



ST2 Installation Manual



Keyless Access System Solutions

ST2 Keyless Access System - Parts Description

Door Controller - Front View

Indication Leds
 Red: Power
 Yellow: Programming mode
 Green: successful operation

USB Interface Connector
 Laptop/Notebook



Door Controller - Back View

Female Clicking supports

Back screws



Door Controller - Wall Supporting Plate

Wall Screws

Male Clicking Supports



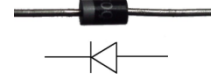
Proximity Reader



Proximity Keyfob



Locking Device Protection Diode



USB Interface Cable



Power Supply



ST2 Keyless Access System

Main Features

The ST2 system utilizes the latest technology in keyless entry systems, it is reliable, scalable and offers specific software management solutions. Up to two hundred controllers can be managed from the same management software on a single laptop/notebook.

The ST2 controller controls up to two doors, allows to control access schedules, door unlocking schedules and retrieve access records. The system supports electric strikes and magnetic locks with independent operating voltages

Management operations are performed on a laptop/notebook and data is uploaded/downloaded to the controller in a few seconds via USB interface.

Communications:

USB port allows data transfer between the controller and computer.

Memory and Autonomy:

The ST2 system keeps on its hardware all information regarding cards, access schedules, door unlocking schedules. 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.

Door Monitoring feature:

The ST2 system allows the connection of a door contact to monitor the door status. Provides a warning beeping sound when a door remains open.

Specific Management software:

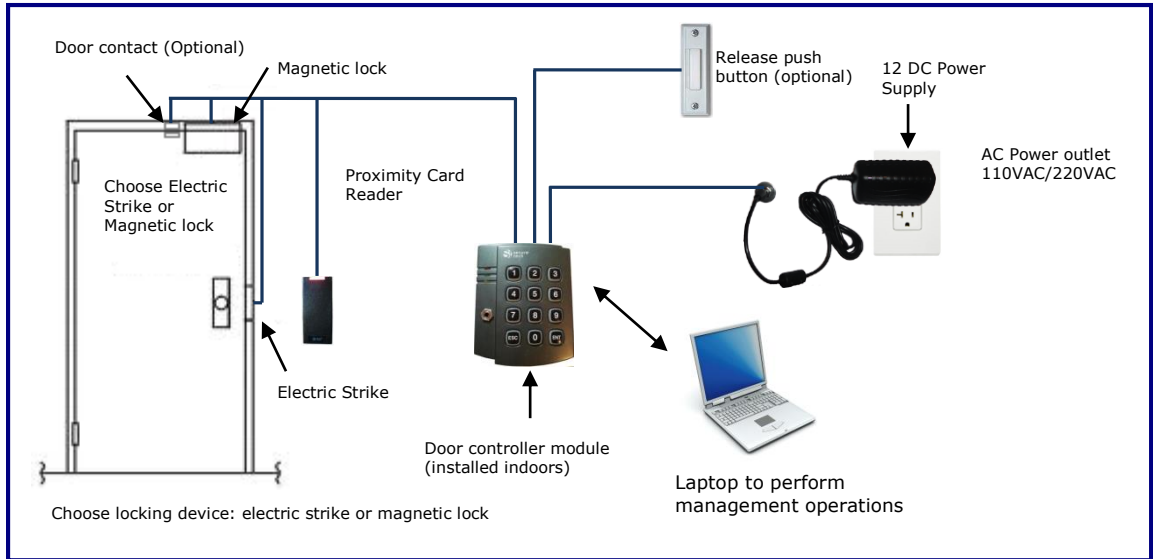
Software version for companies and institutions, commercial buildings, residential buildings and households. All versions include a setup wizard that allows to set up the system in few minutes.

