

1100R Wireless Repeater

Description

The 1100R Wireless Repeater provides an increased communication range by forwarding messages from the transmitter to the wireless receiver. Up to eight repeaters can be installed on a wireless system. The repeater is powered from a 12VDC power supply and includes a 24-hour battery backup. The 1100R Wireless Repeater provides a built-in survey capability to allow for single-person installations, eliminating the requirement for an external survey kit.

Compatibility

All DMP 1100 Series Wireless Receivers using Version 106 or higher software

What is Included

- One Model 1100R Repeater
- One Lithium Polymer Rechargeable Battery
- Zone name and number label
- Serial number label
- Hardware pack
- One (optional) Model 376L Plug-In DC Power Supply

Program the Panel

Program the repeater in the panel as a wireless zone. Program the wireless House Code in System Options prior to adding DMP wireless zones to the system. Refer to the panel programming guide as needed.

1. In **ZONE INFORMATION**, enter the wireless **ZONE NO.:**
2. Enter the **ZONE NAME**.
3. Select **AUX** (auxiliary) as the **ZONE TYPE**.
4. Program **ARMED OPEN** and **DISARMED OPEN** as **TROUBLE**.
5. Program **ARMED SHORT** and **DISARMED SHORT** as **ALARM**.
6. Select **YES** when **WIRELESS?** displays.
7. At **SERIAL NO.:**, enter the repeater's eight-digit serial number.

Note: If using multiple repeaters, they must be programmed as sequential zone numbers.

8. At **SUPRVSN TIME**, press **CMD** to accept the default time of 240 minutes. Press any select key to select the supervision time required for the wireless repeater. When an 1100 series receiver is installed, powered up, or the panel is reset, the supervision time for any repeaters and transmitters are reset.
9. Press the select key under the required number of minutes. A **CHECKIN** time of 60 or 240 minutes should be selected.

Note: The repeater must check in at least once during this time or a missing condition is indicated for that zone. Since 1100R repeaters automatically check in based on the supervision time selected for the wireless zone, no additional programming is needed. Any programming prompts for contact or other information can be ignored.

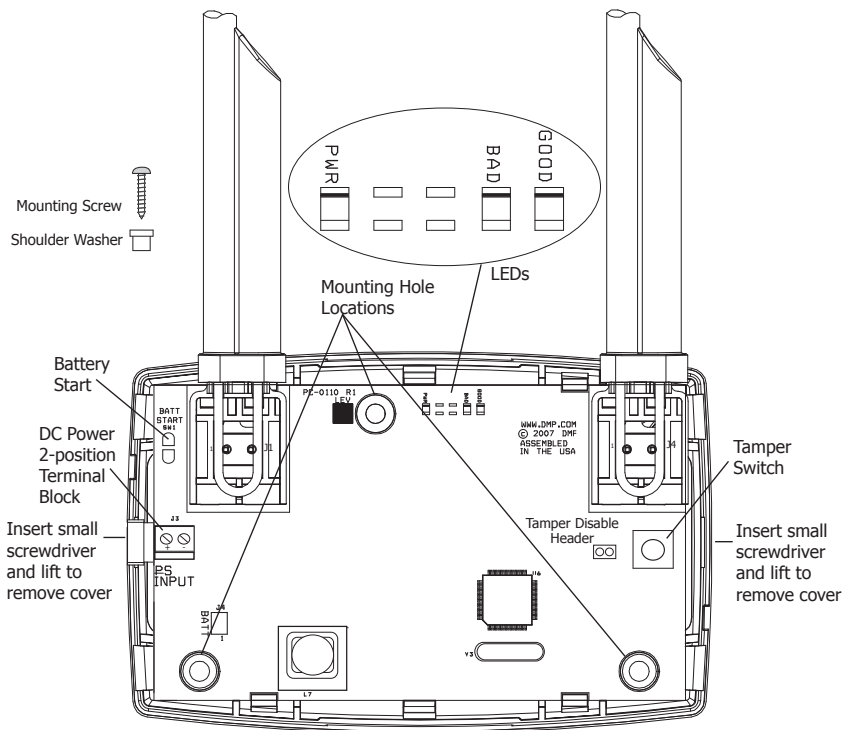


Figure 1: 1100R Repeater PCB Layout

Select the Proper Location (LED Survey Operation)

The 1100R provides a survey capability to allow one person to confirm communication with the 1100 series receiver while the cover is removed. The 1100R provides the option to power up using the Lithium battery only for survey operation. Briefly short the Battery Start pads together to power up. See Figure 1.

Survey LEDs

The 1100R automatically establishes communication with the 1100 Series receiver when powered up. The 1100R Green Survey LED turns on steady when successful communication with the receiver is established. The 1100R Red Survey LED turns on steady when communication cannot be established with the receiver. Relocate the repeater until the Green LED turns on steady indicating successful communication has been established. This Green/Red survey LED operation is different from the standard single LED flash for 1100 Series transmitters.

