20160304 Wireless Mail Delivery Notification

This uses an inexpensive wireless doorbell to notify you of mail delivery.

The diagram below shows the wiring you would add to the remote pushbutton.

The additional componants prevent the pushbutton from being energized continuously (if the mail box is left open).

A spacer is used to prevent the pushbotton circuit from being energized (separates battery post from the battery holder positive connection) . A wire is wired from the battery positive post to the capacitor and the reed switch and back to the battery holder positive connection. I USED A PIECE OF STYRAFOAM AND TAPE TO HOLD THE BUTTON IN CONTINUOUSLY.

When the mailbox door is opened it puts the magnet next to the proximity switch (turning it on). The power it applied to the capacitor current flows until the capacitor is fully charged (taking a second or two). During this period the charging current energizes the pushbutton circuit and the doorbell sounds.

1. One 2 piece wireless doorbell (transmitter circuit is shown below).
2. Proximity Switch and Magnet
3. 470mf capacitor (note polarity). (voltage rating should be at least the same as battery).
4. 470K resistor
5. Small wire
6. soldering iron and solder
7. Spacer - insulator (plastic or paper).

 \tau = RC  = 470,000 x .000470 = 221 seconds = 3 minutes 41 seconds

It is the time required to charge the [capacitor](https://en.wikipedia.org/wiki/Capacitor), through the [resistor](https://en.wikipedia.org/wiki/Resistor), by ≈ 63.2 percent of the source voltage.

