

INSTALLATION GUIDE



XTLN-WIFI PANEL

MODEL XTLN-WiFi INSTALLATION GUIDE

FCC NOTICE

This equipment has been tested and found to comply with the limits for a 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, uses 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.

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

This device has been designed to operate with the integrated 1100 Series PCB antenna having a maximum gain of 1.8 dB. Antennas having a gain greater than 1.8 dB are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

If necessary, the installer should consult the dealer or an experienced radio/television technician for additional suggestions. The installer may find the following booklet, prepared by the Federal Communications Commission, helpful:

“How to identify and Resolve Radio-TV Interference Problems.”

This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402
Stock No. 004-000-00345-4

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This information is subject to change without notice.

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Panel Specifications

1.1 Power Supply

Input: 12 VDC
Standby Battery: 3.7 VDC Lithium
All circuits inherent power limited

1.2 Communication

Built-in network communication to DMP Model SCS-1R or SCS-VR Receivers.

1.3 Keypads

You can connect up to 4 alphanumeric 7800 Series Graphic Touchscreen Keypads or 9000 Series Wireless Keypads.

1.4 Number of Zones

- XTLN-WiFi has 28 wireless initiating zones numbered 1-28
- Zone and Output numbers 31 to 34 and 41 to 44 can support 1100 Series Key Fobs, Output Modules, or sirens

1.5 Enclosure Specifications

The XTLN-WiFi panel ships in a plastic enclosure with a user's guide and programming sheet.

Size	Color
5.5" W x 3.75" H x 1" D	White (W)

INTRODUCTION

Introduction

2.1 System Configurations

The panel can be programmed to operate as any of the following system types:

- All/Perimeter system that provides one perimeter area and one interior area
- Home/Sleep/Away system that provides one perimeter, one interior, and one bedroom area. The bedroom area provides for any protection devices the user wants disarmed during their sleeping hours and armed in the Away mode.
- Six area system that provides areas of protection that can be independently armed or disarmed.

2.2 Caution Notes

Throughout this guide you will see caution notes containing information you need to know when installing the panel. These cautions are indicated with a yield sign. Whenever you see a caution note, make sure you completely read and understand its information. Failing to follow the caution note can cause damage to the equipment or improper operation of one or more components in the system.

2.3 Compliance Instructions

For applications that must conform to a local authorities installation standard or a National Recognized Testing Laboratory certificated system, please see the Listed Compliance Specifications section near the end of this guide for additional instructions.

SYSTEM COMPONENTS

System Components

3.1 Accessory Devices

DMP Two-Way Wireless Devices	
1100R Repeater	Provides additional range for wireless devices.
1101 Universal Transmitter	Provides both internal and external contacts that may be used at the same time to yield two individual reporting zones from one wireless transmitter.
1102 Universal Transmitter	Provides one external contact.
1103 Universal Transmitter	Provides both and internal and external contacts that may be used at the same time to yield two individual reporting zones from one wireless transmitter. Requires EOL resistor for external contact.
1105 Universal Transmitter	Provides both internal and external contacts that may be used at the same time to yield two individual reporting zones from one wireless transmitter.
*1107 Micro Window Transmitter	Provides a wireless window transmitter
*1114 Four-Zone Expander	Provides four wireless zones with EOL resistors.
*1116 Relay Output	Provides one Form C relay.
*1117 LED Annunciator	Provides a visual system status indicator.
*1119 Door Sounder	Provides a wireless sounder with integrated door contact
*1121 PIR Motion Detector	Provides motion detection with pet immunity.
1125 PIR Motion Detector	Provides multiple lens configurations, dual coverage area selection, and sensitivity adjustments.
*1126C/1126R/1126W PIR Motion Detector	Ceiling mount motion detector with panel programmable sensitivity and Disarm/Disable functionality.
1127C/1127W PIR Motion Detector	Wall mount motion detector with panel programmable sensitivity and Disarm/Disable functionality.
*1129 Glassbreak Detector	Detects the shattering of framed glass mounted in an outside wall and provides full-pattern coverage and false-alarm immunity.
*1131 Recessed Contact	Provides concealed protection for doors, windows or other applications.
1135/*1135DB Wireless Sirens	Provides a wireless siren
*1139 Bill Trap	Provides a silent alarm option for use in cash drawers.
1142BC Two-button Panic Belt Clip Transmitter	Provides portable two-button panic operation.
1142 Two-button Panic Transmitter	Provides permanently mounted under-the-counter two-button panic operation.
*1145-4 (Four-Button) *1145-2 (Two-Button) *1145-1 (One-Button)	Key Fob transmitters designed to clip onto a key ring or lanyard.
1161 Residential Smoke Detector	Residential smoke detector with sounder.
1162 Residential Smoke Detector	Residential smoke/heat detector with sounder and fixed rate-of-rise heat detector.
1183-135F Heat Detector	Fixed temperature heat detector
1183-135R Heat Detector	Fixed temperature and rate-of-rise heat detector
*1184 Carbon Monoxide Detector	Carbon Monoxide detector.
Interface Module	
*738Z Z-Wave Interface Module	Provides connection for Z-Wave modules.
Keypads	
7800 Series LCD keypads	Allows you to control the panel from various remote locations. Connect up to four 7872 or 7873 keypads to the keypad bus using terminals 7, 8, 9, and 10.
9000 Series LCD keypads	Allows you to control the panel from various remote locations using 9000 Series Wireless Keypads.
* These devices have not been investigated and shall not be used in listed installations	

