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RR-EXITTRIM

Wireless Remote Control Receiver for Alarm Lock Exit Trim Locks

INSTALLATION AND PROGRAMMING INSTRUCTIONS

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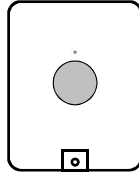
OVERVIEW

The RR-EXITTRIM is a wireless remote control receiver pre-installed within a replacement Exit Trim Battery Box Cover that provides remote unlocking ("remote release") for Alarm Lock Exit Trim door locks. The RR-EXITTRIM can be used with a standard Alarm Lock battery pack (includes compatible battery pack plugs to simplify the installation) or can be powered by cutting the power battery connector and using your own power supply. See **SPECIFICATIONS** for current consumption and power requirements.

For a wireless remote control receiver that provides remote unlocking to *cylindrical* Alarm Lock locking devices, refer to the model RR-RECEIVER at our website www.alarmlock.com (for *mortise* locks, refer to the model RR-MORTISE). **Note:** The RR-RECEIVER can also be used as a general-purpose remote control receiver and/or for applications requiring a radio-controlled solid state relay closure.

RR-EXITTRIM features include:

- Integration within the Battery Box Cover to provide a wireless "remote release" function with Alarm Lock Exit Trim non-Networx models that do not include an integral radio
- Built-in battery connectors for quick installation
- Optional settings include programmable "**Relay Closure Duration**", "**Relay 'Hold Off' Time**" and "**Relay Toggle Mode**" for advanced applications (for definitions see **OPERATION**)
- Compatible with both the **RR-1BUTTON** wireless remote (see WI1999) and the **RR-4BKEYFOB** 4-button pocket-size remote (see WI2004). Use a **RR-4BKEYFOB** if you want a single "keyfob remote" to activate up to 4 separate RR-EXITTRIMs (for example, each button opens a separate door)
- Up to fifty (50) individual remote buttons can be "paired" (connected) to one RR-EXITTRIM
- Low current consumption provides years of operation with a standard Alarm Lock battery pack (see **Specifications** below for current consumption and power requirements)
- Relay programming and remote button pairings are maintained even when power is removed



RR-1BUTTON



RR-4BKEYFOB

Note: In this manual, "remote button" is used to describe the single button on the RR-1BUTTON or any one of the four buttons on the RR-4BKEYFOB.

SPECIFICATIONS

Power Requirements:..... 5-12VDC or use AL battery pack
Solid State Relay Contact Current:..... 30mA maximum
Current Consumption: . 50 microamperes (µA) idle current

OPERATION

When a paired remote button is pressed, the paired RR-EXITTRIM relay will typically close within 2 seconds of the button press, and will remain closed for its programmed "**Relay Closure Duration**" (2 seconds by default, programmable from 1-250 seconds).

After the "**Relay Closure Duration**" ends and the relay opens, an optional **Relay "Hold Off" Time** can be added during which time the RR-EXITTRIM will ignore all paired remote button presses. After the **Relay "Hold Off" Time** ends, the RR-EXITTRIM is then ready to respond to the next wireless remote button press. The columns in the table below (from left to right) summarize these RR-EXITTRIM operations:

SUMMARY OF RR-EXITTRIM RELAY OPERATIONS OVER TIME			
Remote Button Press	RR-EXITTRIM "Relay Closure Duration"	RR-EXITTRIM "Relay 'Hold Off' Time"	RR-EXITTRIM "Relay 'Hold Off' Time" Ends
0.5 - 2.0 sec. delay before relay closes	Default is 2 seconds; programmable between 1-250 seconds	Relay opens and ignores all paired remote button presses. Default time is 4 seconds; programmable between 0-250 seconds	The RR-EXITTRIM is ready to respond to the next wireless remote button press

Note: If the lock Pass Time* has been extended, the **Relay "Hold Off" Time** must be changed from its 4 second default duration to match the Pass Time duration.

A separate programmable relay option is "**Relay Toggle Mode**" where each press of a paired remote button causes the relay to alternate back and forth between open and closed states like a toggle switch. See "**RELAY TOGGLE MODE**" for details.

Note: If "**Relay Toggle Mode**" is programmed, we recommend powering the RR-EXITTRIM with a DC power supply, as the voltage drain due to extended relay close durations will decrease battery life. See **SPECIFICATIONS**.

*The "Pass Time" is the duration the lock stays unlocked after a valid User Code (or other valid credential) is entered. When the Pass Time expires, the lock re-locks automatically. See the Programming Instructions for more information.

