

Keypad 3x4 and 2x6

1.0 Features and Functions

Essex Keypads are weatherproof and extremely rugged. They use piezo-electric technology for sensing key depressions. Since there are no moving parts, the unit can withstand millions of keystrokes. Out put from the unit is 26 Bit Wiegand and interfaces to Keri Systems' PXL-250W Tiger Controller (Wiegand capable). Red and green LEDs as well as a beeper provide user feedback to indicate if access is granted or denied. There is one jumper to set for keypad installation – setting the operating voltage for the keypad (+5 VDC or +12 VDC).

This document is only intended as an aid for installation. For complete instructions on working with an access control system, consult the PXL-250 Tiger Controller Technical Reference that is shipped with the PXL-250.

2.0 Diagrams and Dimensions

3 x 4 Keypad

H = 5.125" x W = 3.375" x D = 0.438"
(13.02 cm x 8.57 cm x 1.11 cm)

2 x 6 Keypad

H = 7.125" x W = 1.750" x D = 0.750"
(18.10 cm x 4.44 cm x 1.90 cm)

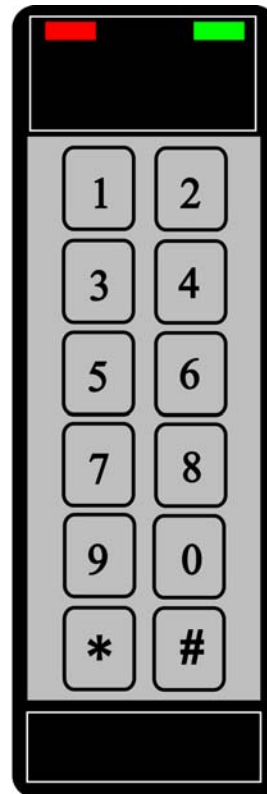


Figure 1: The 3 x 4 and 2 x 6 Keypads

Keypad: 3x4 and 2x6

3.0 Operation Specifications

	3x4 Keypad	2x6 Keypad
Operating Environment	100% Relative Humidity	100% Relative Humidity
Operating Temperature	-40°C to +70°C (-40°F to +160°F)	-40°C to +70°C (-40°F to +160°F)
Current Draw	<ul style="list-style-type: none"> 20 mA at 5 VDC or 12 VDC 	<ul style="list-style-type: none"> Non-Illuminated: 20 mA at 5 VDC or 12 VDC Illuminated: 60 mA at 5 VDC or 12 VDC

4.0 Jumper Setting

The operating voltage jumper is located on the back of the keypad, beside the pigtail connector (see Figure 2).

- Install the jumper to set the operating voltage to +5 VDC.
- Remove the jumper completely, or install the jumper on one pin to set the operating voltage to +12 VDC.

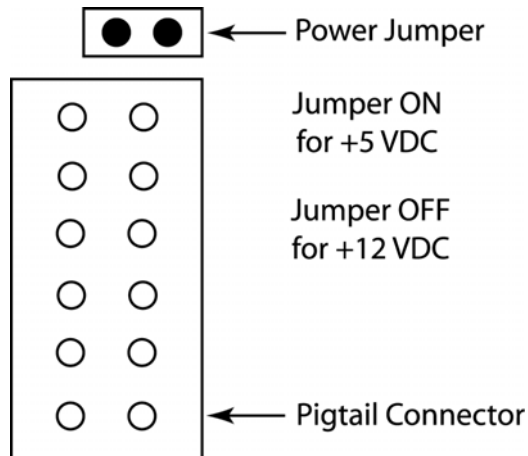


Figure 2: Operating Voltage Jumper Setting

Keypad 3x4 and 2x6

5.0 Connections

5.1 Pigtail connection to the Keypad

The keypad comes with a 4" pigtail that plugs into the connector on the back of the unit. The connector is keyed so there is only one way to plug in the pigtail. Extra cable is then spliced to the pigtail to reach the controller.

5.2 Keypad Connection to the PXL-250W

Connect the keypad cable to the controller according to the table below.

Wire Color	Description	TB5 or TB6
Green	Data 0	Pin 1
–	not used	Pin 2
Red	Keypad Power	Pin 3
Black	Keypad Ground	Pin 4
–	not used	Pin 5
Brown	LED	Pin 6
White	Data 1	Pin 7

NOTE: Be sure to set the Wiegand Reader Type to the Essex Keypad option in the Doors software. For additional information on how to set the reader type, see the [Set Wiegand Reader Type \(LED Control\)](#) section in the [Doors User's Guide](#).



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6.0 Troubleshooting an Installation

Problem	Probable Cause	Corrective Action
The Keypad is not working	The pigtail is not plugged into the keypad.	<ul style="list-style-type: none"> Verify the pigtail is plugged into the keypad.
	The keypad is miswired.	<ul style="list-style-type: none"> Verify the keypad wiring is correctly connected to the PXL-250W per the above instructions. Verify all wire splices have been done correctly.
The LEDs are not working properly.	The Wiegand Reader Type was not set correctly.	<ul style="list-style-type: none"> Verify the Wiegand Reader Type in the Doors software is set at Essex Keypad for the correct controller.
Nothing happens when the code is entered.	The # key (SEND) was not pressed after the code was entered.	<ul style="list-style-type: none"> Reenter the code and then press the # key.

7.0 Programming Note

The Essex keypad generates and sends an error code to the controller when one of these three events occurs at the keypad.

1. The # key is pressed without any preceding digits.
2. Any number of 0s are pressed before the # key.
3. Entering the number 65535 or any number greater than 65535.

When the keypad detects an error condition the keypad automatically sends the error code number 65535 to the controller. (In binary, this number works out to be 1111 1111 1111 1111).

If a controller is programmed to accept 65535 as a valid entry code any error condition at a keypad will allow entry.

For security reasons Keri recommends programming the code 65535 into the access control system, assigning this code to an access group that never allows access and assigning this code the name "KEYPAD ERROR CODE" (or something similar).