Meet Helix

**Helix** is a professional wireless security panel designed to deliver home security and automation services. A secured and supervised Ethernet connection comes standard. Optional Cellular and Wi-Fi cards provide primary or backup communication channels. Its long-range encrypted wireless receiver easily provides whole home coverage. Wireless arming stations and mobile devices uncouple Helix from the entry wall and allow it to be installed at a location convenient for Internet and power connections.

**FEATURES**
- Cellular, Wi-Fi, or Ethernet communication channels
- Control from a user's mobile device
- Industry-leading wireless range
- Up to 50 users
- Up to 96 zones
- 5 year warranty

**ITEMS INCLUDED IN THE BOX**
- The Helix panel
- Rechargeable backup battery
- 12-Volt power adapter
- 6-foot Ethernet cable
- Table-top mounting base
- A screw to secure the cover (required for UL installations)
- Installation guide
- Configuration guide
- Interactive service provider insert

**EXPANSION CARDS FOR INTERNET CONNECTIVITY**
- Wi-Fi™ Card
- CDMA Cellular Card (Verizon, Sprint)
- GSM Cellular Card (AT&T, T-Mobile)

**OTHER EXPANSION CARDS**
- Z-Wave™ Card
- Existing Security Sensor Translator Card (allows Helix to receive signals from existing wireless security sensors)
- Combo Z-Wave & Existing Sensor Translator Card
System Setup

1. **Set up a new account** with your interactive service provider by following the instructions on the included interactive service provider insert. The interactive service provider will need the Helix MAC address which is located on the bottom of Helix.

   **STOP** DO NOT PROCEED UNTIL YOU HAVE FINISHED STEP 1

2. **Find a location** for Helix, keeping in mind it needs AC power and at least one network connection.

   **Wireless Installation Guidelines**
   - Locate Helix centrally on the main floor.
   - Avoid mounting Helix below ground level.
   - Do not mount Helix near ducts, appliances, or other large metal objects.
   - Do not mount Helix directly adjacent to other RF devices.

3. **Mount Helix** by sliding it downward into the tabletop base. Alternatively, Helix can be mounted to a wall using the mounting holes in the back cover. You will need to remove the backup battery to reveal the lower mounting hole.

4. **Connect Helix to the Internet** by wiring the Helix Ethernet port to the home router, or by installing a Cellular or Wi-Fi expansion card (or any combination of the above). The Wi-Fi approach requires enrollment into the home Wi-Fi router.

   - If you are using Wi-Fi, then connect the Helix Wi-Fi card to your existing home router by holding the Enroll/WPS button until Helix beeps twice (roughly ten seconds) and then pressing the WPS button on the router.

5. **Power up Helix** by inserting the power supply barrel into the power jack on the side of the Helix. Route the power cable under the strain relief peg.

   **UL Installation Requirements**
   - Install the cover-securing screw.
   - Do not connect Helix to an AC power receptacle controlled by a switch.
   - The power supply must be secured to an outlet if installed in the USA.
   - The power supply must NOT be secured to an outlet if installed in Canada.
6 **Enroll sensors and peripherals** by first pressing the Enroll/WPS button on the side of Helix until it beeps once (roughly 3 seconds) and then sending an enrollment signal from the sensor or peripheral. Alternatively, a device can be enrolled by scanning its bar code using the HeliLink app or by entering its 8-character serial number on the interactive service provider’s web portal.

**Enrollment Tips**

- Enrollment signals are typically triggered by removing the battery tab or tampering the device. See the specific device manual for more information.
- The HeliLink mobile app can be used to enroll and configure sensors.
- Your interactive service provider’s web portal may provide a way to enter and exit wireless enrollment mode.
- Wireless enrollment mode will end 5 minutes after the last sensor is enrolled.
- Enrolling a HeliPad or other 2.4GHz peripheral will automatically end wireless enrollment mode.
- Tapping the Enroll/WPS button will end wireless enrollment mode.

