

AR-321-H Access Controller

Full zinc alloy and touch keypad with illuminated blue background



Anti-Vandalism

It is designed to prevent damage and destruction on controller when force open or breaking the controller is occurring, it will remain at its place.

3 Bi-Color(BLUE&RED) LED



LED 1 arming & disarming/standby mode (BLUE)
LED 2 power ON (BLUE)
LED 3 access granted (BLUE) / abnormal event: access denied & alarming (RED)

Corrosion Resistance

No worry about corrosion from chemical and harsh weather, it will not corrode and change shape.

Glow in the Dark

Considering its design, we made not only strong controller but touch keypad controller with blue background panel.
AR-321-H blue touch panel backlight will offer you access in the dark to be doable.

Full Sealed Protection

Fully sealed with waterproof strip, double layer of PVC on its back housing and hard zinc alloy on its front housing make it durable controller for extreme weather and environment.

Features



Illuminated Touch Panel



Alarming for Abnormal Event



In-Field Firmware Upgrade



Arming and Disarming



Watchdog



Anti-Passback



Web



Youtube

- 125kHz or 13.56MHz Access Controller Built-in Hardware Watchdog & Real Time Clock Function
- Standalone / Networking / Support Cascade Structure
- Support RS485 communication encryption, SSC (Soyal Security Communication)
- In-Field Firmware Upgrade
- Arming / Force Alarm / Unclose Alarm
- Use '#' as a replacement of doorbell button
- Duress Code & Output
- Multi Operation Mode
- Multi Output: Door lock output (0.1-600 sec. and toggle mode) & alarm output (1-600 sec.)
- Silent Operation Mode: Push Button and All Mute
- Support One and Half Door, and One and Half Door Anti-Passback
- Auto Open Time Zone: Built in 2 time zones, with Control Panel up to 63 time zones.
- Assign user for Door Group (up to 254) and Time Zone (up to 11, with control panel up to 63)
- Holiday Edit Up to 120 days a year
- Auto Relock for Anti-Trailing and Sneaking
- Access control, lift control, time attendance, payroll, and SCADA: graphic monitoring & remote control function

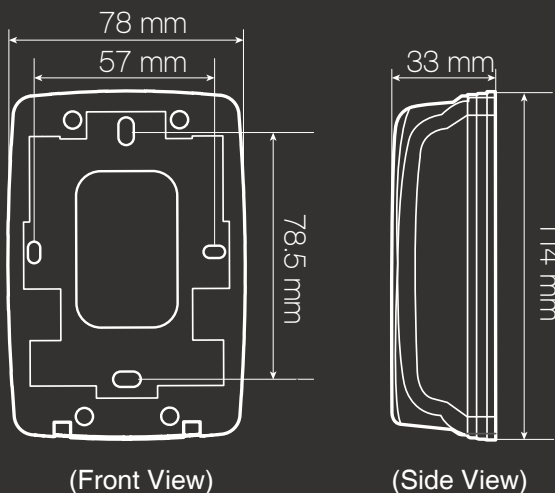
SPECIFICATION

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 NFC (card simulation)
	Crypto	CC Certification: 3DES Crypto comply with EAL4+
RFID Reading Range	3-7 CM	1-3 CM
	*Reading range will be shorter in metal surface installation. The solution is to add 2CM distance or layer between the wall and the controller.	
UID Bits	32	
DI/DO	DI	Egress / Door State / Door Bell (Use Keypad'#')
	RO	Door Lock Relay / Alarm Relay*
	DO	Door Bell Output (Common Alarm PIN) / Security Trigger Output*/Arming Output / Duress Output
*Required External Relay Output Module		
Doors/Floors Number	1.5 Doors / 32 Floors	
User Capacity	3000	
Event Log	1500	
Indicator	LED	3 Bi-Color(BLUE&RED) LED
	Buzzer	1
Extend Port	Tamper Switch / Tamper Output / Wiegand IN	
Dimension (mm)	114(H)X78(W)X33(D)	
Housing Material	Housing	Zinc Alloy
	Keypad	Illuminated Touch Panel
Color	Chrome	
Weight (g)	290±10	
Power Consumption	<3W	
Power Voltage	9-24VDC	
Ingress Protection	IP56	
Environment	Operating Temperature	-20°C ~ +65°C
	Storage Temperature	-25°C to +70°C
	Operating Humidity	20%~90%
	Storage Humidity	5%~95%

