AL2730CU - QuickProx Standalone Access Controller for 2,730 ID cards (including Master & Action Card) — User Manual V1.0

AVEA
www.avea.cc

1. INTRODUCTION

The AL2730CU proximity access controller is a cost effective standalone solution for 2,728 users. It is self contained and **no PC is required**. Use the Master and Action cards to program or delete the authorised card number.

For PC users, it builds in with RS232 connection for **uploading thousands** of authorized **ID cards** from Card Keeper software to the controller with **just a "click"** **(Card Keeper can be downloaded from http://www.avea.cc/spec/keeper.zip)**.

With dual output for external controlling, one output from the relay directly with NC and NO connection. The other is a power output for driving electric lock.

A **9 to 12V DC supply** is required to power the reader, which has a current consumption of less than **300mA (600mA for dual reader)**.

There are two modes of operation :

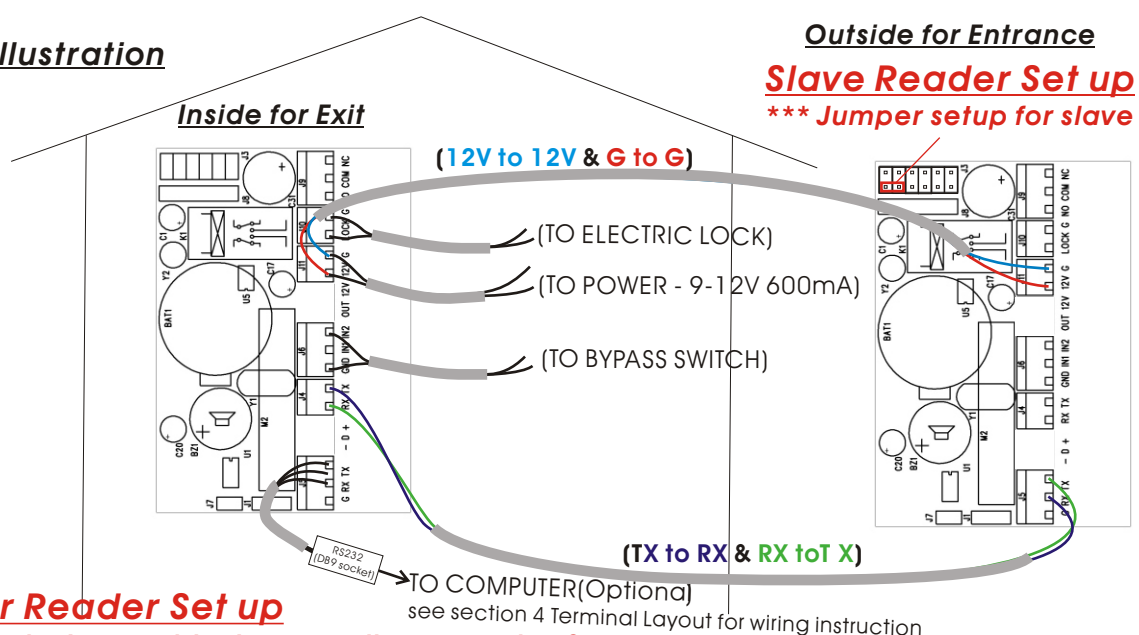**IN Mode - Single reader**
- use AL2730CU for entrance

In this mode, only a single controller is installed outside the premises. An electric strike can be controlled. A bypass switch is installed inside the premises, pressing it will release the strike. While connecting the AL2730CU's RS232 port to the computer and running the Card Keeper software (Windows), user can authorize thousands of AVEA's key cards or fobs repeatedly to the access controller with just a "click". Cardholders' information can be saved, merged or exported to Excel file format.

OUT Mode -Dual reader / high security / prevent tampering
- use an AL2730CU for Entrance (as Slave) + another AL2730CU (as Master) for Exit

In this mode, one AL2730CU is installed outside the premises for entry. Another AL2730CU is installed inside the premises for exit. An electric strike and a bypass switch are connected to the OUT reader (for exit) inside the premises. Pressing the bypass switch or presenting the authorized cards will release the strike.

