ACE-ATM Access Controller

General

The CS Technologies ACE-ATM access controller is a simple controller which interfaces to a standard mag-stripe (clock and data) or wiegand reader and provides access whenever any credential is presented at the reader.

The product has been designed specifically for banking applications, and offers a low-cost alternative for the specific requirement of ATM lobby access. Designed for easy installation and with convenient features to make implementation simple with a variety of door hardware including electric strikes and automatic doors this product is ideal for any situation where it is desired to grant access to a large number of mag-stripe or wiegand cards without discriminating between individual cards.

ABA mag-stripe and Wiegand cards

Cards issued by credit institutions, banks, building societies and other bodies are usually encoded in a standard format referred to as ABA. Because financial institutions often have a wide variety of cards accepted in their automatic teller machines (and this variety may change from time to time) there is a need for a card reader which will give access to any card encoded in the ABA format. The CS Technologies ACE-ATM is such a system.

There are also some applications where it is desired to grant access on a wiegand pulse, where validation of users has been carried out in a separate system. Again the ACE-ATM is the ideal solution.

Easy Installation and Operation

The reader connects to a controller which is usually located within the secure area above the ceiling. The controller has connections for the reader, an exit pushbutton and has two 'normally open' relay outputs. Whenever a credential is read at the reader or the exit pushbutton is pressed, both relay outputs operate for 5 seconds. The relay outputs can be connected to door strikes or other devices for access control. The controller is powered from a 12VDC supply, and this supply can be the same one powering the electric strikes. This makes installation very easy and inexpensive, since extra power supplies for the controller are not required.

Ready to go

The system is pre-programmed to accept any mag-stripe or wiegand card. Once configured and connected it will work to provide an access control system for an ATM lobby or similar situation, without any programming required.

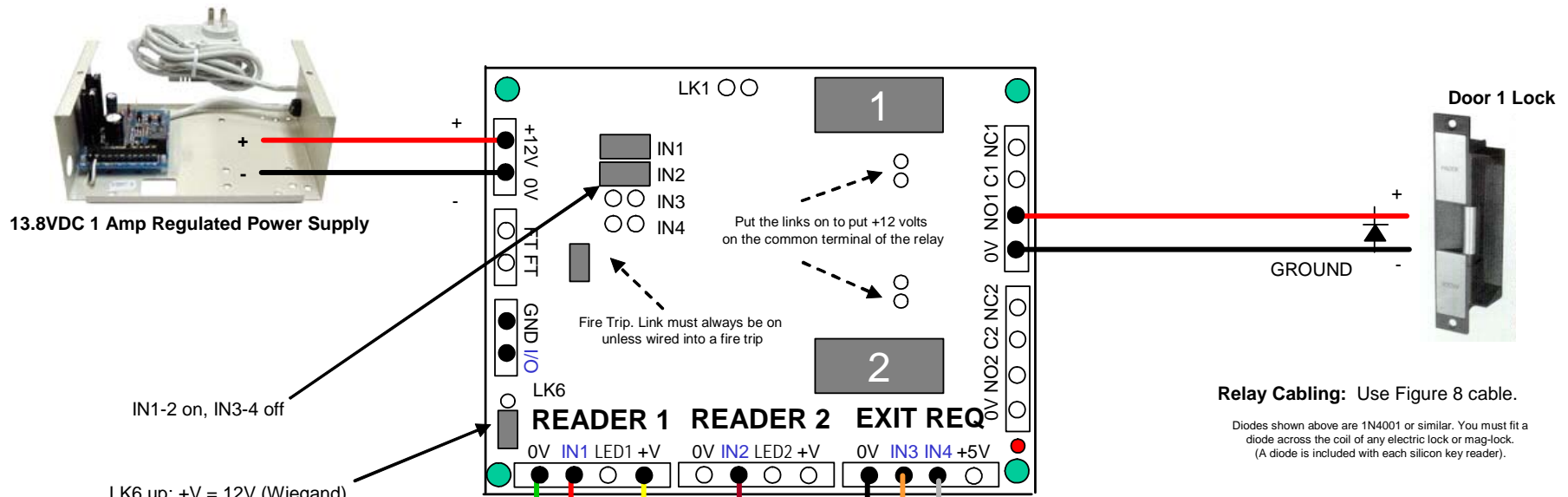The system is 100% Australian designed and made and available at very reasonable cost.

For enquiries please contact CS Technologies at sales@cstech.biz, or telephone 02 9809 0588.

Specifications

Power supply:	12VDC
Current Consumption:	150mA maximum (not including door strikes)
Temperature range:	0°C to 70°C
Humidity range:	0 to 95% relative noncondensing
Dimensions:	Box: 86x66x30mm
	Board: 80x60x28mm
Shipping weight:	300g
Housing:	High impact ABS plastic box with bulkhead mounting lugs
Reader interface:	One magstripe (clock-and-data)/ wiegand (data 0/data1) interface
Exit requests:	One normally open inputs for triggering both
Relay outputs:	Two 'nomally open' relays rated at 10A/125VAC
Relay trigger time:	Both relays trigger for 5 seconds
Cabling	Reader to controller – 6 core screened cable - max 50m Door strike to controller – figure-8 cable Exit request to controller – figure-8 cable

ACE ATM 1 Door Kit Wiring Diagram

13.8VDC 1 Amp Regulated Power Supply

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LK1

1

IN1
IN2
IN3
IN4

Put the links on to put +12 volts
on the common terminal of the relay

Fire Trip. Link must always be on
unless wired into a fire trip

IN1-2 on, IN3-4 off

LK6

2

LK6 up: +V = 12V (Wiegand)
LK6 down: +V = 5V (Magstripe)

+12V 0V
FT FT
GND I/O

READER 1   READER 2   EXIT REQ

0V IN1 LED1 +V   0V IN2 LED2 +V   0V IN3 IN4 +5V

NO1 C1 NC1
0V
NO2 C2 NC2
0V

Door 1 Lock

+

GROUND

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Relay Cabling: Use Figure 8 cable.

Diodes shown above are 1N4001 or similar. You must fit a
diode across the coil of any electric lock or mag-lock.
(A diode is included with each silicon key reader).

DOOR 1 READER CONNECTIONS

0V (Ground)

IN1 (Clock)

IN2 (Data)

IN3 (LED)

+V (Power)

Reader Cabling: Use 6 core shielded cable.

Maximum 50 meters.

Note: The green LED will normally be off and will turn green when then the door is released.

PRESS
TO EXIT

Door exit button
(normally open)

Notes:

1. The controller is powered by 12VDC which can also be used to power the electric lock if desired

2. When the controller is powered up it will beep to indicate that power has been applied, and the green LED on the circuit board will flash. No programming in necessary

3. When the output is triggered both relays will change state for 5 seconds and then return to normal.

3. Observer the diode placed across the door strike which minimises back emf on the system. These must be installed for relable operation of the system.

4. The relays can be inverted for fail safe operation. (Requires a programming keypad). Enter
   6 * 1 * 1 to invert relay 1
   6 * 2 * 1 to invert relay 2

5. If LK7 and LK8 are connected it will put 12 volts on the relay common terminal.