ST2 Technical Specifications

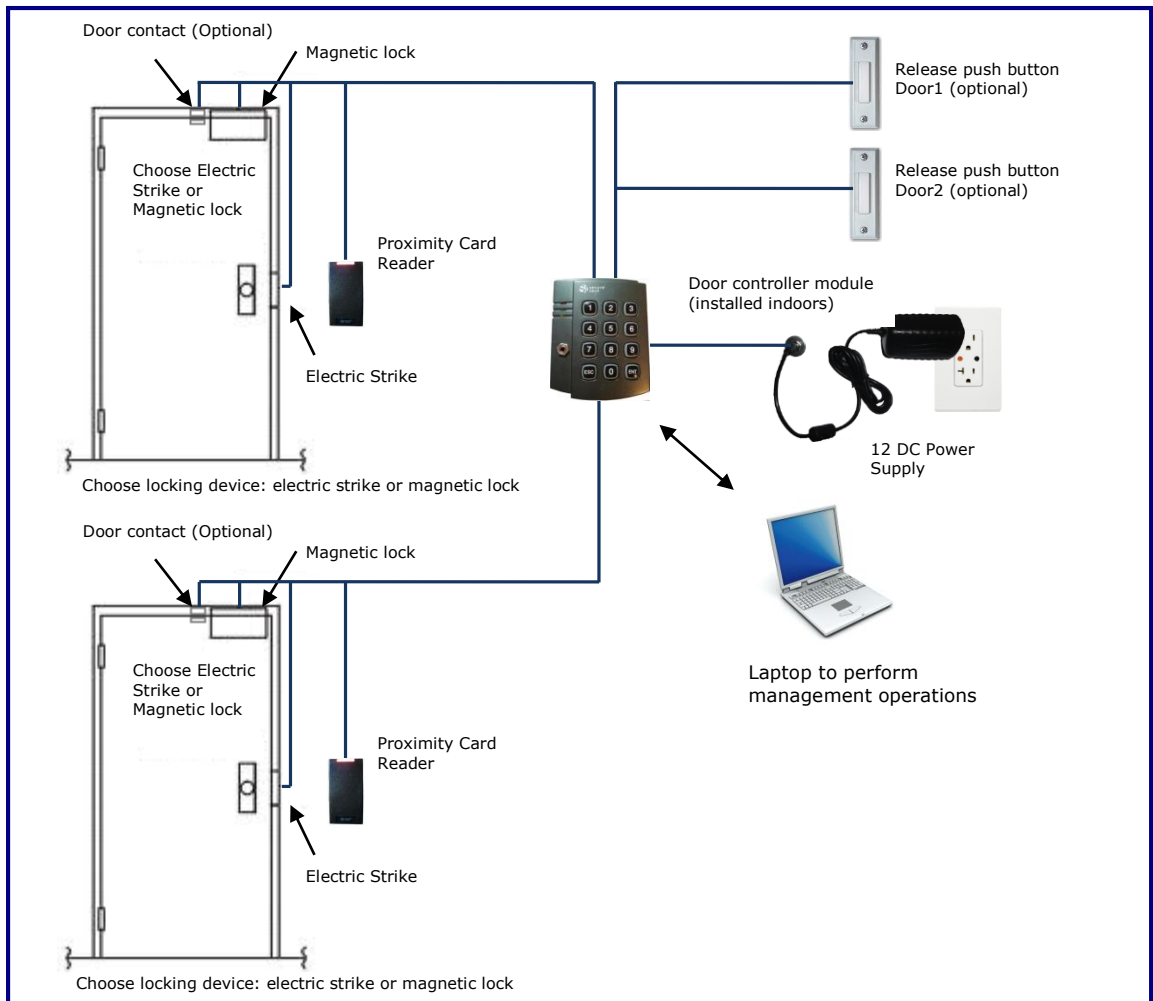
Operating Voltage	12VDC to 14VDC
Current Consumption	87 mA
Proximity Reader Interface	Wiegand 26 bits
Proximity Reader Voltage	12VDC to 14VDC
Proximity Reader Current Consumption	28 mA
Credentials Capacity	4,000
Record storage Capacity	2,000
Input for door release	2
Input for door contact	1 (can be connected in loop to more doors)
Relay Max operating current and voltage	30 VDC, 2A
Non- Volatile Memory Type	Eeprom
Communication Interface	USB
Operative system supported	Win xp, Win7, Win vista, Win 8
Max. controllers per/site	200

