

4 RADION repeater

The RADION repeater is a wireless repeater device that re-transmits messages received from system detectors, for the purpose of improving the overall communication reliability of the wireless system. This is achieved by providing a secondary communication path for system detectors. Repeaters might be used to extend the range of a detector that must be installed beyond its maximum communication range.

An LED on the front provides device status.

Features include:

- LED Display
- Cover and Wall Tamper protection

RADION repeater compatibility

The RADION wireless security system supports two RADION repeater models:

- RFRP-A
- RFRP2



Notice!

Use a supported transformer as defined in the specification table for the repeater. Do not connect power supply to a receptacle controlled by a switch.



Notice!

When used in a life safety application (such as in a fire warning system) at least two repeaters must be used to provide redundant communication paths. Perform the Redundant Verification Process.

4.1 RFRP2

Redundant Communication verification process



Notice!

If this is a new install, keep the plastic battery tab in the current position, perform the verification process, and then remove the plastic tab. If the repeater has already been installed, and the plastic tab removed, re-insert the plastic tab into the battery terminal before performing the verification process.

1. Build a network of repeaters.
2. Remove DC and battery power from one repeater.
3. Start all other repeaters by removing and reinserting the repeater back onto the mounting plate.
4. Make sure all repeaters have “good” signal strength as displayed in RPS or from the control panel keypad.
5. Re-apply the DC and battery power to the current repeater.
6. Repeat steps 2-5 until all repeaters in your environment have gone through the verification process and a redundant communication path is confirmed.
7. Make sure all other devices operate and report correctly, and have good signal strength.

4.1.1 Installation considerations

Use the provided anchors and screws to mount the repeater in locations accessible for future maintenance. Mount the repeater onto a wall.

**Notice!**

Mount the repeater in a location away from metal objects. Metal objects (duct work, wire mesh screens, boxes) reduce RF range

4.1.2**Wiring considerations****Notice!**

Do not install long cable runs next to high-current power feeds. Keep cable lengths as short as possible to minimize noise pickup.

4.1.3**Specifications****Notice!**

UL system compliance

For UL system compliance the RFRP2 shall be connected to a UL Listed Residential Fire/UL Residential Burg/ Commercial Burglar Alarm power supply with a class 2 power limited output with a voltage range of 10-14VDC , (nominal)1 Amp @12VDC Max.

Dimensions	139.70 mm x 209.60 mm x 33.20 mm (5.50 in x 8.25 in x 1.31 in)
Compatible power supply	Compatible plug-in transformers for use with the RFRP2 repeater: – WR9QE1000A00N6WG3150 - 12V, 1A power supply with NAM blade. (S/N: F.01U.398.526) For installations other than the U.S., transformers must meet the country-specific requirements.
Compatible blade kit	– Q-KIT-INTL-6-WH-RB - International blades for 12V, 1A. (S/N: F.01U.398.527)
Power/voltage	12 VDC, 1 A
Standby battery	This component is internal and not user replaceable. (3.6 VDC, 3180 mA)
Typical current draw	45 mA
Temperature (operating)	Charging range: +10°C to +45°C (+50°F to +113°F) Functional range: 0° C to +49° C (+32° F to +120° F)
Relative humidity	0% to 93% (non-condensing)
Device testing	To ensure proper functionality, the device must be tested at least once every year by an installer.
Wall and cover tamper switch	Transmits a tamper signal when someone removes the device from its base or pulls it away from the wall.
Frequency	433.42 MHz

4.1.4**LEDs**

Refer to the external LED indicator to get operational status.

LED Condition	Pattern Description
On (Normal)	– Indicates the repeater is functioning normally.
Off	– Indicates there is a power failure to the repeater, or that the receiver is not wired correctly.
Continuous Flash: 1 sec rate for 5 sec	– Indicates the repeater is being powered up, and conducting manufacturing test initializations.
Continuous Flash: A 3-pulse signal, followed by a short delay after the 3 rd pulse	– Indicates the repeater has experienced a low battery condition.
Continuous Flash: A 2 flash pattern continuous pulse between On and Off states with a short delay after the 2 nd pulse	<ul style="list-style-type: none">– Indicates an AC power failure is detected.– A communication failure within internal hardware components inside the receiver

Tab. 4.4: LED descriptions**Notice!**

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