

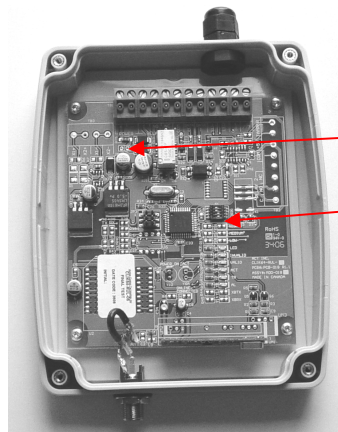
WIEGAND RECEIVER INSTALLATION INSTRUCTIONS

INTRODUCTION

The Model TX3-CX-REC Wiegand Receiver unit is designed to interface with the access control panel's card reader port using the Wiegand protocol. The unit receives the ID credentials from the key tag transmitters, which consists of a site and ID number.

Several receiver options can be set by the jumper settings on the unit. The receiver sends the information to the control panel in a Wiegand bit format. Transmitter buttons on a multi-button transmitter can be selectively chosen from one to four by setting the switches on the S1 Data Path Selector switch.

Receiver Settings



JP5 5-volt option

S1 – Data Path Selector

Removable Terminal Block

Connect AWG #22 to 14 sized wires to the terminal block.

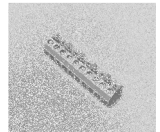


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UNPACKING

The receiver unit contains all the intelligence to provide reliable long-range wireless access control from a gate or over-head door. Each unit is packed with four enclosure fastening screws. Mounting hardware is not provided.

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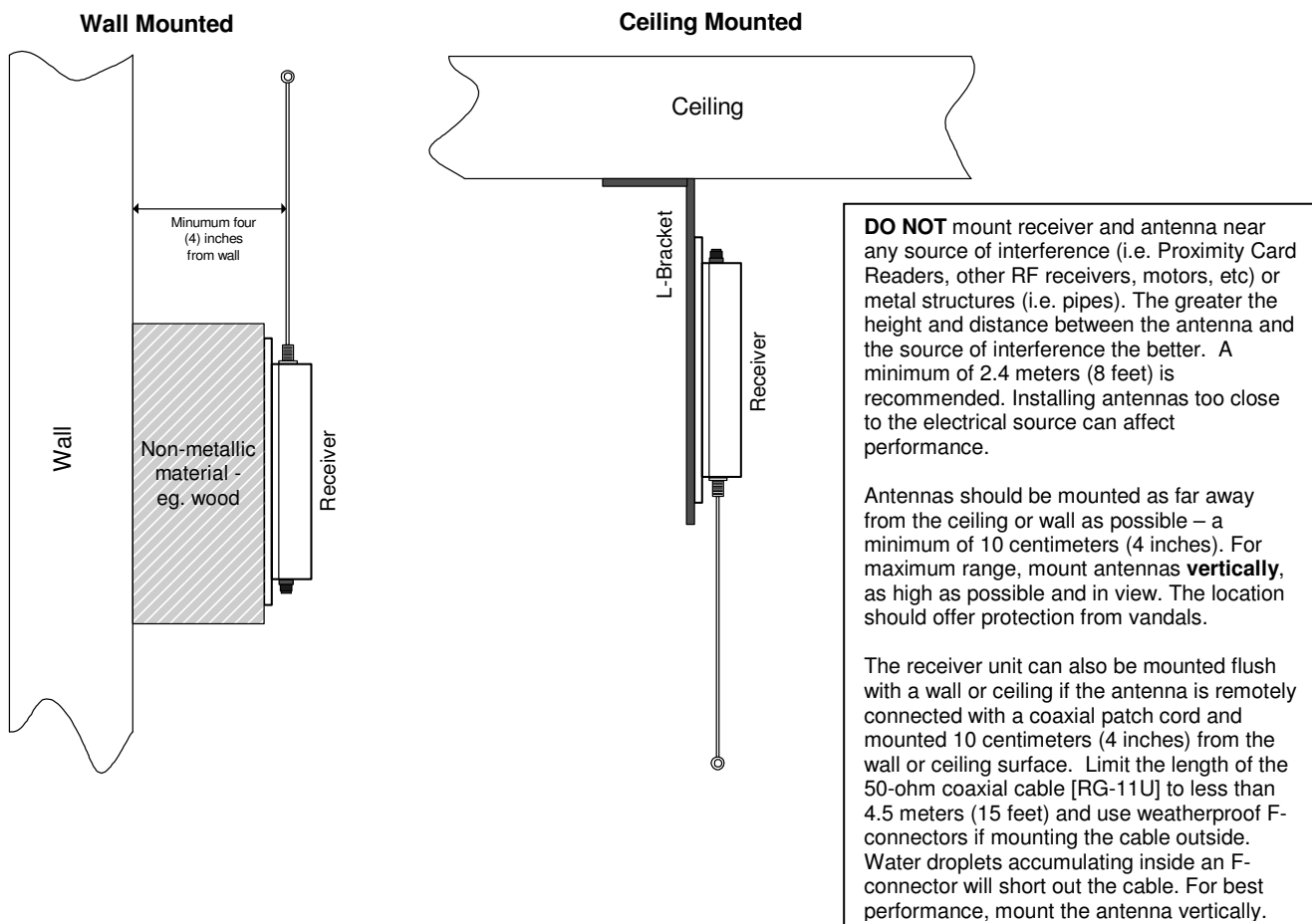
SELECTING MOUNTING LOCATION

