SOYAL®

Vision Series

AR-837-E/P/W/EE/EF/EA/EL

RFID Tag / PIN Code / Fingerprint Recognition/ Face Recognition / QR Code Recognition

Multi-Language Menu Setting

Intuitive menu make functional setting simple, no need to memorize command set

8 Sets of Time Attendance

Duty On/Off, Break Out, Break Return, Overtime On/Off

Support SOYAL Cascade Structure

Built-in multiple control modes:
1. One door
2. Two door (with WG reader)
3. Multiple doors (with multi-door control panel)

Reader Mode Supported

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

HTTP WEB Server Remote Management

Controller is able to remotely managed at any time via browsers not restricted by computer brands or mobile phone brands

2 Sets of UART Ports

Flexible integration with peripheral devices, like I/O module, floor control panel, LED display, infrared thermo-camera, etc.

Communication Redundancy

Support TCP/IP and RS485 interface, when main communication disconnects, deputy communication will work to maintain normal work

Features

Double Relay | Door Bell | Complete Indicator | Quality in Color | Two Doors Control | Suitable for Extended Function

Web | Youtube

- Dual communication interfaces: RS485 and Ethernet (10/100M Base T)
- Built-in watchdog, real time clock, anti-vandalism switch, ingress protection, alarm setting, holiday edit, auto open door time zone, door group, door status DI, anti-pass-back function and duress code & output
- Support user capacity: 16,000 / 32,000 / 65,000 users
- Support floor control: 64 / 32 / 16 floors
- In case Ethernet disconnects, controller is still able to identify UID and record event log
- Multiple access mode: card only, card or password, card and password , fingerprint , face or QR Code.
- Two doors control: Two sets of push button and door status, relay output for lock and WG output for reader
- Multiple DO outputs: Lock, alarm, arming, duress and digital relay
- Supported frequency: 125kHz, 13.56MHz and dual band
- Standalone / Networking is switchable during working
  Support RS485 communication encryption, SSC (Soyal Security Communication)
- Surface mount and Wall mount installation; it is flexible to select the way to install according to decoration surface.

SPECIFICATION

Main Spec

Communication interface	Host	TCP/IP / RS485 (9600 bps) SSC (Soyal Security Communication)
	Serial	UART (TTL, 4800~115200 bps) X 1 or 2
Frequency	125kHz / 13.56Mhz / Dual Band	
Supported Tags	125kHz	ISO18000-2: EM4001 and EM4095 compatible
	13.56MHz	ISO14443 Mifare Ultralight / Classic / Plus / DESFire / - EV1/ EV2 / NFC (card simulation)/ISO15693 / Felica
Crypto	13.56MHz: CC Certification: AES Crypto comply with EAL5+	
RFID Reading Range	125kHz: 5-15 cm / 13.56MHz: 2-5 cm	
UID Bits	64	
DI/DO	DI	Egress X2 / Door State X2 / Door Bell
	DO	Door Bell Output /Security Output / Arming Output / Duress Output
	RO	Door Lock Relay / Alarm Relay
Doors/Floors Number	2 Doors / 64 Floors	
User Capacity	16,000	
Event Log	32,000	
Indicator	LED	6 Bi-Color LED Power / Alarm / Arming / OK / Error / In processing
	Buzzer	1
Extend Port	Tamper Switch / Tamper Output / WG In Port / WG Out Port	
Dimension (mm)	AR-837-E/P/W:128(H)X94(W)X40/25(D) AR-837-EE/EA :128(H)X147(W)X40/25(D) AR-837-EL/EF :128(H)X147(W)X65/25(D)	
Housing Material	ABS	
Color	Black Edge / Silver Edge	
Net Weight (g)	AR-837-E: approx. 210 / AR-837-EE/P: approx. 280 / AR-837-W: approx. 290 AR-837-EA: approx.335/ AR-837-EL:approx.316 / AR-837-EF: approx.350	
Power Consumption	<5W	
Power Voltage	9-24VDC	
Ingress Protection	IP65	
LCD Panel	128*64 (4 line messages, 16 Characters each line)	
Enviroment	Operating Temperature	-20℃ ~ +65℃
	Storage Temperature	-25℃ ~ +70℃
	Operating Humidity	20%~90%
	Storage Humidity	5%~95%

