

## 1. INTRODUCTION

AL2730F is a low cost proximity card access controller 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. It can accept a maximum of 2,730 proximity cards. A 9 to 12V DC supply is required to power the unit, which has a current consumption of less than 200mA. A 9VDC/300mA (2.1mm center positive) plug pack will do fine.

## 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 (see section 5.1)

Remember to remove the CLRM jumper after setting up the MASTER and ACTION card.

2.3 Remove all authorized key card (see section 5.4).

2.4 Use the ACTION card to authorize the ID cards (see section 5.3).

2.5 Record the ID card number with the user name.

Present a card to the AL2730F. The green LED and relay will turn on as set by TMR0, TMR1 and TMR2 with a beep sound, indicating that the card is an authorized key card. On the other hand, if an unauthorized card is presented to the AL2730F, the green LED and the relay will have no action but with a long beep sound.

An input contact is provided. If it is shorted, the unit will respond the same as an authorized card read.

## 3. JUMPER SETTING

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

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

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

\*\*\*\*\* **Relay's maximum rating : 1A/24Vdc or 0.5A/120Vac**  
**External relay must be used for higher loading.**



## 5. PROGRAMMING

### 5.1 Set up a new MASTER and ACTION CARD by jumper setting

Red LED	Green LED	Buzzer
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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

(Reader wait for a card to set as MASTER CARD)	blink	repeat beep
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**NEW CARD** 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
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**NEW CARD** Present another NEW card to the reader to set as the "ACTION CARD"

(Reader wait for power Off)	on	on	continuous beep
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Power off

Remove the jumper to set the CLRM to OFF position

On the power

(Reader Back to stand by mode, wait for instruction)	blink		
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\*\*\* Reader will wait until two new cards was read.

### 5.2 Change the MASTER and ACTION CARD

Red LED	Green LED	Buzzer
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(In stand by mode, wait for instruction)	blink		
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**MASTER CARD** Present the MASTER CARD to the reader

(Reader waiting for the MASTER CARD again - 2nd time)		on	
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**MASTER CARD** Present the MASTER CARD again to the reader

(Reader wait for the MASTER CARD again - 3rd time)		on	repeat beep
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**MASTER CARD** Present the MASTER CARD the 3rd time to the reader

(Reader wait for a NEW card to set as MASTER CARD)		blink	repeat beep
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**NEW CARD** 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
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**NEW CARD** Present another NEW card to the reader to set as the "ACTION CARD"

(Back to stand by mode, wait for instruction)	blink		
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\*\*\* Reader will wait until two new cards was read.

### 5.3 Add or Delete a key card

Red LED	Green LED	Buzzer
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(In stand by mode, wait for instruction)	blink		
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**ACTION CARD** Present an ACTION CARD to the reader

(Reader wait for a card to be added or deleted)	on		
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**NEW OR AUTHORIZED CARD** To add: Present a new card to the reader, To delete: Present an authorized card to the reader

(Card Added)		on	beep
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or Card Deleted		on	beep beep
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(Loop again to wait for another card to be added or deleted)			
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\*\*\* Reader will back to standby mode if unattend for 10 second

### 5.4 Remove all authorized key cards

Red LED	Green LED	Buzzer
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(In stand by mode, wait for instruction)	blink		
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**ACTION CARD** Present the ACTION CARD to the reader

(Reader wait for the ACTION CARD on the reader (2nd time))	on		
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**ACTION CARD** 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
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**MASTER CARD** Present the MASTER CARD to the reader

(Delete all cards)		on	beep beep
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(Back to stand by mode)	blink		
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\*\*\* Reader will back to standby mode if unattend for 10 second

**5.5 Delete an authorized key card number** Red LED    Green LED    Buzzer

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).

