Installation Procedure

- Approximate range between the two units is Up to 1000 ft direct-line-of-sight or less -

2. Connect existing aux power transformer from discarded green aux terminal into #1 & #2 baseboard terminal.
3. Wire baseboard RELAY 2 to main terminal P3 & P14 (assuming 1830 series has already been completely setup).
4. Connect antenna to baseboard and install antenna where desired.
5. Plug RF remote module onto tracker expansion board and secure with 4 screws (assuming tracker board has already been completely setup and power has been turned OFF).
6. Connect antenna to RF remote module and install antenna where desired.
7. Set NET ID’s to “1A” on baseboard AND RF remote module. Set CH’s to “4”.
8. Set tracker expansion board address to “3”.
9. Power both systems up (1830 series baseboard and tracker expansion board’s LEDs will light up).

After the 9 installation steps have been performed:

- Press PROGRAM button on baseboard, then activate the device wired to the tracker expansion board (card reader).
- RF SECURE LED on tracker expansion board will turn from RED to GREEN (this may take up to 20 sec.) when communication has been SUCCESSFULLY established.

No “Green RF SECURE” LED?
Try changing NET ID’s and CH’s on both. Same NET ID numbers and Same CH number’s MUST be set for both. Press PROGRAM button on RF Remote Module after changing NET ID & CH. Press RESET buttons on each after changing NET ID’s and CH’s. Try a few different NET ID and CH settings. SHH No Green RF SECURE LED? Relocation of the antenna or OPTIONAL stronger antenna? Relocation of tracker expansion board?

QuickStart for ONE “900 MHz” Wireless Tracker Expansion Board Connection to 1830’s Series “RELAY 2”

For MORE installation instructions, refer to the 900 MHz wireless baseboard manual 2333-065 and the HARDwired tracker expansion board manual 2358-065.

The 900 MHz wireless baseboard REPLACES the 14-pin aux terminal on the access control system’s board. The existing 16.5 VAC 20 VA aux board input power transformer is REQUIRED and is reconnected to the 10-pin terminal #1-#2. Antenna is REQUIRED.

Install 900 MHz disc antennas on the top of a selected enclosure (not included).

Approximate range Up to 200 ft direct-line-of-sight.

Antenna Note: This 900 MHz wireless system works best when the antennas are in direct-line-of-sight with each other, in free air as high as possible above the ground. Many variables can interfere with a wireless signal, some are apparent (trees, buildings etc.) and others are unknown (background signal interference and adverse weather - rain). If a weak signal occurs, a stronger antenna or a dual band repeater may be necessary to achieve a strong signal. A nearby business that is also using DoorKing’s 900 MHz wireless system may interfere with your signal strength. This is rare, but if this occurs, please call DoorKing to help solve this problem.

The wireless devices should work with the factory programmed settings for this BASIC wireless configuration. More programming may be desired and/or necessary when using more tracker expansion boards. See the back side for limited programming or 900 MHz Wireless Baseboard manual 2333-066 for ALL wireless programming.

The 900 MHz Wireless Tracker Expansion Board Wiring Options for an Access Point

Compatible ONLY with Tracker Expansion Board 2358-010 Revision N or higher.

900 MHz Antenna Options

- Hardwired Antenna
- Dual Band Repeater

900 MHz Wireless Tracker Expansion Board Enclosure Options

- Single Board Enclosure with Built-In Card Reader and Lighting
- High Power - P/N 1815-258
- Low Power - P/N 1815-254

QuickStart for ONE “900 MHz” Wireless Tracker Expansion Board Connection to 1830’s Series “RELAY 2”

For MORE installation instructions, refer to the 900 MHz wireless baseboard manual 2333-065 and the HARDwired tracker expansion board manual 2358-065.
**QUICKSTART PROGRAMMING OPTIONS FOR 900 MHz WIRELESS BOARDS**

### Programming Sequence for Wireless Baseboard

Press **PROGRAM** button and then use ± scroll buttons to display desired “Program Step” number from list below. Press ENTER button to enter selected program step number. Enter desired data using ± buttons. Press ENTER button to enter data and exit programming.

