

# 1100DH SERIES HIGH POWER WIRELESS RECEIVERS

## Installation Guide

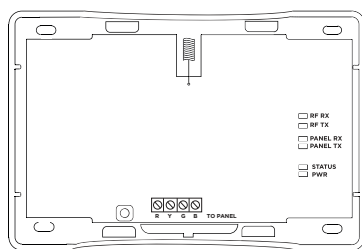


Figure 1: 1100DH High Power Wireless Receiver

### DESCRIPTION

The 1100DH Series Wireless Receiver provides up to 32 wireless zones for XT30/XT50 Series panels. The 1100DHE features 128-bit AES encryption.

The 1100DH Series provides two-way, supervised communication using 900 MHz frequency hopping spread spectrum technology.

The 1100DH contains additional transmit and receive amplifiers to enable greater distances for 1100 Series operation for harsh building environments.

The additional gain introduced by this amplification may inhibit proper communication with 1100 Series transmitters located within 4 ft of the receiver. This distance may be 8 ft when using the 1122 PIR or 9000 Series Wireless Keypads.

The system is designed so only one 1100DH is used per panel.

### Compatibility

- XT30 Series panels
- XT50 Series panels running firmware Version 102 or higher
- Encryption requires panel Version 183 or higher
- 1100T Translator requires receiver firmware Version 207/301 and higher

### What is Included?

- One 1100DH Wireless Receiver
- Hardware Pack



## 1 PROGRAM THE PANEL

Refer to the panel programming guide as needed.

1. Reset the panel.
2. At a keypad, enter **6653** (PROG) to access the **PROGRAMMER** menu.
3. In **SYSTEM OPTIONS**, program a **HOUSE CODE** between 1 and 50. See *House Code Explained* for more information.
4. If you are programming an XT50 Series panel, select **NO** at the **BUILT IN 1100 WIRELESS** prompt to allow the panel to use the 1100DH for wireless communication.
5. (1100DHE only) At the **1100 ENCRYPTION** prompt, select **ALL** to only add encrypted wireless devices to the system. Select **BOTH** to allow both encrypted and non-encrypted wireless devices to be programmed.
6. (1100DHE only) The default passphrase appears at the **ENTER PASSPHRASE** prompt. Press **CMD** to keep the default. Press any select key or area to change the passphrase and enter an 8-character hexadecimal string (0-9, A-F).
7. Press **CMD** until **STOP** displays and press a select key or area to save and exit the Programmer.

## 2 SELECT A LOCATION

The receiver should be centrally located between the DMP panel and the 1100 Series transmitters used in the installation based on the wiring specifications below. Use an 1106 Series Universal Wireless Transmitter to perform an LED survey.

1. With the cover removed, hold the transmitter in the desired location.
2. Press the tamper switch to send data to the panel and determine if communication is confirmed or faulty.
  - ✓ **Confirmed:** If communication is confirmed, for each press or release of the tamper switch, the LED blinks immediately on and immediately off.
  - ✗ **Faulty:** If communication is faulty, the LED remains on for about 8 seconds or flashes multiple times in quick succession. Relocate the receiver until the LED confirms clear communication.

# 3 WIRE AND MOUNT THE RECEIVER

The panel immediately recognizes the 1100DH if the panel is programmed with a house code. Do not use shielded wire between the panel and receiver.

1. Connect the red, yellow, green, and black wires to the PANEL terminal on the 1100DH.
2. Connect the other end of the wires to the terminals 7, 8, 9, and 10 on the panel. See Figure 2
3. Use the included #6 screws to secure the 1100DH to the surface. See Figure 2 for mounting hole locations.
4. Snap the cover back on to the base.