Installation

4.1 Mounting Location Information

A location should be selected that is centrally located between the 1100 Series transmitters used in the installation. Install the XTLN-WiFi away from metal objects. Mounting the XTLN-WiFi on or near metal surfaces impairs performance. When selecting the proper mounting location of a transmitter, refer to the LED Survey Operation section of the specific installation guide for the transmitter being installed.

4.2 Mounting the Enclosure

The enclosure for the XTLN-WiFi panel must be mounted using the provided #6 screws in the four mounting holes shown in Figure 2. Mount the enclosure in a secure, dry place away from metal objects to protect the panel from damage due to tampering or the elements. Mount the panel a minimum of 4 feet from any wireless transmitters or repeaters. It is not necessary to remove the PCB when installing the enclosure.

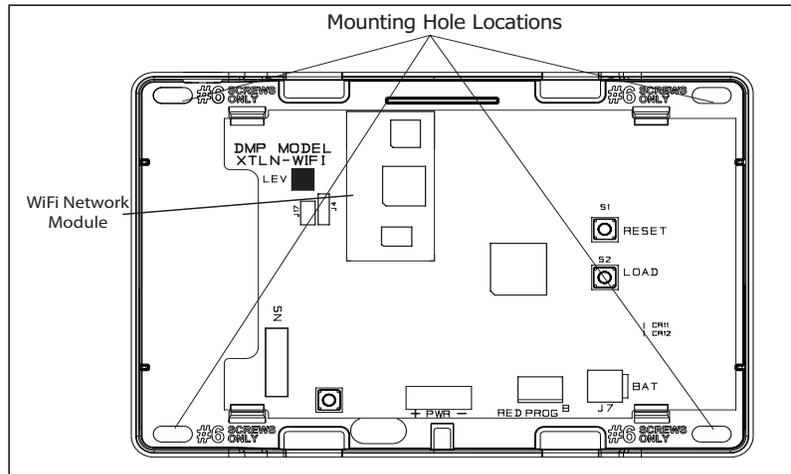


Figure 1: Mounting Hole Locations

Primary Power Supply

5.1 DC Input

Mount the XTLN-WiFi panel near a wall outlet for the Model 372-500 plug-in DC power supply. In addition to powering the panel, the DC plug-in power supply also charges the back-up battery. The 372-500 must be located within 100 feet of the panel using 22 AWG wire. Use the following steps to connect the plug-in power supply:

OBSERVE POLARITY



1. Using 22 AWG wire, connect the panel PWR (J2) first terminal (+) to the positive terminal on the power supply.
2. Connect the panel PWR (J2) second terminal (-) to the negative terminal on the power supply.
3. Plug the power supply into a 120 Volt AC, 60Hz dedicated outlet not controlled by a switch.