Face Recognition (AR-837-EA)

Verification Speed	< 0.3 Sec
Face Capacity	2000
Image Screen	2.8 TFT LCD Screen (320*240)
LCD Screen for Programming	128*64 Menu LCD Screen
Camera	RGB(640*480) + IR(640*480)
Assistant Exposure Light	White LED / IR high brightless LED
FAR (False Accept Rate)	≦0.0001%
FRR (False Rejection Rate)	≦0.4%
TAR (True Accept Rate)	≧ 99.6%

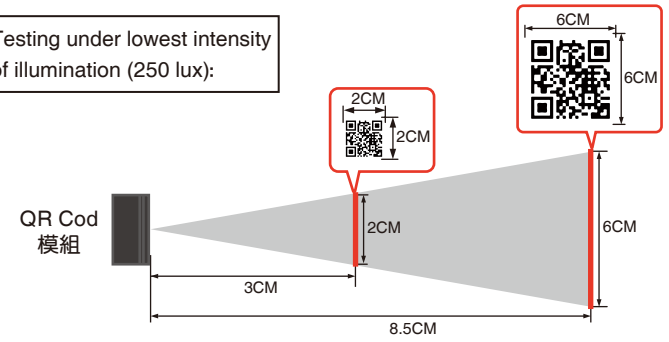
Fingerprint Recognition (AR-837-EF9DO/AR-837-EF3DO)

Item NO.	AR-837-EF9DO	AR-837-EF3DO
FP Sensor Type	Optical Sensor	Optical Sensor
FRR	<1%	<1%
Image Resolution	500dpi	500dpi
Fingerprint Capacity	9000FP	1500FP
Total Users with FP Capacity	9000 Users (1 fingerprint per user) 4500 Users (2 fingerprint per user)	500 Users (1~fingerprints per user)
Identification Speed (1:1000)	<0.7sec	<1.5sec
Sensible Temperature	+30 ◦ C~31 ◦ C	+38 ◦ C~39 ◦ C

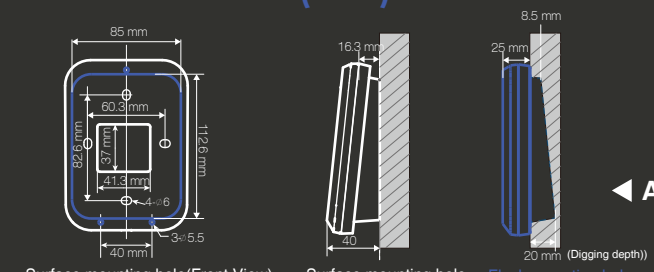
QR Code Recognition (AR-837-EL)

Type of BarCode	Code 39		UPC/EAN	Code93
Density	0.125 mm (5 mils)	0.375 mm (15 mils)	0.375 mm (15 mils)	0.254 mm (10 mils)
Min. distance	4.0 cm	4.0 cm	4.0 cm	4.0 cm
Max. distance	9.0 cm	25.0 cm	25.0 cm	21.0 cm

Testing under lowest intensity of illumination (250 lux):

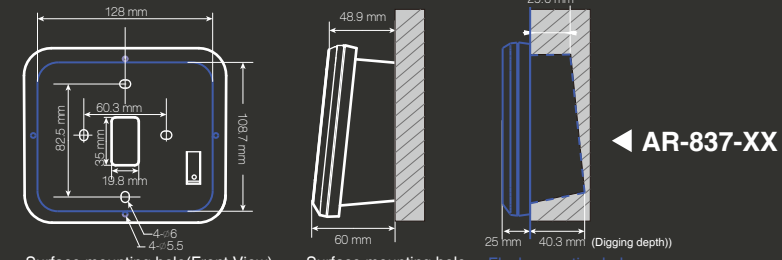


INSTALLATION(mm)



◀ AR-837-E

- Surface mounting hole(Front View)
- Flush mounting hole(Front View)
- Surface mounting hole (Side view)
- Flush mounting hole (Side view)



◀ AR-837-XX

- Surface mounting hole(Front View)
- Flush mounting hole(Front View)
- Surface mounting hole (Side view)
- Flush mounting hole (Side view)

