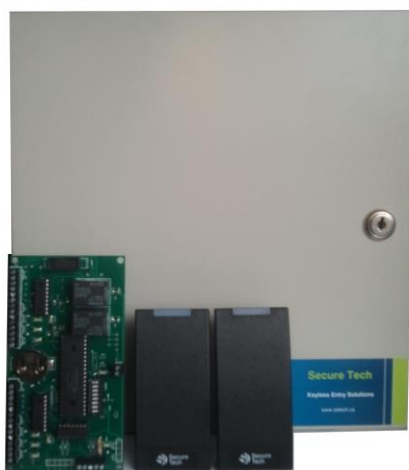




Secure Tech

ST3 Installation Manual



Keyless Access System Solutions

ST3 Keyless Access System

Main Features:

St3 utilizes the latest technology in keyless entry systems, it is reliable, scalable and offers specific software management solutions.

The ST3 motherboard controller controls two doors, supporting an expansion module that can increase the capacity up to fourteen doors. The system supports electric strikes and magnetic locks. Proximity readers can be set as access or exit readers.

Communications:

Rs485 communications allows the interconnection of two hundred and fifty six motherboard controllers in the same network.

Memory and Autonomy:

The ST3 system keeps all information regarding cards, access schedules, door unlocking schedules and can verify access requests even when it is disconnected from the network. All data is stored in an onboard non-volatile memory that keeps the data under power loss. Date and time are maintained by an on-board battery.

Monitoring features:

The ST3 system allows to monitor and report door remaining open, breaks in and power loss.

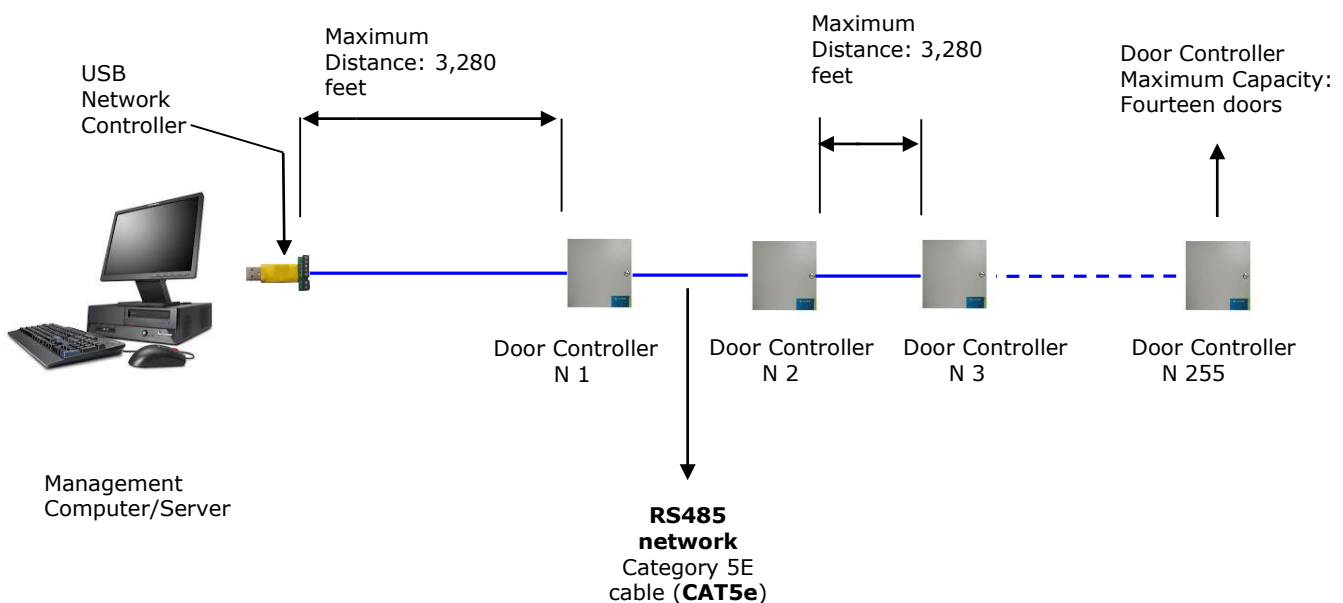
Specific Management software:

Software version for companies and institutions, commercial buildings, health clubs, hotels and commercial buildings. All versions include a setup wizard that allows to set up the system in few minutes.

