



2GIG-RPTR1-345

# WIRELESS INDOOR REPEATER

## INSTALLATION INSTRUCTIONS

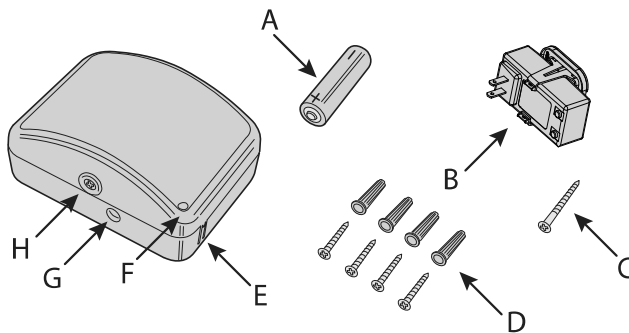
The 2GIG Wireless Indoor Repeater (2GIG-RPTR1-345) is a remotely powered wireless indoor repeater. The repeater is a peripheral device that communicates with the 2GIG Panel using a proprietary 345 MHz transmission protocol. The repeater receives and recognizes messages from other 345 MHz devices that are unable to directly communicate with the system, and "repeats" those messages to extend the range of these devices.

The repeater will typically be installed at the mid-point between the panel and the wireless devices being repeated. When a transmission from a device is repeated, the repeater adds a bit to the message to indicate to the system that the message is not coming directly from the device. The repeater will not repeat already repeated messages.

The repeater is powered by an AC adapter and is equipped with a rechargeable battery which supports 24 hours of battery back up under conditions of local power failure. When the power source for the repeater changes from AC power to battery backup, or from battery backup to AC power, the repeater will automatically send a message to the system within two (2) minutes. In addition, supervisory messages are sent approximately every 70 minutes that indicate the repeater status.

The repeater is equipped with a status indicator LED visible from the front of the unit, and a learn button is located on the side of the unit.

**Figure 1** Wireless Indoor Repeater Package Contents



- A Rechargeable Lithium-Ion Battery
- B AC Adapter
- C Tamper Screw
- D Mounting Screws and Anchors (4)
- E Learn Button
- F Status Indicator
- G Power Input
- H Case Locking Screw

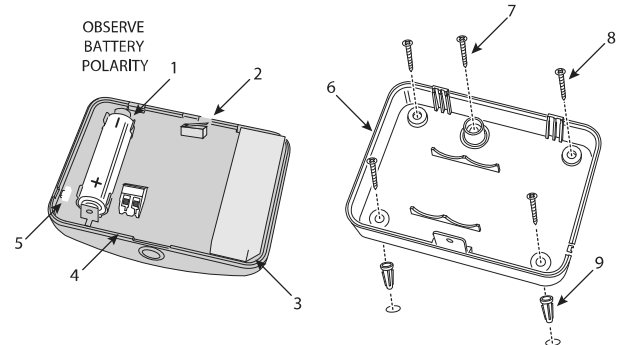
## Installing the Battery

The rechargeable battery can be installed by opening the enclosure while the power is disconnected (see Figure 2).

**WARNING:** Polarity of the battery must be observed. Align the battery to match the polarity indicators on the circuit board. Improper installation of the battery may result in heat generation, explosion, or fire which may lead to personal injury.

## Installing the Repeater

**Figure 2** Wireless Indoor Repeater Component and Feature Locations



- 1 Rechargeable Lithium-Ion Battery
- 2 Tamper Switch
- 3 Repeater
- 4 Power Input Connector
- 5 Learn Button
- 6 Repeater Base
- 7 Tamper Screw
- 8 Mounting Screws (4)
- 9 Mounting Anchors (4)

## Mounting Guidelines

Use these guidelines when installing the wireless indoor repeater:

- **Mount Repeaters within 100 ft (30 m) of the Control Panel.** Although the transmitter may have a range of 350 ft (106.7 m) in open air, the repeater location can have a significant effect on range. In open/unobstructed situations, the transmitter range may be greater. In adverse wireless conditions, changing the repeater orientation may lead to improved range.
- **Mount Repeaters as high as possible.** Mounting the repeater high off the ground helps receiver sensitivity.
- **Do Not Expose Repeaters to Moisture or Extreme Temperature.** It is best to mount repeaters in a dry location where the operating temperature does not exceed 32° to 120° F (0° to 49° C).
- **Keep Repeaters Away from Metal/Metallic Surfaces.** To keep the repeater away from metal or metallic surfaces (for example, foil wallpaper), it is recommended that you use spacers (not included). You should also avoid mounting sensors in areas where there is a large quantity of metal or electrical wiring (for example, near a furnace or in a utility room).