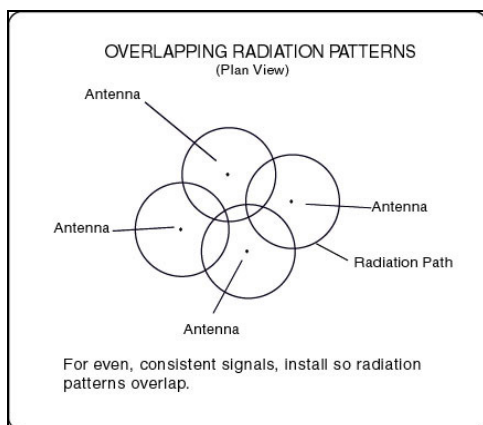
Radio frequency (RF) is one of the most useful tools in security technology today. It has evolved generations past the technology that has given us radios, remote control garage doors, televisions and remote-controlled model airplanes. Although modern security applications focus on sophisticated coding systems, scientific principles as old as the radio still apply.

In the very early days of garage door openers, around the 1950s, the transmitters were extremely simple. They sent out a **single signal**, and the garage door opener responded by opening or closing. As garage door openers became common, the simplicity of this system created a big problem -- anyone could drive down the street with a transmitter and open any garage door! They all used the same frequency and there was no security encryption.

The TX-P2-0/TX-P2P-0 transmitter is not like a garage door opener. You can see this level of sophistication on the transmitter, as it has no DIP switches to copy another transmitter code. To combat the proliferation of code grabbers, you also need to prevent people from "capturing" the code that your transmitter sends. Once they have your code, they can simply re-transmit it to gain unauthorized entry. The TX-P2-0/TX-P2P-0 uses incremental packet transmission so each code transmission is different each time the button is pressed to prevent code grabbers from circumventing a security system.

The receiver unit must be able to get a strong enough signal to verify the signal originated from a transmitter.





When global coverage of a large area is required, there should be a sufficient number of receivers to give overlapping coverage of receiving patterns.

Use the SW terminal if the receiver antennas are less than 30.5 meters (100 feet) apart. The SW terminal connection prevents data clash at the control panel. See Note 3.

POWER SUPPLY AND GROUNDING

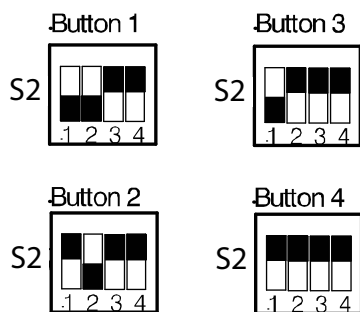
Power requirements: 12-24 VDC, 50 mA (stand-by), 100mA (peak).

A linear type power supply is recommended if a separate power supply is used. If the unit is to be powered by 5 VDC, jumper across JP5 pads. Proper grounding gives an electrical charge, like an electrical static discharge or a near lightning strike, a path from which to dissipate its energy safely into the earth. It is strongly recommended to connect an earth ground wire to each receiver unit. (Note 2).

INSTALLATION

Data Path Selector Settings:

The receiver unit conveniently provides for field selectable switches S1 located near the center of the board. By changing the ON or OFF position on the S1 DIP switch, determines which specific button on the TX-P2-0/TX-P2P-0 multi-button transmitter will activate the receiver and Wiegand format to be transmitted to the control panel.