7 **Install your sensors & peripherals** in desired locations around the house. Refer to the specific device manual for more information regarding installation and use.

8 **Configure Helix, sensors, and peripherals** using the HeliLink mobile app or the interactive service provider’s web portal. Configuration options are described in the configuration guide.

9 **Finally, test the system** after finishing installation, enrollment, and configuration. Verify proper operation of all installed sensors and peripherals using the HeliLink app or the interactive service provider’s web portal. All sensors and peripherals should score at least one bar on the RF signal strength indicator. See Pro Tips - RF Signal Strength.
Pro-Tips

**Install an expansion card** by first disconnecting AC power and the battery. Cellular cards must use slot 1 and square cards must use slot 3. Always refer to the specific card manual for a full list of installation requirements. Next, carefully align the nylon retention posts and 8-pin connector while pushing the card firmly onto Helix until all the posts are fully seated. Finally, reconnect the battery, AC power, and verify proper operation using the LED indicators on the expansion card.

**Cellular Antenna Installation**
- Route the antenna wire near the Ethernet jack as shown above.
- Install the antenna with the feed wire on the top side as shown to the right.

**RF Signal Strength** is an averaged signal-to-noise indication. Even in the absence of sensor transmissions, Helix experiences ambient RF energy (i.e. noise). The RF signal strength indication represents a sensor's signal relative to ambient noise. If multiple sensors score low signal strength, this could be due to one or more of the following:

1. **High ambient noise** - Ensure Helix is not mounted adjacent to other electronics.
2. **Helix isn’t centrally located, or is mounted below ground** - Move Helix to a central location in the home that is above ground level.
3. **Helix is located near ducts, appliances, or other large metal objects** - Relocate Helix away from these types of objects.

**Sensor Signal Strength Tips**
- The signal strength scale is from 0 to 100 (0 to 5 bars).
- There is nothing wrong with a sensor that has at least one bar (e.g. a signal strength of at least 20).
- Signal strength readings are averaged. If you move Helix or a sensor, it takes some time for the signal strength readings to update. Tripping a sensor several times will help update a sensor’s signal strength faster.
- Before mounting a sensor permanently, expose a slight portion of its mounting tape and apply it (very lightly) to the desired location. If it performs well, mount it permanently. If it performs poorly, try rotating it by 90 degrees.
- **Do not test a mounting location by tripping a sensor in your hand.** Holding a sensor changes how it radiates RF energy. Sometimes these “hand effects” help, and sometimes they hurt.
Wireless performance of door window sensors is optimized when mounted vertically near the top corner of the door.

**Wrong**  
**OK**  
**Best**

*Routers, modems, and other electronic devices* emit RF noise. For best results, avoid mounting Helix directly beside other electronic devices.

**Potential for interference**

- Put some space between Helix and the home router. Helix includes a 6-foot cable for this purpose.

**Trouble beeps can be suppressed** so they only occur during a specific window of time each day.

- Use the HeliLink app or your interactive service provider’s web portal to configure the trouble beep suppression period.
- Trouble beeps can be temporarily silenced for 24 hours using a HeliPad or Keyfob.
**HeliLink** can be used to enroll sensors by scanning their barcodes.

Smoke Alarms should be installed in accordance with Chapter 2 of "ANSI/NFPA 72: National Fire Alarm and Signaling Code" (National Fire Protection Association, Battymarch Park, Quincy, MA 02169) when installed in the USA. Smoke alarms installed in Canada should be installed in accordance with "Standard for the Installation of Residential Fire Warning Systems, CAN/ULC-S540".

