



AN1002 - How to install a Switch2 system

What is a Switch2 system?

A Switch2 system is the next step up in security and versatility from the compact range of products. Still a stand-alone system but, unlike the compact range, the Switch2 control unit is separate from the reader and contains all of the control electronics. A Switch2 control unit can be used with any of the readers in the Paxton range including PROXIMITY readers, CARDLOCK readers and TOUCHLOCK keypads. The Switch2 control unit also has inputs for a door contact and an exit button and has outputs for an alarm sounder and a lock.

What are the benefits of a Switch2 system?

Switch2 is extremely simple to install and configure. It operates stand-alone, so each system is installed and programmed independently. Each controller can be configured to use the same site code so that all doors operate from a single set of user tokens. Switch2 is ideal for sites that require simple access control and where the recording of events is not required.

The Switch2 control unit provides high security due to the controller being installed on the secure side of the door. The controller can also be fitted with a door contact to monitor the position of the door in case it is forced, an alarm output is provided to give an audible warning. This makes Switch2 ideal for both internal and external doors. The controller is small enough to be fitted within a power supply enclosure resulting in a simple tidy installation.

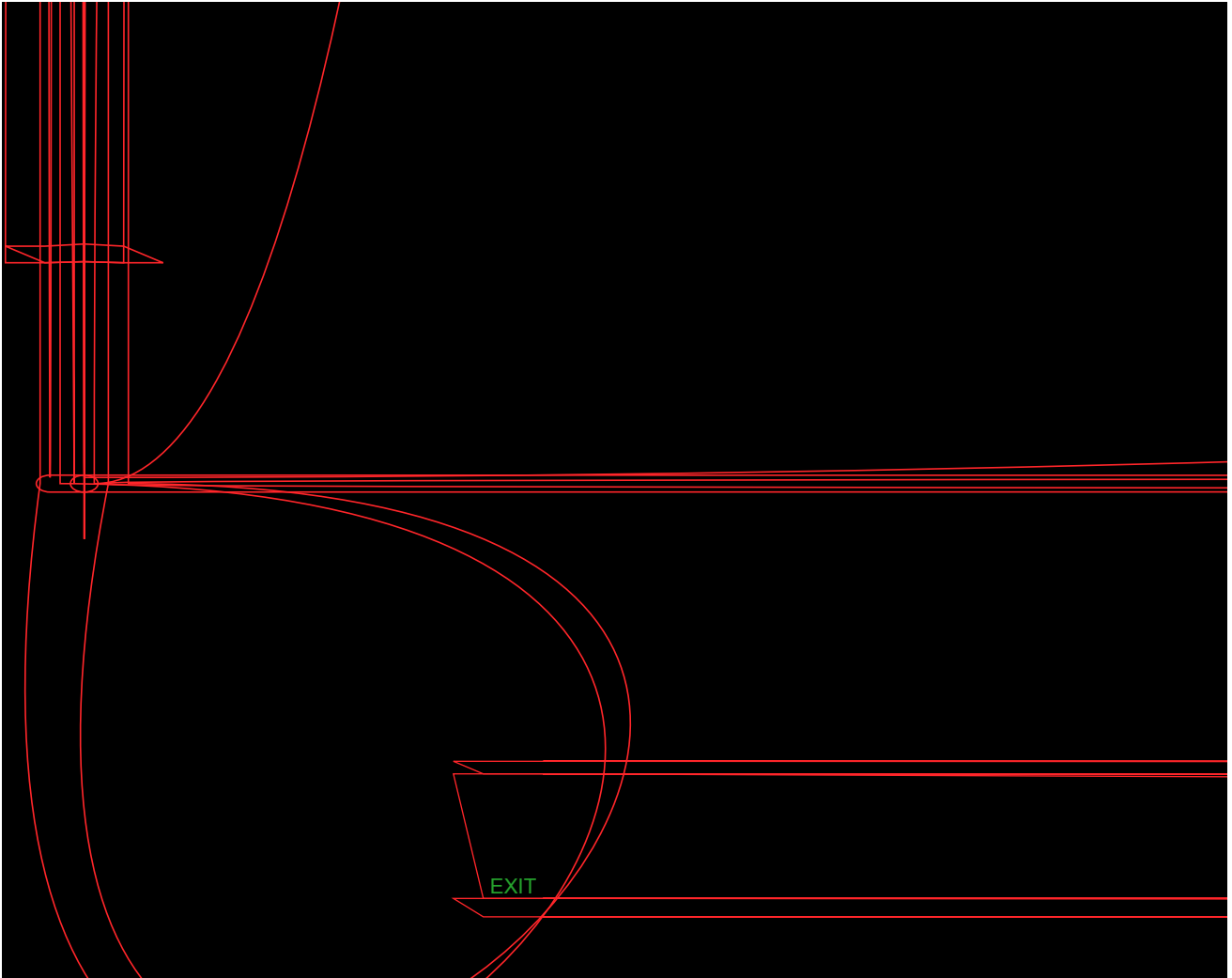
The lock output on the Switch2 is a changeover relay enabling simple connection of either fail open or fail closed electric locks.