Wiring	Maximum distance	AWG #
12 VDC	152 m (500 feet)	18
	112 m (369 feet)	20
	76 m (248 feet)	22

Receiver Relay:

The receiver relay activates for one second when a transmitter is triggered. The relay on the receiver can be used for testing purposes by adding an audible or visual device to confirm the receiver is receiving the signal consistently from the desired location of the transmitters. Only when the relay is triggered will the Wiegand output send the ID credentials of the transmitter pendant.

LED Indicators:

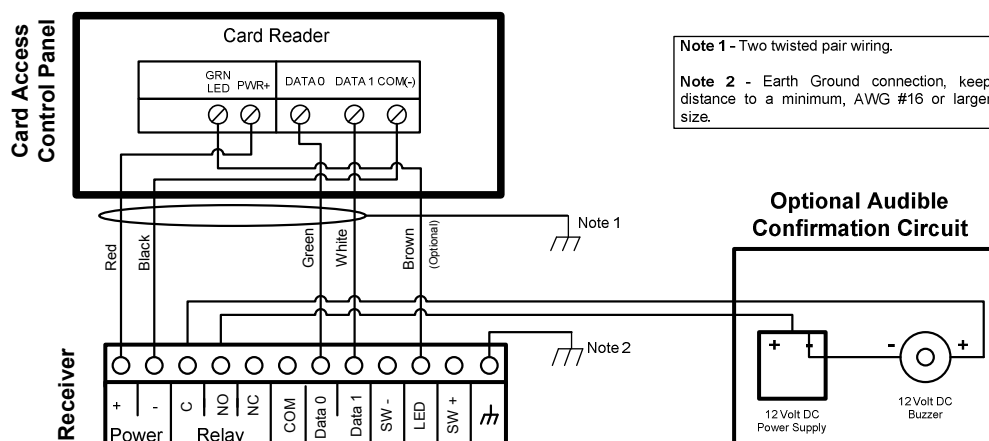
(Y4) – Flashes when the transmitter code is valid.

(Y5) – Flashes if the transmitter encryption code does not match the receiver and will not operate the receiver. Check the transmitters are programmed to operate with this receiver.

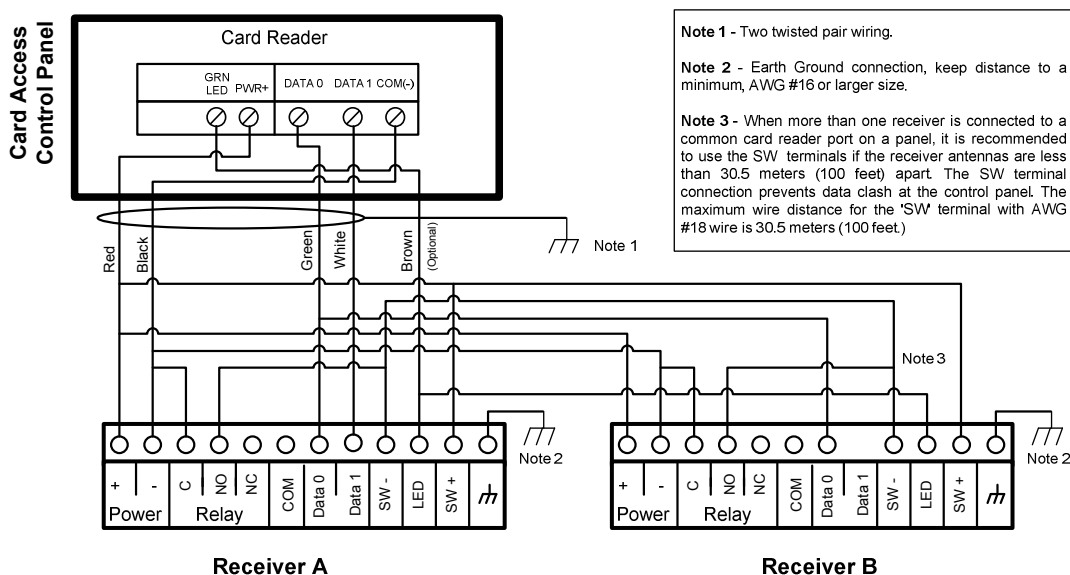
(Y6) – Power on indicator and RF activity indicator. The LED will flicker to indicate the receiver has power. If the LED remains on steady, there is a continuous 433 MHz signal that will prevent the unit from operating reliably.

(Y8) – Controlled externally by the access control panel. Typically this is controlled by the access control panels LED confirmation output (Brown wire).

Receiver - Typical Installation



Two Receivers Connected to One Port



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.