LED Operation

Three LEDs display repeater operation and activity. Refer to the table below as required.

| Label | Operation |
|-------|---|
| GOOD | Green indicates reliable communication is established with the receiver. Reliable communication is defined as the last 5 messages sent by the repeater have been acknowledged immediately by the receiver. A message can be sent by pressing or releasing the tamper switch. |
| BAD | Red indicates the repeater has not established reliable communication with the receiver. Communication is not considered reliable when the last 5 out of 15 messages sent by the repeater have not been acknowledged immediately by the receiver. Messages may still be communicated, however the communication link between the repeater and the receiver is not optimum. In this case the repeater should be relocated until the Good LED returns to Green. |
| PWR | Green indicates there is power to the repeater. |

Install the Wireless Repeater

Select a Location

Mount the 1100R on a flat surface. The 1100R Wireless Repeater is typically mounted between the 1100 Series Receiver and the 1100 Series transmitter(s) that are out of range. Locate as far from the 1100 Receiver as needed to provide the required system range. Install the repeater away from large metal objects. Mounting the repeater on or near metal surfaces impairs performance. If the repeater is powered from an auxiliary power supply, mount the repeater away from the metal power supply enclosure. When selecting the proper mounting location of a repeater, refer to the LED Survey Operation section to confirm communication with the 1100 Receiver.

Enable/Disable Tamper

The 1100R is equipped with a case tamper and a wall tamper. A two position header is provided to disable the wall tamper. To disable the wall tamper, place the jumper across the two pins of the header. If wall tamper is required, place the jumper over just one pin for storage. When faulted, the tamper immediately sends a wireless zone short to the panel.

Mount the Repeater

1. Insert a small screwdriver and lift to remove the cover.
2. Secure the receiver to the wall ensuring the two antennas are pointing up and the wall tamper switch makes proper contact with the wall. Use the supplied shoulder washers and screws in the mounting hole locations. See Figure 1.
3. Snap the cover back on the unit after observing LED operation. Make sure the case tamper spring is installed on the tamper switch.

Power from the External Power Supply

The 1100R can be powered from a 12VDC power supply such as a DMP Model 505-12. In addition to powering the repeater, the power supply also charges the back-up battery of the repeater. If the DC power source is removed, the power failure is indicated as an open condition on the repeater zone. Use the following steps to connect the power supply:

1. Using 22 AWG wire, connect the DC Power 2-position Terminal Block to the DC terminal on the 505-12 power supply PCB. See Figure 2.
2. Observe positive and negative polarity on all connections.

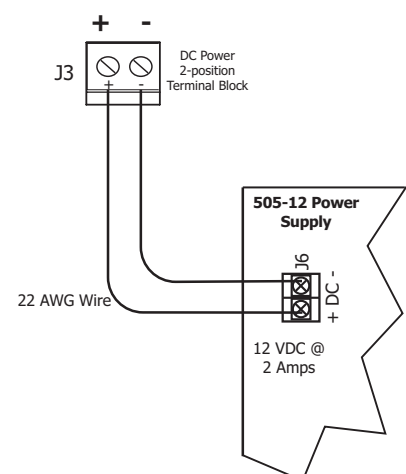


Figure 2: Power Supply Connection

Optional External DC Plug-in Power Supply

When using the optional Model 376L plug-in DC power supply, use the following steps to connect the power supply:

1. Connect the Black wire with White stripe to the positive terminal on the 1100R and the Black wire to the negative terminal.
2. Mount the 1100R near a wall outlet.

In addition to powering the repeater, the DC plug-in power supply also charges the back-up battery. The 376L plug-in DC power supply must be located within 100 feet of the repeater using 22 AWG wire or 250 feet using 18 AWG wire.

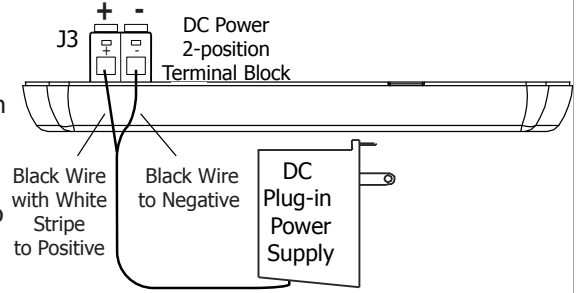


Figure 3: DC Plug-in Connection

Primary Power Loss Indication

When the 1100R is used with XT Series panels, a zone trouble indication for the repeater zone occurs within three minutes of a loss of primary power.

When used with the XR150/XR550 Series panel, a power loss indication is displayed at the keypad as -ACPWR for the repeater zone. This occurs within three minutes but a zone trouble report to the Central Station receiver is delayed for one hour.

Rechargeable Battery

The 1100R rechargeable battery is used to provide up to 24 hours of backup battery power when AC power is not available. The battery is intended for backup power only and not to operate the 1100R Repeater on a daily basis. If the battery is low, or not plugged into the battery connector, a low battery condition is indicated for the repeater zone.

Install or Replace the Battery Assembly

Observe polarity when plugging the battery connector into the header. Use only DMP Model 1100RBAT. Replace the battery every 3 years.

