Introduction

The AX50 system can handle up to 500 unique card numbers and / or PINs.

The door may be opened by presenting a valid card or by entering a valid PIN number.

Cards and PINs can be added and deleted individually or be programmed in a consecutive block in one go using the reader keypad. The program card included is required to avoid unauthorised system changes.

Some users may have cards and some users may use PIN only. Please note card with PIN is not supported.

Default Settings

PIN Length:	4 digits
Door Open Time:	5 seconds
Request to Exit Time:	5 seconds

New System Quick Start

The door will be unlocked until at least one card or PIN is stored in the controller.

Present the program card once at the reader. The flashing blue and green LED's will alternate.

System automatically enters "Add" mode.

Present each card or tag to the reader, alternatively enter the 6 digit card / tag number or enter a 4 digit PIN using the keypad followed by #.

Present the program card to exit the program mode or wait for the system to time out.

Program Mode

To access program mode, present the program card at the reader once. The blue and green flashing LEDs will alternate.

To exit program mode, present the program card once more at the reader or wait for the system to time-out.

Please note: using the program card automatically sets the system in "Add" mode—unless an alternative command is entered eg 0 # Delete Cards.

System Commands

Present the program card to the reader - the system is now in "Add" mode

Type the following commands on the keypad to change the program mode:

0 #	delete mode
1 #	add mode
2 #	set door open time—1 to 255 seconds
3 #	block load
4 #	set PIN length—3 to 5 digits

Delete Mode 0

Present the program card to the reader.

Type 0 # to change to Delete Mode.

The flashing blue and red LED's will alternate.

Present the card or enter the 6 digit card number or the 4 digit PIN of the Card/PIN to be deleted followed by # after the card number.

Present the program card to exit or wait for the system to time-out.
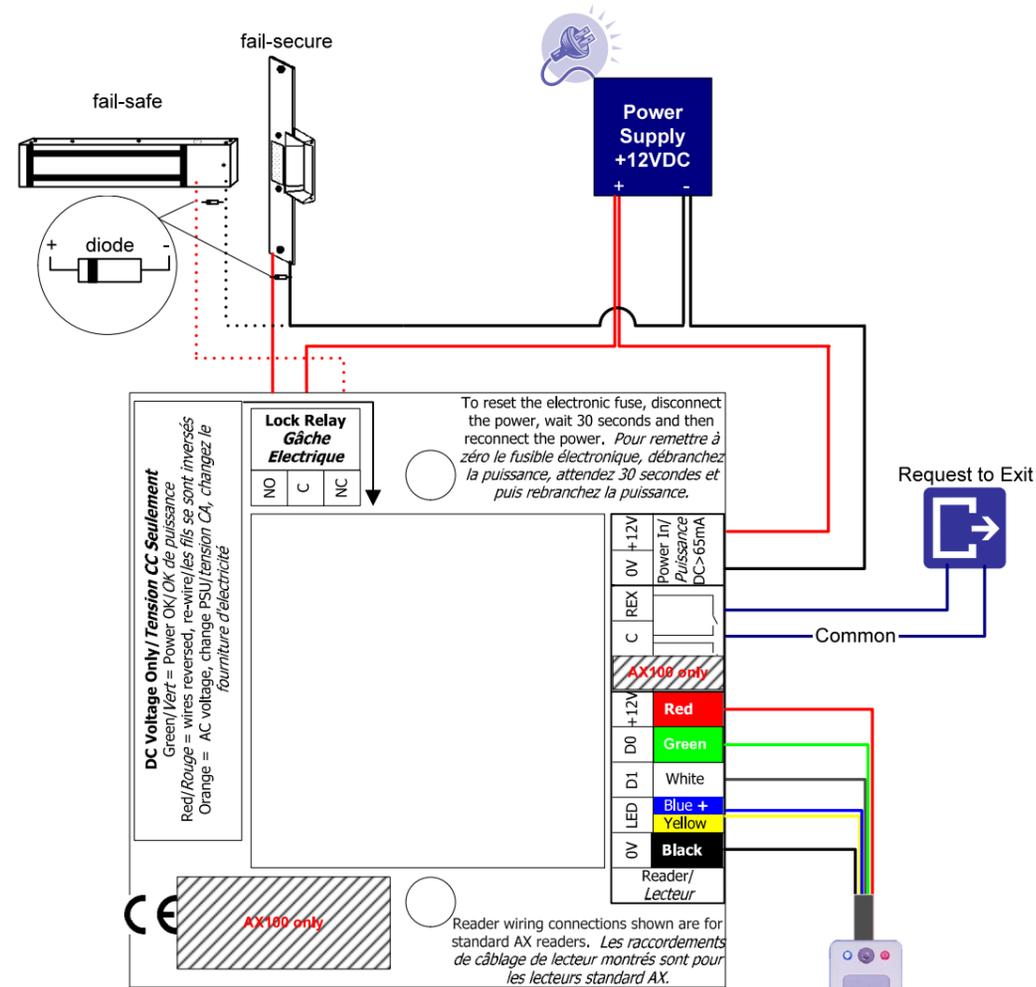
Set Door Open Time 2

Present the program card to the reader

Type 2 # to change to Set Door Open Time Mode

Enter required door open time eg 10 # (seconds)

Present the program card to exit or wait for the system to time-out.