The cards for PROXIMITY and CARDLOCK Switch2 systems are identical to those used with the equivalent compact systems, so the same card packs can be enrolled on both, enabling the cheaper compact units to be installed on doors that are low security while Switch2 controllers are used on doors that need to be high security.

Installation

The installation of the Switch2 controller is made easy by the colour-coded wiring label fixed to the front of the controller. This clearly identifies where each part of the system is to be connected. The diagram shows the general arrangement for wiring a Switch2 controller.

Switch2



Power connection - the Switch2 control unit requires a 12V dc power supply connected to the "12V" and "0V" terminals. A simple 12V power supply may be used or for higher security installations, a power supply with battery back up can be used. The chosen supply must be capable of providing enough current to cope with the reader, the alarm sounder (if fitted) and whatever lock is connected to the system, some headroom should also be allowed for especially if battery back-up is fitted as additional power will be required for charging the batteries.

Reader connection - Any of the Paxton Access range of readers and keypads can be connected to a Switch2, all readers are colour coded in the same way to correspond to the labelled inputs on the control unit. When old style 5v readers are connected to Switch2 control units with yellow wiring labels the jumper setting on the PCB must be changed from the 12V setting to the 5V setting prior to powering up the unit.

Installing two readers - A Switch2 controller can be fitted with two readers or keypads enabling a read-in read-out setup. Both readers\keypads are connected to the same terminals. If Card and PIN operations are required then this can be achieved by using any of the KP series readers.

Switch2

Exit button - An exit button is connected between the "Exit" terminal and the "Black" terminal (0V) on the reader connection. The exit terminals can be used for a number of different applications, connected to a simple "push to make" button they will release the door lock for the door open time. Alternatively, a time clock with a voltage free changeover contact (e.g. central heating timer) can be used to hold a door unlocked during the programmed time periods. On CARDLOCK and PROXIMITY systems a time clock can be used to change the validity of groups of users at different times of the day. To do this the "Time zones" card is used at the reader to change the function of the exit terminals. The two states of the time clock can then be set using the coloured zone cards to define which coloured cards are allowed access at the door during the two time clock modes. If none of these functions are required the exit wires can also be left with nothing connected.

Door contact - A door contact is connected between the "Contact" terminal and the "Black" terminal (0v) on the reader connection. A door contact should be of the type that gives a closed contact when the door is shut. If this is not required, the door contact can be left with nothing connected.

Alarm / Door Bell sounder - An alarm sounder may be connected to the "Bell" and "12V" terminals. Only sounders up to 1A at 12vDC should be used. In the event of an alarm the "Bell" terminal is connected to 0v, sounding the alarm. When door contacts are not connected, the alarm output can be used as a door bell. When using a TOUCHLOCK keypad the alarm will sound when the doorbell button on the keypad is pressed.

Switch2