Installation diagrams

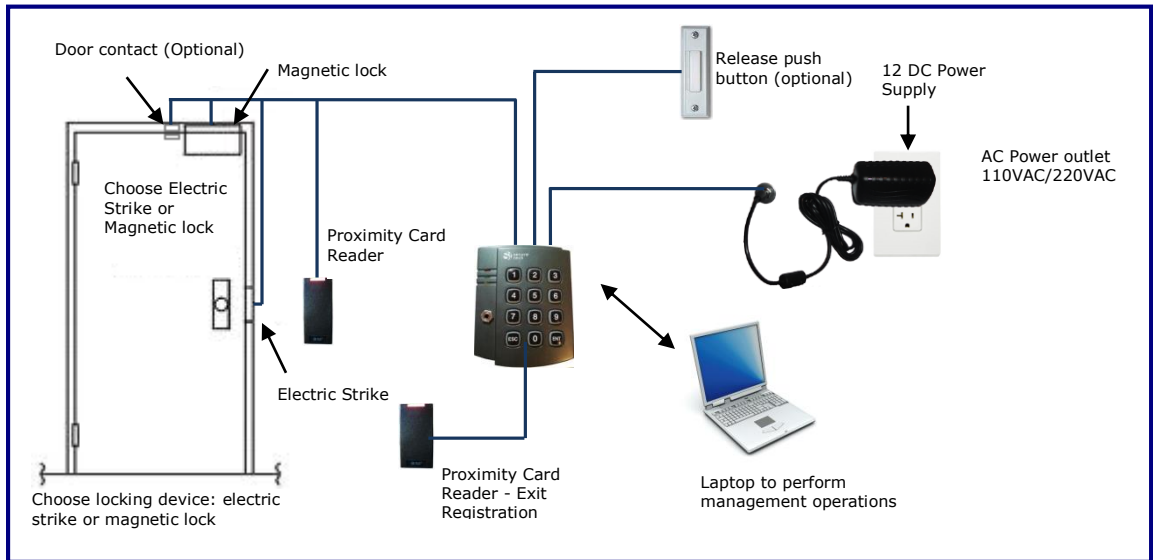
Access Control One (1) Door



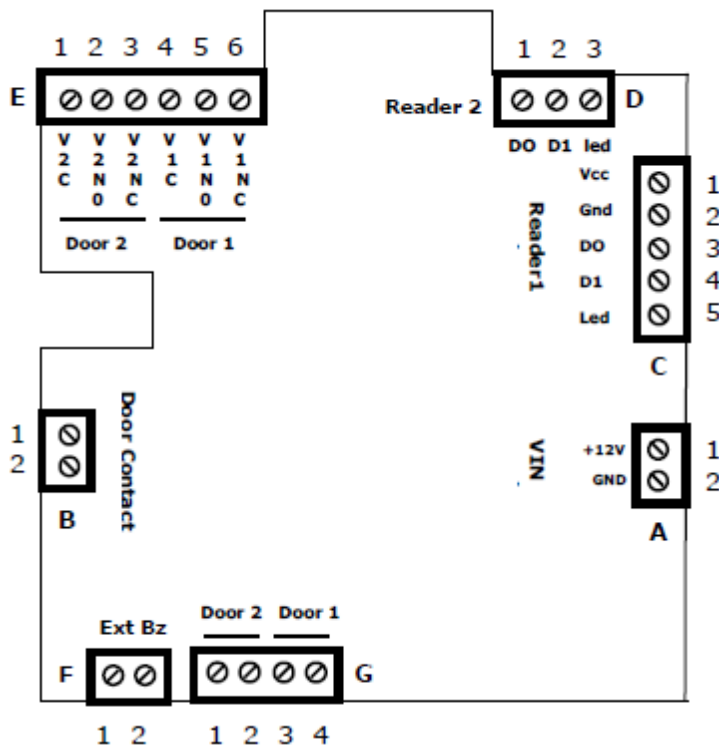
Access Control Two (2) Doors



Access Control one (1) Door + Exit Registration



Controller Module: Board connectors description and recommended cables



A: Power

- 1- 12 VDC
- 2- Ground

B: Door Contact (optional)

- 1- Input
- 2- GND
- * Normally open door contact required

C: Proximity Reader 1

- 1- Vcc
- 2- Gnd
- 3- Data0
- 4- Data1
- 5- Led

D: Proximity Reader 2

- 1- Data0
- 2- Data1
- 3- Led

E: Relays Output - Locking Devices Control

- 1- V2 input (C) - Common contact 2
- 2- V2 Out (N.O) - Normally open contact 2
- 3- V2 Out (N.C) - Normally close contact 2
- 4- V1 input (C) - Common contact 1
- 5- V2 Out (N.O) - Normally open contact 1
- 6- V2 Out (N.C) - Normally close contact 1

F: External Buzzer(optional)

- 1- Buzzer (+Gnd)
- 2- Buzzer (+V)

G: Door Release-Request to exit(Rex) - Required for magnet locks

- 1- Gnd - Door 2
- 2- Input - Door 2
- 3- Gnd - Door 1
- 4- Input - Door 1

* Normally open push button or normally open exit motion detector required

Recommended Cables:

Proximity Reader:

- 6 Conductors x 22 AWG - Shielded (5 cables used). Maximum distance: 300 feet (100 meters)

Electric Strike or Magnetic Lock:

- **Option 1:** 2 Conductors x 18 AWG
- **Option 2:** Quad cable: 4 conductors x 22 AWG

Power supply:

- **Option 1:** 2 Conductors x 18 AWG
- **Option 2:** Quad cable: 4 Conductors x 22 AWG

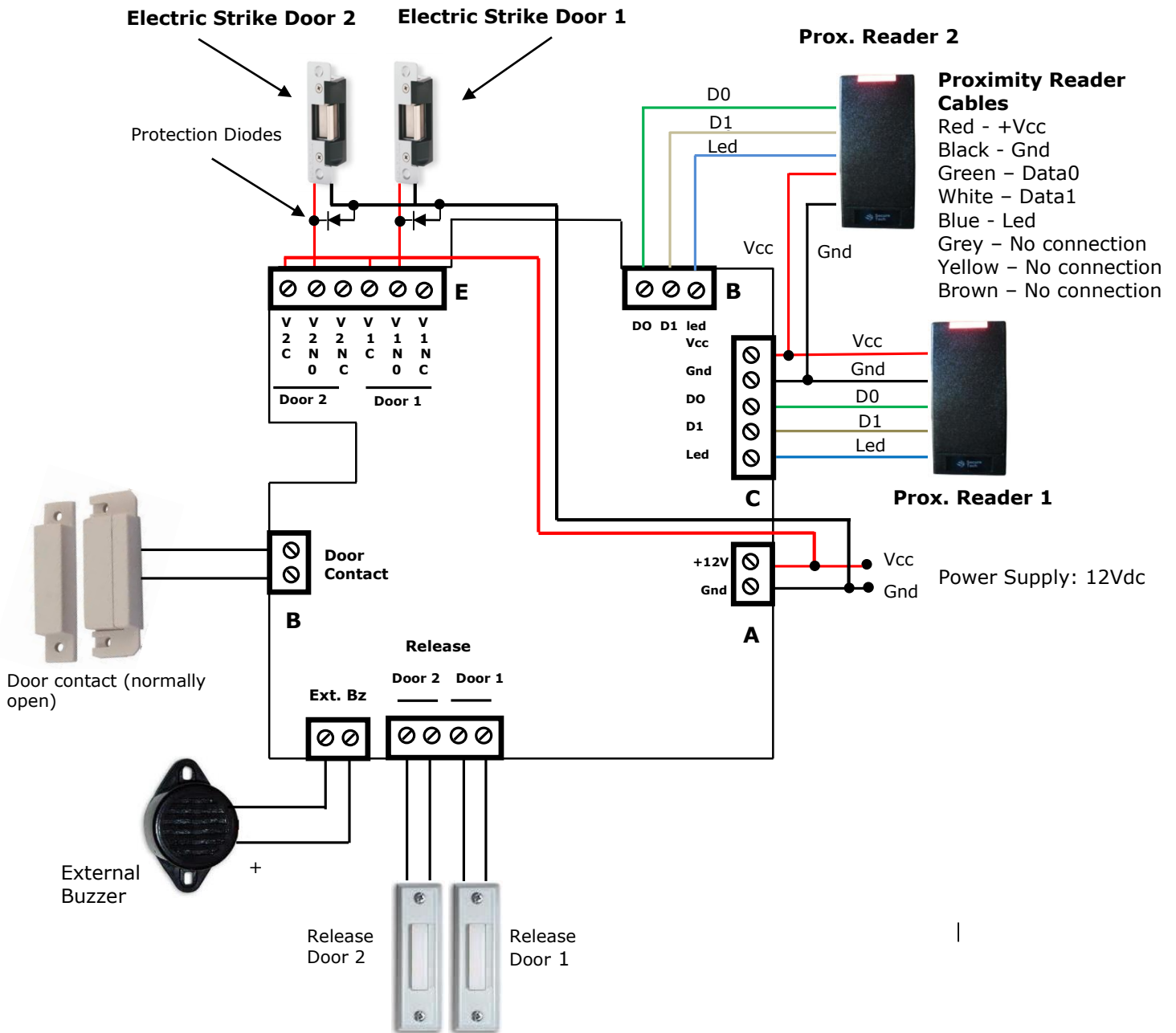
Door Contact:

- 2 Conductors x 22 AWG

Door Release (REX):

- 2 Conductors x 22 AWG

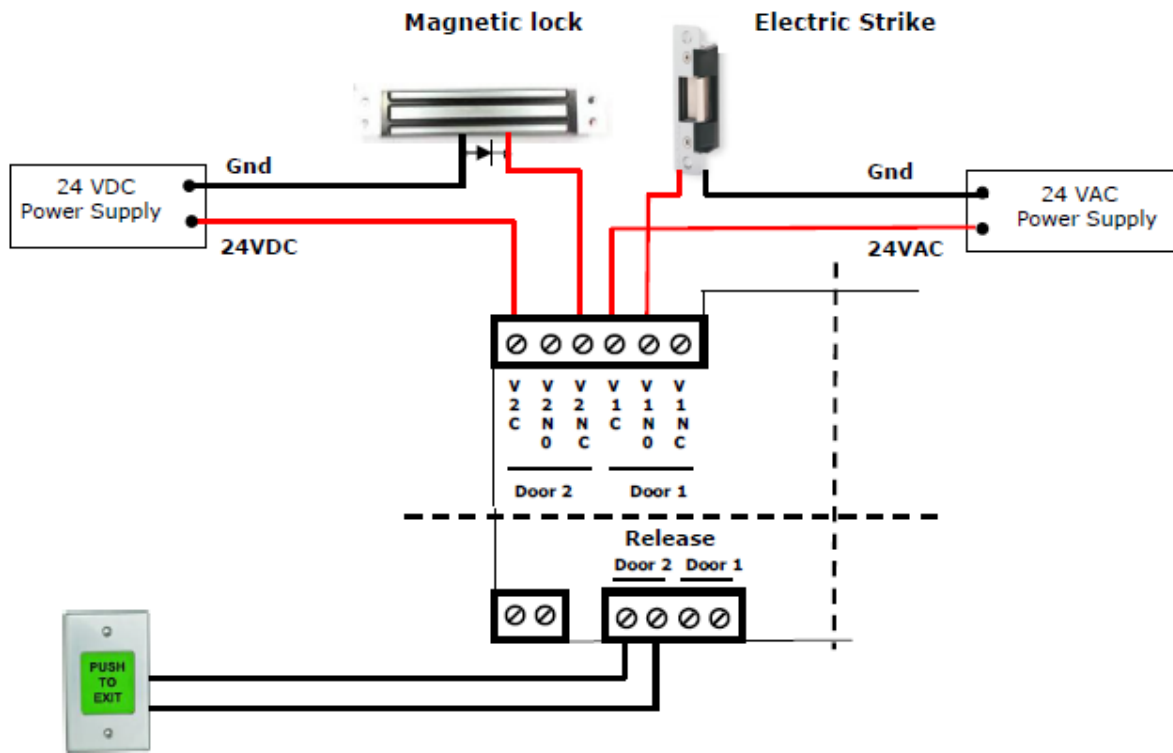
Typical connection with 12VDC Electric Strikes



Locking Devices - Connection Options

The system supports locking devices with different operating voltages and operative functioning((fail-locked, fail open). Two independent voltages inputs V1C input and V2C can be used to power different locking devices on door1 and door2 . The system also provides a normal open contact(N.O) and normal close contact(N.C) outputs allowing the connection of a variety of locking devices.

Output relays maximum ratings:**30 volts(ac/dc),2A**



Release Door 2(required for magnetic locks)
 Push button or exit motion detector(request to exit for magnetic lock)

Installation Instructions:

- 1) Make the necessary holes in the wall for: Door controller, proximity reader, prepare the door frame to install the locking device
- 2) Run cables for proximity reader, electric lock, DC power supply and door contact(optional)
- 3) Install the proximity reader, Electric Lock or Magnet Lock
- 4) Unscrew the four screws on the back of the door controller
- 5) Connect and screw the cables(electric lock, proximity reader, DC power, door contact, door release) to the controller connectors
- 6) Push the controller aligning the clicking supports females(door controller) and the clicking supports males (wall supporting plate)
- 7) Plug the power supply to the AC power outlet(110AC or 220 AC)

Software Download:

Download ST2 Management software at www.setech.ca

Specific software versions for:

- Companies and institutions
- Commercial buildings
- Residential buildings
- Households