GUARDIAN WIRELESS ALARM SYSTEM
INSTALLATION GUIDE
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Please Read this Introduction before Starting Install

Please take a moment to read through this introduction before installing your new QuikStor Guardian Series Wireless Alarm products. This has been designed to save the installer time in the pre-planning and installation stages. This outline will cover all possible questions regarding minimum system requirements, materials, standards, installation, and trouble shooting tools in order to achieve a fully functional QuikStor access control system.

Please note that the repeaters come fully pre-programmed from the QuikStor factory. Meaning it is critical to follow the ID schema per the site layout provided to you by the facility owner or QuikStor directly.

Please keep in mind that we have a fully trained and staffed Technical Support Department at your disposal that can assist you with questions or concerns during the entire installation process.

To reach the Technical Support Department please call (800)321-1987 8am to 5pm PST Monday through Friday
Tools Needed for Installation

☐ Phillips-head screw driver
☐ Flat-head screw driver
☐ Wire strippers
☐ Cordless screw gun
☐ #8 hex head bit

QuikStor Recommends the Following Wire

☐ 18/2 for 12VDC power – repeaters
☐ 18/4 for wireless base station power and data

Wiring Requirements

☐ 12 VDC runs should be no longer than 200 ft
☐ Splices made on 18/2 should always be done with wire nuts or using a suitable termination/splice block
☐ Any splices made in underground junction boxes or in an area where water or other foreign materials could short the wires, they must have a wire nut (or similar connector) filled with silicone or like material
Wireless Door Alarm Installation

Wireless Alarm Introduction:

The QuikStor wireless unit alarm is the highest level of unit security you can install at your facility. They are covered by patent number 6,400,267 and have been engineered to provide the maximum level of security.

Each space is monitored in the office 24 hours per day and tracks each door open, door close and tamper event. It also monitors the battery life and does several “supervisory” check-ins throughout the day.

When a tenant uses a Guardian keypad to gain access to the facility their unit is automatically disarmed. When the tenant enters their code at the exit keypad their unit is armed again.

If your site does not have an exit keypad, or for some reason the tenant does not enter their code when leaving the facility, the unit will be armed automatically after one hour of the door closing (this is a variable and can be tailored to your site).

QuikTip! – It is good practice to install the office equipment first, and then install a couple of sensors towards the back of the facility so that you can test range and proper alignment.

Door Preparation:

- All units that will have wireless door alarms mounted must have their doors installed and in working order.
- It is very important that the doors be tensioned PRIOR to mounting the sensors that the magnet alignment is not off on the final installation.
- Each unit should have their permanent unit number label affixed so that the proper sensor is installed.

Magnet Installation:

- ROLL UP DOORS - Mount the magnet on the second “valley” down from the top of the door. Almost all self storage unit doors have a series of peaks and valleys, or corrugation. You want to mount the sensor as high as possible on the door to prevent tampering and accidental removal. See the diagram on page 8 for further clarification.
- SWING DOORS – Mount the magnet on the framing opposite the side of the door hinges. Each customer’s preference is different, so you can...
mount the magnet on the top portion of the door framing or on the side portion. See the diagram on page 9 for further clarification.

☐ All magnets will be mounted with a #8x3/8” self tapping screw with a #8 hex head. The magnet casing has two vertical mounting points and two horizontal mounting points. Only two are required for proper installation and which two should be required based on the mounting surface and tolerances. The unused mounting holes should be clipped to provide a clean looking installation.

☐ QuikStor recommends the use of silicone on the back side of the magnet and screws to help lock them onto the door and to prevent the screws from backing out with the movement of the doors over time.

Sensor Installation:

☐ Be sure to latch the door shut before aligning and installing the sensor.

☐ The sensor MUST be properly aligned with the magnet by using the alignment mark on the side of the sensor. If the magnet is lower or higher it will not read properly and will be prone to tamper and false alarm events!

☐ The ideal gap tolerance for each sensor is 1/2”. As you widen that gap the tolerance for loose doors, wind, etc lessens and the likelihood of false alarms increase.

☐ The sensor is made up of a backing plate, sensor casing and a small Phillips screw to connect the two together. You will mount the sensor back plate to the door framing using (2) #8x1/2” hex head screw and assure that you have proper alignment and gap.

☐ It is critical to install the correct sensor casing onto the correct unit number. The back plates are not assigned to units, but the sensors are. Each sensor has an ID label inside of it that you can reference during installation.

☐ Once the back plate is mounted you will snap the sensor casing onto the top of the mounting plate and securely fasten the Phillips screw.

☐ The sensor is equipped with a tamper switch to prevent someone from disconnecting the sensor from the wall or backing plate once installed. If that happens a siren will sound and the event will be logged inside the office.
Wireless Repeaters

Each wireless sensor has a line-of-sight range of approximately 500’. Due to the cavernous features of most self storage facilities you rarely ever achieve true line-of-site or have units that are only within 500’ of the office. In those cases you will need to use a wireless transceiver, or repeater.