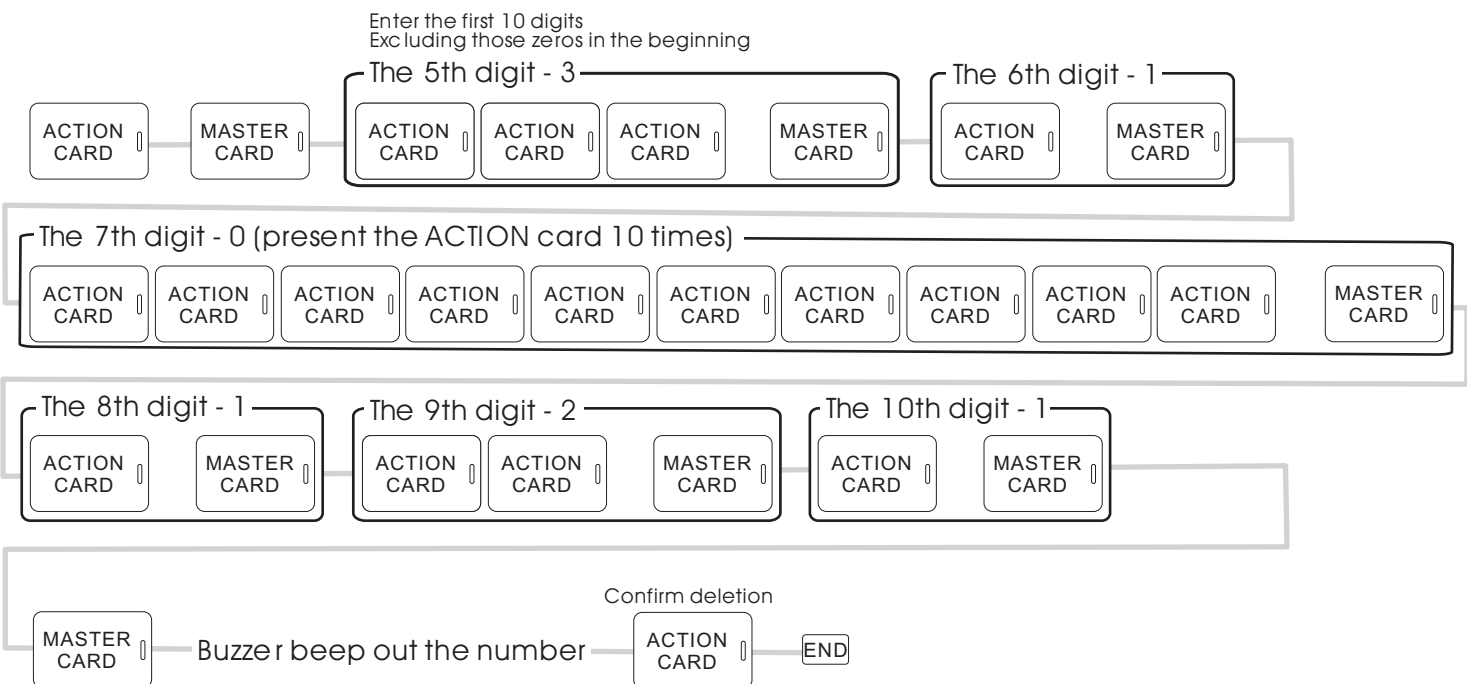
In stand by mode 

blink		
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**To start deleting:**

ACTION CARD	Present the ACTION CARD to the reader			
	<i>Reader wait for the MASTER CARD</i>	on		
MASTER CARD	Present the MASTER CARD to the reader			
	<i>Reader wait for the ACTION CARD for digit entry</i>	blink	on	
DIGIT ENTER ACTION CARD	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.	off	off	
MASTER CARD	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.	blink	on	
MASTER CARD	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.	on	on	
	<i>Reader wait for confirmation</i>	blink	on	
ACTION CARD	Present the ACTION CARD to the reader to confirm the deletion.			two beeps = ID card no. delete, one long beep = error
	<i>Back to stand by mode</i>	blink		

\*\*\* Reader will back to standby mode if unattend for 10 second



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