

# SOYAL<sup>®</sup>

## Illuminate Series AR-725-H

### Illuminated Backlight Touch Keypad Controller

Light and fashionable design controller with backlight touch keypad, supporting multiple control modes

#### Metal Frame Housing

Strengthen security with additional metal housing on its frame and back housing for crash protection and reduce damage

#### Invisible Keypad Function

External form's keypad will be invisible for user, only authorized personnel can activate and use keypad function.

#### Expandable User Capacity to More than 10,000 Users

Built-in multiple control modes:  
1. One door, one and half door  
2. Multiple doors (with multi-door controller), can be more than 10,000 user capacity

#### As RS485 Reader

Not only a controller, but an encrypted RS485 reader if utilized with other brand's controller

#### Multiple Control Functions

Flexible use, can be standalone and networking

#### Selectable Frequency

125KHz: Support EM card  
13.56MHz : Support Mifare, NFC (emulate UID), DESFire (Crypto comply with EAL4+)

## Features



Lift Control



Illuminated Touch Panel



Anti Passback



Invisible Keypad



Watchdog



Alarming for Abnormal Event



Web



Youtube

- Built-in hardware watchdog, real time clock, arming, force alarm, door close delay alarm, doorbell and duress code & output
- Built-in door auto open time zone, holiday edit, door group & time setting. With multi-door control panel, support more time and group sets
- Standalone / Networking / Support Cascade Structure
- Support RS485 communication encryption, SSC (Soyal Security Communication)
- In-field firmware upgrade
- Support DESFire tags (Crypto comply with EAL4+)
- Multiple access mode: card only, card or password, card and password
- Multi output: door lock output (0.1-600 sec. and toggle mode)& alarm output (1-600 sec.)
- Silent operation mode: push button mute and all mute
- Auto relock for anti-trailing and sneaking
- Access control, lift control, time attendance, payroll and SCADA: graphic monitoring & remote control function
- Can be an encrypted RS485 reader if utilized with other brand's controller

## SPECIFICATION

Communication interface	Host	RS485/9600 bps (N, 8, 1)
	Serial	UART PORT (Output only)/4800 bps (N, 8, 1) SSC (Soyal Security Communication)
Frequency	125kHz	13.56MHz
Supported Tags	ISO18000-2: EM4001 and EM4095 compatible	ISO 14443 Mifare Ultralight, Classic, DESFire EV1 NFC (card simulation)
Crypto	—	CC Certification: 3DES Crypto comply with EAL4+
RFID Reading Range	10-15 CM(PC Housing)	3-8 CM(PC Housing)
	5-9 CM(Metal Housing)	3-5 CM(Metal Housing)
UID Bits	24-32 (Adjustable)	
DI/DO	DI	Egress / Door State
	RO	Door Lock Relay
	DO	Door Lock Output/ Duress Output / Alarm Output Arming Output (share same terminal with Security trigger signal Output)
Doors/Floors Number	1.5 Doors / 32 Floors	
User Capacity	3000	
Event Log	1500	
Indicator	LED	GREEN= arming, disarming/standby mode & access granted RED= abnormal event: access denied & alarming
	Buzzer	1
TAMPER	Button Switch(Type A/50mA/30VDC)	
Dimension (mm)	PC: 110(H)X79(W)X26(D) / Metal Housing: 125(H)X89(W)X30(D)	
Housing Material	Housing	PC / Metal Housing (PC + Zinc Alloy)
	Keypad	Illuminated Keypad / Invisible Keypad function
Color	Black, Gray, Silver, Pearl White	
Weight (g)	PC: approx. 120 / Metal Housing: approx. 470	
Power Consumption	<3W	
Power Voltage	9-24VDC	
Ingress Protection	IP55	
Environment	Operating Temperature	-20°C ~ +70°C
	Storage Temperature	-40°C to +75°C
	Operating Humidity	0%~90% (non-condensing)
	Storage Humidity	0%~95% (non-condensing)

## Keypad Features

### 1. Illuminated Touch Keypad

All-in-One: Have access by either swiping valid tags or entering PIN. Configuration setting can also directly proceed via its keypad.



### 2. Keypad-less

RFID Only: Have access by swiping valid tags. Numerical keypad is unavailable and use External WIEGAND Keyboard when configuration is necessary



DUAL LED (STOP-GO)  
VERSION



SINGLE LED  
VERSION

### 3. Illuminated Touch Keypad Invisible

Keypadless Controller of Illuminate Series built-in invisible touch keypad function for non numerical keypad panel, in which after enabling the function, press keypad for keypad command configuration setting.