To install the wireless repeater:

- 1 Open the repeater case.
- 2 Attach the base to the desired wall location with the four (4) Phillips head screws and anchors supplied (see Figure 2).
- 3 Install the tamper screw (see Figure 2). With the tamper screw installed, removing the case from the wall triggers tamper.

**NOTE:** For the tamper to work correctly, the tamper screw must be installed into a wall stud. Do not use a wall anchor.

- 4 Install the battery. **Observe battery polarity.**
- 5 Connect the 2-conductor wire to the power supply and to the terminal connector on the circuit board. Make sure the wire passes through the grommet and hole on the repeater base before connecting to the terminal.
- 6 Attach the repeater cover to the base and secure the assembly with the Phillips head case locking screw.

- 7 Plug the AC adapter into an AC outlet. The status indicator will emit a steady green light.

**NOTE:** Do not connect the AC adapter to an AC outlet that is controlled by a switch.

- 8 Once the repeater is powered up, it begins repeating all unrepeated 345 MHz 2GIG transmissions.

**WARNING:** This device is not designed to repeat signals from life safety devices such as Smoke or CO detectors.

## Status Indications

The status indicator shows the repeater status as follows:

- **Steady Green:** The repeater is AC powered, and the backup battery is good.
- **Solid Red:** Tamper or AC power failure.
- **Slow Flashing Red:** Low battery.
- **Fast Flashing Red:** Jammed.
- **Blink off:** Transmission received.

## SPECIFICATIONS

Overall Size	102 X 76 X 46 mm (4.0" X 3.0" X 1.8")
Material	High-impact ABS plastic
Color	White
Weight (without battery)	125 g (4.4 oz.)
Installation Type	Wall mounted
Operating Frequency	345 MHz
Operating Temperature Limits	-10° C to 55° C (14° F to 131° F)
Relative Humidity	5 to 85% non-condensing
Power Type	Remotely powered by AC adapter, with internal battery backup
AC Adapter Nominal Input Voltage	100–240 VAC 50/60 Hz
AC Adapter Nominal Output Voltage	14 VDC
Maximum Power Consumption	3 W
Idle Current	40mA
Operating Current (repeating)	75mA
Storage Device Capacity	800 mAh (1) 3.7V 800 mAh 14500 Type Li-ion battery (not to be replaced)

## REPEATER OPERATION AND MESSAGE DESCRIPTIONS

### Supervisory Message:

- The repeater generates a supervisory message every 70 min  $\pm$  10 min. The message contains the current battery status and tamper state.

### Power Up:

- When the repeater is first powered up, a message is generated containing the current battery level and tamper state.

### Tamper Message:

- When the repeater detects tamper, a message is sent containing the repeater state, tamper state, and battery level.

### Event Message:

- When the repeater receives a message, the message is regenerated with an indication the message has been repeated.

## REGULATORY INFORMATION

This equipment has been tested and found to comply with the limits for Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

Reorient or relocate the receiving antenna

Increase the separation between the equipment and receiver

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## FCC COMPLIANCE STATEMENT

This device complies with FCC Rules and Regulations as Part 15 devices as well as Industry Canada license exempt RSS Rules and Regulations. Operation is subject to the following two (2) conditions: This device may not cause harmful interference. This device must accept any interference received, including interference that may cause undesired operation.

## LIMITED WARRANTY

This Nortek Security & Control LLC product is warranted against defects in material and workmanship for two (2) years. This warranty extends only to wholesale customers who buy direct from Nortek Security & Control LLC or through Nortek Security & Control normal distribution channels. Nortek Security & Control does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any.

There are no obligations or liabilities on the part of Nortek Security & Control for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation. All implied warranties for functionality, are valid only until the warranty expires. This Nortek Security & Control Warranty is in lieu of all other warranties expressed or implied.



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