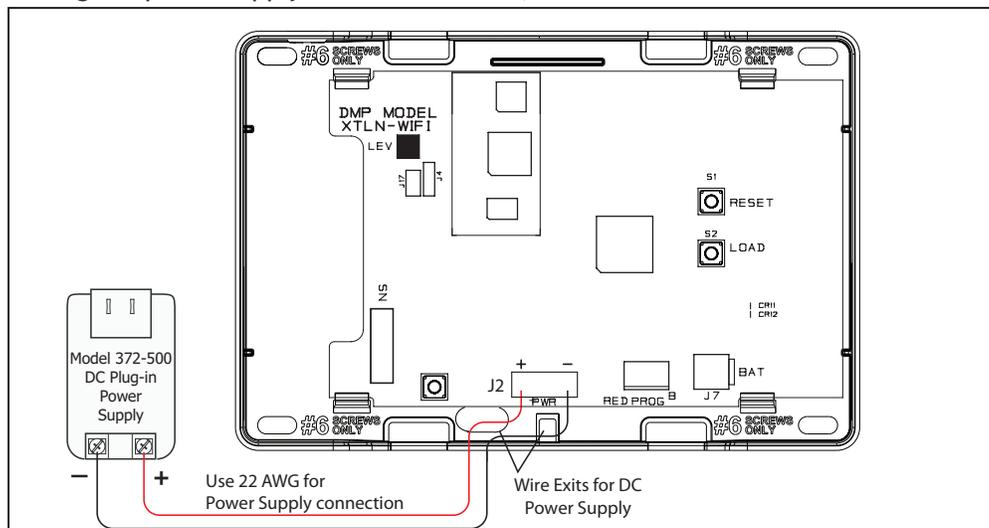


Figure 2: DC Power Supply Connection

Secondary Power Supply

6.1 Standby Battery

The XTLN-WiFi rechargeable battery is used to provide backup battery power when DC power is not available. The battery is intended for backup power only and not to operate the XTLN-WiFi panel on a daily basis. If the battery is low, or not plugged into the J7 battery connector, a low battery condition is indicated by the XTLN-WiFi panel.

Note: If removing the XTLN-WiFi panel from service, disconnect the backup battery from the XTLN-WiFi J7 connector.

6.2 Replacement

Use the following steps to replace the XTLN-WiFi standby battery. DMP recommends replacing the battery every 3 years under normal use.

