Software Introduction

The AX100 software is where all the data information is entered.

The software consists of the following:

- Cardholder data
- Access Points
- System Settings
- Format & Statistics
- Security
- Reports
- Utilities

After the initial programming, the controller can be disconnected from the PC and the controller will perform all the access control functions autonomously. The controller can open and close doors without computer intervention.

The PC is where all the system configuration and data management is stored. The optional data transfer unit (DTU) enables the data that has been entered at the PC to be downloaded to the controller without the need for a physical PC connection.

Software Installation
Put the AX100 mini CD into the CD drive and close the door. The software should auto run however if it does not, click on the **Start** button and select **Run**. Type in ***x*:\setup.exe** on the command line (replace ***x*** with the letter of your CD-ROM drive). Click **Next >** to continue with the AX100 Setup Wizard and follow the on-screen instructions.

1. Connect the PC to the controller (make sure that the controller is powered up).
2. The auto-detect hardware device wizard will start within 10 seconds.
3. Follow the onscreen prompts to add the controller in the software.
4. Click on the add wizard in the cardholder screen and add new cards as required.
5. Upon exiting the cardholder screen any changes will automatically be downloaded to the controller.

Test Wizard
Go to the Test Wizard which can be found on the Main Screen under Tools. Follow the on-screen instructions.

Description	Number of Cards per Controller / Reader	PC Software Required	Cable Length	Number of Controllers / Readers
Program Card	50	no	not required	1,000
Direct Connect	4,000	yes	15 metres	1 at any one time (up to 1,000)
DTU	4,000	yes	not applicable	255 per DTU

Computer Requirements

Minimum software and hardware requirements refer to packaging.

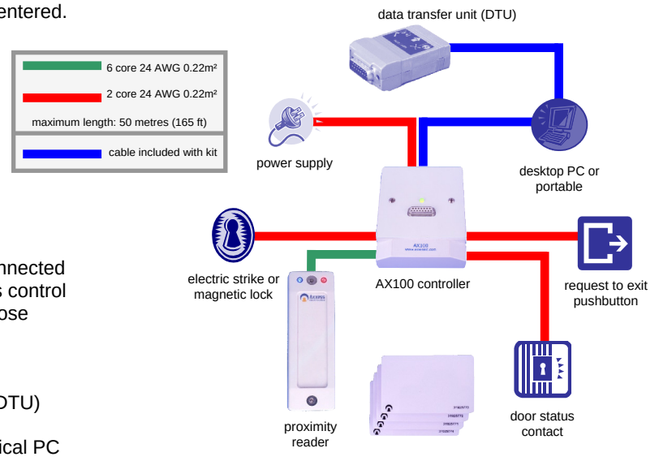
The software can operate in Classic mode (Windows flat screens) or in Graphics mode. Graphics mode can only be selected with a video resolution of 1024 x 768 minimum or higher and more than 128 MB of RAM.

<u>Technical Note</u>

The faster the PC, the better the application will respond. PC's not meeting the minimum PC specification are excluded from technical support and the software will not install.

Running other software applications simultaneously may leave insufficient memory for the AX software.

