SOYAL[®] ACCESS CONTROL SYSTEM

AR-837 (E) / (EF)



ROHS SOR FC (E MA NINCC

V140217

Connector Table (2): Optional

Wire Application	Wire	Color	Description	
TCP/IP Module	1	Black	DC 0V	
	2	Red	DC 3.3V	
	3	Black	DC 0V	
	4	Blue	RSTN	
	5	Green	IRQN	
	6	Purple	NSS	
	7	Brown	MISO	
	8	Yellow	MOSI	
	9	White	CLK	
	10	Black	DC 0V	

Cable: P8								
Wire Application	Wire	Color	Description					
HID RF Module	1	Orange	ANT 1					
	2	Purple	ANT 2					
	3	Black	DC 0V					
	4	Red	DC 5V					
	5	Blue	Wiegand DAT: 1 Input					
	6	Green	Wiegand DAT: 0 Input					
	7	White						

Cable: 29 CN9

Wire Application	Wire	Color	Description
Voice Module	1	Black	DC 0V
(*Required speaker	2	Yellow	TX
80 / 1 5W/ (Max	3	White	TE
2\\/)	4	Orange	RX
200)	5	Red	DC 5V
	6	Blue	





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Programming
A. Keyboard Lock/ Unlock
 Lock/ Unlock Press * and # simultaneously to lock keyboard. Press simultaneously again to unlock.
B. Entering and Exiting Programming Mode
• Entering
Input $*123456\#$ or $*PPPPPP\#$ [e.g.] The Default Value= 123456. If already changed the Master Code= 876112, input $*876112\# \rightarrow$ Access programming mode P.S.If no instruction is entered within 30 sec. , it will automatically leave the programming mode.
 Exiting Press the ★ ★ repeatedly → 6 Quit or 7 Quit and Arming (Please refer to alarm / arming setting)
 Changing the Master Code Access programming mode → 5 Tools → 2 Master Code → Input the 6-digit new master code → Succeeded
C. Initial setup
e Language Sotting
• Language Setting Access programming mode \rightarrow 5 Tools \rightarrow 1 Language \rightarrow 0 EN \rightarrow Succeeded \rightarrow Initial system
 Node ID of Reader Setting Access programming mode → ③ Parameters[1] → 1 Node ID → Input New Node ID : 1~254 (default value:001) → Main Door Number : 0~255 → WG1 Door Number : 0~255 → Show UID (0=No, 1=WG, 2=ABA, 3=HEX) → Enable DHCP(0:No, 1:En, 2=Exit) → Succeeded
D. Adding and Deleting Tag
※ User capacity: 16384 (00000~16383)
Tag Information
 Adding Tag by Tag ID Access programming mode → 1 Add/Delete → 1 Add -> Card ID → Input 5-digit user address → Input Site Code → Input Card Code
Adding Tag by RF Learn Function
Access programming mode → 1Add/Delete → 2Add -> RF-Learn → Input 5-digit user address
 → Input Tag Units(pcs) → Close Tag into RF Area ※If the batch of tags are Sequential, input Tag Units(pcs) in the quantity of the tags and present the tag with the lowest number to the controller for adding all the tag data; otherwise, the tags must be presented to the controller individually
 Suspend User Address Access programming mode → 1 Add/Delete → 3 Suspend -> Addr → Input Start address → Input End address
 Suspend Tag by Tag ID Access programming mode → 1Add/Delete → 4Suspend -> ID # → Input Site Code → Input Card Code
 Recover User Address Access programming mode → 1Add/Delete → 7Delete -> Addr → Input Start address → Input End address
 Recover Tag by Tag ID Access programming mode → 1 Add/Delete → 8 Delete -> ID # → Input Site Code → Input Card Code
 Deleting User Address Access programming mode → 1 Add/Delete → 5 Delete -> Addr → Input Start address → Input End address
 Deleting Tag by Tag ID Access programming mode → 1 Add/Delete → 6 Delete -> ID # → Input Site Code → Input Card Code
 Setting up the access mode Access programming mode → 2 User Setting → 2 Access Mode → Input User Address → 0: Invalid; 1: Card; 2: Card or PIN; 3: Card & PIN
E. PIN Code
Access programming mode → 2User Setting → 1 Password → Input 5-digit user address → Input 4-digit PIN (0001~9999) → Succeeded Or via 701Client set it on Users screen

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F. Adding / Deleting Fingerprint

Adding

Access programming mode \rightarrow **2**User Setting \rightarrow **6**Enroll FP \rightarrow Key in 5-digit user address \rightarrow 1 or 2 different fingers on the sensor lens \rightarrow Succeeded P.S. The AR-837EF needs to collect twice for each fingerprint.

