

1. INTRODUCTION

User manual - <http://avea.cc/spec/al2730cs.pdf>

The AL2730CS proximity access controller is a cost effective solution for 2,728 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 AL2730CS for entrance

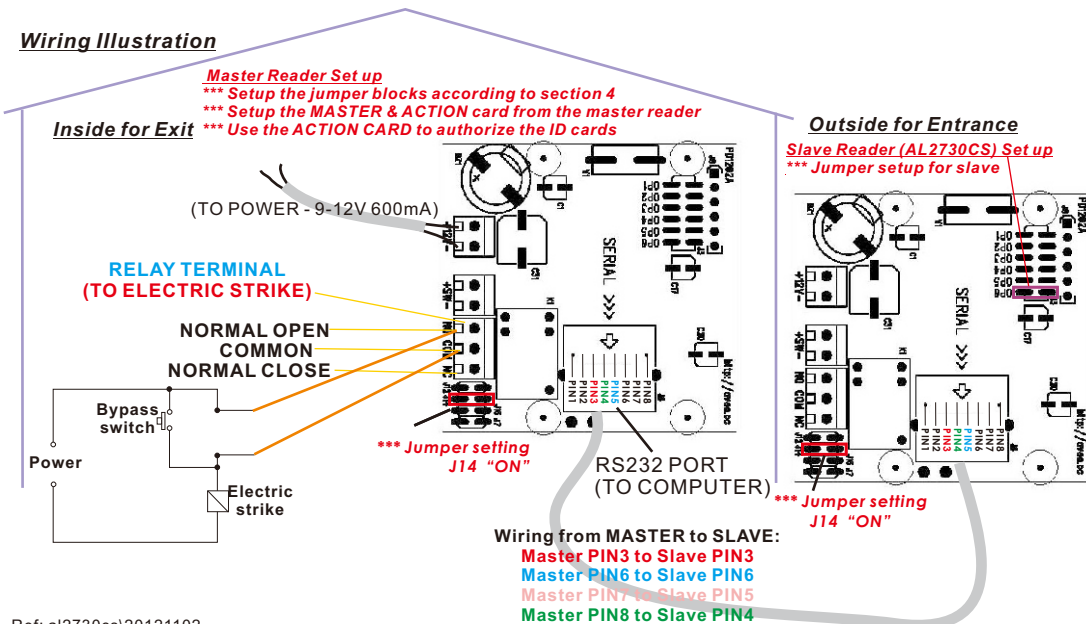
In this mode, only a single controller is installed outside the premises. An **electric strike** can be controlled. A **bypass switch** is installed inside the premises, pressing it will release the strike. While connecting the AL2730CS's **RS232 port** to the computer and running the Card Keeper software (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 AL2730CS for **Entrance** (as Slave) + another AL2730CS (as Master) for **Exit**

In this mode, one AL2730CS is installed outside the premises for entry. Another AL2730CS 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



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 key card (see appendix A - section 4).

Present an authorized card to the AL2730CS, 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 AL2730CS, the red LED will ON and with a long beep sound. The relay will have no action.

An input contacts 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 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 number 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

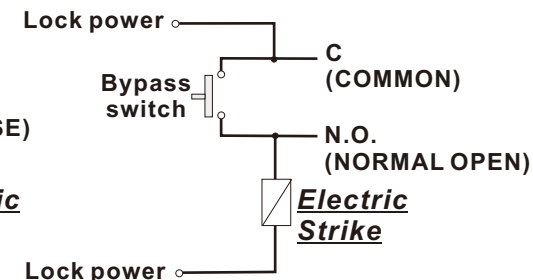
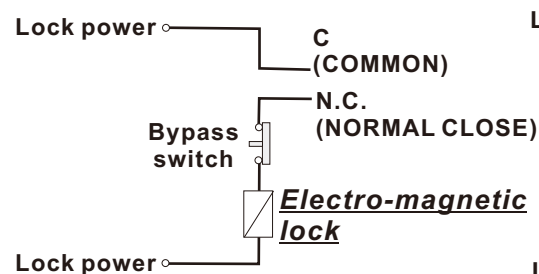
2.9 Turn on the computer.