AX100 Overview



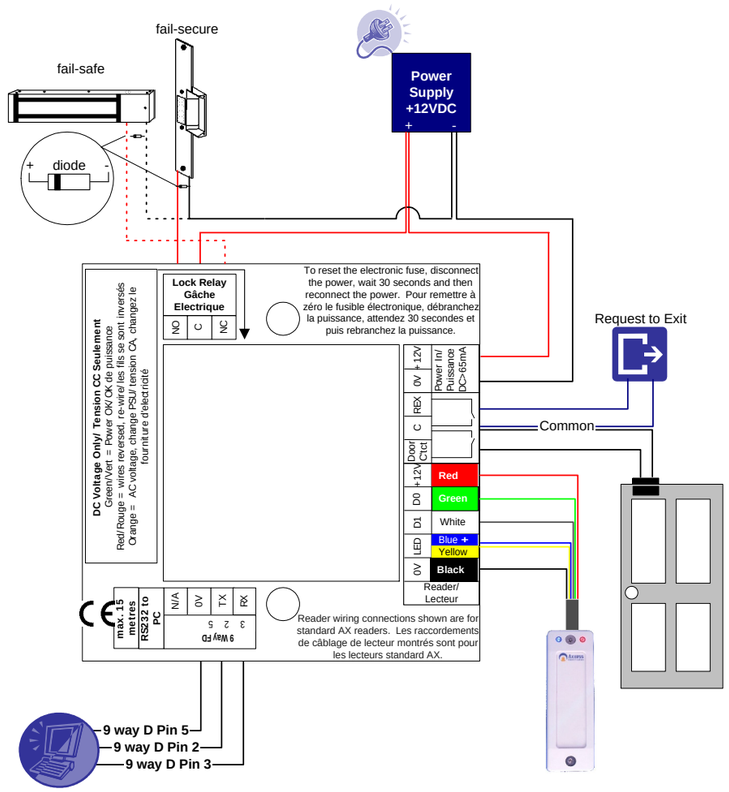
Hardware Installation

1. Install the controller on the secure side. The communication cable supplied (PC to controller) is 2 metres long, you can alternatively hardwire a connection of up to 15 metres. 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 AX100 can be fitted into a flush-mount back box with a minimum depth of 25mm. When using a Data Transfer Unit, consideration needs to be given as to the location of the controller – it should be installed on the secure side in an accessible place – ie not in the ceiling void.
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 the REX and common screw terminals on the controller. If the door is unlocked (with the cards programmed), push the REX switch and hold for approximately 6 seconds. If the door then locks, the REX has been incorrectly wired to normally closed on the exit switch. When wired correctly, the door should open immediately the REX is pressed and will re-lock after 5 seconds.
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).

Hardware Quick Test

Prior to proceeding with the following quick test, ensure the communication cable from the controller to the PC is <u>not</u> connected.

The program card allows the system to be setup without the need for a PC. Cards can be deleted by clearing the controller. Individual deletion of cards can be done with the PC software.



Wiring Details

	Cable included with Kit	Cable Length	Type of Cable	Maximum Cable Length
PC to Controller	Yes	9 to 15 way 2 metres	4 core screened	15 metres
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
Controller to Door Contact			2 core unscreened 24AWG 0.22mm^2	50 metres
Power Supply			2 core unscreened >24AWG 0.22mm^2	50 metres

Program Card Operation

1. Power up the controller with the reader connected.
2. LED on the reader flashes green ON/OFF
3. Present the program card to the reader
4. LED's on the reader alternate (Red/Green/Blue)
5. Present user card(s) to validate
6. Present the program card to quit or wait for time out.

To clear the memory: Present the program card 3 times.
PC Programming disables the program card.
The door will be unlocked if there are no cards programmed.

Other Hardware Required

Power Supply
The AX100 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 AX100 kit.

Door Contact
Industry standard door contacts (normally closed) can be used with the AX100 kit, if door monitoring is required.

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

Cable
Please see table in Wiring Details section.

Lock Wiring

Magnet Lock (Fail-Safe)	Controller	Power Supply
Lock -		Ground
	Common	+12VDC
Lock +	Normally Closed	

Fail-Safe (eg. magnet lock)
A breakglass may be required to comply with fire regulations.

Door Strike (Fail-Secure)	Controller	Power Supply
Lock -		Ground
	Common	+12VDC
Lock +	Normally Open	

Turnstile (Voltage Free)	Controller
To turnstile	Normally Open
To turnstile	Common

Introduction

The AX100 Quick Guide is intended to provide the installer and user with enough guidance to get the AX100 software installed and operating in its most basic configuration.

This Quick Guide will show you how to:

- Set-up the system hardware
- Install the software
- Connect the controller to a reader
- Configure the PC and controller to start communicating

For more detailed software features please refer to the Installation & User Guide located on the mini CD.

Please note if the AX100 controller has been purchased separately and AX plug and play readers are not being used, then refer to the reader connection diagram located in the Installation & User Guide on the mini CD.

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.

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AX100 05/04

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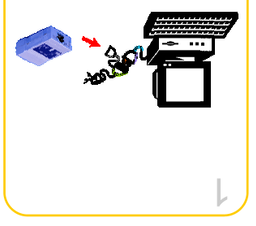
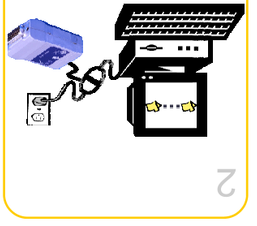
AX100 & DTU Quick Guide

Axxess Identification

DTU Step by Step





DTU Operation

A. Start the AX100 software on the PC.
B. Connect the DTU to the serial port on the PC.
C. The auto detect hardware device wizard will start within 10 seconds.
D. Follow the on-screen prompts to add the DTU into the software.
E. Remove the DTU from the PC and plug into a controller.
F. Wait 10 seconds
G. Remove the DTU from the controller and plug it back into the PC.
H. The auto detect hardware device wizard will start within 10 seconds.
I. Follow the on-screen prompts to add the controller.
J. Click on the cardholder button and add new cards as required.
K. Upon exiting the cardholder screen, the new cards will automatically be downloaded to the DTU.
L. Click OK and wait for the on-screen message for the download to be completed.
M. Remove the DTU from the PC and plug it into the controller.
N. When the cards have been transferred from the DTU to the controller, the LED on the DTU will turn green.
O. Remove the DTU from the controller and plug it into the PC.

The software will report that the download has been completed successfully.

DTU LED Indicators

- DTU Power OK
- No Communication
- Wait
- Error
- Data download in progress
- Data downloaded to this controller—data to be downloaded to others
- Data downloaded and complete

Setting up a DTU