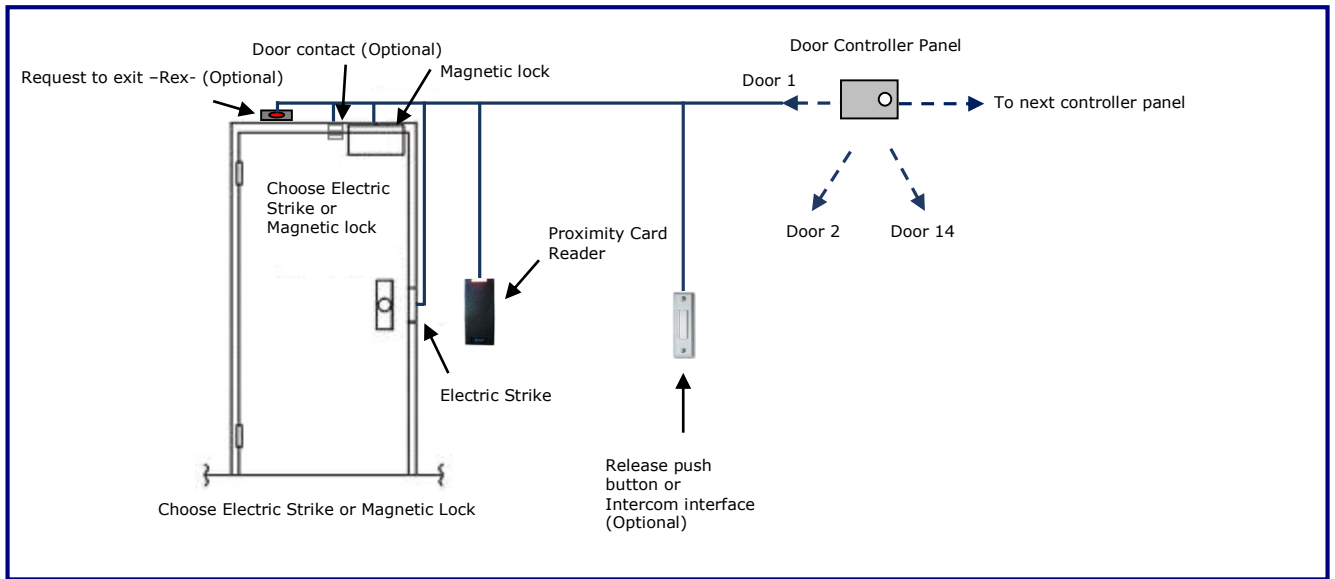
Elevator Integration:

Full integration with ST4 elevator controller. ST4 controller panels can be integrated to the rs485 network allowing management from the same software solution.

