**INTRODUCTION**

The 5800RP RF Repeater Module, with RF receiver and transmitter, extends the range of 5800 series RF devices by 200 feet (nominal).

- The 5800RP receives alarm, status, and control messages from 5800 series devices, and forwards these messages to control panel connected receivers such as the 5881EN series, 5883, 6160RF, 6150RF, and Lynx controls. The control panel then responds accordingly (arm/disarm the system, initiate an alarm, etc.).
- The 5800RP also transmits its own status including tamper, AC loss and RF jam detect via a built-in serial number assigned to a control panel zone(s). Status is sent whenever a change occurs or as part of a supervisory check-in message sent approximately once an hour.
- The 5800RP contains a rechargeable battery that provides up to 6 hours of standby operation after primary power is lost.
- The 5800RP features a Spatial Diversity system that virtually eliminates the possibility of “nulls” and “dead spots” within the coverage area.

**INSTALLING THE 5800RP MODULE**

Mount the 5800RP remotely in its own housing following the steps below, and avoid mounting the module with its antennas touching a metal surface.

**Check for RF Interference:** Before mounting permanently, use the red RF Interference LED (see Fig. 3) to check for strong local radio frequency interference at the intended mounting location. If this LED is continuously lit, the 5800RP module should be relocated.

**Removing the Cover:** Remove the 5800RP’s cover by inserting and twisting a screwdriver blade. See Figure 2.

**Note:** Removing the cover places the 5800RP in the Go/No Go Test mode. This decreases the possibility of ‘nulls’ and ‘dead spots’ within the coverage area.

**Mounting the Module**

1. For concealed wiring, route power wires through the rectangular opening at the rear of the base before mounting. See Figure 3.
2. For surface wiring entry, a thin breakaway area is provided along the base’s right edge. Insert the 5800RP’s cover by inserting and twisting a screwdriver blade. See Figure 2.
3. Mount the module in the selected location. For greatest security, use all four mounting holes (two key slot holes and two round holes) in the plastic base.
4. Install each antenna in the respective right-hand terminal of the two terminal blocks at the upper edge of the 5800RP circuit board, and tighten the screws to secure them.
5. Fold and affix the Summary of Connections label to the inside cover. See Figure 3.

**Connecting the Power Supply**

The 5800RP is powered from an AC external power source connected to terminals 1 and 2. See Figure 3.

**Power source ratings are as follows:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2 AC Transformer</td>
<td>9VAC, 20VA (Honeywell PN 300-07753 / 300-07753CAN)</td>
</tr>
</tbody>
</table>

5. Connect the transformer to the 5800RP’s terminals. Refer to Figure 3. These terminals are not polarized. The leads from AC transformer may be connected to either terminal. Do not connect to a receptacle controlled by a switch.

**NOTE:** Use of power sources with higher or lower voltages may result in damage or failure to operate properly. Non-Honeywell power supplies may have connectors installed. Remove the connectors prior to attempting to connect power supply to 5800RP.

**Connecting the Battery**

6. Plug the battery cable into the battery connector on the 5800RP PCB. See Figure 3.

**CHARGING NOTE:** The battery must be allowed to charge for at least 48 hours to reach full capacity.
7. Replace the cover on the 5800RP, being careful not to pinch the battery wires between the cover and case or any PCB components.

**Replacing the Battery**

1. See removing the cover above.
2. Unplug the battery cable from the 5800RP PCB.
3. Remove the retaining clips and pull up old battery.
4. Affix one side of the fastener strip in the battery compartment, if required and affix the other side of the fastener strip to the battery so they are aligned.
5. Firmly press the battery’s fastener strip to the fastener strip in the compartment and secure using the two retaining clips.
6. Connect the battery. See Step 6 and 7 above.

**LED FUNCTIONS**

<table>
<thead>
<tr>
<th>LED</th>
<th>Activates Upon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Normally on (lighted) when power (AC or battery) is present. Flickering indicates RF is being processed.</td>
</tr>
<tr>
<td>Yellow</td>
<td>Normally off. Blinks to indicate that an RF message is being sent by the 5800RP.</td>
</tr>
<tr>
<td>Red</td>
<td>Normally off. See Figure 3.</td>
</tr>
<tr>
<td>Red RF Interference</td>
<td>Lights when RF activity is present. See Figure 3.</td>
</tr>
</tbody>
</table>

**Figure 5: 5800RP DIP Switch**

**Figure 6: 5800RP Block Diagram**

**Figure 7: Power Supply and Battery Connection**

**Figure 8: RF Interference LED**

**Figure 9: Removing the Cover**

**Figure 10: Mounting the Module**

**Figure 11: Replacing the Battery**

**Figure 12: 5800RP RF Repeater Module – Installation Instructions**

**Figure 13: Wireless System Overview using 5800RP Repeater Module**
PROGRAMMING NOTES

Programming for Combined Trouble Reporting

(Check-in, low battery, AC loss, and RF jam messages all report on one zone.)
1. Set DIP switch 2 to OFF (keep switch 2 in the OFF position when enrolling is complete).
2. Assign the 5800RP to a zone for sending check-in, low battery, AC loss, and RF jam messages, and enroll its serial number. When prompted, toggle the tamper switch to enroll the serial number. The yellow LED should blink on when messages are sent.