CAPACITY

Up to fifty (50) individual remote buttons can be "paired" to one RR-EXITTRIM. However, a remote button can only be paired with one RR-EXITTRIM at a time. If a paired remote button is later paired with a second RR-EXITTRIM, the first pairing will be erased.

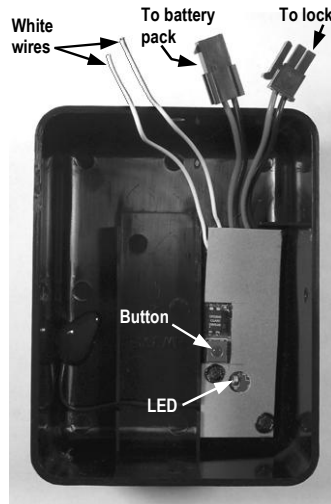
INSTALLATION

Alarm Lock Exit Trim locking device models have a programmable Remote Input feature (momentary closure to unlock the locking device, enabled by default). Check the Programming Instructions that came with your Exit Trim locking device; if in doubt, enter Program Mode and enable Function 65 (press **1** **6** **5** *****) to enable this Remote Input feature.

To install the RR-EXITTRIM, proceed as follows:

1. Remove the screws that secure the Battery Box Cover and remove cover (do not misplace the screws).
2. Remove and disconnect the battery pack.
3. From the hole in the door, locate and take hold of the two white "Remote Input" wires and the disconnected battery plug connector.

4. **White Wires:** Using electrical tape, wire nuts or other connectors suitable for this type of installation, connect a remote input wire from the door to a white wire of the RR-EXITTRIM. Then connect the other remote input wire from the door to the other white wire of the RR-EXITTRIM.

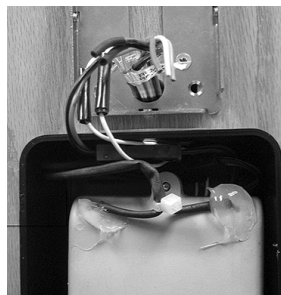


RR-EXITTRIM with two white wires, two battery connectors, recessed button and LED.

5. **Battery Wires:** Connect the battery connector from the door to the RR-EXITTRIM plug. Then connect the battery pack to the other RR-EXITTRIM plug.

Note: The lock may beep upon supplying power; the internal clock may need to be reset (if equipped).

6. Before placing the battery pack inside the RR-EXITTRIM enclosure, perform the "**PAIRING PROCEDURE**" (see below) that pairs a wireless remote button to the RR-EXITTRIM*. If the lock Pass Time has been extended, the **Relay "Hold Off" Time** must be changed from its 4 second default duration to match the Pass Time duration. See "**RELAY OPERATIONAL PROGRAMMING**" below for instructions. When finished pairing, return to this section and perform step 7 below to replace the battery pack.



Battery pack and all wires inside the RR-EXITTRIM enclosure

7. Place the battery pack inside the RR-EXITTRIM enclosure. Carefully push all of the wires inside the RR-EXITTRIM enclosure.
8. Secure the RR-EXITTRIM enclosure to the battery mounting plate with the three screws removed in step 1.

***Note:** The use of a pencil or other small pointed tool is required to press the small recessed button on the RR-EXITTRIM.

PAIRING PROCEDURE

After the RR-EXITTRIM is powered, be sure to have either an RR-1BUTTON or RR-4BKEYFOB wireless remote powered and ready. **Important:** The RR-1BUTTON or RR-4BKEYFOB remote must be at least 3 feet away from the RR-EXITTRIM when pairing.

Pair a remote button to a RR-EXITTRIM as follows:

- a. **Use a pencil or other small pointed tool to press and release the RR-EXITTRIM button.** The green LED on the RR-EXITTRIM will turn on, indicating the RR-EXITTRIM is ready to pair ("pairing mode" begins). Within 30 seconds perform the next step.

(**Note:** Cancel pairing mode by simply pressing and releasing the RR-EXITTRIM button again; the RR-EXITTRIM LED will flicker and turn off).

- b. **With the RR-1BUTTON or RR-4BKEYFOB wireless remote in hand,** observe the remote's LED as you perform the following:

☞ With the remote located at least 3 feet away from the RR-EXITTRIM, **press and hold** a button on the remote...

☞ Continue holding button on remote until LED **flashes green**, then *release the button*. Observe the remote LED:

- **Solid green LED** = Pairing successful; go to step c to test.