Door Controllers interconnection Diagram

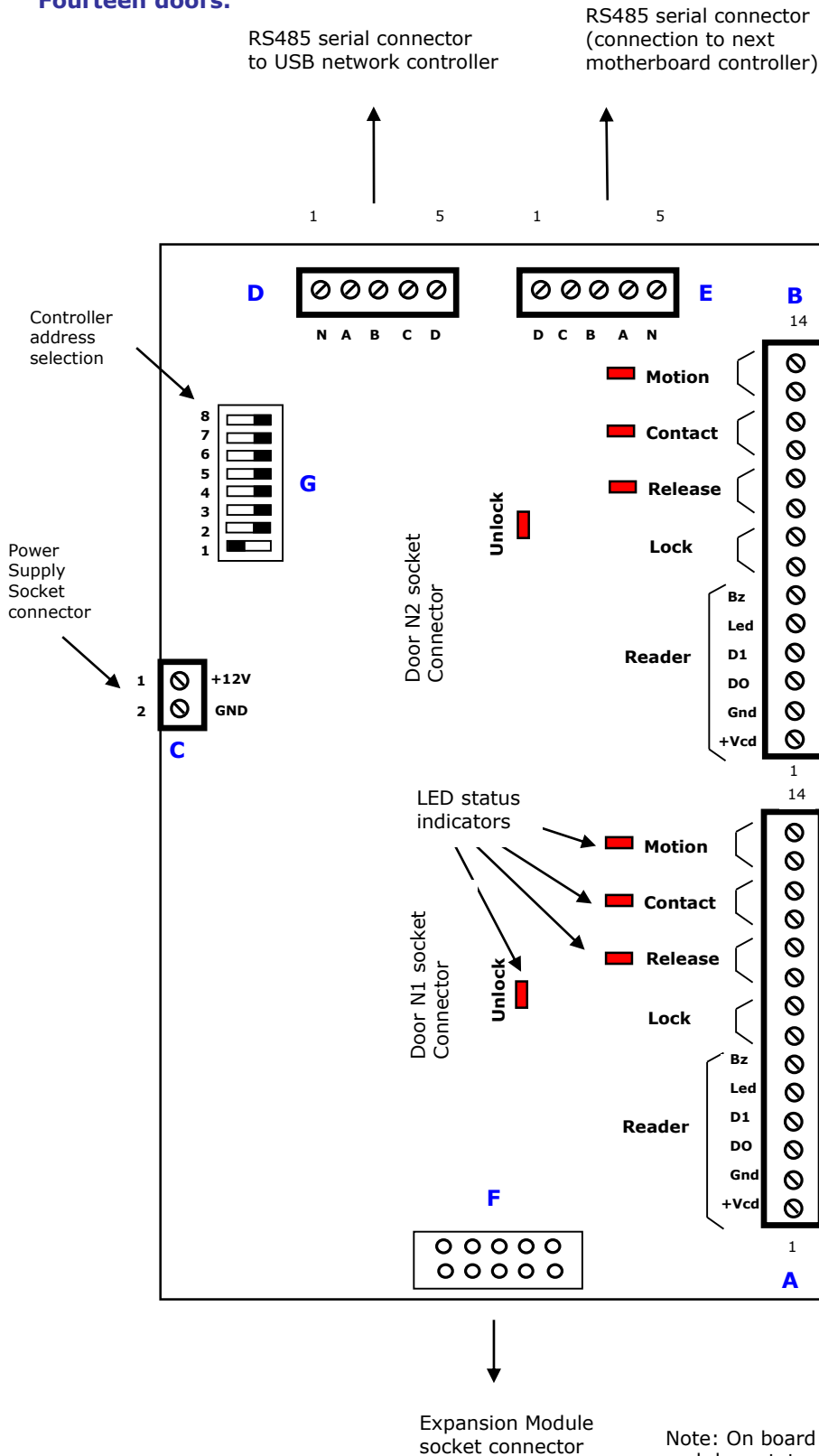


Door Installation diagram



Door Controller Motherboard Description

Two doors capacity, expandable to up to Fourteen doors.



Controller Motherboard Connectors Description

C: Power

- 1- 12 VDC to +14 VDC
- 2- Ground

A & B: Door Socket Connector

- 1- Prox. Reader/+VDC (Red)
- 2- Prox. Reader/ Ground (Black)
- 3- Prox. Reader/ Data 0(Green)
- 4- Prox. Reader/ Data 1(White)
- 5- Prox. Reader/ Led (Blue)
- 6- Prox. Reader/ Buzzer (Yellow)
- 7- Lock out/ +Vlock
- 8- Lock out/ Ground
- 9- Release input (REX)/ Rex1
- 10- Release input (REX)/ Rex2
- 11- Door contact input 1
- 12- Door contact input 2
- 13- Motion detector input 1
- 14- Motion detector input 2

D: RS485 Serial Connector - From previous controller or USB network controller (controller motherboard N1)

- 1- To USB network controller pin N or to previous motherboard controller pin N
- 2- To USB network controller pin A or to previous motherboard controller pin
- 3- To USB network controller pin B or to previous motherboard controller pin B
- 4- To USB network controller pin C or to previous motherboard controller pin C
- 5- To USB network controller pin D or to previous motherboard controller pin D