Wiring Illustration

Outside for Entrance
Slave Reader Set up
*** Jumper setup for slave

Inside for Exit

(**12V to 12V** & **G to G**)

(TO ELECTRIC LOCK)

(TO POWER - 9-12V 600mA)

(TO BYPASS SWITCH)

RS232 (DB9 socket)

(**TX to RX** & **RX toT X**)

TO COMPUTER(Optiona)
see section 4 Terminal Layout for wiring instruction

Master Reader Set up
*** Setup the jumper blocks according to section 3
*** Setup the MASTER & ACTION card from the master reader
*** Use the ACTION CARD to authorize the ID cards

2. QUICK START

2.1 Configuring the jumper blocks according to your needs (see section 3).
2.2 Set up your MASTER and ACTION card according to appendix A - section 1. Remember to remove the CLRM jumper after setting up the MASTER and ACTION card.
2.3 Remove all authorized ID card (see appendix A - section 4).
   Present an authorized card to the AL2730CU, the green LED and relay will turn on as set by TMR0, TMR1 and TMR2 with a beep sound. On the other hand, if an unauthorized card is presented to the AL2730CU, the green LED and the relay will have no action but with a long beep sound.
   An input contact for bypass switch is provided, if it is shorted, the unit will respond the same as an authorized card read.

Goto 2.6 if use the Card Keeper software for granting authorization and keeping card information.

2.4 Use the ACTION card to authorize the ID cards (see appendix A - section 3).
2.5 Record the authorized ID card and the associated personnel. This is for removing the authorized card number in case of card losing.
2.6 Power off the reader
2.7 Connect the RS232 cable (straight through) from the computer to the terminal block of RS232 port. (See Terminal Layout)
2.8 Power on the reader
2.9 Turn on the computer
2.10 Download the "Card Keeper" software from http://www.avea.cc/spec/keeper.zip.
2.11 Unzip the file keeper.zip and run the setup.exe file to install the software.
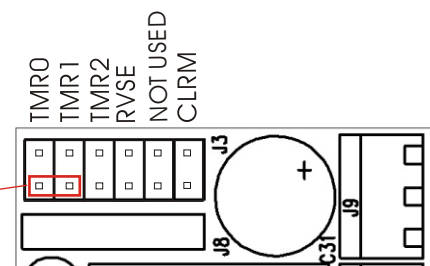
3. JUMPER SETTING
There is a 5-position jumper block for configuring the operation of the unit.

JUMPER POSITION	FUNCTION
TMR2	To select the relay on time with authorization granted.
TMR1	
TMR0	
RVSE	ON: to reverse the operation of the relay.
CLRM	ON: to clear the MASTER and ACTION card memory.

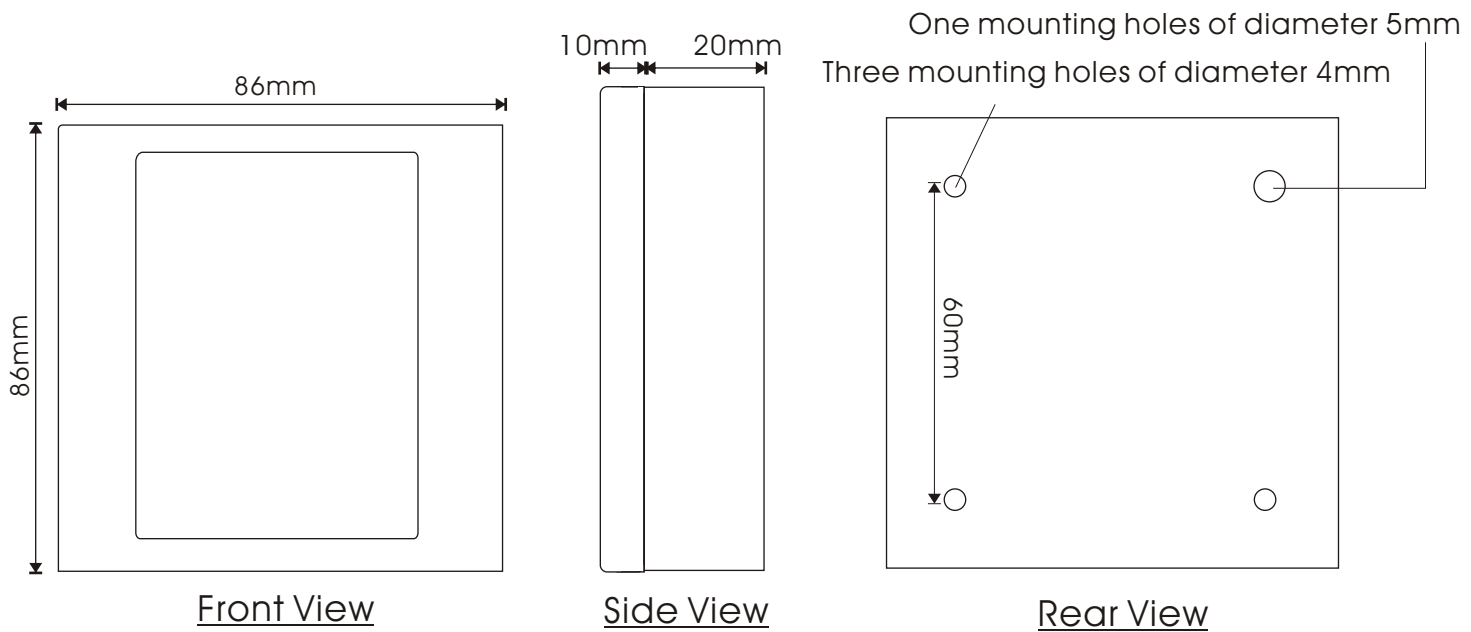| TMR2	TMR1	TMR0	FUNCTION
OFF	OFF	OFF	Relay on for 1 second on authorization granted.
OFF	OFF	ON	Relay on for 2 seconds on authorization granted.
OFF	ON	OFF	Relay on for 5 seconds on authorization granted.
OFF	ON	ON	Relay on for 10 seconds on authorization granted.
ON	OFF	OFF	Relay on for 20 seconds on authorization granted.
ON	OFF	ON	Relay on for 50 seconds on authorization granted.
ON	ON	OFF	Relay on for 100 seconds on authorization granted.
ON	ON	ON	Relay state is toggled on each authorization granted.