### Smoke Alarm Placement

**Single Sleeping Area**
- DINING
- KITCHEN
- BEDROOM
- BEDROOM
- LIVING ROOM
- BEDROOM

**Multi-Floor Home**
- BEDROOM
- HALL
- BEDROOM
- GROUND FLOOR
- KITCHEN
- BASEMENT

**Multiple Sleeping Areas**
- DINING
- KITCHEN
- BEDROOM
- BEDROOM
- BEDROOM
- LIVING ROOM
- BEDROOM

**Required Smoke Alarm**
- Required Smoke Alarm
- Optional Smoke Alarm

NOTE: Regulations pertaining to smoke alarm installations vary. Contact your local fire department for more information.

**Should the battery need replacing,** remove the cover, disconnect the old battery, and connect a new battery. The battery connector is polarized and can be inserted only one way into the Helix receptacle.
Emergency Planning

**Emergencies happen**, so have a plan.

**Emergency Planning Tips**
- Periodically discuss and rehearse emergency plans.
- Understand how to use your security system.
- Know the normal states of doors and windows: open, closed, or locked.
- Escape fast! (Do not stop to pack.)
- Use a different escape route if closed doors feel hot to the touch.
- Smoke is toxic. Stay low and breathe strategically when escaping a burning building.
- Designate a nearby landmark as a safe family re-grouping location.
- Emphasize that no one should return to the premises if there is a fire.
- Call 911 as soon as possible but do it in a safe location.
- Do not enter the premises if you arrive and hear sirens. Call for emergency assistance from a safe location.

**Using Helix**

**System Status Indication** is provided via eight LEDs on the front of Helix. These LEDs may all be forced OFF to conserve battery power during an AC power failure.

![Helix System Status LED Diagram](image)

*This LED will toggle between green and red while wireless enrollment mode is active.*
Using **HeliPad** (See the HeliPad™ manual for detailed operation)

**Disarm the system** by entering a valid user code on the number pad.

**Arm Away** by pressing **ARM AWAY** until the HeliPad clicks.

**Arm Stay** by pressing **ARM STAY** until the HeliPad clicks.

**Trigger a panic alarm** by pressing **ARM STAY** & **ARM AWAY** together until the display indicates a panic alarm.

**View real-time system status** using the HeliPad’s display.

Using **PINPad** (See PINPad™ manual for detailed operation)

**Disarm the system** by entering a valid user code on the number pad.

**Arm Away** by pressing the “AWAY” button until the PINPad LED flashes red.

**Arm Stay** by pressing the “STAY” button until the PINPad LED flashes red.

**Trigger a panic alarm** by pressing the “STAY” & “AWAY” buttons together until the PINPad LED flashes red.
## Connectivity Troubleshooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Troubleshooting Steps</th>
</tr>
</thead>
</table>
| **Network Connectivity LED Off**      | **Ethernet Connections**  
1. Ensure the Ethernet cable is fully inserted in both Helix and router/modem.  

**Wi-Fi Connections**  
1. Ensure the Wi-Fi card is properly installed, and the Power LED on the card is pulsing.  
2. Ensure Helix has been configured with the proper Wi-Fi credentials and the Wi-Fi LED on the expansion card is on solid. If the LED is blinking either the network is not in range, or the Wi-Fi credentials are incorrect (refer to **System Setup - Step 4**).  

**Cellular Connections**  
1. Ensure the Cellular card is properly installed, and the Power LED on the card is pulsing.  
2. Inspect the GSM or CDMA LED on the expansion card.  
   - A solid LED indicates Helix is connected to the network.  
   - A flashing LED indicates Helix has found a tower, and is attempting to connect to the network. Wait until the LED is solid. If the LED has been double flashing for more than ten minutes, try power cycling Helix. |
| **Central Station Connectivity LED Off** | 1. Ensure the Network Connectivity LED is on. If it is off, see the network connectivity troubleshooting section above.  
2. Ensure port TCP 9999 is open in the router/modem settings.  
3. Ensure Helix is registered to an account with your interactive service provider and the account is active.  
4. Ensure Helix has been configured with the proper central station reporting information: Account Number, Central Station Receiver Host and Port, Central Station Receiver ID and Line ID. |
| **Interactive Connectivity LED Off**   | 1. Ensure the Network Connectivity LED is on. If it is off, see the network connectivity troubleshooting section above.  
2. Ensure port UDP 1234 is open in the router/modem settings.  
3. Ensure Helix is registered to an account with your interactive services provider and the account is active. |
| **System Firmware Update LED Off**     | 1. Ensure port UDP 1235 is open in the router/modem settings. Helix and peripherals will not be able to receive firmware updates if this port isn’t available or is already in use. |

