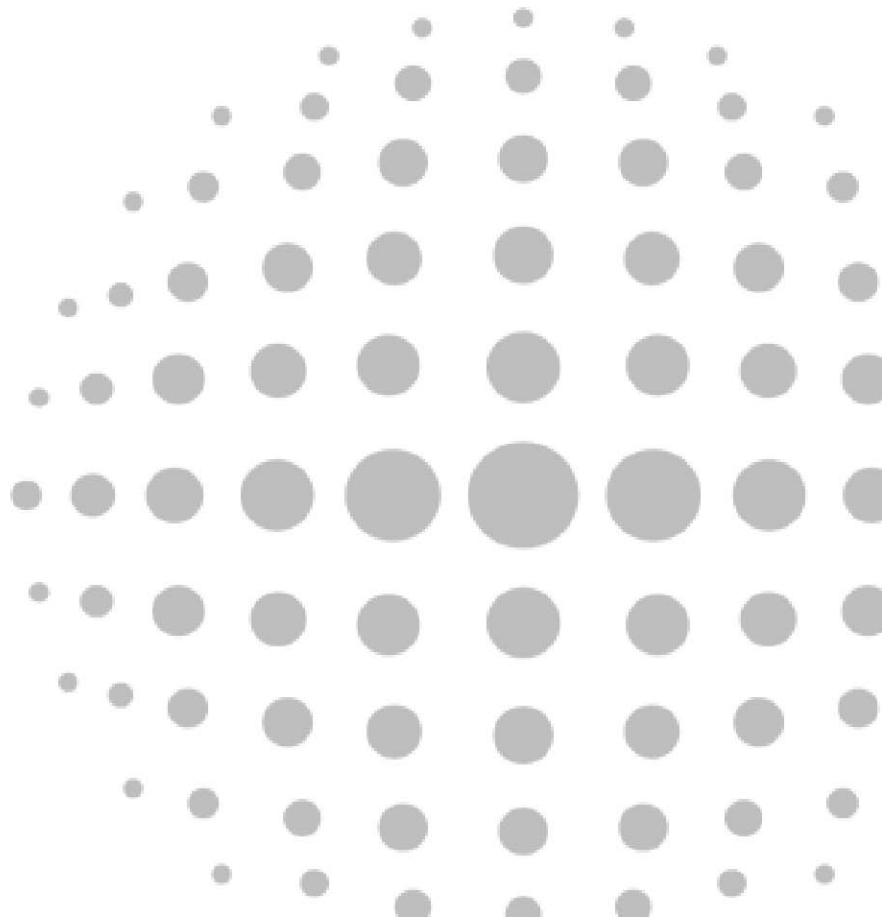


RGB Wireless Applications, Inc.

DigiGuard™ Door Alarm Installation and Operation Guide



DigiGuard™ Door Alarm
Installation and Operation

Guide

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PURCHASER understands that unless otherwise specified in writing and agreed to by both parties, neither installation nor the warranty thereof, is included in this Agreement.



Figure 1-2

Pre-Installation Considerations Site Design and Placement of Devices

Planning must be done to ensure that all Door Transmitters can communicate with at least one Repeater or the Receiver. Repeaters are used to capture signals that cannot reach the Receiver directly. The Receivers and Repeaters are powered by 12VDC. The Door Transmitters use a lithium battery with a ten year calculated battery life.

Each Door Transmitter is uniquely numbered and marked with a Serial Number on the back of the case. As each Transmitter is installed, the Serial Number **MUST** be recorded in conjunction with the Unit number it is installed on. This information will be required to set up the DigiGate-700™ software for correct reporting.

Door Transmitters are normally mounted in the upper left corner of the door or on the opposite side of the frame from the door latch. Repeaters can be mounted inside or outside of the building, depending on the unit door locations. Each Repeater requires 120/240 VAC power. The Repeaters should be mounted so the antenna is at approximately the same height or slightly above the Door Transmitters. This provides the best coverage of the facility, and requires the least number of Repeaters for the installation.