HOW TO ORDER

AR-837-XXXR1X11-X

Model Type
E= Enterprise / W=Energy Saver
P= DESFire Encoder

Funtion Type
E= Extending Width / L= QR Code
A= Face Recognition

Frequency
B=125kHz / D=13.56MHz
S=125KHz+13.56MHz

RTC
R=Built-in RTC

Communication
1=RS485

Additional Module
A=TCP/IP Module
P=POE Features

Language(LCD)
1=English / Local

Color
B=Black Edge
1=Silver Edge

Waterproof
1=Weatherproof

AR-837-EFXXXX-XX-X

Frequency
B=125kHz / D=13.56MHz
S=125KHz+13.56MHz

Module
9DO=Red Sensor FP Module
3DO=White Sensor FP Module

Edge Color
B=Black Edge / 1=Silver Edge

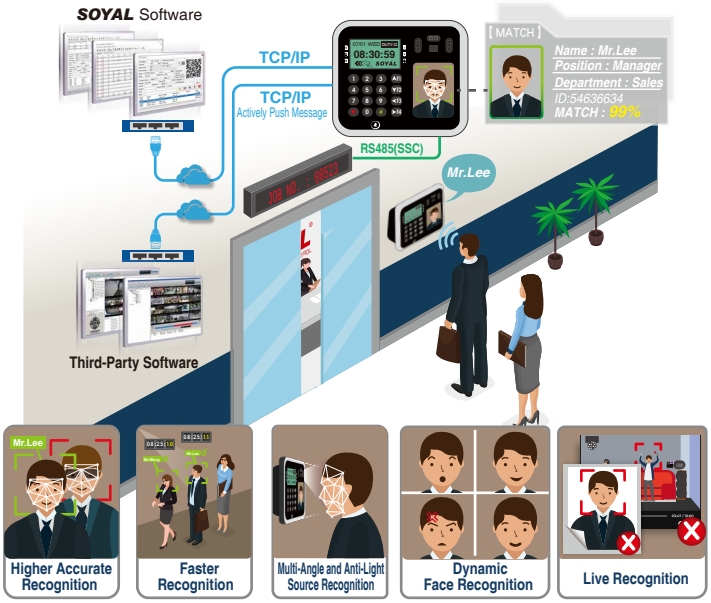
Additional Module
A=TCP/IP Module
P=POE Features

Type
R=Roof Type
X=Standard Type

APPLICATION & STRUCTURE DIAGRAM

Live Dynamic Face Recognition For Access and Time Attendance

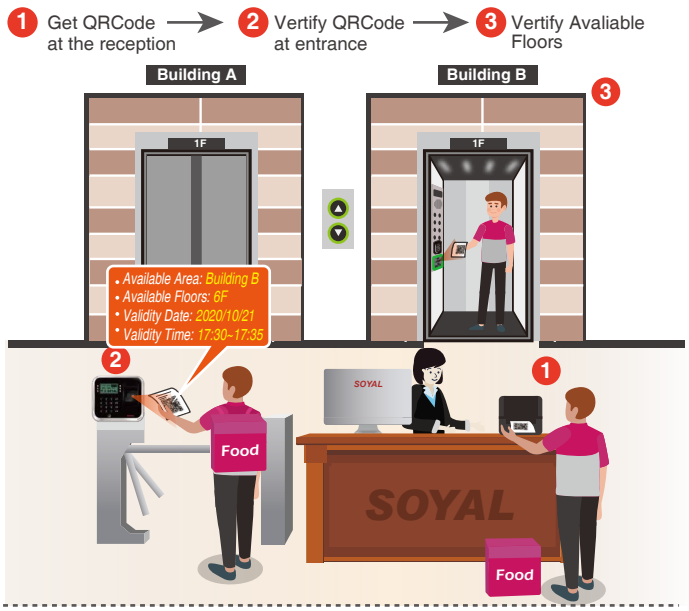
SOYAL Live Dynamic Face Recognition Controller AR-837-EA features dual Camera and faster & accurate recognition Algorithm with live face expression detection successfully stops fraud access; it is widely recommended in access control management of home, school, hospital, etc. and Time & Attendance management of factory, office and so on; Post-epidemic era, the best choice for contactless controller.