WHAT WE OFFER

- ✔ **High Durability**
 Each Soyal material is made with finest material that meet RoHS compliance and Industrial Grade, provides you a high durability hardware that works well in every environment.
- ✔ **Anti-Cloning and Anti-Duplicate**
 We provide anti-cloning and encryption for the whole system to tighten up the security. By this mean, only tags paired to AR-321-H and as well as access reader can have access, other than that we don't even recognize the tags.
- ✔ **Expandable User Capacity**
 When scaling your system it is not only having more hardware, higher security level, and more spaces to control; it also mean there will be more people with access. Without replacing or changing installed hardware, adjust your controller user capacities by adding external Multi-Door Controller; from a thousand to more than ten thousand user capacity.
- ✔ **Beyond Access Controller**
 Each product manufactured by Soyal was made for total solution and to offer flexibility. For intense, Soyal main product is access controller but you can found Soyal on other application like offline consumption device, charging device, and many more just by changing its firmware.
- ✔ **No Exclusivity, Open Integration Resources**
 SOYAL provides open resources such as SDK and protocol document that have 'no-exclusivity and open source integration' characteristic, compatible with other system integration. We offer integration with SOYAL software or directly with SOYAL hardware. For web based, SOYAL protocols can easily corresponding to JSON interface that is suitable for GraphQL and Julia developer.

INSTALLATION(mm)



HOW TO ORDER

AR-321-HXR1111-TM

Frequency
B=125kHz / D=13.56MHz

RTC
R=Built-in RTC

Communication
1=RS485

Waterproof
1=Weatherproof

Housing Material
M=Metal Housing (Zinc Alloy)

Keypad Selection
T=Keypad Touch Panel

Type
1=Standard

Color
1=Silver(Chrome)

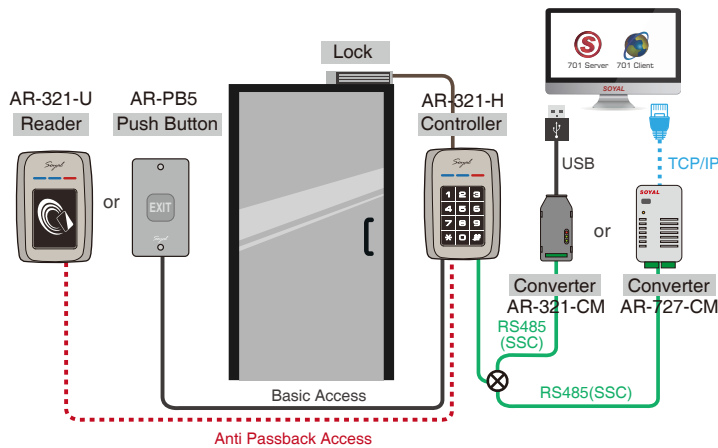
APPLICATION & STRUCTURE DIAGRAM

● 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.

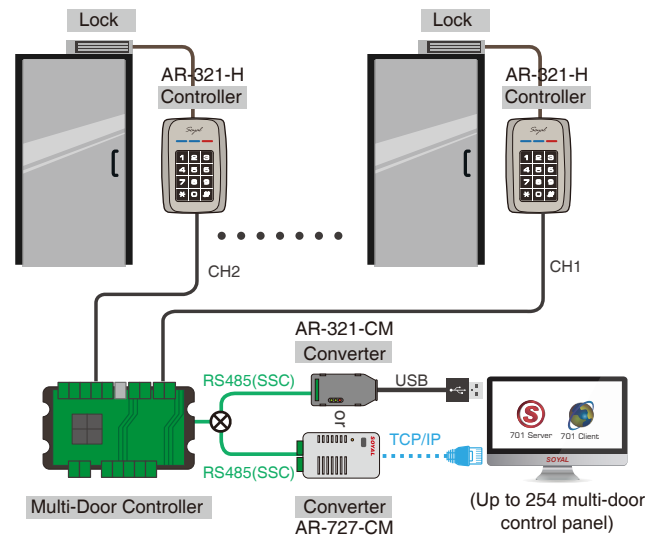
Networking: beside configuration through Wiegand Keyboard and Master Card, you can also link AR-321-H with Soyal converter to PC for configuration via SOYAL Software or for anti-cloning and encryption process.



--3000 User, 11 Timezone--

● CASCADE STRUCTURE

Upgrade user capacity without replacing AR-321-H installed with additional hardware of SOYAL Multi-Door Control Series. Under Multi-Door Control Panel, when RS485 communication is working normally, AR-321-H will be a Slave Reader of Control Panel. Once its communication is cut off, AR-321-H will automatically be Access Control and have control on its user and parameter setting.