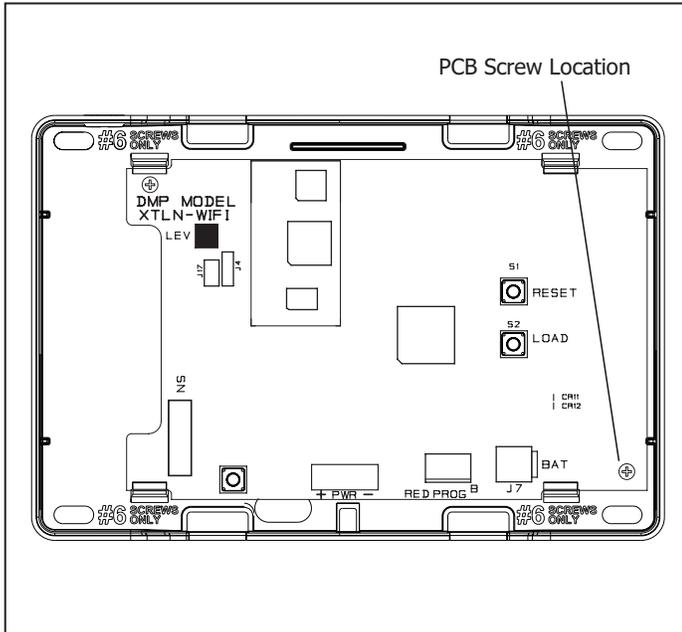


Figure 3: PCB Screw Location

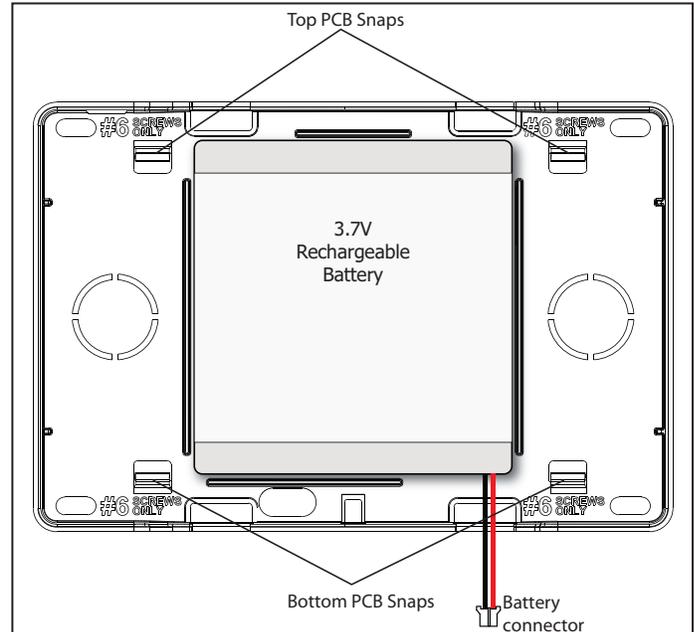


Figure 4: Standby Battery Replacement

1. Unplug the battery connector (J7) from the XTLN-WiFi panel.
2. If installed, remove the screw from the PCB.
3. Loosen the top PCB snaps.
4. Lean the panel PCB forward and lift out from the bottom PCB snaps.
5. Remove and properly dispose of the used battery.



Caution: Risk of fire, explosion, and burns. Do not disassemble, heat above 212°F (100°C), or incinerate. Properly dispose of used batteries.

6. Place the new battery into the XTLN-WiFi housing base with the battery wires directed toward the bottom right corner. See Figure 4.
7. Set the XTLN-WiFi PCB into the bottom snaps and press into the top snaps to secure in place.
8. Plug the battery into the panel connector (J7).

6.3 Battery Supervision

The panel tests the battery once every hour when DC power is present. This test occurs 15 minutes past each hour and lasts for five seconds. A load is placed on the battery and if the battery voltage is low, a low battery is detected. If DC power has failed, a low battery is detected any time the battery voltage falls below 3.7V.

LED Operation

7.1 Backlit Logo

The backlit logo indicates the Power and Armed status of the panel. Depending on the operation, the LED displays in Red or Green as listed in the table.

Color and Activity	Operation
Green Steady	Panel Disarmed, Primary Power OK, Battery OK
Green Blinking	Panel Disarmed, Primary Power OK, Battery Fault
No Light	Panel Disarmed, Primary Power Fault, Battery OK
Red Steady	Panel Armed, Primary Power OK, Battery OK
Red/Green Alternate	Panel Armed, Primary Power OK, Battery Fault
Red Blinking	Panel Armed, Primary Power Fault, Battery OK

On-Board WiFi Network

8.1 Description

The XTLN-WiFi connects directly to a WiFi network for encrypted TCP communication using a Wireless-B/G connection. The XTLN-WiFi uses wireless 802.11b/g WiFi technology, which can travel 125 ft. indoors and can reach out to 460 ft. outdoors with a clear line of sight.

Note: Range for WiFi communication has not been investigated by UL.

8.2 WiFi LEDs

The two WiFi LEDs, located in the center of the circuit board, indicate network operation. The left WiFi-1 LED is a green light that is solid when the network is connected and blinks on and off when there is no network connectivity. The right WiFi-2 LED is a yellow light and blinks when messages are being received or transmitted.

Reset Button

9.1 Description

The reset button (S1) is located on the right side of the circuit board and is used to reset the XTLN-WiFi microprocessor. To reset the panel prior to reprogramming, press the reset button without powering down the system. After resetting the panel, begin programming within 30 minutes. If you wait longer than 30 minutes, you must reset the panel again.

Programming Connection

10.1 Programming Connection

A locking 4-pin header (PROG) is provided to connect a keypad when using a DMP Model 330 Programming Cable. This provides a quick and easy connection for programming the XTLN-WiFi panel. After programming is complete, remove the keypad.

On-Board 1100 Series Wireless

11.1 Wireless Antenna

The XTLN-WiFi Wireless Antenna is integrated into the circuit board. The XTLN-WiFi built-in wireless receiver operates with DMP 1100 Series transmitters. See section 3.1 for a list of accessory devices.