Operational method:

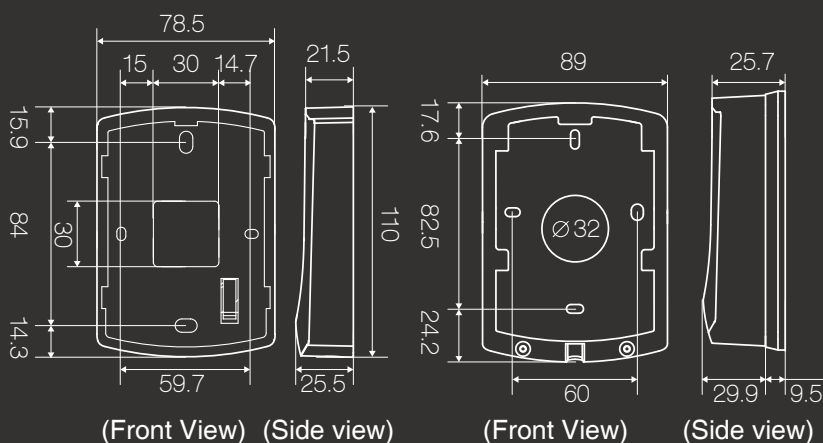
1. Swipe authorization card or master card to enable the keypad function
2. Cover original panel with Numerical Keypad Panel Layout (layout available for download and please print it)
3. Operate configuration setting according to the numerical keypad position. After done with configuration, remove the Numerical Keypad Panel Layout

#### Programming



Numerical Keypad  
Panel Layout  
Download

## INSTALLATION(mm)



▲ AR-725-H

▲ AR-725-H (Metal Housing)

## HOW TO ORDER

AR-725-HXR1XX1-X

#### Frequency

B=125kHz  
D=13.56MHz

#### RTC

R=Built-in RTC

#### Communication

1=RS485

#### Waterproof

1=Weatherproof  
2=Epoxy Waterproof

#### Type

N/A=Standard  
(PC Housing)  
M=Metal Housing

#### Type

1=Standard

#### Color

1=Silver  
2=Gray  
B=Black  
P=Pearl White

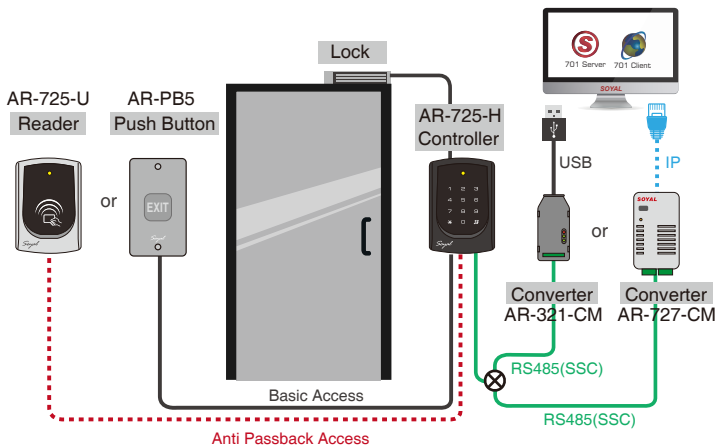
## APPLICATION & STRUCTURE DIAGRAM

### ● STANDALONE & NETWORKING ACCESS CONTROL

**Basic Access:** the most basic access, exiting venue is only by pressing a push button

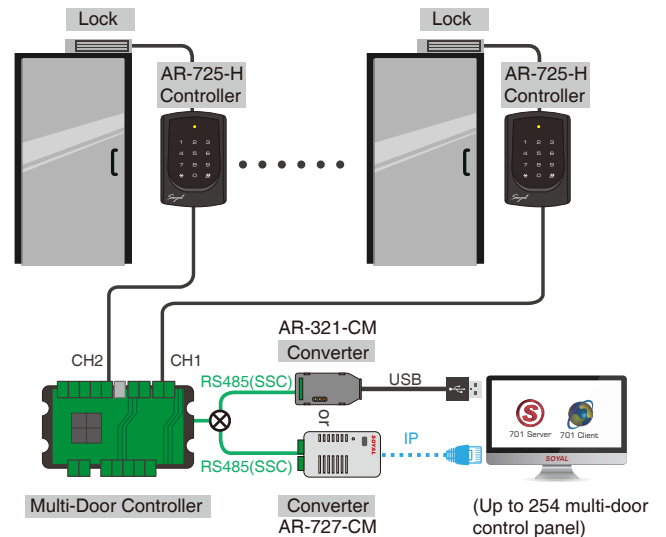
**Anti Passback:** restrict user to re-enter before exiting venue or increase security level by having access reader at the other side of the door. Both entering and exiting will required swipe card or keyfob for access.