The Receiver communicates with the System Controller over an RS-485 communication line. Normally the Receiver would be located in or near the office.

Chapter 2

Installing the Door Transmitter

Included in this Chapter

Introduction.....	Description of Door Transmitter
Mounting the Door Transmitter and Magnet.....	Roll-Up Doors Garage Type Panel Roll-Up Doors Swing Doors
Battery Connection and Replacement	Installing the Battery Replacing the Battery

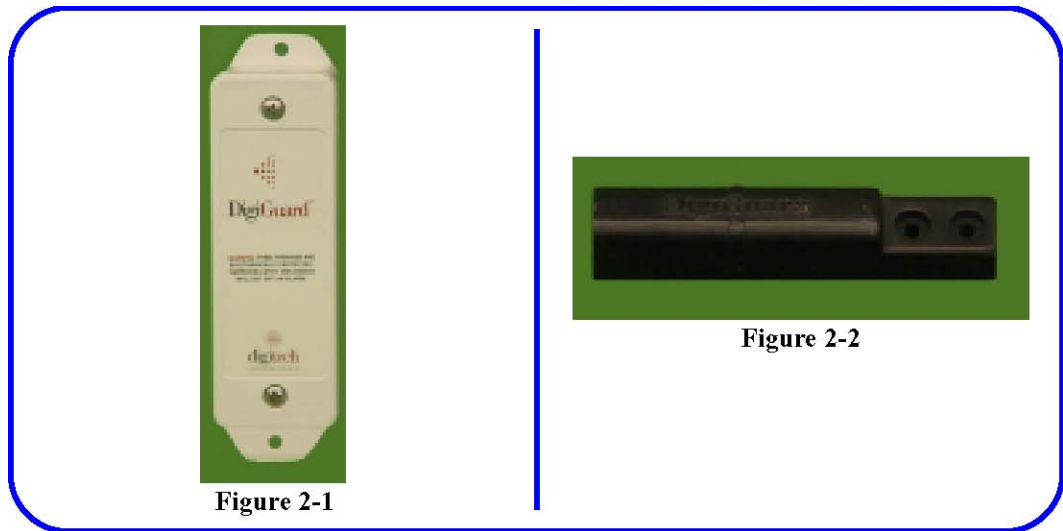


Figure 2-1

Figure 2-2

Introduction The Door Transmitter, **Figure 2-1**, is housed in an environmental plastic enclosure. The enclosure has been designed for outdoor use, and has a UV inhibitor in the material. The enclosure is also moisture sealed with a gasket between the cover and case of the enclosure.

The Door Transmitter is equipped with a tamper switch. Removing the cover of the Transmitter or placing another magnet near the case will trigger the tamper alarm.

The Transmitter must be mounted on the door frame with the Magnet, **Figure 2-2**, mounted on the door. The proper alignment of these two components will ensure that the reed switch array will operate correctly when the door is opened and the Magnet moves away from the Transmitter. Proper orientation of the door switch will also ensure that the antenna is oriented correctly for maximum antenna gain. The magnet is a heavy duty design which allows for greater tolerance, preventing the possibility of false alarms from minor movements of the door.

The Transmitter/Magnet assembly should be mounted on the opposite side of the door from the door hasp on a roll-up door to avoid hitting the Transmitter with the hasp. On swing doors, mount the Transmitter/ Magnet assembly on the opposite side of the door from the hinges to provide

adequate separation of the Magnet on opening of the door. Mounting is shown on the left of a roll-up door since most hasps are mounted on the right. On swing doors, the mounting is shown on the right since most hinges are on the left.

If the facility's configuration is different, rotate the entire assembly, Transmitter and Magnet, keeping the orientation of the Magnet and Transmitter the same.