11.2 Wireless LED Operation

Green (TX): The green LED flashes every time the receiver transmits (32 times per second). If the panel is reset, or the panel is powered off, the green LED is off. Under normal operation, the green LED flashes constantly with no interruption or change.

Yellow (RX): The yellow LED flashes every time the XTLN-WiFi receives a message from a programmed wireless transmitter. When a message is sent by a transmitter, typically by pressing or releasing the tamper switch, the yellow LED should flash indicating that the XTLN-WiFi received a message from the transmitter. If the LED never flashes, the transmitter is not getting through to the XTLN-WiFi. This could be because of a misprogrammed serial number or the transmitter is too far away. Under normal operation, the yellow LED flashes at every trip of every wireless transmitter and when the transmitters perform their periodic check-in. It is not unusual for this LED to stay off for many minutes at a time when no transmitters are communicating.

Keypads

12.1 Mounting Keypads

DMP keypads have removable covers that allow the base to be mounted on a wall, desk stand or other flat surface using the screw holes provided on each corner.

12.2 Installation Specifications

Several factors determine the performance characteristics of the keypad bus: the length of wire used, the number of devices connected, and the voltage at each device. When planning a keypad bus installation, keep in mind the following four specifications:

1. DMP recommends using 18 or 22-gauge unshielded wire for all keypad circuits. Do not use twisted pair or shielded wire for keypad bus data circuits.
2. On keypad bus circuits, to maintain auxiliary power integrity when using 22-gauge wire do not exceed 500 feet. When using 18-gauge wire do not exceed 1,000 feet. To increase the wire length or to add devices, install an additional power supply.

Note: Each panel allows a specific number of supervised keypads. Add additional keypads in the unsupervised mode. Refer to the panel installation guide for the specific number of supervised keypads allowed.

3. Maximum distance for any one bus circuit (length of wire) is 2,500 feet regardless of the wire gauge. This distance can be in the form of one long wire run or multiple branches with all wiring totaling no more than 2,500 feet. As wire distance from the panel increases, DC voltage on the wire decreases.
4. Maximum voltage drop between the panel (or auxiliary power supply) and any device is 2.0 VDC. If the voltage at any device is less than the required level, add an auxiliary power supply at the end of the circuit. When voltage is too low, the devices cannot operate properly.

For additional information refer to the 710 Installation Sheet (LT-0310) and or the LX-Bus/Keypad Bus Wiring Application Note (LT-2031).

12.3 Wireless Keypad Association

Enable Wireless Keypad Association operation on both the keypad and panel.

To enable association operation in the keypad, access the Installer Options Menu (3577 (INST) CMD). The keypad logo LEDs turn off until association is successful.

To enable association operation in the panel, press the XTLN-WiFi RESET button 3 times within 12 seconds allowing 3 seconds between each press of the reset button. When in keypad association, the XTLN-WiFi Red and Green logo LEDs turn on steady.

For 60 seconds the panel listens for wireless keypads that are in the Installer Options Menu (3577 CMD) and have not been programmed, or associated into another panel. Those keypads are assigned to the first open device position automatically based upon the order in which they are detected. The keypad logo turns Green to indicate it has been associated with the panel.

Wireless Zones

13.1 Description

XTLN-WiFi panels provide 28 wireless zones numbered 1 to 28. A default zone name, zone type, and area assignment are described in the XTLN-WiFi Programming Guide (LT-1237) and can be changed in Zone Information programming as needed. The defaults are provided as a programming convenience to help reduce installation time.

Wireless Key Fobs and Outputs

14.1 Description

XTLN-WiFi panels provide 8 wireless key fob or output addresses numbered 31 to 34 and 41 to 44. A default name is provided as a programming convenience to help reduce installation time. The default names are described in the XTLN-WiFi Programming Guide (LT-1237) and can be changed in Output Information or Zone Information programming as needed.

Flash Load Button

15.1 Description

The XTLN-WiFi panel software can be updated via the panel's programming (PROG) header. To update the panel with a new software version, complete the following steps at the protected premise:

1. Connect a DMP 399 Cable from the Programming Header to the serial port of your PC operating Remote Link and containing the XTLN-WiFi Remote Update file.
2. Start Remote Link and create or open the XTLN-WiFi control panel account that matches the panel to be updated.
3. Set the Connection Information Type to Direct with a baud rate of 38400 and choose the appropriate COM port.
4. Select Panel>Remote Update, then select the correct RU file for the XTLN-WiFi panel.
5. Press and hold the LOAD button (S2), then press and release the RESET button.
6. Release the LOAD button and click <Update> in Remote Link.
7. After the software update is completed, remove the 399 cable and press the RESET button to resume normal panel operation.