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.

2.12 **Download** the user manual of "Card Keeper" from <http://avea.cc/spec/card%20keeper.pdf> for card authorization

3. LOCK CONNECTION:



4. JUMPER SETTING

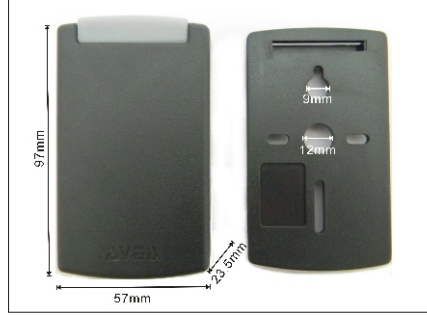
There is a 5-position jumper block for configuring the operation of the unit.

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.

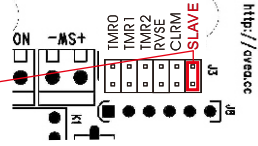
TMR2	TMR1	TMR0	FUNCTION
OFF	OFF	OFF	Relay on for 1 second on authorization granted.
OFF	OFF	ON	Relay on for 2 seconds on authorization granted.
OFF	ON	OFF	Relay on for 5 seconds on authorization granted.
OFF	ON	ON	Relay on for 10 seconds on authorization granted.
ON	OFF	OFF	Relay on for 20 seconds on 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

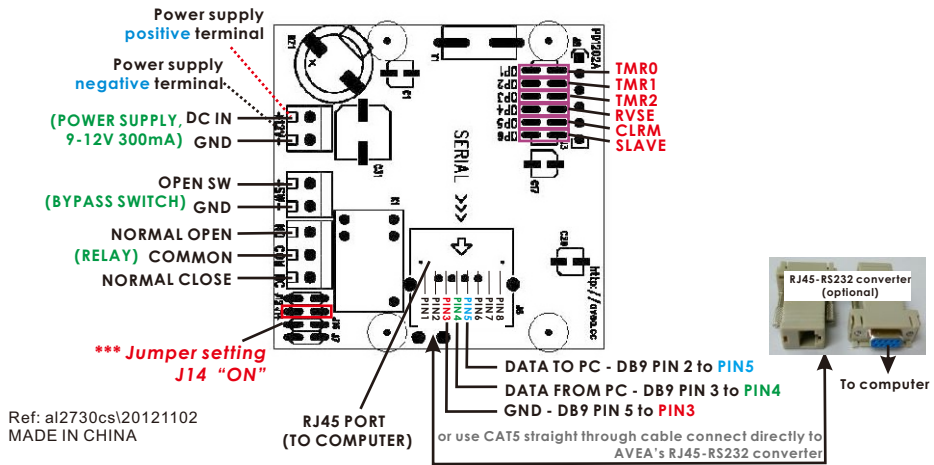
5. DIMENSIONS



*** Jumper setting for slave reader



6. TERMINAL LAYOUT



APPENDIX A - soloFace Reader setup with the use of Master and Action card

1. Set up a new MASTER and ACTION CARD by jumper setting
 Prepare two new cards, one for setting as "MASTER CARD", the other for setting as "ACTION CARD"
 Power off the unit
 Set CLRM to ON position
 Power on the unit

NEW CARD	Blue LED	Green LED	Buzzer
Present a NEW CARD to the reader to set as the "MASTER CARD" (Reader wait for another card to set as ACTION CARD)	blink	repeat beep	repeat beep
Present another NEW CARD to the reader to set as the "ACTION CARD" (Reader wait for power OFF)	blink	on	continuous beep

