How to install a compact system

What is a compact system?

A compact system is the simplest access control system available from Paxton and comprises a power supply, a reader and a lock. The reader contains all of the electronics for the system and sits between the power supply and the lock. This allows the lock to release only when the correct token is presented (PROXIMITY), card is swiped (CARDLOCK) or code is entered (TOUCHLOCK).

What are the benefits of a compact system?

The main benefit of a compact system is the simplicity of the installation. Only three pairs of wires are required on a CARDLOCK or PROXIMITY system. One pair for the power, one for the lock and one for an exit button. The TOUCHLOCK compact has an additional pair of wires for a door bell connection.

Whilst being extremely easy to install compact systems still offer a wide range of programming options. You can bar lost or stolen cards, adjust the lock release time and select fail open or fail closed locks.

Additional functions for CARDLOCK and PROXIMITY systems can be programmed using a function card pack, which can be purchased separately. TOUCHLOCK functions are accessed via the keypad using a programming menu.

Having all of the electronics contained within the reader does have the disadvantage of reduced security as an intruder can gain direct access to the control system. Compact readers should therefore only be fitted on internal doors. If higher security access control is required the Switch2 controller should be considered, as all of the control electronics are located within the secured building.

Installation

Cable - Each pair is 3 metres long so that it may be routed directly to its required location without the need for extending.

Power connection - Compact readers require a 12V DC power supply unit. A power supply with battery back up should be considered if the local power supply is unreliable. If the unit is fitted on a fire exit route, fail open locks with an additional break glass in circuit must be fitted.

Lock wires - The lock wires from a compact reader provide 12V DC to the electric lock and are limited to 1A. If a more powerful lock is needed, the Switch2 controller should be considered as an alternative. If Read In and Out are required at a door, a Switch2 should be considered as the cross connection of more than one compact unit is not advised.

Exit wires - The exit wires can be used for a number of different applications. Connected to a simple 'push to make' button it 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 link the exit pair together and hold the 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 once to set the function of the exit wires. You can then switch between two sets of colours that are allowed access at the door during the two time clock modes. No exit button is possible with this configuration.

Bell wires - A 12V DC bell can be attached to the bell wires of the TOUCHLOCK compact. This output can be used for a doorbell linked to the bell button on the keypad. Alternatively, a duress entry code may be set up that will allow entry and also alert security staff with a local alarm.

Programming - Once the wiring has been completed, the system can be switched on ready for programming as per the instructions supplied with the product.

See also: AN1003 - How to program a TOUCHLOCK compact < http://paxton.info/20 >
         AN1005 - How to program a standalone PROXIMITY system < http://paxton.info/3 >
         AN1008 - How to program a standalone CARDLOCK system < http://paxton.info/11 >

Screw connector option
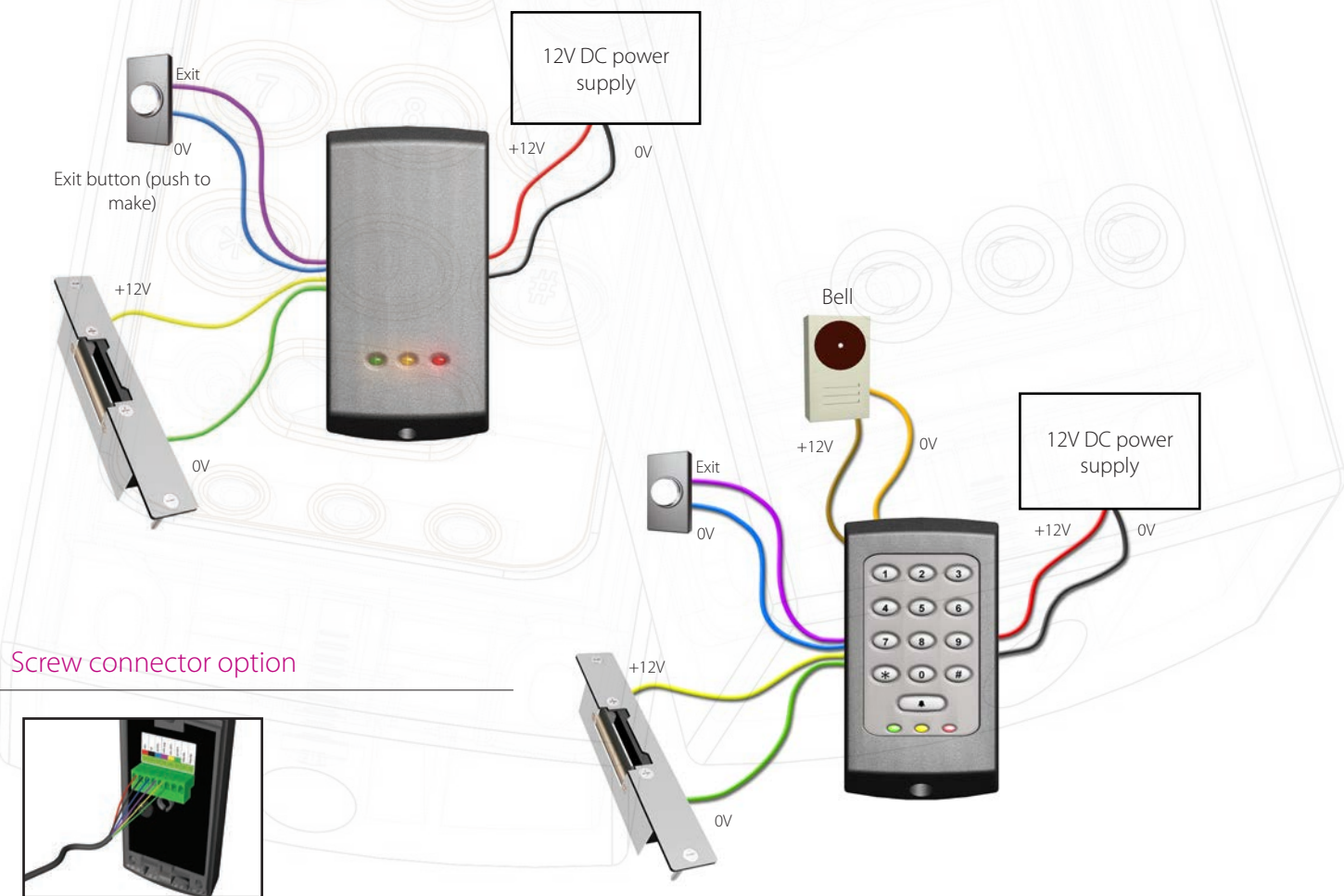
Screw connection versions of the 75 series may be mounted in conjunction with an electrical backbox. This allows the pre-wiring of installations where the wiring is in conduit.

If an adaptor plate (310-750) is also fitted, the mountings on the backbox can also be used.