QR Code Visitor Application Integration Introduction

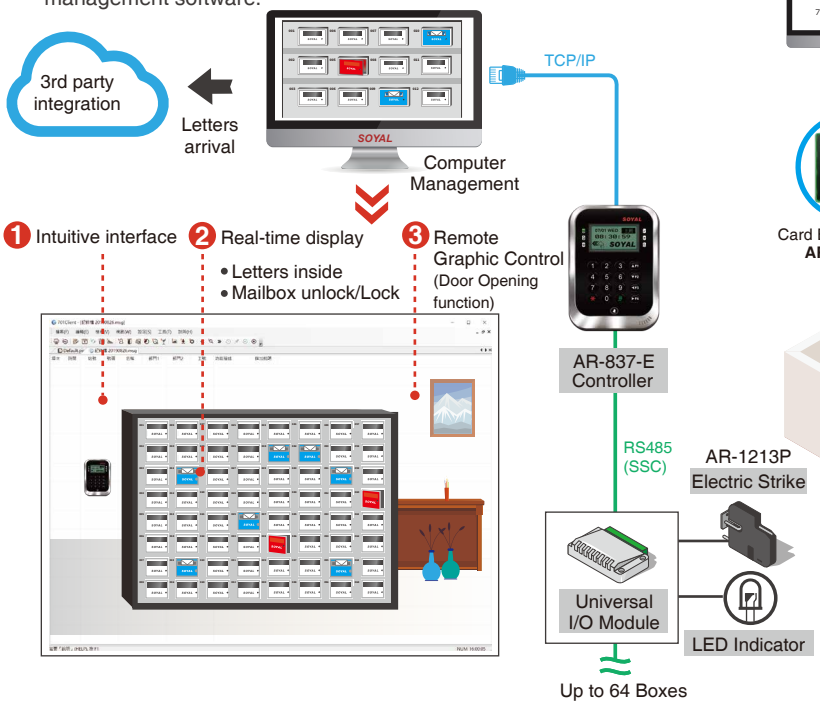
SOYAL QR Code format includes Card ID / Start and Expriry Date / Floors. The 3rd party software can easily develop their visitor software to generate one new QR Code for the visitor ; Scan the QR Code via SOYAL QR Code devices to get access both at entrance and on elevator.

- Offline management / No pre-downloading visitor card ID to QR Code device.
- Quickly dispatch QR Code to visitors / couriers / food devlivery personnel to access specialized floors with assigned date / time.



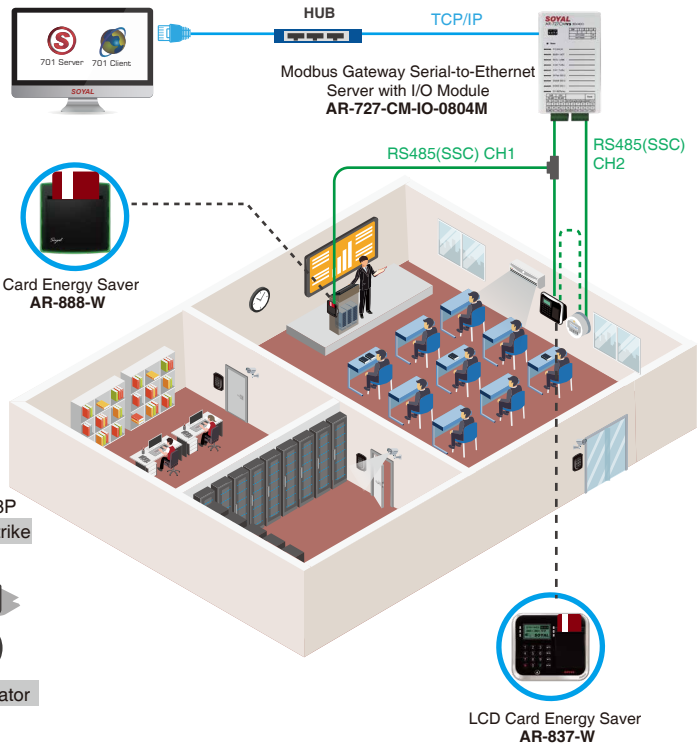
Smart Mailbox Integration Application

When letter arrives in mailbox, LED light will be flashing to remind user and send a real-time message to software 701Client Pop Graphic; when user swipe card to open mailbox and take out letter, then close the mailbox, LED light will be off and the message will be eliminate in 701Client Pop Graphic.
It can also detect whether the mailbox is not closed and activate alarm when open too long. In addition, no matter what is the status (letter inside or open too long), the controller always provide real-time information for third-party integration such as property management software.