Each repeater is mounted inside a weatherproof plastic housing approximately 14” L x 8”W x 4”D. The repeater requires 120VAC for power, but otherwise requires no hard wire connection to the office or any other device. Power locations should be within 50’ of the repeater. Each repeater should be mounted with the antennae pointing up.

Your facility layout will determine the exact number of repeaters required, but is important to install them based on their ID number and in accordance to the equipment layout provided by the QuikStor Installation Department.

Repeaters can only listen to IDs of a higher value (i.e. 2 can listen to 3, 4 can listen to 5, etc). So if laying out your own repeater configuration you want to keep the lower ID numbers closest to the office and expand around the facility with increasingly higher numbers.

Wireless Base Station

The wireless base station is a receiver that listens to all of the repeaters and sensors throughout your facility. It looks very similar to a repeater, but installs inside of the office and connects directly to the UltraConverter. The base station is powered directly from the UltraConverter. You will need an 18/4 wire to supply power and data between the base station and UltraConverter. There are four terminals on a base station: 12V, -, A and B. There are also four matching terminals on the UltraConverter which are clearly labeled. Simply match the wiring between the two devices and you are done with your base station setup. You will now see an alternating green & red LED flashing on the top of the UltraConverter, labeled, “Base Status”. If you do not see this LED, please review the troubleshooting section.
Sensor Installation Diagram – Roll Up Doors
Sensor Installation Diagram – Swing Doors
Final hardware check list

Before going into the software section of the wireless alarm setup let’s confirm that all hardware is installed properly.

Below is a basic checklist that will aid you. Please check off each item as it is completed:

- All magnets are properly installed on the unit doors
- All sensors are installed on the correct unit numbers, properly aligned and with a 1/2” gap.
- All repeaters are installed per the equipment layout provided by the QuikStor Installation Department, and powered. You should have a green LED that flashes as it receives signals from nearby sensors.
- The wireless base station is installed inside the office and properly wired to the UltraConverter. You should have a green LED on the base station that flashes as it receives signals from nearby sensors and repeaters. Additionally you will have an alternating red & green LED flashing on the UltraConverter labeled, “Base Status”.
- If you are planning to utilize local sirens, you will need to connect a relay board to the keypad network. Please see the, “Guardian Relay Board Installation Manual” for instructions on how to properly connect your relay board and sirens.

Using the Guardian Control Panel to Configure your Wireless Door System

Your daily operations with the gate and wireless alarm system will be done solely within QSX, including reviewing real-time door activity and running activity reports.

However you will need to use the Guardian Control Panel to setup your initial gate configuration settings.

Please reference the, “Guardian Access Control System Installation Manual” for complete details on using the Guardian Control Panel and settings up your wireless alarm system in the software.
Trouble Shooting

If you have attempted to establish communication with the keypads and have failed, your best course of action is to check the system one component at a time. Here are some easy steps to verifying that the hardware is setup properly.

UltraConverter

☐ Is the USB communication cable from the UltraConverter plugged into the management computer
☐ Does the UltraConverter have the green LED power light on?
☐ Is the “Power Reversed” light on? If so, swap your power wires.
☐ Is the “PC Communication” light a solid green?
☐ Is the “System Status” light a solid green? If it is flashing red continue troubleshooting.
☐ Are the data communication wires firmly fastened to the terminal blocks and unbroken
☐ Is the “Base Status” LED alternating between green & red? If not either the base station is not properly wired or is defective.

Repeaters

☐ Check the voltage at each repeater. Each repeater should have a minimum of 12 volts DC and no more than 18 volts DC.
☐ If there are any wire splices make sure that they are not broken or grounded which can cause power problems to the repeaters
☐ Are the power leads properly terminated to the “12V” and “-” terminals? No wiring should be on the “A” or “B” terminals on a repeater.
☐ Did you install the proper ID in the location indicated by the QuikStor Installation Department? Failure to do so will result in certain repeaters not being able to communicate

Wireless Sensors

☐ Is the sensor not checking into the system or not responding when you open a door?
  ☐ First check your gap and confirm that you have the required 1/2” gap. Having a gap that is too great may result in certain open or close events not transmitting to the office.
- Is the proper ID for that sensor properly associated with the unit you are opening? If not, go into the Guardian Control Panel as noted above and enter the proper ID.
- Are each of the (4) batteries properly installed inside the sensor? If not, push them into their holders so that they are seated completely.
- Are each of the (4) batteries fully charged? Each battery should have +3V to properly operate. If one does not you should replace it with the same part number – Sony part#CR2032
- There is an on/off jumper inside of the sensor to prevent premature battery depletion before installation. Confirm that the jumper is properly set to ON.

☐ Is the unit sensor sounding an alarm or logging errant events? The usual two causes for this is improper gap or a very loose door. Check both of these by pushing back and forth on the door and seeing if you can trigger an event. If you can, you need to either reduce the gap between the magnet & sensor and/or tighten the door in the guiderails.
Still have questions? Call us!

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