## System Maintenance

**System testing** should be performed after installation is completed and whenever a problem occurs.

Smoke and CO detectors should be tested after installed and weekly by pressing the test button on the detector. Helix will indicate it has properly received a test signal by sounding a temporal three sound for a Smoke detector or a temporal four sound for a CO detector.

Critical functions and communication links of the system are automatically monitored and exercised to detect trouble conditions.
### UL SYSTEM REQUIREMENTS

**Control Unit, consisting of:**
- Base Panel: RE6100 series
- Backup Battery: RE029 (6V, 2.5Ah, NiMH)
- Power Supply: RE012-6 (In: 100-240VAC; Out: 12VDC, 1A)
- PINPad (RE652) or HeliPad (RE656), connected wirelessly
- Ethernet connection native to base panel or Cellular module (RE928RxS, RE928RxV, or RE927RxA)

**Compatible ETL listed signal initiating devices:**
- RE612 Smoke Detector
- RE613 CO Detector
- RE601 Door/Window Sensor
- RE622 NanoMax Door/Window Sensor
- RE610P Motion Detector

**Optional devices, not ETL listed:**
- Any of a wide array of CryptiX sensors

**UL1023 Household Burglar Alarm System:**
- Control Unit
- At least one burglary signal initiating device
- Entry delay: 45 seconds or less
- Exit delay: 60 seconds or less
- Sensor supervisory: 24 hours or less
- Panel status volume: on
- Panel siren: on
- Auto force arm: on
- Siren timeout: 4 minutes or more

**ORD-C1023-1974 Canadian Household Burglar Alarm System:**
- Control Unit and installation as described for UL1023
- Power supply: RE012-6, Do NOT secure with a receptacle securing screw. Ne pas se connecter Helix à une prise contrôlée par un interrupteur.
- Siren timeout: 6 minutes or more

**UL985 Household Fire Warning System:**
- Control Unit
- At least one smoke signal-initiating device enrolled into “Fire” zone profile.
- Smoke supervision: on
- Panel siren: on
- Siren timeout: 4 minutes or more
- Panel status volume: on

**ULC-S545-M89 Canadian Household Fire Warning System:**
- Control Unit and installation as described for UL985
- Power supply: RE012-6, Do NOT secure with a receptacle securing screw. Ne pas se connecter Helix à une prise contrôlée par un interrupteur.
- Siren timeout: 6 minutes or more

**Central Station Communicator Requirement is at least one of:**
- UL1610 Central Station Burglar Alarm System: Ethernet connection native to base panel
- UL1635 Digital Alarm Communicator System: Cellular module RE928RSS, RE928RSV, or RE927RSA
- RF supervision: 4 hours
- Communication interface supervision: on
- Entry delay plus reporting delay must not exceed 60 seconds.
- Reporting delay is 30 seconds.

**Network Equipment:**
- Use a UL 60950-1 listed broadband router/modem for the 10/100 Ethernet port or Wi-Fi connection

### CE SYSTEM REQUIREMENTS

**Access Levels:**
- Access Level 1: Person with no access to the security system features.
- Access Level 2: Regular users with access to all features on the security system with a code.
- Access Level 3: Master and Alarm company users that can do everything a level 2 user can do and also change system settings (e.g. add, modify, or delete users).
- Access Level 4: Manufacturer of equipment access. Typically used for system updates.

