



1	220VAC Adapter
2	Yellow LED
3	Red LED
4	Green LED
5	Test/Silence Button
6	Ventilation Slots
7	Mounting Bracket
8	Battery Compartment (Back Side, Bracket Removed)

DGS Wireless Gas Detector

The DGS is a FastLink technology wireless indoor gas detector, designed for the **FORCE series** intruder alarm system. The FastLink communication is encrypted using true, 128-bit AES encryption for a high level of security. Using the DGS requires the installation of the a wireless receiver.

The fully supervised DGS detector can detect the presence of Liquefied Petroleum Gas (LPG), and wirelessly alerts the control panel. LPG includes propane gas (C3H8), mainly used as fuel in heating appliances, cooking equipment, and vehicles.

The detector monitors the presence of gas once every 10 seconds and performs a self-test every 160 seconds. Once the concentration of the gas reaches the detection threshold, it triggers an alarm, by sounding beeps every one second, along with the red LED flashing.

The DGS is powered by a 220V AC transformer, that connects with a micro USB cable (included). The detector's battery is only used for monitoring and alerting on AC power loss.

The DGS alerts on low battery condition, and has a tamper switch that alerts when its enclosure is opened or removed from the wall.

For enrollment information, see the alarm system's Installation guide.



Cautions:

- **The DGS's backup battery only purpose is to monitor if AC power is loss. The detector does not detect or alert on gas leak without AC power!**
- **The DGS is based on wireless (RF) transmissions. Any wireless transmission can be subject to RF interference and, although unlikely, this interference may cause the DGS to not operate as intended. RF transmissions will be attenuated by tinted glass, in wall isolation with metal foils, metal objects, etc.**

Technical specifications

- Frequencies (MHz):
 - DGS143: 433.92
 - DGS187: 868.95
- Sensitivity: Meets UL-1484 & EN-50194, before 25% of the LEL.
- Battery life: Up to 5 Years (Typical Usage)
- Dimensions: 11.9 X 8 X 4.4 cm
- End Of Life: 5 Years (Typical Usage).
- Weight: 200gr
- Power:
 - Main: 100~240, VAC to 5VDC, USB Adapter.
 - Backup Battery: 1X CR123A, 3V, Lithium.
 - Standby Current: 17mA
- Standards: Meets EN-50131-1, CE compliance.
- Temperature: -10 to +50 °C
- Humidity (Max.): Up to 93% R.H., Non-condensing.

Content of the product package

- DGS detector
- Transformer + cable
- Backup battery
- Mounting screws and labels
- This guide

Mounting guidelines

- Mount the DGS on a flat surface, near the roof or the floor, and where gas leakage is more probable. Make sure to choose a location that is not too near gas appliances, but yet not too far from such appliances.
- Natural gas is lighter than air; therefore, mount the gas detector approximately 30cm below the ceiling, if the detector will be used for the purpose of detecting this gas.
- Butane and Propane are heavier than air; therefore, mount the gas detector approximately 30cm above the floor, if the detector will be used for the purpose of detecting one of these gases.
- Leave proper space between the detector and the wall/ceiling, for the ventilation slots (no. 6 in the figure above) not be blocked.
- Mount the detector near a standard 220V outlet.
- Do not mount the detector directly above cooking appliances, or near fans.

How to replace the battery

- The battery compartment is located at the back of the DGS. To replace the battery, follow the next steps.
1. Remove the detector from the bracket by pressing the projecting part on the bottom, and pulling it upwards.
 2. Open the battery compartment (no. 8 in the figure above); use a slotted screwdriver if required.
 3. Remove the battery and insert a new one; observe polarity! The buzzer will sound a long beep and the green LED will start flashing.
 4. Place the detector on the bracket and push it downwards until clicked into place.
 5. Test the detector - see how below.

How to install the DGS

- Mount the detector on a flat surface. Follow the next steps.
1. Remove the detector from the mounting bracket (no. 7 in the figure above): press the projecting part on the bottom and pull the bracket downwards.
 2. Use the supplied screws and mount the bracket vertically on the designated surface.



Caution: The detector **MUST** be mounted in vertical position, or its sensitivity and performance will be affected.

3. Open the battery compartment (no. 8 in the figure above. Use a slotted screwdriver if required) and insert the supplied battery - all three LEDs will flash once and a long beep will be sounded. After that the green LED will start flashing. Note: the detector's warm-up time is three minutes.
4. Attach the detector to the mounted bracket and push it downward, until clicked into place.
5. Connect the supplied transformer's USB cable to the detector with the and the to a 220V AC outlet.
6. Enroll the detector; see the alarm system's installation guide for details.

The LEDs

When connecting the DGS to power, all three LEDs flash once and a long beep is sounded. After that the green LED continue to flash for three minutes (warm-up time), before the detector becomes operable and starts the process of continually sampling the air around it.

Color and state	Description
Green blinking	Warm-up time (three minutes); see <i>Operation Modes</i> below.
Green solid	Normal mode
Yellow blinking	Trouble event; see "Malfunction signals" below.
Red blinking	Alarm event

Operation Modes

- Warm-up: the first three minutes after the unit is powered up, and before the detector becomes operable.
- Standby: the normal operation mode, during which the surrounding air is sampled every 10 seconds, and the detector is self-tested every 160 seconds. The green LED will illuminate if no trouble exists.

Silencing modes

- Silence: pressing the Test/Silence button (no. 5 in the figure above) when the detector is alarming, silence it for 9 minutes. If the gas concentration remains high or is becoming high again during the silence time, the detector will sound the alarm again.
- Hush: pressing the Test/Silence button when the detector is in trouble situation, silence it for one hour.

How to test the DGS

To test the gas detector, press and hold the Test/Silence button (no. 5 in the figure above) for a few seconds - the red LED will flash and the buzzer will sound beeps. If the detector is at fault, the yellow LED will flash and a trouble event will be reported. See *Malfunction signals* below for more details.

Warnings and limitations

- The DGS gas detector is NOT suitable as a smoke or fire detector.
- This detector will not work if the power supply is disconnected or cut off for any reason.
- The detector may worn out because it contains electronic components that may fail at any time. Test your detector at least once every week.

Battery

The detector uses a 3V, CR123A Lithium battery for monitoring the AC power. The battery's life expectancy is five years, with an average of 20 activations per day. After replacing the battery, the detector warms up for one minute before going into test mode for five more minutes. After replacing the battery the detector warms-up for three minutes, before going to normal operation mode. Low battery condition is detected when the battery voltage drops below 2.6V. After that the battery can last for up to one month.

Maintenance and Troubleshooting

The DGS must be tested once every week, to ensure it is working properly.

Malfunction signals

When an abnormal condition is detected, the gas detector indicates it by flashing the yellow LED and beeping the buzzer. Call service immediately! Below are common abnormal conditions of the detector.

Condition	Yellow LED and buzzer
Low Battery	The LED flashes once along with the buzzer beeping, once every 48 seconds.
AC Power Loss	The LED flashes twice along with the buzzer beeping, once every 48 seconds; all detection and alarm functions are suspended, until power is restored.
Trouble condition	The LED flashes three times along with the buzzer beeping, once every 48 seconds.
End of Life	The LED flashes four times along with the buzzer beeping, once every 48 seconds. In normal conditions, the validity of the detector is five years, after which it needs to be replaced.
Boot Failure	The LED flashes continuously and the buzzer beeps twice, once every 48 seconds.