



AN1028 - How to wire a door left open alarm on a Switch2

Using the Door forced alarm as a Door left open alarm

Switch2 has a door forced alarm as standard. We can also create a door left open alarm by combining the lock relay with this door forced signal; hence these two security functions use the same alarm.

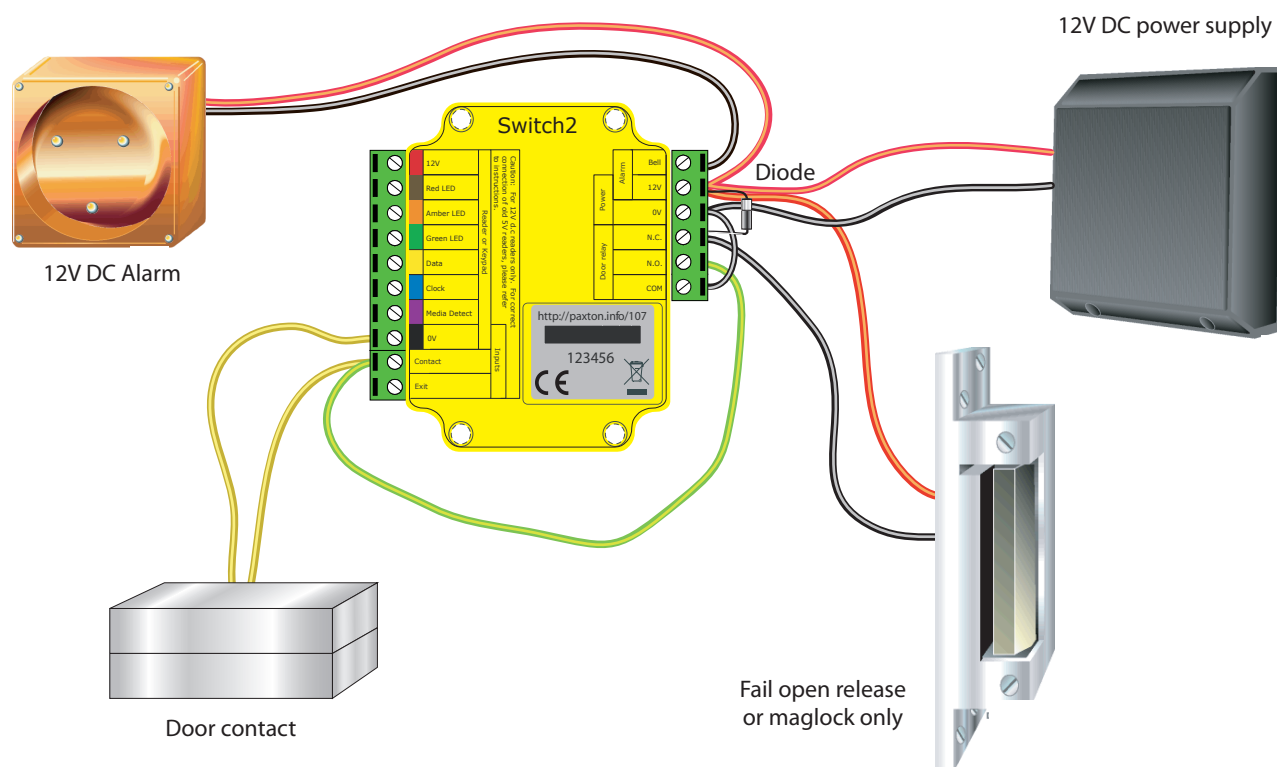
Installation

Start by fitting a door contact and an alarm as usual. The contact connects into the "Black" (0V) and "Contact" terminals and the alarm connects into the "12V" and "Bell" alarm terminals.

A second connection needs to be made between the "Contact" terminal and the "N.O." terminal.

The lock and diode should be connected across the "N.C." terminal and the "12V" terminal. The diode is wired with the silver end to 12V.

A loop is installed between "0V" and "COM".



Switch2

Door Forced alarm

The Door Forced alarm works in exactly the same way as for a normal Switch2 installation. If the door contact opens and no valid request for entry has been received, the door forced alarm will be activated. The alarm will sound for 30 seconds.

Door Left Open alarm

When a valid request to open the door is received the door relay changes state to release the lock. Using the wiring configuration described above, the relay will now hold the 'Contact' input at 0V and Switch2 will assume that the door has remained closed even if it has been opened by the user.

If the door is closed again before the door open time has elapsed the actual door contact closes again maintaining the 'Contact' input at 0V.

However, if the door is still open when the door open time elapses the door relay returns to its normal position and the still open door contact is revealed. As the Switch2 has completed its opening cycle, this unexpected opening of the door contacts results in a door forced alarm or in this case, a door left open alarm. The alarm will sound for 30 seconds.

Switch2