Program the zone as follows:

<table>
<thead>
<tr>
<th>Zone Type</th>
<th>Input Type</th>
<th>Loop</th>
</tr>
</thead>
<tbody>
<tr>
<td>B (24-hour aux)</td>
<td>3 (supervised RF)</td>
<td>1</td>
</tr>
</tbody>
</table>

- AC loss and RF jam conditions report as "low battery" status, which is also displayed on the control's keypads. This prevents either condition from causing an improper system status or alarm if the keypad is armed.

- Tamper conditions report according to the zone type response for which the trouble zone is programmed (ex: Z7 B, 24-hr Aux.).

- The 5800RP will not repeat that message which has already been repeated.

Programming for Individual Trouble Reporting

(Classes-in/lowlow battery, AC loss, tamper, and RF jam messages report on 4 individual zones.)
1. Assign 4 zones and enroll the module's two serial numbers as follows:
   - Assign the first serial number to a zone for sending low battery and supervision check-in messages.
   - Assign the second serial number to 3 zones for sending tamper, AC loss, and RF jam messages.

When prompted, toggle the tamper switch to enroll the serial numbers.

Program the zones as follows:

**First Serial Number: located on PCB label.**
Set DIP switch 2 to OFF, then enroll as follows:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Zone Type</th>
<th>Input Type</th>
<th>Loop</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCA</td>
<td>B (24-hour aux)</td>
<td>3 (supervised RF)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Second Serial Number: equals first serial number plus 1.** (example: if the last 2 digits of Serial #1 are 39, Serial #2 will end with 40.)
Set DIP switch 2 to ON, then enroll as follows:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Zone Type</th>
<th>Input Type</th>
<th>Loop</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCA</td>
<td>B (24-hour aux)</td>
<td>3 (supervised RF)</td>
<td>1</td>
</tr>
</tbody>
</table>

For easy identification of these messages, program alpha descriptors at the control for each zone, using words such as "REPEATER LOW BATTERY, REPEATER AC LOSS, etc.

1. Before using the low battery feature, it is important to periodically check theLow Battery status of the keypad. The keypad will automatically increase the low battery alarm level when the battery is at 20%.

2. Note that the low battery alarm level is determined by the keypad's standby current rating, not the keypad's maximum alarm current. When configuring the backup battery capacity for systems using a 5800RP, use the connected keypad's maximum alarm current (amperes on check-in) rating, not the keypad's standby current rating, when calculating the control panel's total current drain. This is necessary because AC loss at the 5800RP causes the keypad to beep.

SPECIFICATIONS

Dimensions: 7-3/8” W x 4-3/8” (10-7/8” w/antennas) H x 2-1/8” D
188mm W x 112mm H (277mm w/antennas) x 54mm D
Input Voltage: 12VDC or 230VAC, 20VA (from separate power supply such as Honeywell 300-07753 / 300-07753CAN).

Battery Pack: rechargeable, part number 300-03865
Range: 200ft (60m) nominal indoors from wireless devices (the actual range to be determined with the security system in the TEST mode).

UL Listing:
Commerical Burg – UL 1610
Household Burg – UL 1023

ULC Listing:
Household Burg – UL 1023

ULC Testing:
Only UL 1023 if used with Vista 10P/15P/20P/10PSIA/15PSIA/20PSIA control units.

TO THE INSTALLER

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user, as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least weekly) to insure the system's operation at all times.

FEDERAL COMMUNICATIONS COMMISSION & INDUSTRY CANADA STATEMENTS

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

CLASS B DIGITAL DEVICE STATEMENT

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information:

Note for Control Panel's Current Drain Calculations: When choosing the backup battery capacity for systems using a 5800RP, use the connected keypad's maximum alarm current (sounder on) current rating, not the keypad's standby current rating, when calculating the control panel's total current drain. This is necessary because AC loss at the 5800RP causes the keypad to beep.

- Commercial Burg and Commercial Smoke
- Household Burg...
- Household Smoke

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CLASS B DIGITAL DEVICE STATEMENT

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information:

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For patent information, see www.honeywell.com/patents

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