**Networking:** beside configuration through Wiegand Keyboard and Master Card, you can also link AR-725-H with Soyol converter to PC for configuration via SOYAL Software or for anti-cloning and encryption process.



### ● CASCADE STRUCTURE

Upgrade user capacity without replacing AR-725-H installed with additional hardware of SOYAL Multi-Door Control Series. Under Multi-Door Control Panel, when RS485 communication is working normally, AR-725-H will be a Slave Reader of Control Panel. Once its communication is cut off, AR-725-H will automatically be Access Control and have control on its user and parameter setting.

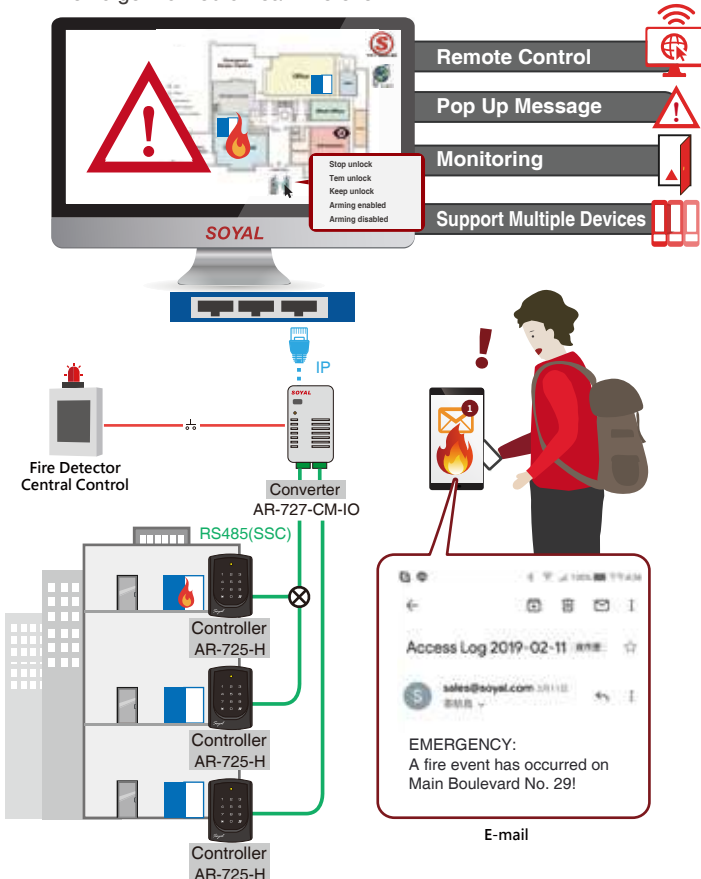


--3000 User, 11 Timezone--

--16000 User, 63 Timezone--

### ● RELEASE ALL DOOR LOCKS IN FIRE EVENT & EMAIL NOTIFICATION

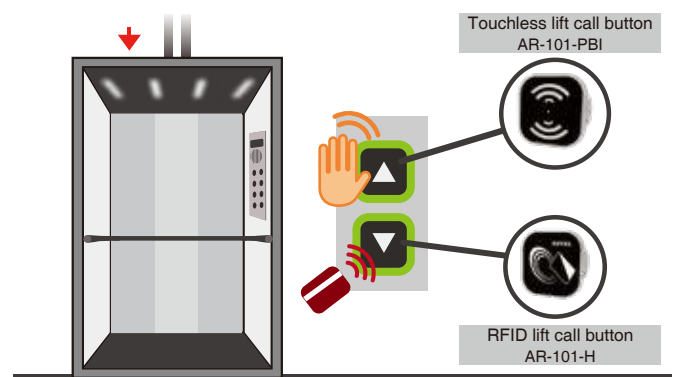
When fire event occurred, SOYAL controller connected to AR-727CM-IO will automatically release all doors to open. At the same time, send fire alarm event notification to authorized personnel to get notified of real time event.



### ● TOUCHLESS LIFT CONTROL SOLUTION

A feature for users to reach a designated single floor by swiping the user card only without pressing the elevator button rather than reading a user card and then pressing the floor button.