E: Serial Connector

- 1- To Next controller motherboard pin D
- 2- To Next controller motherboard pin C
- 3- To Next controller motherboard pin B
- 4- To Next controller motherboard pin A
- 5- To Next controller motherboard pin N

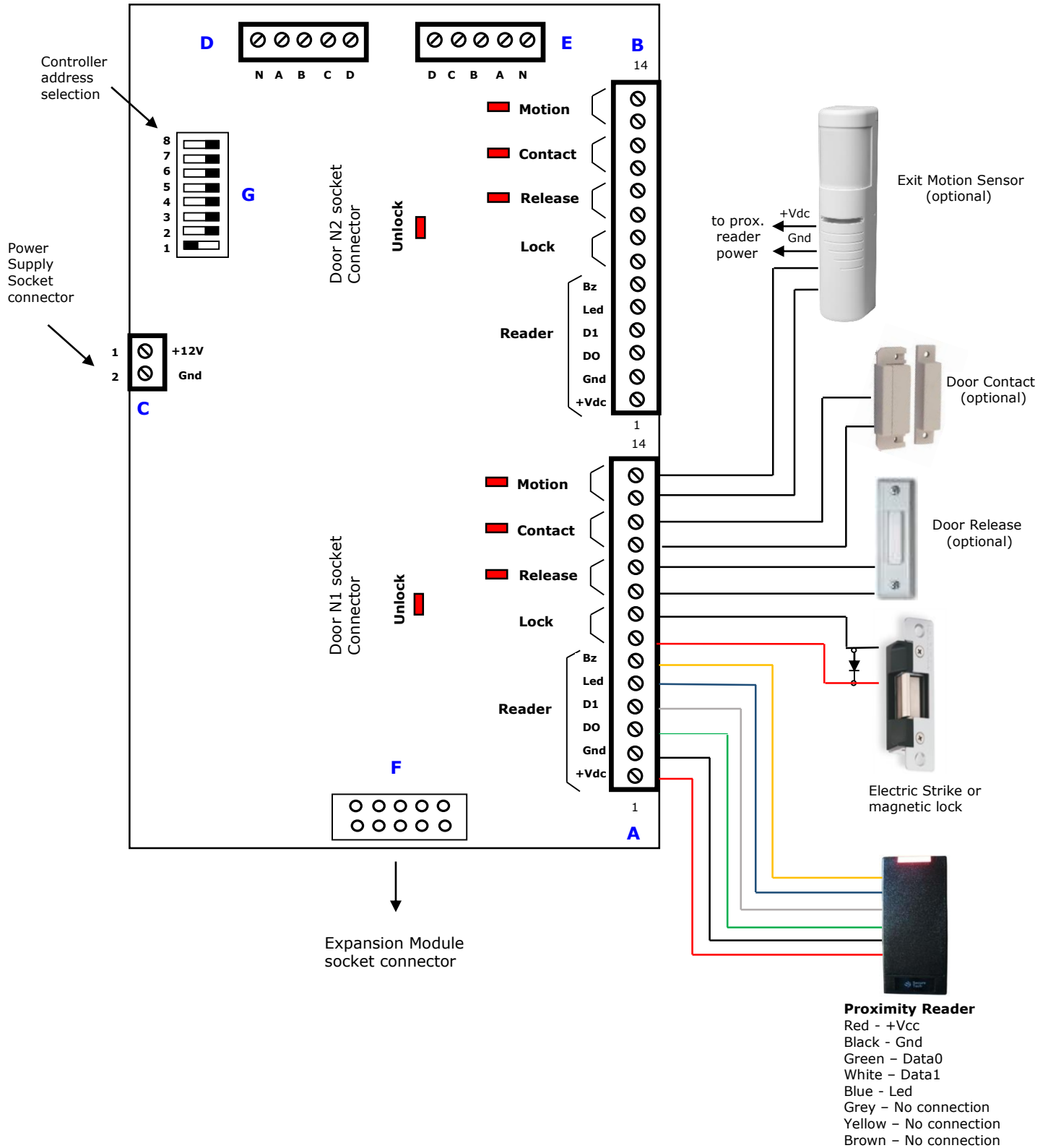
F: Expansion Module Socket

*Door Expansion modules Capacity: 2, 4, 6, 8, 10,12

G: Controller Module Address selection (1 to 255)

Note: On board LED indicators for each door indicates sensors and door status

Devices Connection Diagram

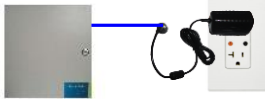


Door controller power supply

The door controller can be powered from two types of plugging transformers:

12VDC, 2A:

If the system doesn't require battery power back up system, or if the 12vdc transformer will be plugged into an UPS (uninterrupted power supply) system.