NOTE: If the site has garage type doors or other non standard doors, or any damaged doors or frames, notify RGB Wireless Applications at (540) 786-0621





Figure 2-3 Figure 2-4

Mounting the Door Transmitter and Magnet

Roll Up Doors

1 When installing the Door Transmitter on roll 3. Use the DigiGuard™ mounting template (P/N up doors, it should be mounted vertically in 1420-200) for placement and marking of the the upper left corner of the door jamb. The holes to mount both the Transmitter and the Magnet is mounted horizontally on the door Magnet. **Figure 2-4** and aligned with the ridge on the Transmitter

4. Place the larger vertical bar on the door frame case. **Figure 2-3** with the horizontal smaller bar in one of the

2 The Magnet mounts horizontally in a recess on recesses on the door approximately 3” below the corrugated door to provide clearance when the top of the door frame. the door rolls up.

Figure 2-3

Note: If the door hasp is mounted on the left side of the door, invert the mounting template and use it upside down on the right side of the door. The bar in the recess will be lower on the door than stated in Step 4.

5. Mark all holes and remove the template.

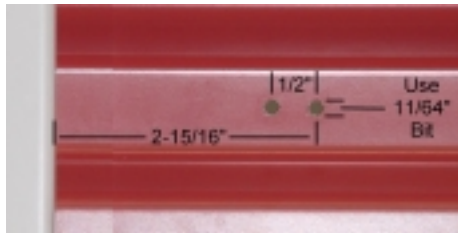
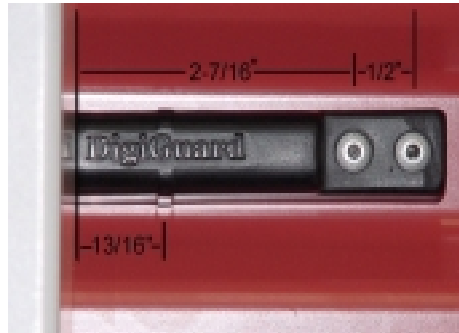


Figure 2-5

- 1 Center punch all the marks to keep the drill from walking off the marks.
- 2 Drill the holes for the Magnet with a 11/64" bit. **Figure 2-5**

CAUTION: DO NOT use the Magnet as a template for the drill. The close tolerance on these rivet holes is to insure a stable mounting of the Magnet to the door. Drilling through the rivet holes in the Magnet will enlarge them and leave the Magnet less than ideally secure and stable.



- 1 Place a rivet (Digitech P/N 2840-008, supplied) in each hole on the Magnet and place it through the drilled hole in the door.
- 2 Finish securing the Magnet with the rivets.

Figure 2-6

Note: **Figure 2-6** shows the proper mounting of the Magnet for optimum performance. The vertical ridge down the center of the Magnet should be aligned in the center of the Trans-mitter case. The Magnet has been designed to be easily mounted on existing doors. The rivet holes are located on the right so the Magnet can be mounted with minimum effort. The rivet holes on the Magnets have very close tolerances to provide tight, stable installation. Do not substitute the size of the rivets shipped with the Magnets and do not use the Magnet as a jig for drilling.





Figure 2-7

10. If mounting the Transmitter on an aluminum or wood surface, drill the holes using a 9/64" bit. If the mounting surface is not metal or wood, drill the hole 1/4" to hold an appropriate anchor (not supplied) for the #8 screw.

Figure 2-7

Figure 2-8

- 1 Record the Serial Number of the Transmitter and the unit number for later entry into the DigiGate-700™ software. See **Appendix B**
- 2 Secure the Transmitter using the #8 x 3/4" screws supplied with the case. **Figure 2-8**



Figure 2-9



Figure 2-10

NOTE: Placing the Magnet closer than 1/2" to the Transmitter will affect the tamper alarm. The Magnet should be from 5/8" to 3/4" from the Transmitter when the door is fully closed.

13. **Figures 2-9 and Figure 2-10** show the completed installation.



Figure 2-12

Garage Type Panel Roll-Up Doors

1. Installing the Door Transmitters on garage 3. The Magnet cannot mount behind the door type panels is the same as standard roll-up frame as it did on the standard roll up door. doors with the Transmitter and Magnet on the 4. Since less of the magnet is positioned behind



opposite side from the door hasp.