**User Codes:**
- Four or more invalid code attempts will disable the interface and trigger a tamper condition.
- There are 10,000 unique 4-digit PIN codes.
- There are 16,777,215 unique identification codes for logical keys (Keyfobs).

**Priority of Indicators:**
- Fire alarm
- CO alarm
- Panic alarm
- Burglary alarm
- Tamper alarm
- Auxiliary alarm
- Freeze alarm
- Heat alarm
- Water alarm
- Tamer indication
- Fault indication

**Ancillary Control Devices:**
- Up to 8 PINPads (RE652)
- Up to 8 HeliPads (RE656) and/or mobile devices.
- PINPads and HeliPads can issue panic alarms.

**UL 1610 Commercial Burglar Alarm System:**
- Commercial: on
- Ethernet Port must be connected directly to a router without any Ethernet switches.
- Siren Test: Siren should be tested once a week. Trip alarm to sound the siren. Disarm system to silence siren. Contact Central Station if alarms will be reported.
- Intended use includes: Commercial Central Station, Encrypted Line Security, Single and Dual Signal Line Transmission
- Communication interface options need to have supervision enabled depending on panel setup. Ethernet, Slot 1, Slot 2.
**Required Equipment for ANSI-SIA CP-01**

*RE6100S Helix, RE656 HeliPad*

**Note:** Combined entry delay and abort window should not exceed 1 minute. Programming at installation may be subordinate to other UL requirements for the intended application.

### Nonprogrammable SIA Options

<table>
<thead>
<tr>
<th>Nonprogrammable Options</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silent Exit</td>
<td>Annunciators Enabled</td>
</tr>
<tr>
<td>Progress Annunciation</td>
<td>Annunciators Enabled</td>
</tr>
<tr>
<td>Cancel Report Annunciation</td>
<td>Enabled</td>
</tr>
<tr>
<td>Recent Closing</td>
<td>Enabled (2 Minute Window)</td>
</tr>
<tr>
<td>Exit Error</td>
<td>Enabled</td>
</tr>
<tr>
<td>Restoration of Power</td>
<td>Panel will ignore sensor trips for the first sixty seconds after power-up</td>
</tr>
<tr>
<td>Cancel Alarm</td>
<td>Enabled</td>
</tr>
<tr>
<td>Remote Arming</td>
<td>Annunciators Enabled</td>
</tr>
</tbody>
</table>

### SIA Setting Requirements

<table>
<thead>
<tr>
<th>Programmable Options</th>
<th>Default</th>
<th>Recommended Setting</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Delay</td>
<td>30 Seconds</td>
<td>30 Seconds</td>
<td>30-240 Seconds</td>
</tr>
<tr>
<td>Exit Delay</td>
<td>60 Seconds</td>
<td>60 Seconds</td>
<td>45-240 Seconds</td>
</tr>
<tr>
<td>Abort Time</td>
<td>30 Seconds</td>
<td>15-45 Seconds</td>
<td>1-45 Seconds</td>
</tr>
<tr>
<td>Auto Stay Arming</td>
<td>On</td>
<td>On</td>
<td>On/Off</td>
</tr>
<tr>
<td>Exit Delay Restart</td>
<td>On</td>
<td>On</td>
<td>On/Off</td>
</tr>
<tr>
<td>Swinger Threshold</td>
<td>Two Trips</td>
<td>Two Trips</td>
<td>1-6 Trips</td>
</tr>
<tr>
<td>Duress</td>
<td>Disabled</td>
<td>Disabled</td>
<td>Disabled, valid duress code</td>
</tr>
<tr>
<td>Cross Zoning</td>
<td>Disabled</td>
<td>Enabled for sensors that may cause false alarms</td>
<td>On/Off</td>
</tr>
<tr>
<td>Fire Alarm Verification</td>
<td>Disabled</td>
<td>Enabled unless sensor can self verify</td>
<td>On/Off</td>
</tr>
<tr>
<td>Alarm Abort Annunciation</td>
<td>On</td>
<td>On</td>
<td>On/Off</td>
</tr>
<tr>
<td>Alarm Cancel Annunciation</td>
<td>On</td>
<td>On</td>
<td>On/Off</td>
</tr>
</tbody>
</table>
User Information