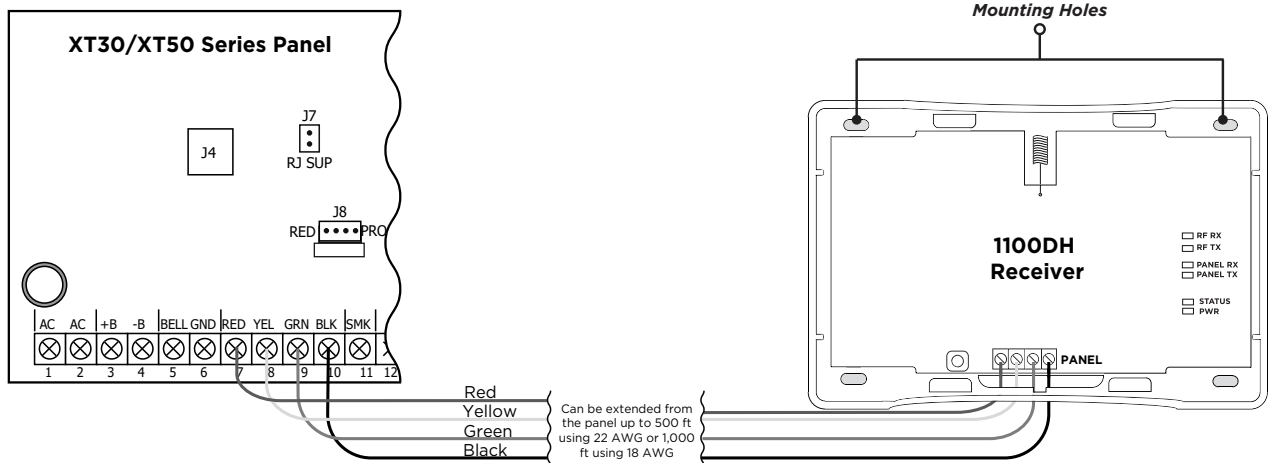


Figure 2: Wiring the 1100DH to the Panel

## ADDITIONAL INFORMATION

### Wiring Specifications for Keypad Bus

1. DMP recommends using 18 or 22-gauge **unshielded** wire for all keypad and LX-Bus circuits. **Do Not** use twisted pair or shielded wire for LX-Bus and Keypad Bus data 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. Install an additional power supply to increase the wire length or add devices.
2. Maximum distance for any one 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.
3. Maximum number of devices per 2,500 feet circuit is 40.
4. Maximum voltage drop between the panel (or auxiliary power supply) and any device is 2.0VDC. 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. Refer to the panel installation guide and LX-Bus/Keypad Bus Wiring Application Note ([LT-2031](#)).

### Programming Zones

Refer to the panel XT30/XT50 Series Programming Guide (LT-0981) for complete wireless programming information. When any wireless input zone for a particular address is programmed, the 1100DH responds to the panel for this address. Other devices, such as keypads or hardwired zone expanders, cannot use this address. Zones connected directly to the panel cannot be wireless. See Table 1 for designated zone numbers.

| DMP PANEL                    | AVAILABLE ZONES | ZONE RANGES   |
|------------------------------|-----------------|---|
| XT50 with built-in receiver  | 48              | 11 - 14, 21 - 24, 31 - 34, 41 - 44, 51 - 54, 61 - 64, 71 - 74, 81 - 84, 80, 85 - 99 |
| XT30 and XT50 (1100D Series) | 32              | 11 - 14, 21 - 24, 31 - 34, 41 - 44, 51 - 54, 61 - 64, 71 - 74, 81 - 84              |

Table 1: Zone Number Designations

## 1100DH LED Operation

The six labeled LEDs on the 1100DH PCB display wireless receiver operation and activity. See Figure 2 for LED locations and Table 2 for LED indications.

## House Code Explained

The house code identifies the panel, receiver, and transmitters to each other. The 1100DH automatically sends the specified house code to wireless transmitters when transmitter serial numbers are programmed into the panel.

The 1100DH only listens for transmissions using the specified house code or the programmed transmitters' serial numbers.

| LED      | INDICATIONS  |
|----------|--|
| RF RX    | Flashing yellow indicates data is being received from a transmitter.   |
| RF TX    | Flashing green indicates data is being sent to a transmitter.          |
| PANEL RX | Flashing yellow indicates data is being received from a panel.         |
| PANEL TX | Flashing green indicates data is being sent to the panel.              |
| STATUS   | Solid red indicates memory is being uploaded. Turns off when complete. |
| PWR      | Solid green indicates there is power to the wireless receiver.         |


**Table 2: LED Indications**

## Transmitter Supervision Time

For listed installations, program the transmitter supervision time in panel zone programming as listed in the following table. Refer to the panel programming guide for complete wireless programming information.