Power off
 Remove the jumper to set the CLRM to OFF position
 On the power

2. Change the MASTER and ACTION CARD
 (In stand by mode, wait for instruction) blink

MASTER CARD	Blue LED	Green LED	Buzzer
Present the MASTER CARD to the reader (Reader waiting for the MASTER CARD again - 2nd time)	blink	on	on
Present the MASTER CARD again to the reader (Reader this 3rd time to the reader)	repeat beep	on	repeat beep
Present the MASTER CARD this 3rd time to the reader (Reader wait for a NEW card to set as MASTER CARD)	blink	repeat beep	repeat beep
Present a NEW card to the reader to set as the "MASTER CARD" (Reader wait for another NEW card to set as ACTION CARD)	blink	repeat beep	repeat beep
Present another NEW CARD to the reader to set as the "ACTION CARD" (Back to stand by mode, wait for instruction) blink	blink	on	on

*** Reader will wait until two new cards was read.

3. Add or Delete a key card
 (In stand by mode, wait for instruction) blink

ACTION CARD	Blue LED	Green LED	Buzzer
Present an ACTION CARD to the reader (Reader wait for a card to be added or deleted)	blink	on	on
To add: Present a new card to the reader, To delete: Present an authorized card to the reader (Loop again to wait for another card to be added or deleted)	on	beep	beep
or Card Deleted Card Deleted	on	beep	beep

*** Reader will back to standby mode if unattended for 10 second

4. Remove all authorized key cards
 (In stand by mode, wait for instruction) blink

ACTION CARD	Blue LED	Green LED	Buzzer
Present the ACTION CARD to the reader (Reader wait for the ACTION CARD on the reader (2nd time))	blink	on	on
Present the ACTION CARD the 2nd time to the reader (Reader wait for the MASTER CARD for confirmation. All authorized key cards will be removed and then back to stand by mode.)	on	repeat beep	repeat beep
Present the MASTER CARD to the reader (Delete all cards)	on	beep	beep

*** Reader will back to standby mode if unattended for 10 second

5. Delete an authorized key card number
 Check the card number (the first 10 digits on the left of the card), do not need to enter "AVEA" and the zero digits in the beginning of the number (e.g. card number AVEA.0000310121 005.40197, you only need to enter 310121).
 In stand by mode blink

To start deleting:
 Present the ACTION CARD to the reader
 Present the MASTER CARD to the reader
 Reader wait for the MASTER CARD on

Start entering the digits. Enter the first digit by presenting the ACTION CARD to the reader. Present 1 time for 1, 2 times for 2, ... 9 times for 9 or 10 times for zero. The buzzer will beep once while presenting the ACTION CARD to the reader once.

Present the MASTER CARD to the reader to end the entering of each digit (including the last digit). Repeat above procedure to enter all digits.

Present the MASTER CARD to the reader again to inform the reader that you have finished entering all the digits. The reader will "beep" out the number you just entered. Start with a long beep and with a silent between each digit.

Present the ACTION CARD to the reader to confirm the deletion.

two beeps = ID card no. delete, one long beep = error

Back to stand by mode blink
 Back to stand by mode if unattended for 10 second

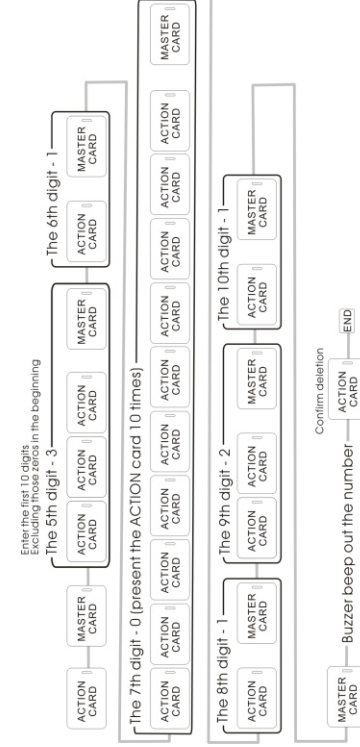


Diagram 1. Example for Deleting key card number - AVEA.0000310121 005.40197