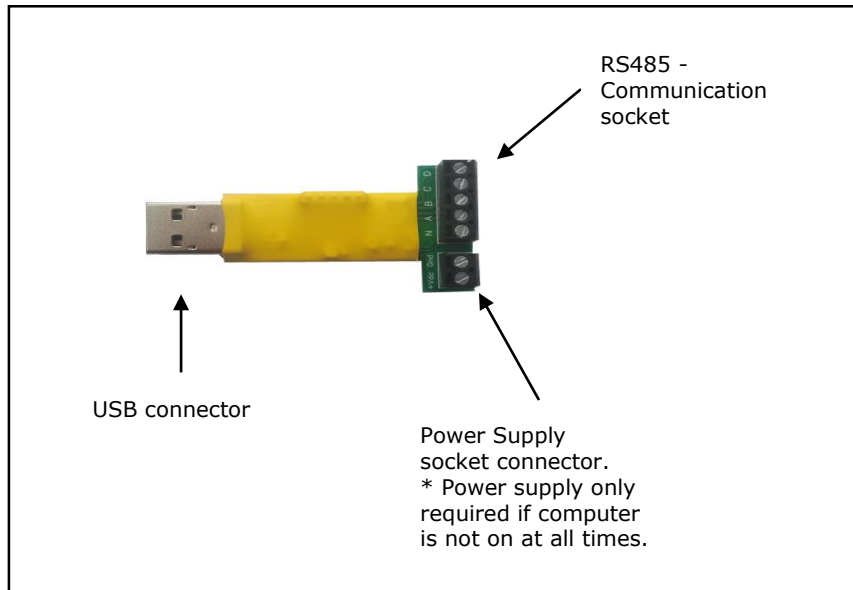
110VAC to 220 VAC socket outlet or UPS output

16VAC, 40VA :

If it is required a battery power back up system, 16VAC transformer, battery charger board (access system accessory) and battery should be incorporated to the ST3 panel.

USB - Network Controller

The USB net controller is the interface between the RS485 network and the management computer. It polls the motherboard controllers for data and transfers it to the management computer. Automatically detects when the management computer is on to transfer the data collected. It provides led communication status.



Net Controller Connector Description

Power

+Vdc - 9 VDC to +14 VDC

Gnd - Ground

*Required if computer/server is not powered at all times

Communication Socket Connector

A- To motherboard pin A (Cat5 - green/white)

B- To motherboard pin B (Cat5 - green)

C- To motherboard pin C (Cat5 - blue/white)

D- To motherboard pin D (Cat5 - blue)

N- To motherboard pin N (Cat5 -Orange)