Campus Power Saving Application

SOYAL Energy Saving AR-837-W can be widely applied in Campus to save electricity on lighting, air-conditioning and so on. When inserting card, the electrical device will switch on; after removing the card, the device will switch off.
The electricity consumption can be charged by time / frequency, etc.



PERIPHERALS / ACCESSORIES

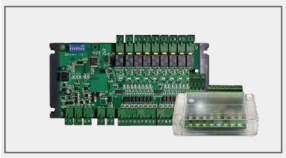
HIGH LEVEL SECURITY

- Anti-Cloning Kits

Mifare Encryption
Encoder: AR-725-P
Authorization Tags
Software: Mifare Key

Desfire Encryption
Encoder: AR-837-P
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

AR-837-E/W/EE/EF/EA/EL

NETWORKING

- Software

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

Firmware Upgrade
UdpUpdater

Remote Lift Control and Time Table Setting
LiftControl

- Signal/Interface Converter

POE Module
AR-MDL-RJ45-POE-12V12W

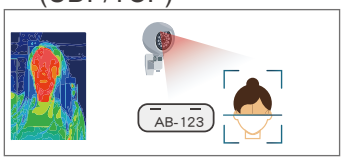
Isolated USB to RS-485
AR-321-CM
Isolated RS232 to RS-485 Converter
AR-321-CM-485232

Ethernet to RS485
AR-727-CM
AR-727-CM-IO-0804M
(with I/O for Fire Alarm to open all doors)

- Multi-Door AntiPassback

Multi-Door Control Series
AR-716-E16: 16 Doors IP Control Panel
AR-716-E18: 18 Doors IP Control Panel
(only for AR-837-E/W/EE/EL)

- Extensive Applications (UDP/TCP)

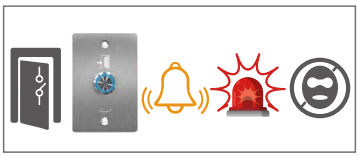


Infrared Thermo-Camera, LPR (License Plate Recognition)

STANDALONE

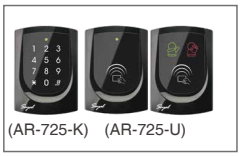
- Input/Output

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



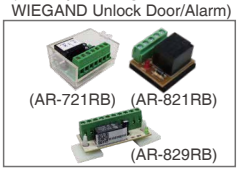
Door Sensor / Push Button / Door Bell / Alarm / Burglary Security System

- Illuminate Series



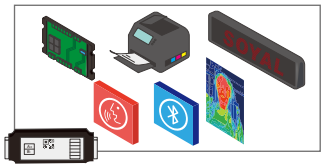
Proximity Reader
AR-725-K / AR-725-U

- External Relay Output
(Security / Arming / Duress / WIEGAND Unlock Door/Alarm)



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

- UART Port



Lift Control / I/O Module / Printer / LED display / Voice Module / Bluetooth Module / Infrared Thermo-Camera

- Programming • Necessary

Keyless Editing
Self programmed master card

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

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

FAQ

Q: How to replace LCD display pictures in standby mode for SOYAL Enterprise Series controller?

A: E series LCD controllers can replace the pictures displayed in standby mode through a software tool, and can design the drawing file according to your needs, such as the company logo or building image, etc., which can improve the overall image.

◀ Scan QR cod to view

Q: How to do wiring connection for Vision series AR-837 with external door bell?

A: AR-837-E/EE has built-in door bell function, adding a relay module that can connect with external bells, no need to equip another door bell on decoration surface, it keeps the surface clean and neat, simple and elegant. Please scan below QR Code to view the steps of how to do.

◀ Scan QR cod to view

More FAQ