Report Delay
Consult with your installer to determine if your system is configured with a communicator delay. A communicator delay will prevent a report to the central station if the control panel is disarmed within _____ seconds (default is 30 seconds) after an intrusion alarm is triggered. Note that fire-type alarms and Carbon Monoxide alarms are normally reported without a delay.

Exit Delay: The period of time allowed, after Arming a security system, to exit the entry/exit door without tripping an alarm.  Note: Enabling silent exit doubles the exit delay time

Entry Delay: The door used to enter the premise will start an entry delay when tripped. You will hear entry delay beeps when you trip the sensor: this will allow you time to disarm the system. Entering a user code will disarm the system.

Entry delay Progress: Three beeps every four seconds and three beeps every two seconds during the last ten seconds of entry delay.

Exit Delay Progress: Two beeps every two seconds and two beeps every second during last ten seconds of exit delay time.

System Acknowledgment: Sounders will sound one beep to confirm disarm, two beeps to confirm stay arming and four beeps to confirm away arming.

Exit Delay Restart: The feature will recognize when you arm the system, leave your house and then quickly re-enter. If this happens, the system will restart your exit delay to give you the full exit delay again.

Auto Stay Arming: Determines whether the system automatically arms down to Stay if you arm the system to Away without exiting the system entry/exit door. This feature will not be enabled when arming from a keyfob.

Arming Levels

Disarm: In this level, only 24-hour sensors are active.
Stay: Perimeter sensors are active. Interior sensors are not active.
Away: Perimeter and interior sensors are active.
Panic Alarm: To trigger panic alarm from HeliPad, press and hold stay and away buttons at the same time.
Alarm Abort: If the panel beeps three times after disarming an alarm, then the alarm is aborted.
Alarm Cancel Report: If an alarm has previously been transmitted, a cancel signal will be transmitted when the alarm system is disarmed. The panel will sound two beeps three seconds after disarming when sending a cancel message.
Alarm Memory: After canceling an alarm, press status on HeliPad to view alarm memory.
Duress: The user uses a unique code, which disarms the system and transmits a “Duress” alarm to the monitoring center.
Cross Zoning: Refers to two different sensors that must be tripped within two minutes of each other to report an alarm to the central station. When motion is detected by the first sensor, it starts a two minute timer. If the other sensors trip within two minutes, an alarm report will be sent to the central station.
Swinger Shutdown: This setting determines how many times the sensor will go into alarm during a single arming period. Once the sensor is in swinger mode it will not be active again until the alarm is canceled.

Note: Swinger shutdown does not affect Fire and Carbon Monoxide sensors.

Fire Alarm Verification: The panel immediately reports to the central station when a smoke detector goes into alarm. With this option on, if a single smoke detector goes into alarm, the panel will not report for 60 seconds unless another smoke detector goes into alarm. If the first smoke detector is cleared of an alarm within the first 60 seconds, no report will be sent to the central station unless it or a second smoke detector goes into alarm within 5 minutes.
Testing the system
Before testing alarms, contact your central station.
Central station phone number _______________
System account number _______________
Some testing can be done without actually setting off the alarm. To start, close all doors and windows that have sensors and make sure that the display on the keypad indicates the system is in the ready state.

Tripping Sensors
Trip the sensor by opening the door or window and verify it shows open at the HeliPad or on the mobile app.

Smoke
Press test button until smoke detector sounds. Check mobile app activity to verify fire walk test signal was reported. (The sirens will play one cycle of the temporal 3 siren pattern when a smoke test is pressed).

