alarm. Combustion particles from cooking may set off the alarm if the alarm is located close to the cooking area. Large quantities of combustible particles are generated from spills or when broiling. Using the fan on a range hood which vents to the outside (non-recirculating type) will also help remove these combustible products from the kitchen.

Model DY29 has a HUSH control that is extremely useful in a kitchen area or other areas prone to nuisance alarms. For more information refer to Section 5, Hush Control Feature.

If the alarm does sound, check for fires first. If a fire is discovered, get out of the building and call the fire department. If no fire is present, check to see if one of the reasons listed in Section 2 may have caused the alarm.

## 5. HUSH CONTROL FEATURE

The Hush button is extremely useful in a kitchen area or other areas prone to nuisance alarms. The Hush feature has the capability of temporarily desensitizing the smoke alarm circuit for about 9 minutes. This feature should only be used when a known alarm condition, such as smoke from cooking, activates the alarm. If the alarm does sound, check for fires first. If a fire is discovered, get out and call the fire department. If no fire is present, check to see if one of the reasons listed in Locations to Avoid may have caused the alarm. The smoke alarm is desensitized by pushing the Hush button on the smoke alarm cover. If the smoke is not too dense, the alarm will silence immediately for approximately 9 minutes. The LED will flash every 10 seconds during the 9 minute hush. This indicates that the alarm is in a temporarily desensitized condition. The smoke alarm will automatically reset after approximately 9 minutes. If after this period particles of combustion are still present, the alarm will sound again. The Hush feature can be used repeatedly until the air has been cleared of the condition causing the alarm. Pushing the Test button on the alarm will end the Hush period.

IF THERE IS ANY QUESTION AS TO THE CAUSE OF AN ALARM, IT SHOULD BE ASSUMED THAT THE ALARM IS DUE TO AN ACTUAL FIRE AND THE DWELLING SHOULD BE EVACUATED IMMEDIATELY.

**NOTE: DENSE SMOKE WILL OVERRIDE THE HUSH CONTROL FEATURE AND SOUND A CONTINUOUS ALARM.**

**⚠ CAUTION: BEFORE USING THE ALARM SMART HUSH FEATURE. IDENTIFY THE SOURCE OF THE SMOKE AND BE CERTAIN A SAFE CONDITION EXISTS.**

## 6. MAINTENANCE

### BATTERY REPLACEMENT

If tamper resist has been used, refer to Figure 6 in Section 3 for alarm removal instructions.

**⚠ WARNING:** Alarm will not attach to mounting bracket unless battery is installed. Removal of battery will render the unit inoperative.

To replace the battery, remove the alarm from the mounting plate by rotating the alarm in the direction of the "OFF" arrow on the cover (see Section 3, Figure 4).

The Smoke Alarm is powered by a 9V alkaline battery. A fresh battery should last for a minimum of 5 years under normal operating conditions. This alarm has a low battery monitor circuit that will cause the alarm to "chirp" approximately every 30-40 seconds for a minimum of thirty (30) days when the battery gets low. Replace the battery when this condition occurs. Be sure to push the test button to confirm proper operation after replacing the battery. When the alarm is in low battery condition, pressing the hush button will silence it for 8 hours.

### USE ONLY THE FOLLOWING 9 VOLT BATTERIES FOR SMOKE ALARM REPLACEMENT

Alkaline Type:	GOLD PEAK 1604A
	DURACELL MN 1604
	VARTA 9V HIGH ENERGY

**NOTE: Do not use lithium batteries in this unit.**

**NOTE: WEEKLY TESTING IS REQUIRED.**

THE CROSSED-OUT WHEELED BIN SYMBOL INDICATES THAT BATTERIES SHOULD BE DISPOSED OF SEPARATELY FROM HOUSEHOLD WASTE.





**⚠ WARNING! USE ONLY THE BATTERIES SPECIFIED. USE OF DIFFERENT BATTERIES MAY HAVE A DETRIMENTAL EFFECT ON THE SMOKE ALARM.**

**NOTE:** CONSTANT EXPOSURES TO EXTREME TEMPERATURES OR HUMIDITY MAY REDUCE BATTERY LIFE.

### **CLEANING YOUR ALARM**

#### **YOUR ALARM SHOULD BE CLEANED AT LEAST ONCE A YEAR**

To clean your alarm, remove it from the mounting bracket as outlined in the beginning of this section. You can clean the interior of your alarm (sensing chamber) by using your vacuum cleaner hose and vacuuming through the openings around the perimeter of the alarm. The outside of the alarm can be wiped with a damp cloth. After cleaning, reinstall your alarm. Test your alarm by using the test button.

