

INTRODUCTION

The 4212 VX2200 digital panel includes a 125kHz EM proximity reader. The reader can be used standalone or in conjunction with an external access control PCB. The requirements are that the third part access control system supports Wiegand protocol readers and is able to send an accepted or denied confirmation pulse in the form of a switched 0V.

For the purpose of this application note we will assume the third party access control system will accept a Wiegand 26 bit protocol. Wiegand 34 bit is also supported.

In order for the 4212 to work with third party access control systems there are a number of steps required to setup and program the system as outlined in this application note.

OPERATION

The operation of the system is as follows:-

When a proximity fob/card is presented to the 4212 proximity reader, the 4212 will transmit the fob/card number in a 26 bit Wiegand format to the third party access control CPU (via the D0 & D1 connections). If the card is accepted the third party control will activate the lock and also send a 0V signal back to the 4212 on the LG connection to confirm acceptance so that the 4212 can display the door open message. If the fob/card is denied access then the third party access control system should send back a 0V signal to the 4212 on the LR connection (The LR connection is optional). An LR or LG confirmation must be received within 250ms after sending the Wiegand data to the third party controller.

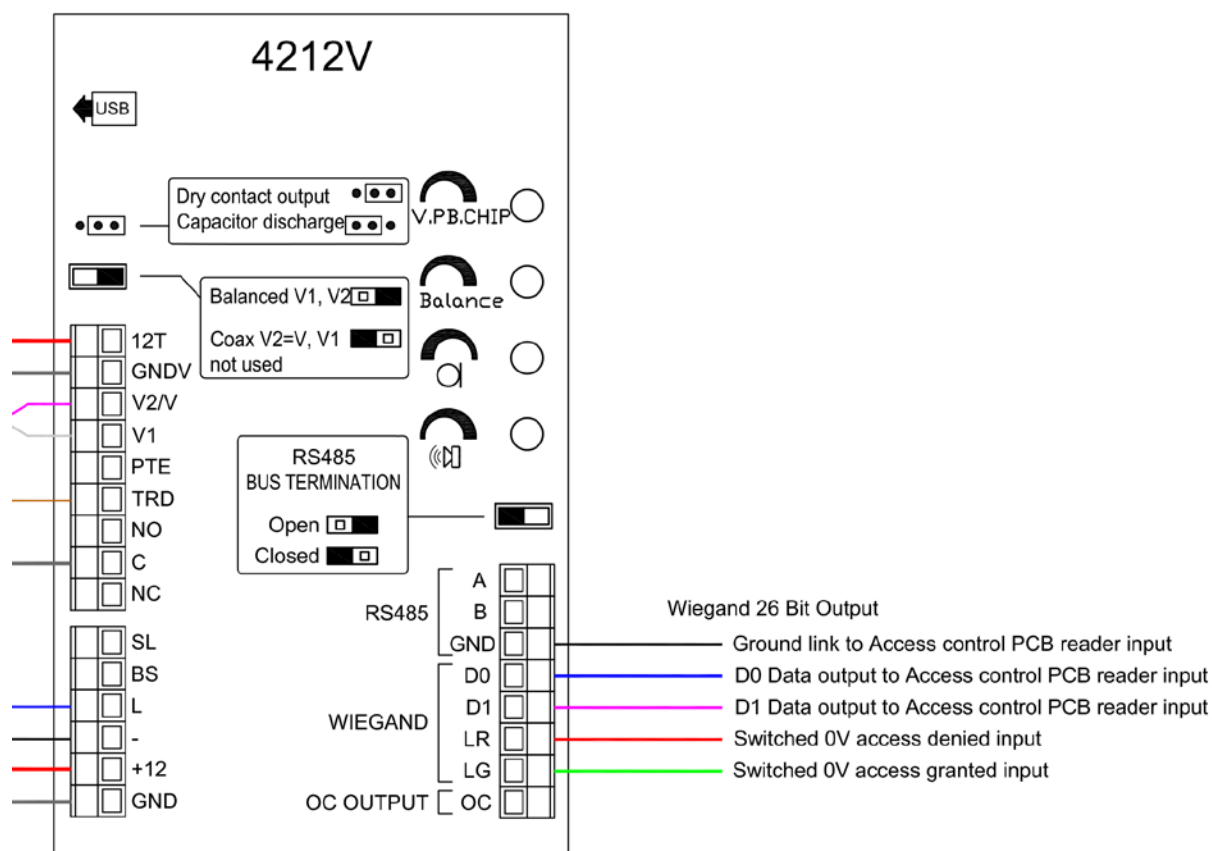
PARTS REQUIRED

- 4212 Digital entrance panel
- Third party access control system with Wiegand reader input.
- Third party access control programming and management software
- The 4212 PC programming software kit
- 125kHz EM proximity fob or cards

WIRING

5 connections are required between the 4212 entrance panel and the third party access control PCB's reader input.

Connection	Description
0V	Common ground between the 4212 and the third party system
D0	Data connection to the third party system
D1	Data connection to the third party system
LR	Access denied switched 0V input (Minimum of 10ms 0V pulse)
LG	Access granted switched 0V input (Minimum of 10ms 0V pulse)



4212 SETUP

Using the VX2X02PC software (Part no 4212PK), set the following fields as shown (A USB connection between the 4212 and the PC is required for this task). First download the settings from the 4212, change the settings as below then upload these settings to the 4212.

Door mode	
Master or Slave	Master
Date format	European
Mode	Normal Mode
Security Level	Fob or Code
Wiegand Format	Wiegand 26 Bit
Fob Format	3 Bytes
Prox/code type	Wiegand Output
<input type="checkbox"/> Direct Call <input type="checkbox"/> Home2 Present <input checked="" type="checkbox"/> RFID Enabled	
SYSTEM NOT FOUND	

On the third party system, setup the reader input (which is connected to the 4212) as a Wiegand 26 bit reader. Program the fobs/cards using the third party access control system software.

Presenting the fobs to the door panel should now either be accepted or denied as shown below:-



Present a programmed fob/card.

The 4212 will send the Wiegand data to the access control system.

If the 4212 receives an acknowledgment on the LG terminal it will display 'DOOR OPEN'.



Present a fob/card which isn't programmed on the access control system.

The 4212 will send the Wiegand data to the access control system.

If the 4212 receives an acknowledgment on the LR terminal or no acknowledgment at all it will display 'NOT ALLOWED'