Setting the Door Open Time to 0 will permanently unlock the door after the next valid card is used. To secure the door, change the Door Open Time to 1 - 255 seconds. Setting the door permanently unlocked is particularly useful when commissioning the system and no user cards have been issued yet.

Program Cards

Each program card is unique and "learnt" into the system when it is first used. Multiple program cards can be added by simply entering the "program mode" presenting the additional program cards and exiting "program mode" by either re-presenting the original program card or wait for the system to time-out.

Add Block Load Mode 3

Using Actual Cards
Present the program card to the reader

Present the lowest numbered card in the block
Type 3 # to change to Block Load Mode
Present the highest numbered card in the block

Wait for the system to time-out. The blue and red/green LEDs will continue to flash during block load.

Using Card Numbers via the Keypad
Present the program card to the reader

Type in the lowest numbered card in the block followed by #
Type 3 # to change to Block Load Mode
Type in the highest numbered card in the block followed by #

Wait for the system to time-out. The blue and red/green LEDs will continue to flash during block load.

Block Load will add all the cards (from and including) the lowest and highest numbered cards.

Set PIN Length 4

The PINcode length can be set from 3 to 5 digits.

Present the program card to the reader

Type 4 # to change to Set PIN Length Mode

Enter PIN length eg 5 #

Present the program card to exit or wait for the system to time-out.

Erasing the System

Program Card
Use the program card three times within 5 seconds—this will erase all the data including program cards and open the door automatically until at least one card is programmed

Hardware Reset
If the program card(s) are lost, a full reset can be done by shorting the two outer pins of the three pin strip connector on the back of the PCB during start-up. Remove the link and power–up again.

Cable Requirements

	Cable included with Kit	Cable Length	Type of Cable	Maximum Cable Length
Controller to Proximity Reader	Yes	2 metres	6 core 24AWG	50 metres
Controller to Electric Strike			2 core unscreened 24AWG 0.22mm^2	50 metres
Controller to REX			2 core unscreened 24AWG 0.22mm^2	50 metres
Power Supply			2 core unscreened 24AWG 0.22mm^2	50 metres

AX50 Overview

6 core 24AWG 0.22m²

2 core 24AWG 0.22m²

Maximum length: 50 metres (165 ft)

request to exit pushbutton
part no. 999-252

proximity & PIN reader

AX50 controller

proximity cards

power supply
part no. 105-316

electric strike or magnetic lock
part no. 310-208 or 308-121

Technical Support

Axxess Identification Ltd are able to provide a first class technical support service. In the event of any technical problems please contact technical support for assistance:

AX50 Installation & User Guide

Hardware Installation

1. Install the controller on the secure side. The controller is supplied in a standard single gang surface mount electrical back-box. The bottom sides can be removed for use with standard plastic conduit (25 x 16mm). Alternatively the AX50 can be fitted into a flush-mount back box with a minimum depth of 25mm.

2. Install the proximity reader at an appropriate location close to the door. The reader is supplied as standard with 2 metres of 6 core cable, if required, you can extend the length to a maximum of 50 metres.

3. Install the REX switch on the secure side at a convenient height and location. A standard two core cable is required, connected to the normally open and common contact on the REX switch and to A and B on the controller. If the door unlocks only after the REX is released again, the contact is wired to normally closed and not to normally open. If wired correctly, the door should open immediately when the REX is pressed.

4. Install the power supply in accordance with current regulations. Connect a two core cable between the power supply 12 volt DC output and power in 12 volt of the controller. It is recommended that a battery backup is used with the power supply in case of mains failure.

5. Install the electric lock – a two core cable is required one core from the lock to the lock relay connection of the controller and one core from the power supply. The relay acts as a switch between the power supply and the lock, depending on the type of lock either NC (normally closed) or NO (normally open) is used together with C (common).

Other Hardware Required

Power Supply
The AX50 controller requires a 12 volt DC power supply. A single power supply can be used for the lock, proximity reader and controller. Ensure that the power supply is capable of supporting all the units simultaneously. Standard power supplies are normally rated at 800mA to 1.2Ah. These are sufficient to drive a typical magnet lock at 500mA, the controller 55mA and a proximity reader 65mA.

Lock
Fail-safe and fail-secure electric locks can be used. Ensure a diode (1N4001S) is fitted at the lock to eliminate any electrical spikes. The diode is connected between the negative (-) and the positive (+) at the lock with the white marking on the diode facing towards the positive (+) connection.

Request to Exit (REX)
Any industry standard request to exit switch can be used with the AX50 kit.

Breakglass
Check local fire regulations. A breakglass cuts the power to the fail-safe lock to release the door.

Cable
Please see table in Cable Requirements section.