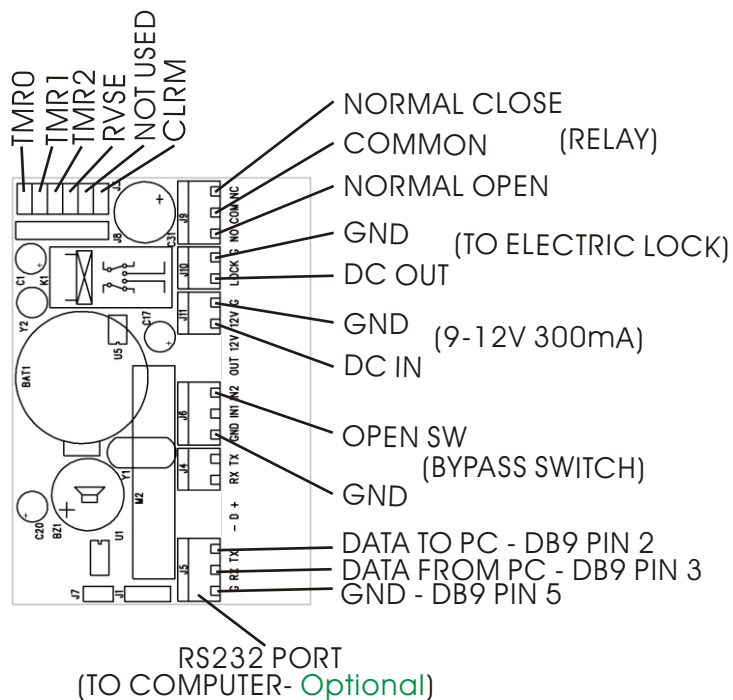* ON : Jumper shorted, OFF : Jumper opened

*** *Jumper setting for slave reader*

4. DIMENSIONS AND TERMINAL LAYOUT

Dimensions

86mm

86mm

10mm 20mm

One mounting holes of diameter 5mm

Three mounting holes of diameter 4mm

60mm

Front View

Side View

Rear View

Terminal Layout

TMR0
TMR1
TMR2
RVSE
NOT USED
CLRM

NORMAL CLOSE

COMMON   (RELAY)

NORMAL OPEN

GND   (TO ELECTRIC LOCK)

DC OUT

GND   (9-12V 300mA)

DC IN

OPEN SW
(BYPASS SWITCH)

GND

DATA TO PC - DB9 PIN 2

DATA FROM PC - DB9 PIN 3

GND - DB9 PIN 5

RS232 PORT
(TO COMPUTER- Optional)

Card Keeper Quick Start

1. Download the "Card Keeper" software from http://www.avea.cc/spec/keeper.zip.
2. Unzip the file keeper.zip and run the setup.exe file to install the software .
3. Run the Card Keeper software.
4. Select the communication port which AVEA's reader is attached.
5. Click "Add Card" to add AVEA's card to the Card Keeper - Insert the ID card's CDROM into your computer's CD-ROM drive. Select the serial number on the packing of AVEA's ID card.
6. Double click the ID card number or select "Edit" to enter card information.
7. Click on the column header to sort the card information accordingly.
8. Select the card number then click "Delete" to delete the ID cards that are not allowed to access.
9. "Save" the database file for future use.
10. "Upload" the authorized card numbers to the access controller (authorization table in the controller will be overridden).

Remove all authorized cards in the controller

Open a previous saved database file for Card Keeper

Merge an authorized card database file to the existing database

Export the data to Excel file format

Delete all the data on the screen

Enter the ID card number or name for searching