Note: The RR-EXITTRIM LED will blink twice indicating it is ready for another pairing.

- **Solid red LED** = Pairing failure (start again at step a).

☞ To pair another remote button to this RR-EXITTRIM, repeat step b (or do nothing and after 30 seconds the RR-EXITTRIMs "pairing mode" will end automatically).

Pairing mode can be exited by simply pressing and releasing the RR-EXITTRIM button again; the RR-EXITTRIM LED will flicker and turn off.

- c. **Test the pairing:** Once paired to a remote button, the RR-EXITTRIM automatically enters a "Test Mode" that works in conjunction with the relay to simplify testing. To save battery power, this Test Mode ends after 30 minutes, and is nothing more than an LED on the RR-EXITTRIM that turns on when its relay activates. Simply press the button on the paired remote and ensure the RR-EXITTRIM green LED turns on. **Note:** This LED will turn on for the length of the programmed **Relay Closure Duration** (see **RELAY OPERATIONAL PROGRAMMING**, below).

Pairing procedure is complete!

Optional: To re-activate "Test Mode" for another 30 minutes: Press and release the RR-EXITTRIM button (LED turns on), wait two seconds, then press and release the RR-EXITTRIM button again (LED turns off).

Although we do NOT recommend changing the default settings of the relay, if special changes to the relay are necessary for your installation, follow the instructions in the next section, "**RELAY OPERATIONAL PROGRAMMING**".

RELAY OPERATIONAL PROGRAMMING

Three characteristics of the RR-EXITTRIM relay can be changed from its default settings:

- **Relay Closure Duration**
- **Relay "Hold Off" Time**
- **Relay Toggle Mode**

These three characteristics are defined as follows:

RELAY CLOSURE DURATION

When a paired remote button is pressed, its paired RR-EXITTRIM relay will typically close within 2 seconds of the button press, and will remain closed for its programmed "**Relay Closure Duration**" (2 seconds by default, programmable from 1-250 seconds).

RELAY "HOLD OFF" TIME

After the "**Relay Closure Duration**" ends and the relay opens, an optional **Relay "Hold Off" Time** can be added during which time the RR-EXITTRIM will ignore all paired remote button presses. After the **Relay "Hold Off" Time** ends, the open RR-EXITTRIM relay is then ready to respond to another remote button press (the default **Relay "Hold Off" Time** is 4 seconds, programmable from 0-250 seconds). **Note:** If the lock Pass Time has been extended, this **Relay "Hold Off" Time** must be changed from its 4 second default duration to match the Pass Time duration.

Although we do NOT recommend changing the default settings of the relay, if special changes to the relay are necessary for your installation, make changes to the **Relay Closure Duration** and **Relay "Hold Off" Time** in one set of steps, below. We recommend having these durations planned and ready beforehand to simplify programming. Also, verify the RR-EXITTRIM LED is off before continuing:

- Press and hold the button on the RR-EXITTRIM** until the solid green LED on the RR-EXITTRIM turns off. The RR-EXITTRIM is now in "relay program mode".
- Press and release the RR-EXITTRIM button for each second** you wish to assign to the **Relay Closure Duration**. (For example, 1 press = 1 second, 2 presses = 2 seconds, etc.).
- Stop and observe the RR-EXITTRIM:** Its LED will verify the **Relay Closure Duration** entered by flashing *once* for each *second* pressed in step **b**.
(If no **Relay "Hold Off" Time** is desired, go to step **f**)
- Press and release the RR-EXITTRIM button for each second** you wish to assign to the **Relay "Hold Off" Time**. (For example, 1 press = 1 second, 2 presses = 2 seconds, etc.).
- Stop and observe the RR-EXITTRIM:** Its LED will verify the **Relay "Hold Off" Time** entered by flashing *once* for each *second* pressed in step **d**.
- Wait for the RR-EXITTRIM LED** to flash rapidly indicating the end of "relay program mode".
- Test the pairing:** After step **f** ends, the RR-EXITTRIM automatically enters a "Test Mode" that works in conjunction with the relay to simplify testing. To save battery power, this Test Mode ends after 30 minutes, and is nothing more than an LED on the RR-EXITTRIM that turns on when its relay activates.
Simply press the button on the paired remote and ensure

the RR-EXITTRIM green LED turns on for the length of the programmed **Relay Closure Duration**. If a **Relay "Hold Off" Time** was programmed, the RR-EXITTRIM will likewise ignore all paired remote button presses during this time (its LED will remain off when the paired remote button is pressed).

