

iconnect



2-Way Wireless Repeater Installation Guide



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Table of Contents

1. Introduction.....	3
2. Location of the Repeater.....	3
3. Mounting the Repeater.....	4
3.1. LED Indication	4
4. Registering the Repeater	5
5. Assigning Transmitters to the Repeater	5
6. Testing the Repeater	6
6.1. TX List	6
6.2. TX Test	6
6.3. RF Link Test	6
7. Deleting a Repeater	7
8. Technical Specification.....	7

1. Introduction

The EL-4635 is a 2-way wireless repeater designed to extend the range of wireless devices registered to the iConnect 2-Way control system. The repeater receives messages from transmitters that were assigned to it and resends these messages to the control system. Up to four repeaters can be registered to the control system with 32 transmitters assigned to each repeater. The repeater is powered by either 6V AC with a 3.6V rechargeable backup battery pack or 9V DC from an adapter (AC/AC or AC/DC). Registration and maintenance tests are performed using the iConnect 2-Way control system that provides a comprehensive interface to the repeater.

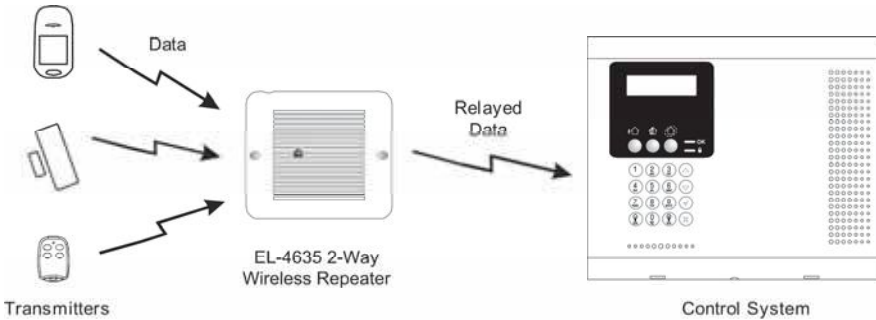


Figure 1-1: Typical Single Repeater Application

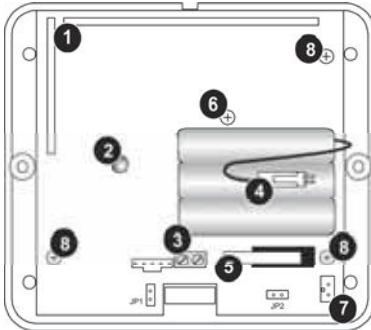
2. Location of the Repeater

Consider the following before mounting the Repeater:

1. Choose a suitable mounting location for the Repeater.
2. Before permanently mounting the Repeater, test the reception from the exact mounting position.
3. Mount the Repeater between the transmitters and the iConnect 2-Way control system at a minimum height of 1.5m from the ground and 50cm below the ceiling.
4. Do not mount the Repeater near large metal objects or close to radiating electronic devices such as computers and monitors, which may reduce the sensitivity of the Repeater.

3. Mounting the Repeater

1. Register all wireless devices to the iConnect 2-Way control system as explained in the iConnect 2-Way control system installation manual.
2. Remove the cover screws from the Repeater and lift the front cover away from the base.



1. Internal antenna
2. LED indicator
3. Power input terminal
4. Backup battery
5. Front tamper switch
6. Back tamper mount screw
7. Battery connector
8. Mounting screws

Figure 3-1: EL-4635 Repeater (cover removed)

3. The Repeater is ready for registration to the iConnect 2-Way control system (see, Registering the Repeater).

Note:

You should test the repeater from the required mounting location before permanently mounting the unit.

4. Mount the base to the wall using the mounting screws.

Note:

You will need to remove the PCB board from the plastic base to connect the back tamper mount screw in order to activate the back tamper in case of removal from the wall.

5. Once the Repeater is registered and mounted, close the cover while paying special attention to the front and back tamper switch and replace the cover screws.

3.1. LED Indication

When the tamper switch is open, the bi-color LED provides indication regarding the transmission and reception status of the Repeater. When the tamper switch is closed, the bi-color LED provides indication regarding the repeaters power status.