Install the Battery Assembly

Plug-in the rechargeable battery at time of installation.

1. Place the new battery and secure with the battery straps. See Figure 4.
2. Snap the battery assembly in place.
3. Observe polarity and connect the battery lead connector to the repeater battery header.

Remove the Battery Assembly

1. Remove the repeater housing cover.
2. Disconnect the battery lead connector from the repeater battery header.
3. Squeeze the battery straps to remove the battery.

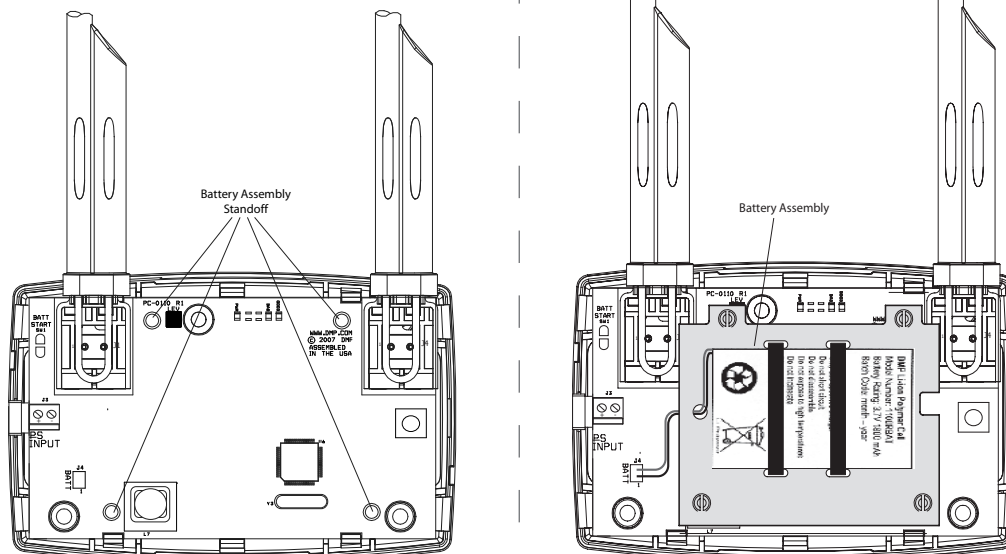


Figure 4: Battery Assembly

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.

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:

- 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.

Listed Compliance Specifications

Commercial Fire

After all transmitters are in position, the WLS option of the panel's Walk Test must be operated and all transmitters programmed for Fire (FI) or Supervisory (SV) must show that their checkin message was received. Refer to the panel programming guide for Trip Counter for DMP Wireless check-in Test (WLS) which describes that both numbers of the counter must match. If not and a failed wireless zone is displayed at END, decrease that transmitters range with the receiver and perform the WLS Walk Test again.

Powering from External 12VDC Power Supply

The 1100R is powered from a 12VDC power supply such as a DMP Model 505-12. In addition to powering the repeater, the power supply also charges the back-up battery of the repeater. If the DC power source is removed, the power failure is indicated as an open condition on the repeater zone. See page 2.

Industry Canada Information

This device complies with Industry Canada Licence-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.*

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.

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.

| | | | |
|---|--|---|---|
| Specifications | <p>Primary Operating Voltage 8.0 to 14VDC 30mA</p> <p>Standby Battery 1100RBAT Voltage 3.7VDC Capacity 800 mAh Type Lithium Polymer Rechargeable</p> <p>Standby 24 hours</p> <p>Frequency Range 905-924 MHz</p> <p>Dimensions</p> <p> Housing 4.65" L x 3.1" W x 1.4" H Antennas 8.6" H</p> <p>Color White</p> <p>Housing Material Flame retardant ABS</p> | Compatibility | All DMP 1100 Series Wireless Receivers using Version 106 or higher software and Panels with built-in receivers |
| Accessories | <p>1100RBAT Replacement Rechargeable Battery</p> <p>505-12 12VDC Power Supply</p> | Patents | U. S. Patent No. 7,239,236 |
| Accessories | | Certifications | <p>California State Fire Marshal (CSFM)</p> <p>FCC Part 15 ID: CCKPC0110</p> <p>Industry Canada: 5251A-PC0110</p> <p>New York City (FDNY COA #6167)</p> <p>Underwriters Laboratory (UL) Listed</p> <p>ANSI/UL 365 Police Station Connected Burglar ANSI/UL 609 Local Burglar Alarm Units and Systems ANSI/UL 634 Connections and Switches for use with Burglar Alarm Systems Accessory</p> <p>ANSI/UL 639 Intrusion Detection Units Accessory</p> <p>ANSI/UL 1023 Household Burglar Alarm System Units</p> <p>ANSI/UL 1076 Proprietary Burglar Alarm Units</p> <p>ANSI/UL 1610 Central Station Burglar Alarm Units</p> <p>ANSI/UL 268 Smoke-Automatic Fire Detectors</p> <p>ANSI/UL 985 Household Fire Warning System</p> <p>ANSI/UL 864 Fire Protective Signaling Systems</p> |
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