## **7. LIMITATIONS OF SMOKE ALARMS**

**⚠ WARNING:** PLEASE READ CAREFULLY AND THOROUGHLY

- Fire-warning equipment for residential occupancies are capable of protecting about half of the occupants in potentially fatal fires. Victims are often intimate with the fire, too old or too young, or physically or mentally impaired such that they cannot escape even when warned early enough that escape should be possible. For these people, other strategies such as protection-in-place or assisted escape or rescue would be necessary.
- Leading authorities recommend that both ionisation and photoelectric smoke alarms be installed to help insure maximum detection of the various types of fires that can occur within the home. Ionisation sensing alarms may detect invisible fire particles (associated with fast flaming fires) sooner than photoelectric alarms. Photoelectric sensing alarms may detect visible fire particles (associated with slow smoldering fires) sooner than ionisation alarms.
- A battery powered alarm must have a battery of the specified type, in good condition and installed properly.
- Storage and Transport Conditions: -20° C to +60° C, 5-95%RH (non-condensing)
- Smoke alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.
- Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.
- If the alarm is located outside the sleeping room or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.
- Although smoke alarms can help save lives by providing an early warning of a fire, they are not a substitute for an insurance policy. Home owners and renters should have adequate insurance to protect their lives and property

## 8. GOOD SAFETY HABITS

### DEVELOP AND PRACTICE A PLAN OF ESCAPE

- Make a floor plan indicating all doors and windows and at least two (2) escape routes from each room. Second story windows may need a rope or chain ladder.
- Have a family meeting and discuss your escape plan, showing everyone what to do in case of fire.
- Determine a place outside your home where you all can meet if a fire occurs.
- Familiarize everyone with the sound of the smoke alarm and train them to leave your home when they hear it
- Practice a fire drill at least every six months, including fire drills at night. Ensure that small children hear the alarm and wake when it sounds. They must wake up in order to execute the escape plan. Practice allows all occupants to test your plan before an emergency. You may not be able to reach your children. It is important they know what to do.
- Install and maintain fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency.
- Current studies have shown smoke alarms may not awaken all sleeping individuals, and that it is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.

There are situations where a smoke alarm may not be effective to protect against fire. For instance:

- Smoking in bed.
- Leaving children unsupervised.
- Cleaning with flammable liquids, such as gasoline.
- Fires where the victim is intimate with a flaming initiated fire; for example, when a person's clothes catch fire while cooking.
- Fires where the smoke is prevented from reaching the detector due to a closed door or other obstruction.
- Incendiary fires where the fire grows so rapidly that an occupant's egress is blocked even with properly located detectors

## 9. WARRANTY/SERVICE

### **FIVE YEAR LIMITED WARRANTY**

KIDDE SAFETY EUROPE LTD warrants to the original purchaser that the enclosed smoke alarm (but not the battery) will be free from defects in material and workmanship or design under normal use and service for a period of five years from the date of purchase. The obligation of KIDDE SAFETY EUROPE LTD under this warranty is limited to repairing or replacing the smoke alarm or any part which we find to be defective in material, workmanship or design, free of charge to the customer, upon sending the smoke alarm with proof of date of purchase, postage and return postage prepaid, to Warranty Service Department, Kidde Safety Europe Ltd, Ash House, Littleton Road, Ashford, TW15 1TZ, UK

This warranty shall not apply to the smoke alarm if it has been damaged, modified, abused or altered after the date of purchase or if it fails to operate due to improper maintenance or inadequate A.C. or D.C. electrical power.

THE LIABILITY OF KIDDE SAFETY EUROPE LTD OR ANY OF ITS PARENT OR SUBSIDIARY CORPORATIONS ARISING FROM THE SALE OF THIS SMOKE ALARM OR UNDER THE TERMS OF THIS LIMITED WARRANTY SHALL NOT IN ANY CASE EXCEED THE COST OF REPLACEMENT OF SMOKE ALARM AND, IN NO CASE, SHALL KIDDE SAFETY EUROPE LTD OR ANY OF ITS PARENT OR SUBSIDIARY CORPORATIONS BE LIABLE FOR CONSEQUENTIAL LOSS OR DAMAGES RESULTING FROM THE FAILURE OF THE SMOKE ALARM OR FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE COMPANY'S NEGLIGENCE OR FAULT. This warranty does not affect your statutory rights.

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Manufactured in China



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