#### Wireless Baseboard Programming

**Program Step** | **Wireless Baseboard ONLY Programming Description and Setting Values**
--- | ---
1 | Display RF signal strength of tracker board(s) that have been programmed in program step 2.
   - 80 or lower - GOOD.
   - 80-85 - Unreliable signal strength.
   - 86-99 - NO signal
2 | Select tracker board(s) RF signal strength to be displayed in program step 1. Settable value is 0-18.
   - 0 - signal from any tracker board address (Default value)
   - 1 - tracker board addresses 1-10
   - 2 - tracker board addresses 11-18
   - 3 - tracker board address 3 ONLY
   - 4 - tracker board address 4 ONLY
   - etc... to
   - 18 - tracker board address 18 ONLY
3 | Set the number of minutes to display RF signal strength. Default value is 5 min. Settable value is 1-30 min.
   - Note: Avoid keeping the baseboard in “display mode” for a long period of time. While in this mode, it can miss the access requests of a busy network. Built in timer exits “display mode” when timer expires. Press ENTER button to exit display mode anytime before timer expires.
4 | Restore or reset command for the below:
   - Restore programming value, sets RF remote module net ID and CH, then reboots 2333 baseboard
   - Reboot the RF module only
   - 0 or 5: Set any wireless board to act as Repeater.
   - 1-47: Set tracker board address 1-47
5 | Display RF signal strength of tracker board(s) that have been programmed in program step 2. The below values are accepted for this programming step.
   - 0 - Does nothing
   - 1 - count the number of lost communication transactions (Default value)
   - 2 - Reboot the RF module only
   - 3 - Set RF module with net ID and channel selected
   - 4 - Initialize RF module then reboot RF module remote
   - 5 - Restore programming value, sets RF remote module net ID and CH, and then reboots RF module
   - 6 - Reboot 2333 baseboard
   - 7 - Restore programming value, sets RF remote module net ID and CH, then reboots 2333 baseboard
5 | View the number of lost communication transactions with the tracker boards. Lost communication transactions is defined as: no RF traffic from tracker board(s) for more than two minutes plus the number of minutes set in program step 7. The below values are accepted for this programming step.
   - 0 - Does nothing
   - 1 - count the number of lost communication transactions (Default value)
   - 2 - Reboot the RF module only
   - 3 - Set RF module with net ID and channel selected
   - 4 - Initialize RF module then reboot RF module remote
   - 5 - Restore programming value, sets RF remote module net ID and CH, and then reboots RF module
   - 6 - Reboot 2333 baseboard
   - 7 - Restore programming value, sets RF remote module net ID and CH, then reboots 2333 baseboard
   - 8 - View the number of lost communication transactions with the tracker boards.
5 | Press at Factory. Do Not Change. Contact DoorKing tech support.
   - Set the number of minutes to display RF signal strength. Default value is 11 min. Settable value is 1-60 min.
5 | Press at Factory. Do Not Change. Contact DoorKing tech support.
   - Set the number of minutes to display RF signal strength. Default value is 11 min. Settable value is 1-60 min.
5 | Press at Factory. Do Not Change. Contact DoorKing tech support.
   - Set the number of minutes to display RF signal strength. Default value is 11 min. Settable value is 1-60 min.

#### Programming Sequence for Wireless Tracker Expansion Board

Follow these basic steps to perform desired wireless programming. **EACH** tracker expansion board in the system **MUST** be physically programmed.

**Compatible ONLY with Tracker Expansion Board 2358-010 Revision N or higher.**

1. Press a button to activate LED display.
2. Press ENTER button and then use ± scroll buttons to display desired “Program Step” number from list below.
3. Press ENTER button to enter selected program step number.
4. LED display number will blink after ENTER button has been pressed.
5. Select desired data while in program step using ± buttons.
6. Press ENTER button to enter selected data. (Function has now been programmed into board).
7. Press ENTER button AGAIN to EXIT programming OR after 10 seconds, board will automatically EXIT programming.

**Note:** Repeat these steps for all other desired wireless programming functions for THIS tracker expansion board. Each tracker expansion board will have to be INDIVIDUALLY programmed with desired functions.

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**Before beginning any programming, the wireless boards MUST have been installed and completely wired. Boards MUST have power.**

### Wireless 1470 RF Remote Module Tracker Expansion Board Programming ONLY

#### Wireless 1470 RF Remote Module Tracker Expansion Board Programming ONLY

<table>
<thead>
<tr>
<th>Program Step</th>
<th>Description</th>
<th>Setting Values</th>
<th>Factory Default Values</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>1830 Chokin Time (Factory Set)</td>
<td>1-5</td>
<td>5</td>
<td>Press at Factory. Do Not Change. Contact DoorKing tech support.</td>
</tr>
<tr>
<td>18</td>
<td>Low Byte MAC</td>
<td>1-99</td>
<td>50</td>
<td>Press at Factory. Do Not Change. Contact DoorKing tech support.</td>
</tr>
<tr>
<td>19</td>
<td>Add a new remote device into the network. Built in timer exits “display mode” when timer expires. Press ENTER button to exit display mode anytime before timer expires.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Restore to Factory Defaults</td>
<td>0 or 5</td>
<td>5</td>
<td>Sets all parameters to Factory Default</td>
</tr>
<tr>
<td>21</td>
<td>View RF Signal Strength</td>
<td>LED Display</td>
<td></td>
<td>Displays current signal strength between Baseboard and Tracker.</td>
</tr>
<tr>
<td>22</td>
<td>Card Code Formatting (Factory Set)</td>
<td>0 or 1</td>
<td>0</td>
<td>Sets Wireless Module to an Imprinter.</td>
</tr>
<tr>
<td>23</td>
<td>Same Zone Address Relay Delay</td>
<td>0-20</td>
<td>0</td>
<td>No action.</td>
</tr>
<tr>
<td>24</td>
<td>Lost Wireless Communication Options (Factory Set)</td>
<td>0-5</td>
<td>0</td>
<td>Does nothing</td>
</tr>
<tr>
<td>25</td>
<td>View the Number of Lost Wireless Communications (Factory Set)</td>
<td>0-99</td>
<td>0</td>
<td>View the number of lost communication transactions with the base.</td>
</tr>
<tr>
<td>26</td>
<td>Air Bag Wait Time (Factory Set)</td>
<td>0-20</td>
<td>0</td>
<td>View the number of lost communication transactions with the base.</td>
</tr>
</tbody>
</table>

**Refer to the DoorKing Remote Account Manager Software for factory default values.**

**Download FREE DoorKing Remote Account Manager Software**

[http://www.doorking.com/telephone/software](http://www.doorking.com/telephone/software)

See the 900 MHz Wireless Baseboard manual 2333-065 and Tracker Expansion Board manual 2358-065 for ALL tracker expansion board programming and wiring.

**Wireless 900 MHz Baseboard**

**Manager Software**

Exited: **Program Step**

**Ports**

- **P1:** Dual Mode - Bad Address. 16 or 19 bit allowed.
- **P3:** Dual Mode - Bad Address. 8 or 9 bit allowed.