Led indicators

Red: Power

Yellow: Communication error

Green: Communication successful

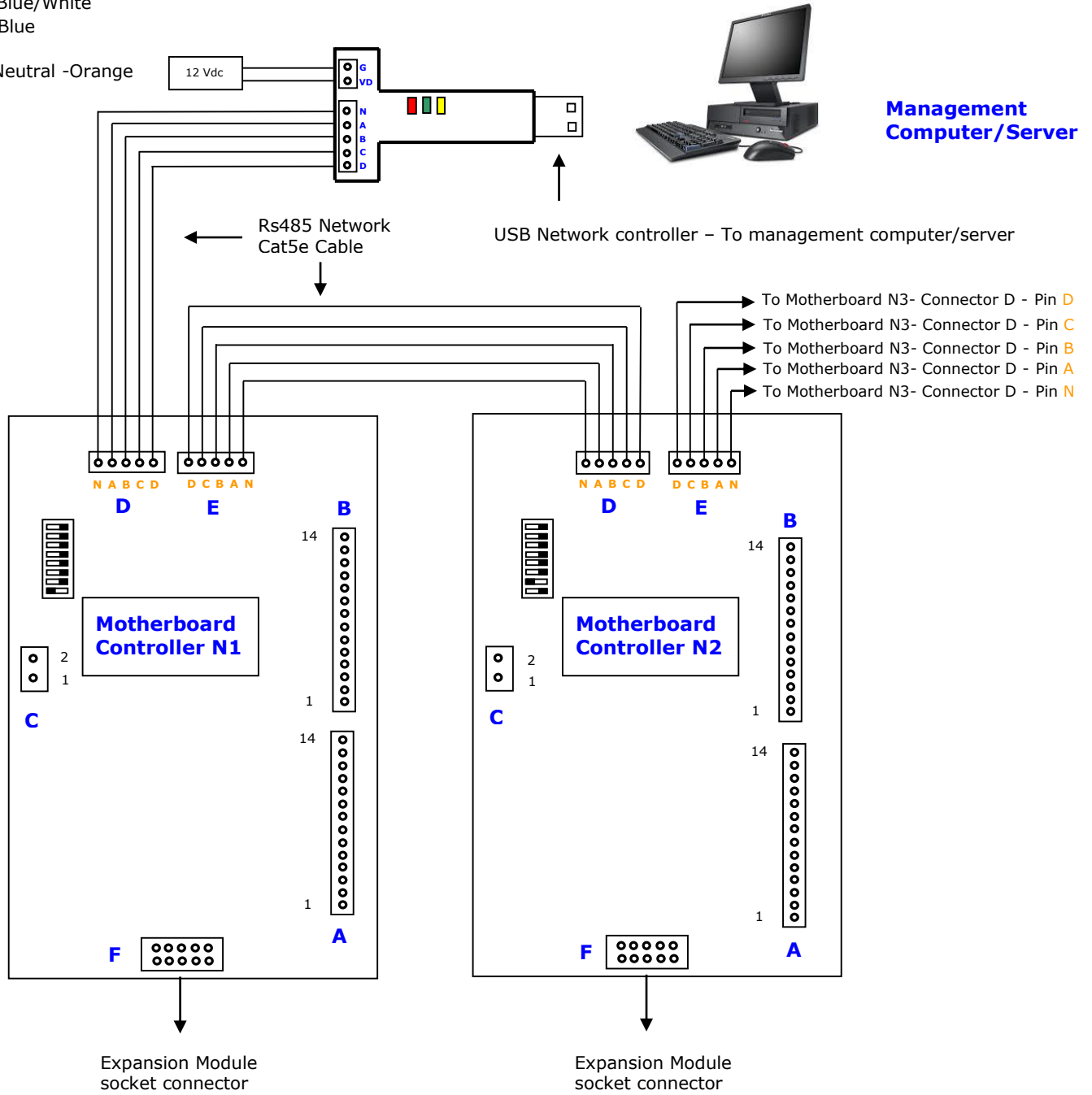
USB Net Controller Connection Diagram

Cat 5e Connections

A-B - First pair
 A- Green/White
 B- Green

C-D - Second Pair
 C- Blue/White
 D- Blue

N-Neutral -Orange



Recommended Cables Specifications:

Proximity Reader: 6 Conductors - 22 AWG – Shielded /max distance: 300 feet

*optional for low noise environment and distance < 200 feet: alarm quad cable (4x 22awg)

- 1) Board bridge between board connector **4**- Prox. Reader/ Data 1(White) and **5**- Prox. Reader/Led (Blue)
- 2) Resistor 220ohms on the reader end between Led line (blue) and D1 line (white)

Electric Strike: 2 Conductors - 18 AWG

Power supply: 2 Conductors -18 AWG

Door Contact: 2 Conductors- 22 AWG

Push Button REX: 2 Conductors- 22 AWG

Motion Detector REX: 4 Conductors- 22 AWG

Motherboard to USB network controller: CAT5E

RS485 network: Interconnection between motherboard controllers: CAT5E

Software Download:

Specific software solutions for companies and institutions, commercial buildings, health clubs and residential buildings.

<http://www.setech.ca/products.html>