Optional: To re-activate "Test Mode" for another 30 minutes: Press and release the RR-EXITTRIM button (LED turns on), wait two seconds, then press and release the RR-EXITTRIM button again (LED turns off).

RELAY TOGGLE MODE

The RR-EXITTRIM can be programmed to operate in "**Relay Toggle Mode**" where each press of the same paired remote button causes the relay to alternate back and forth between open and closed states like a toggle switch. **Note:** The fastest the relay will toggle between open and closed states is 2 seconds.

Enable "**Relay Toggle Mode**" as follows:

- Press and hold** the RR-EXITTRIM button...
 - ☞ LED lights solid green (keep holding the button)
 - ☞ LED turns off (keep holding the button)
 - ☞ LED lights solid green again
 - ☞ Release the button
 - ☞ Wait for RR-EXITTRIM LED to flash rapidly and turn off. "**Relay Toggle Mode**" is now operational.
- Test the RR-EXITTRIM.** After "**Relay Toggle Mode**" is programmed, the RR-EXITTRIM automatically enters a "Test Mode" that works with the relay to simplify testing. To save battery power, Test Mode ends after 30 minutes. Test Mode is simply an LED on the RR-EXITTRIM that turns on when its relay closes. To test the "**Relay Toggle Mode**" operation, press the paired remote button and ensure the RR-EXITTRIM LED turns on (indicating relay closure). Press the paired remote button again to ensure the LED turns off (relay open).

Optional: To re-activate "Test Mode" for another 30 minutes: Press and release the RR-EXITTRIM button (LED turns on), wait two seconds, then press and release the RR-EXITTRIM button again (LED turns off).

DEFAULTING THE RR-EXITTRIM

This procedure will erase all paired remote buttons, erase all Relay Operational Programming and will reset the RR-EXITTRIM to its factory default settings, as follows:

- **Relay Closure Duration** = Two (2) seconds
 - **Relay "Hold Off" Time** = Four (4) seconds
 - **Relay Toggle Mode** = Disabled
- Remove power from the RR-EXITTRIM.** Wait 3 seconds.
 - Replace power to the RR-EXITTRIM.**
 - Within 5 seconds, press and hold the RR-EXITTRIM button** until the green LED starts to flicker (rapid flashing).

The rapid flashing indicates the RR-EXITTRIM has been erased and reset to the settings described above.

ALARM LOCK LIMITED WARRANTY

ALARM LOCK SYSTEMS, INC. (ALARM LOCK) warrants its products to be free from manufacturing defects in materials and workmanship for twenty four months following the date of manufacture. ALARM LOCK will, within said period, at its option, repair or replace any product failing to operate correctly without charge to the original purchaser or user.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling or reinstallation charges, environmental wear and tear, normal maintenance expenses, or shipping and freight expenses required to return products to ALARM LOCK. Additionally, this warranty shall not cover scratches, abrasions or deterioration due to the use of paints, solvents or other chemicals.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF ALARM LOCK.

Any action for breach of warranty, including but not limited to any implied warranty of merchantability, must be brought within the six months following the end of the warranty period.

IN NO CASE SHALL ALARM LOCK BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

In case of defect, contact the security professional who installed and maintains your security system. In order to exercise the warranty, the product must be returned by the security professional, shipping costs prepaid and insured to ALARM LOCK. After repair or replacement, ALARM LOCK assumes the cost of returning products under warranty. ALARM LOCK shall have no obligation under this warranty, or otherwise, if the product has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. ALARM LOCK will not be responsible for any dismantling, reassembly or reinstallation charges, environmental wear and tear, normal maintenance expenses, or shipping and freight expenses required to return products to ALARM LOCK. Additionally, this warranty shall not cover scratches, abrasions or deterioration due to the use of paints, solvents or other chemicals.

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or representations, whether oral or written, are either merged herein or are expressly cancelled. ALARM LOCK neither assumes, nor authorizes any other person purporting to act on its behalf to modify, to change, or to assume for it, any other warranty or liability concerning its products.

In no event shall ALARM LOCK be liable for an amount in excess of ALARM LOCK's original selling price of the product, for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of any failure of the product. Seller's warranty, as hereinabove set forth, shall not be enlarged, diminished or affected by and no obligation or liability shall arise or grow out of Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished hereunder.

ALARM LOCK RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

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