Listed Compliance Specifications

16.1 Introduction

The programming and installation specifications contained in this section must be completed when installing the XTLN-WiFi in accordance with any of the ANSI/UL or SIA burglary standards. Additional specifications may be required by a particular standard.

16.2 Use Marking

Commercial Central Station, Household Burglar and Fire Control Unit.

16.3 NFPA 72

This equipment should be installed in accordance with Chapter 11 of the National Fire Alarm Code, ANSI/NFPA 72-2002, (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269). Printed information describing proper installation, operation, testing, maintenance, evacuation planning, and repair service is to be provided with this equipment. Warning: Owner's instruction notice, not to be removed by anyone except occupant.

16.4 Types Of Service

Suitable for Central Station. Suitable for Household Fire and Household Burglary. Test weekly.

16.5 Bypass Reports

The bypass reports must be programmed as YES for all listed burglary applications.

16.6 Battery Standby

The XTLN-WiFi is shipped with a battery for 24 hour battery standby operation.

Household Burglar-Alarm System Units ANSI/UL 1023

17.1 Bell Cutoff

The bell cutoff time cannot be less than 4 minutes.

17.2 Entry Delay

The maximum entry delay used must not be more than 45 seconds.

17.3 Exit Delay

The maximum exit delay used must not be more than 60 seconds.

17.4 Wireless External Contact

When used, the External Contact of 1101, 1102, or 1105 transmitters must be programmed Normally Closed.

17.5 Wireless Supervision Time

The Zone Information Supervision Time cannot be set to 0 (zero).

INSTALLATION

17.6 Wireless Audible Annunciation

The Wireless Audible option must be selected as DAY for residential applications.

17.7 Panel location

Mount panel inside protected area.

17.8 Test Frequency

The Test Frequency option must be programmed to send a report at least once every 30 days.

Central Station Burglar Alarm Units ANSI/UL 1610

18.1 Supervision

Commercial Burglary is provided when the Cell Check-in and Fail Time time is set to 3 minutes.

Note: The SecureCom Wireless text plan selected for the panel should match or exceed the programmed Monthly Limit or additional cellular charges may apply.

18.2 Remote Disarm

REMOTE DISARM must be programmed as NO.

18.3 Central Station

MESSAGE TO TRANSMIT programming for zones must not be set to LOCAL (L).

Household Fire Warning System ANSI/UL 985 NFPA 72 Specifications

19.1 Bell Output Definition

The wireless siren of the XTLN-WiFi panel must be programmed to operate steady on burglary alarms and temporal on fire alarms. See the XTLN-WiFi Programming Guide (LT-1237).

19.2 Household System

An alarm sounding device must be installed indoors so that it is clearly heard in all sleeping areas.

19.3 Wireless External Contact

When used, the External Contact of 1101, 1102, or 1105 must be programmed Normally Closed. See the XTLN-WiFi Programming Guide.

19.4 Wireless Supervision Time

The Zone Information Supervision Time must be 3 minutes for fire devices. See the XTLN-WiFi Programming Guide.

19.5 Test Frequency

The Test Frequency option must be programmed to send a report at least once every 30 days.

19.6 Wired Modules

Modules that connect to the PROG header, such as the 738Z, must not be used since the battery standby time will be reduced below the 24 hour minimum.

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Listings and Approvals

ANSI/SIA CP-2010 False Alarm Reduction

FCC WiFi Module Approvals

FCC ID: XM5-SM2144SMT

Industry Canada: 8516A-SM2144SMT

FCC Wireless Approvals

FCC Part 15 ID: CCKPC0117

Industry Canada: 5251A-PC0117

Underwriters Laboratories (UL) Listed

ANSI/UL 985 Household Fire Warning

ANSI/UL 1023 Household Burglar

ANSI/UL 1610 Central Station Burglar



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