#### Lift Call Button

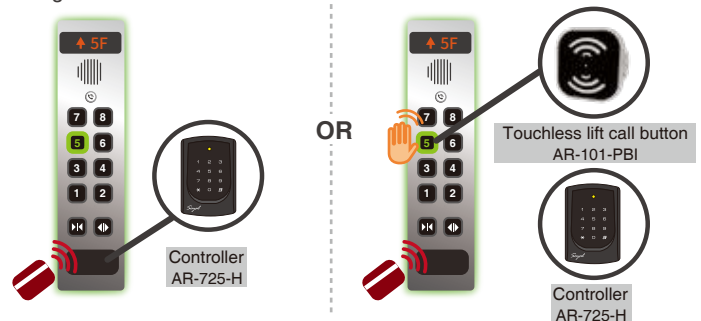


#### Floor Button inside Lift

Reach a designated single floor by swiping the user card without pressing the elevator button

#### Self-control floor access setting

Swipe valid tags and wave your hand to sensor for destination floor touchless



# PERIPHERALS / ACCESSORIES

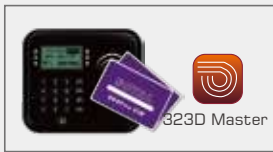
## HIGH LEVEL SECURITY

- Anti-Cloning Kits



### Mifare Encryption

Encoder: AR-725-P  
w/Authorization Tags  
Software: Mifare Key



### Desfire Encryption

Encoder: AR-837-P  
w/Authorization Tags  
Software: 323D Master

- Expansion I/O Control



### I/O Modules

**AR-401 Series:**  
Multiple Channel I/O Module  
**AR-403 Series:** Tiny Digital I/O Module

## STANDALONE

- Input/Output



### Locks

**Magnetic Lock**  
AR-0600M  
**Electric Bolt Lock**  
AR-1207 Series  
**Cabinet Lock**  
AR-1211-P/AR-1213-P  
**Electric Strike**  
AR-YS-130NO/AR-YS-131NO



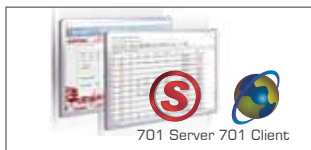
### Door Sensor / Alarm/Siren / Burglary Security System



AR-725-H

## NETWORKING

- Software



**File Based & Data Based Interchangeable Software for Access Control, Time Attendance, Status Monitoring and Configuration**  
701 Server & 701 Client



### Firmware Upgrade

ISP Tools

- Signal/Interface Converter



### Isolated USB to RS-485

AR-321-CM

### Isolated RS232 to RS485

AR-321-CM-485232



### Ethernet to RS485

AR-727-CM  
AR-727-CM-IO-0804M  
(with I/O for Fire Alarm to open all doors)



### TTL to RS-485

For external module converter

- Large User Capacity & Multi-Door AntiPassback



### Multi-Door Control Series

AR-716-E16: 16 Doors IP Control Panel  
AR-716-E18: 18 Doors Networking Control Panel

- Illuminate Series

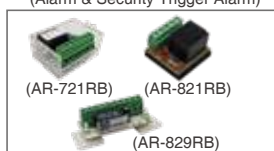


**16.000 User IP Based Access Controller / Wiegand Reader**  
AR-725-E / AR-725-K/U



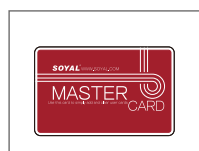
**Stainless Steel Push Button**  
AR-PB5 Series

- External Relay Output (Alarm & Security Trigger Alarm)



**1 Form C relay with time delay**  
AR-721RB  
**1 Form C relay**  
AR-821RB  
**2 Form C relay**  
AR-829RB

- Programming



**Keyless Editing**  
Self programmed master card

- Necessary



**Power Supply**  
BP-W12-1500 (1.5A)  
BP-W15-2400 (2.4A)

- Installation Mounting Panel



**Proximity Tags**  
125kHz: EM  
13.56MHz: Mifare Classic, Mifare Desfire, UltraLight  
Tags Selection: Thin Card, Round Keyfob, Square Keyfob



**Color: Gray / Black**  
AR-HT-98128

## FAQ

**Q:** How to Integrate SOYAL with Face & License Plate Recognition?

**A:** As Face Recognition is more and more in demand, SOYAL provide resources and two integration method. The integration will grant access via face recognition by sending converting face data to UID to Soyal system (software/hardware) that later will resulting in access granted or denied, based on the availability user data on Soyal database system. As the integration method is various, we offer flexibility of integration based on what customer preferred.

**Q:** What is the difference between SOYAL Home Series and Enterprise Series Controller?

**A:** SOYAL access controller classified into two categories in term of specification; Home Series and Enterprise Series. SOYAL Home Series controller has already included all basic standalone and networking access controller that you need. But E series controller provide what Home Series controller has already have, and more advanced features like built in more user capacity, UART Port for extension module, and extension interface like Ethernet and POE.



More FAQ