NOTE: If the door hasp is mounted on the left side of the door, mount the Transmitter upside down on the right side of the door as in the standard roll-up door installation.

The differences are:

2. The Transmitter and Magnet should be mounted in the vertical center of a panel to prevent knocking the Magnet off the door when it is raised. Mounting it near the top or bottom edge of the panel will bring it too close to the top of the door frame when the door is rolled up. **Figure 2-11** the Transmitter, the magnetic strength is less and the Transmitter should be mounted with a gap about 1/4" less than a standard roll-up door. **Figure 2-12**

NOTE: The Transmitter should be approximately 1/2" to 5/8" from the Magnet and should be tested to insure correct operation.



Figure 2-13

Swing Doors

When installing the Door Transmitter on swing doors, the Transmitter should be mounted vertically and inverted (upside down for the right side door frame) or in its standard configuration for the left side door frame. The Transmitter and Magnet should be mounted on the side of the door opposite from the hinges (the latch side). The gap between the Transmitter and the Magnet should be 1/2 inch and as close to the top of the door as possible. The ridge on the Magnet should align about 1/4" above (toward the center of the transmitter) the ridge on the Transmitter case.

Mounting the Transmitter and Magnet

1. Mount the Transmitter vertically at the 6. Drill these holes using a 9/64" bit. upper corner of the door frame, as stated 7. Record the Serial Number of the Transmitter, opposite the hinged side of the door and the unit number for later entry into the DigiGate-700™ software.
door. The edge of the case should be approximately 1/4" from the edge of the door frame.
8. Secure the Transmitter using the #8 x 3/4" screws supplied with the case.
9. Place the Magnet in the proper position
2. The Magnet is mounted vertically on the

and mark the holes.

door with the ridge alignment for the

10. Drill using an 11/64".

Magnet/Transmitter case as stated above.

Figure 2-13

11. Place a rivet (Digitech P/N 2840-008, supplied) in each hole on the Magnet and

3. The gap between the Magnet and the

place it through the drilled hole in the

Transmitter case should be 1/2".

door.

Place the Transmitter housing as shown in

Figure 2-13

2

12. Finish securing the Magnet with the rivets.

NOTE: Do NOT drill through the

3 Use the holes in the flanges as a template, mounting holes on either Magnet or mark the holes for the mounting screws. Transmitter.



Figure 2-14



Figure 2-15 Figure 2-16



Figure 2-17 Figure 2-18

Battery Connection and Replacement The DigiGuard™ system uses a custom lithium battery pack. The battery is rated for a minimum operational life of ten years. The lithium battery ensures long life of the Door Transmitter over wide temperature ranges. Using an alkaline or a non-approved battery can damage the Door Transmitter and will void the warranty. The battery is installed from the factory. The following instructions are provided for installing as well as changing the battery. Always disarm the system

before doing any work on the system.

Installing the Battery

- 1 Remove the screws from the Transmitter cover.
- 2 Remove the cover.
- 3 Plug the connector from the battery to the pins on the Transmitter board. **Figure 2-14**
- 4 Place the battery in the case above the top holding pin. **Figure 2-17**
- 5 Replace the cover and secure with the screws removed in Step 1. **Figure 2-18**

NOTE: Pay attention to the orientation of the battery connector. The battery will only connect in one direction. Forcing the battery connector onto the pins can damage the Board. Also, pay attention to the orientation of the cover with the case. Align the ridge on the top right of the cover with the ridge on the case.

Putting the cover on backwards can damage the Transmitter Board.

Replacing the Battery

- 1 Remove the screws from the Transmitter cover.
 - 2 Remove the cover.
3. Unplug the battery's connector from the two pins on the Transmitter Board. **Figure 2-15**
- 1 Replace the old battery with the new Digitech replacement battery, connecting the plug on the pins. **Figure 2-16**
 - 2 Place the battery in the case above the top holding pin and mount with wires toward the antenna. **Figure 2-17**
 - 3 Replace the cover and secure with the screws removed in Step 1. **Figure 2-18**

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