--16000 User, 63 Timezone--

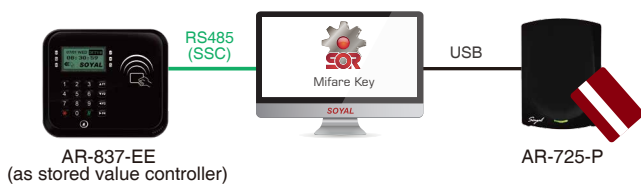
● SOYAL CONTROLLER AS CHARGING STATION

It is applied for temporary power charging in parking lots of community center, commercial building, shopping mall and other private or public spaces.

The cards can be used for charging devices at different time and different parking spaces.

Swipe card to start charging and swipe again after you finished. This function is applicable for all H and E/H-V5 series controller with custom firmware.

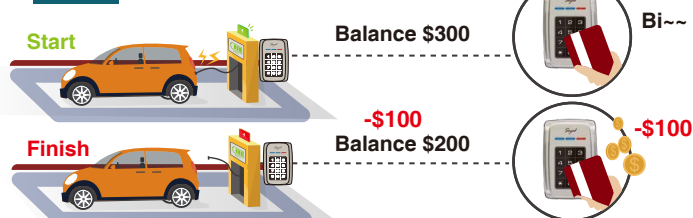
Step 1: Format authorized device & prepare to do tag pairing



Step 2: Adding or deducting value on authorized device (standalone)

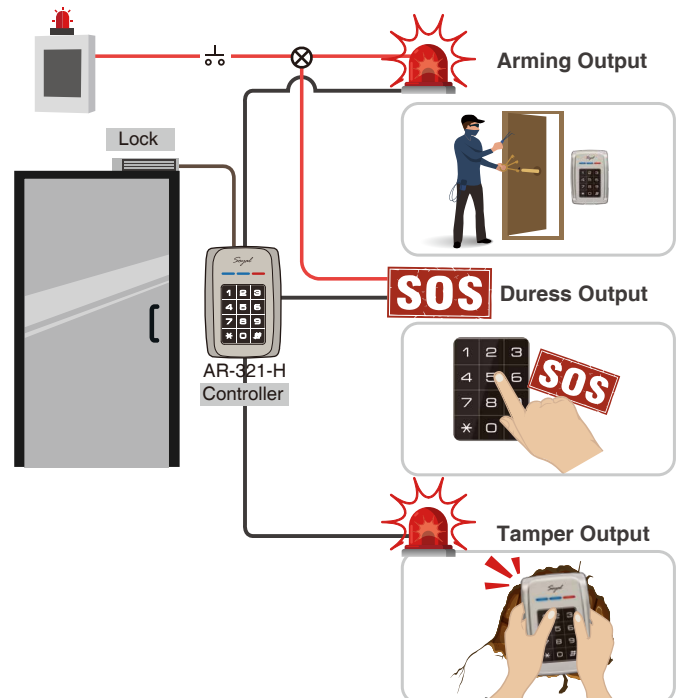


Step 3: Charging your vehicles



● STRENGTHEN SECURITY WITH BURGLARY SYSTEM

- **Arming Output:** Silently send signal to security host when force open door event is occurring
- **Duress Output:** In case an assailant or robber ambush at the entrance and force you to open the door or disarm the system, try to keep calm and input Duress code to open the door, which will simultaneously send a silent alert to security host.
- **Tamper Output:** When controller is removed illegally from the wall, the tamper switch will bounce and trigger alarm. At the same time send signal message to SOYAL 701 Client Software and send loud signal with additional flare alarm honk.



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

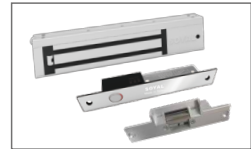


I/O Modules

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

STANDALONE

- Input/Output



Locks

Magnetic Lock
AR-0600M-270
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-321-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

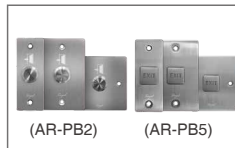
AR-716-E16: 16 Doors IP Control Panel
AR-716-E18: 18 Doors Networking Control Panel

- Iron Series



IP Based LCD Access Controller

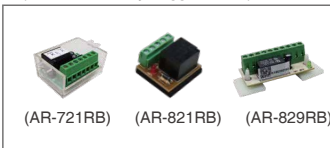
AR-327-E
Smart Digital Door Lock
AR-323-D



Stainless Steel Push Button

AR-PB2 & 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

- Necessary



Power Supply

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



Proximity Tags

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

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 H Series and E Series Controller?

A: SOYAL access controller classified into two categories in term of specification; H Series and E Series. SOYAL H Series controller has already include all basic standalone and networking access controller that you need. But E series controller provide what H 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