| UL Listing   | Listed Accessories   | Supervision Time |
|--|--|------------------|
| UL 268 Smoke-Automatic Fire Detectors  | 1164 Synchronized Smoke Detector<br>1164NS Smoke Detector with No Sounder<br>1168 Wireless Smoke/CO/Low Temp Detector  | 3                |
| UL 365 Police Station Connected Burglar Accessory                            | 1103 Universal Transmitter   | 60               |
| UL 521 Heat Detectors for Fire Protective Signaling Systems                  | 1183-135F, 1183-135R Heat Detectors  | 3                |
| UL 609 Local Burglar Alarm Units and System Accessory                        | 1103 Universal Transmitter   | 60               |
| UL 634 Connections and Switches for use with Burglar Alarm Systems Accessory | 1101, 1102, 1103, 1106 Universal Transmitters  | 60               |
| UL 636 Holdup Alarm Units and Systems Accessory                              | 1142 Two-Button Holdup Transmitter   | 60               |
| UL 639 Intrusion Detection Units Accessory                                   | 1127W, 1127C PIR Motion Detectors  | 60               |
| UL 985 Household Fire Warning System Accessory                               | 1135 Siren<br>9060, 9063, 9862 Keypads   | 240              |
| UL 1023 Household Burglary System Units Accessory                            | 1101, 1102, 1103, 1106 Universal Transmitters<br>1127W, 1127C PIR Motion Detectors<br>1135 Siren<br>1142 Two-Button Holdup Transmitter<br>9060, 9063, 9862 Keypads | 60               |
| UL 1076 Proprietary Burglar Alarm Units Accessory                            | 1103 Universal Transmitter   | 60               |
| UL 1610 Central Station Burglar Alarm Units Accessory                        | 1103 Universal Transmitter<br>1135 Siren<br>9060, 9063, 9862 Keypads   | 60               |
| UL 2075 Gas and Vapor Detectors and Sensors                                  | 1168 Wireless Smoke/CO/Low Temp Detector<br>1184 Wireless Carbon Monoxide Detector   | 240              |

**Table 3: Wireless Transmitter Supervision Times**

 **Note:** The 1100R Wireless Repeater and 1100T Wireless Translator follow the Receiver Supervision times for Listed Accessories.

## FCC INFORMATION

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 received, including interference that may cause undesired operation.

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.874 in.) from all persons. It must not be located or operated in conjunction with any other antenna or transmitter.

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



**Note:** 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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

## Industry Canada Information

This device complies with Industry Canada Licence-exempt RSS standard(s). 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.

This system has been evaluated for RF Exposure per RSS-102 and is in compliance with the limits specified by Health Canada Safety Code 6. The system must be installed at a minimum separation distance from the antenna to a general bystander of 7.87 inches (20 cm) to maintain compliance with the General Population limits.

*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:*

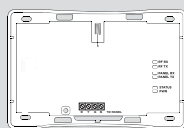
1. *l'appareil ne doit pas produire de brouillage, et*
2. *l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

*L'exposition aux radiofréquences de ce système a été évaluée selon la norme RSS-102 et est jugée conforme aux limites établies par le Code de sécurité 6 de Santé Canada. Le système doit être installé à une distance minimale de 7.87 pouces (20 cm) séparant l'antenne d'une personne présente en conformité avec les limites permises d'exposition du grand public.*

## 1100DH HIGH POWER WIRELESS RECEIVERS

### Specifications

|                    |                                |
|--------------------|--------------------------------|
| Operating Voltage  | 12 VDC Nominal                 |
| Current Draw       | 75 mA (average), 102 mA (peak) |
| Frequency Range    | 905-924 MHz                    |
| Housing Dimensions | 5.5" W x 3.75" L x 1" H        |
| Housing Color      | White                          |
| Housing Material   | Flame Retardant ABS            |



### Patents

U. S. Patent No. 7,239,236

### Ordering Information

1100DH-W Standard High Power Wireless Receiver  
1100DHE-W Encrypted High Power Wireless Receiver

## Certifications

California State Fire Marshal (CSFM)  
FCC Part 15 Registration ID: CCKPC0114R6  
CCKPC0114R9

Industry Canada: 5251A-PC0114R6  
5251A-PC0114R9

## Intertek (ETL) Listed

- ANSI/UL 365 Police Station Connected Burglar
- ANSI/UL 609 Local Burglar Alarm Units & Systems
- ANSI/UL 985 Household Fire Warning Systems
- ANSI/UL 1023 Household Burglar Alarm System Units
- ANSI/UL 1076 Proprietary Burglar Alarm Units
- ANSI/UL 1610 Central Station Burglar Alarm Units

## Compatible With Devices Listed for:

- ANSI/UL 268 Smoke Detectors for Fire Alarm Signaling Systems
- ANSI/UL 521 Heat Detectors for Fire Protective Signaling Systems
- ANSI/UL 634 Connections and Switches for use with Burglar Alarm Systems Accessory
- ANSI/UL 636 Safety Holdup Alarm Units and Systems
- ANSI/UL 639 Intrusion Detections Units Accessory
- ANSI/UL 2075 Gas and Vapor Detectors and Sensors



Designed, engineered, and  
manufactured in Springfield, MO  
using U.S. and global components.

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