Table 3-1 : LED Indication (Tamper Open)

LED Indication	Description
Flashing Green	Signal Reception
Flashing Red	Signal Transmission

Table 3-2 : LED Indication (Tamper Closed)

LED Indication	Description
Steady Green	AC & Battery OK
Fast Flashing Red	AC Power Loss
Slow Flashing Red	Low Battery

4. Registering the Repeater

The EL-4635 must identify itself to the iConnect 2-Way control system as follows:

1. Set the system to registration mode.
 - Go to the main menu and select [9]>[1]>[4] (Programming > Devices > Repeaters)
 - Select a repeater from the list (1-4) and press '√'.
2. Remove the two cover screws from the Repeater and lift the front cover away from the base.
3. Connect a 6VAC transformer or 9VDC to the Power input terminal block (polarity is not important when connecting AC to the terminal block). In North America, plug the transformer into a 24-hour source of 120VAC that is not controlled by a switch.
4. Connect the backup battery pack to the Battery connector.
5. The Repeater will send a transmission. If the transmission is successfully received by the control system it will play a confirmation sound. If no confirmation sound is heard send another transmission by pressing and releasing the tamper switch of the Repeater.
6. As soon as 'Save?' appears press '√'.

5. Assigning Transmitters to the Repeater

Once the Repeater has been registered to the control system you can assign the transmitters to the Repeater according to the following procedure:

1. From the main menu select [9]>[1] (Programming> Devices).
2. Select a Device (e.g. Zone #1) and press '√'.
3. Select [10] (Z1 Repeater) and define a Repeater from the list (1-4).
4. Press '√' to confirm.
5. Activate a tamper on each device to complete the assignment procedure.

6. Testing the Repeater

The iConnect 2-Way control system offers installer testing utilities that serve as a valuable aid during installation and maintenance. For more information about testing communication between individual devices and the control system, please refer to the iConnect 2-Way Full Installation manual.

6.1. TX List

The TX List is a scrollable inventory of all registered transmitters and their last reported status.

To view the TX list:

1. From the main menu, select [7]>[0]>[4]>[1] (Service > Transmitters > TX List); the first transmitter on the list is displayed.
2. Using the arrow buttons, scroll through the transmitter list.
3. When you have finished viewing, press 'X' to exit the TX list.

6.2. TX Test

TX Test is a utility that enables you to identify registered transmitters and test their signal strength.

To perform a TX test:

1. From the main menu, select [7]>[0]>[4]>[2] (Service > Transmitters > TX Test).
2. Activate a transmitter; the transmitter's details are displayed.

Note:

The lowest recommended signal strength for any installed transmitter is 2. If the received signal strength is lower than 2, relocate the transmitter.

3. When you have finished, press 'X' to exit TX Test mode.

6.3. RF Link Test

RF Link Test is a utility that enables you to measure the RF noise level between the selected transmitter and the iConnect 2-Way control system.

To perform an RF Link test:

1. From the main menu, select [7]>[0]>[4]>[3] (Service > Transmitters > RF Link Test).
2. Using the arrow buttons, scroll through the transmitter list.
3. Press '↓' to select the desired transmitter.
4. Activate a transmitter; the transmitter's details are displayed.
5. When you have finished, press 'X' to exit RF Link Test mode.

7. Deleting a Repeater

To delete a Repeater from the system:

1. Set the system to Delete mode.
 - Go to the main menu and select [9]>[1]>[4] (Programming > Devices > Repeaters).
 - Select a repeater from the list (1-4) and press '√'.
 - Press >3 and then '√'. Upon the 'OK' confirmation request, press '√'
2. Open the Repeater and disconnect all power including backup battery.
3. Press the tamper switch. While the tamper switch is being pressed reconnect the power. Within five seconds open the tamper and close it again.

8. Technical Specification

Frequency:	868* or 433MHz
Power:	6V AC or 9V DC (for AC/AC or AC/DC adapter)
Backup Battery:	3.6V/850mAh (3 x 1.2V Ni-MH rechargeable cells, type AAA)
Current Consumption:	60mA max. (during transmission)
Tamper Protection:	Front cover tamper (N.C.) Back tamper for removal from wall (N.C.)
Temperature:	-10°C to 50°C (14°F to 122° F)
Dimensions:	123 x 109 x 27 mm (4.84 x 4.29 x 1 inch)

*Complies with EN 50131-3; EN 50131-5-3 Grade 2 Class II