CO: Press test button until CO sounds. Check mobile app activity to verify CO test signal was reported. (The sirens will play one cycle of the temporal 4 siren cadence when a CO test is pressed.)

Glassbreak: Need to test with glass break sound tester to trip sensor.

Testing panic alarms
These sensors will report alarms. Call central station and tell them you are testing the system. Alarm sirens will sound for some alarms.
HeliPad: Press and hold stay and away buttons to trip panic alarm.
PINPad: Press and hold stay and away buttons to trip panic alarm.

Verify panel communication with the central station by verifying alarms you tripped were reported.

When finished, tell the central station you are done testing the system.
Specifications

**PHYSICAL**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Body Dimensions</td>
<td>8.9 x 8.9 x 1.5 inches (22.6 x 22.6 x 3.8 cm)</td>
</tr>
<tr>
<td>Housing Base Dimensions</td>
<td>8.2 x 1.3 x 2.7 inches (20.8 x 3.3 x 6.7 cm)</td>
</tr>
<tr>
<td>Weight with Battery</td>
<td>26.8 ounces (760 grams)</td>
</tr>
<tr>
<td>Mounting Fastener</td>
<td>#6 or #8 screws (not provided)</td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>32 to 120 °F (0 to 49 °C)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-4 to 86 °F (-20 to 30 °C)</td>
</tr>
<tr>
<td>Maximum Humidity</td>
<td>85% non-condensing relative humidity</td>
</tr>
</tbody>
</table>

**PANEL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio Frequencies</td>
<td>433.92MHz, 2.4GHz</td>
</tr>
<tr>
<td>Power Supply Part Number Input</td>
<td>RE012-6 (US), RE012-7 (AUS), RE012-8 (CE)</td>
</tr>
<tr>
<td>Output</td>
<td>100-240VAC, 50/60 Hz, 0.5A</td>
</tr>
<tr>
<td>Battery Part Number Backup</td>
<td>RE029</td>
</tr>
<tr>
<td>Specifications</td>
<td>24 hours minimum</td>
</tr>
<tr>
<td>Battery Charger</td>
<td>6VDC, 2.5Ah, NiMH</td>
</tr>
<tr>
<td>Current Draw</td>
<td>25mA (Trickle), 95mA (Fast)</td>
</tr>
<tr>
<td>Tamper Indications</td>
<td>150mA (Normal), 300mA (Alarm)</td>
</tr>
<tr>
<td>Sensors</td>
<td>Cover opening and Wall removal</td>
</tr>
<tr>
<td>Interface Devices</td>
<td>Up to 96 CryptiX Encrypted Wireless Security Zones</td>
</tr>
<tr>
<td>Maximum Number of Users</td>
<td>Up to 8 PINPads (RE652)</td>
</tr>
<tr>
<td></td>
<td>Up to 8 HeliPads (RE656) and/or mobile devices</td>
</tr>
<tr>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

**CERTIFICATIONS**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>RE6100 UL1023, UL985, UL1635, ORD-C1023-1974, ULC-S545-M89, ETL, FCC, IC</td>
</tr>
<tr>
<td></td>
<td>RE6110 EN 60950-1, EN 300 220, EN 301 489, RCM</td>
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<tr>
<td></td>
<td>RE6120 EN50131-3, EN 60950-1, EN 300 220, EN 301 489, CE</td>
</tr>
</tbody>
</table>

**WARRANTY**

Resolution Products, Inc. will replace products that are defective in their first five (5) years.

**IC NOTICE**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

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.

IC: 8310A-RE6100

**FCC NOTICE**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference that may be received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the Resolution Products, Inc. could void the user's authority to operate this equipment.

FCC ID: U5X-RE6100

**CE DECLARATION OF CONFORMITY**

Hereby, Resolution Products, Inc. declares that this RE6120 is in compliance with the essential requirements and other relevant provisions of directive 1999/5/EC.

(This declaration can be translated to other languages via a myriad of translation tools found on the Internet.)

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