Deleting

Access programming mode \rightarrow **2** User Setting \rightarrow **7** Delete FP \rightarrow Key in 5-digit user address \rightarrow Succeeded

P.S. If you want to delete all users' FP, key in 99999 #

G. Access Mode

Access programming mode \rightarrow **2** User Setting Access Mode Finger Identify (837EF Only) Result (837EF Only) → 2 Access Mode Hardware 701Client Hardware 701Client \rightarrow Key in 5-digit user address (00000~08999) Just fingerprint 0: Must Just card control \rightarrow 0: Invalid; 1:Card; 2: Card or PIN; 3: Card and PIN 0:Invalid Invalid User 🗹 Just fingerprint (837EF: → Finger Identify: 0: Must ; 1: Ignore) 1: Ignore 🗹 Just card control Succeeded Just fingerprint 0: Must Finger+Card Just card control 1:Card ✓ Just fingerprint 1. Card Only 1: Ignore Just card control 2. Finger Only 1. Finger+Card 2. Finger+PIN 3. Card+Finger+PIN ☐ Just fingerprint 0: Must Just card control 4. Card+Finger+Card 5. PIN+Finger+PIN 2:Card or PIN 6. PIN+Finger+Card 1. Card Only ✓ Just fingerprint 1: Ignore 2. PIN Only Just card control 3. Finger Only Just fingerprint 0: Must Finger+Card+PIN Just card control 3:Card and PIN 🗹 Just fingerprint 1. Card+PIN 1: Ignore Just card control 2. Finger+PIN

H. Arming Password

Access programming mode \rightarrow 3 Parameters[1] \rightarrow 8 Arming PWD \rightarrow Input 4-digit PIN (0001~9999; Default: 1234) \rightarrow Succeeded Or via 701Server and set it on AR-829E screen

I. Arming Delay Time

Access programming mode \rightarrow 3 Parameters[1] \rightarrow 7 ArmingDelayTm \rightarrow Enter armed sta. Delay time(Sec), Range:000~255; Armed pulse out-put time (10ms), Range: 000~255 \rightarrow Succeeded

J. Duress Code

Access programming mode \rightarrow **4** Parameters[2] \rightarrow **7** Duress Code \rightarrow **4 sets (select one)** \rightarrow **Input 4-digit PIN (0001~9999)** \rightarrow Succeeded Or via 701Server to set it on AR-829E-V5 screen

*Duress Code is only available in networking mode. It will substitute a personal pin code and send the message of Duress to computer as a warning signal.

K. Terminal Port

Access programming mode \rightarrow **5** Tools \rightarrow **4** Terminal Port \rightarrow **0:Lift ; 1:Host ; 2:LED ; 3:PRN (default value:1)** \rightarrow **Baud Selection (default value:9600)** \rightarrow Succeeded

L. Setting up the alarm / arming

Conditions:

1. Arming enabled

2.Alarm system connected

• Situations:

1. Door is open overtime: Door is open longer than door relay time plus door close time.

2. Force open (Opened without a valid user card): Access by force or illegal procedure.

3. Door position is abnormal: Happening when power is off and then on again, besides, reader was on arming before power went off.

• Enable/Disable the arming status:

Standby Mode		-								
Card only		Card or PIN	Card and PIN							
Open the door	No open the door	Input user address → Input	Present the tag to reader \rightarrow Input							
Present the tag to reader \rightarrow Input	★ → Input 4-digit arming PWD	4-digit individual PWD $\rightarrow #$ \rightarrow	4-digit individual PWD \rightarrow # \rightarrow							
4-digit arming PWD \rightarrow #	arming PWD \rightarrow # \rightarrow Present the tag to reader		Input 4-digit arming PWD \rightarrow #							
Access Programming mode										
Enable: Access programming mode	\rightarrow 7 Quit & Arming	Disable: Access programming mode \rightarrow 6 Quit								

% [Use FP] can substitute for [Induct valid card].

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M. Anti-pass-back

While connecting with AR-721U, AR-737H/U(WG mode) and AR-661U for anti-pass-back function, the access mode must be "Card" only.

Device enable

Access programming mode \rightarrow **4** Parameters[2] \rightarrow **6** Anti-pass-back \rightarrow master controller select [1: Yes] \rightarrow WG select [1: Yes]

- Card user enable
- Access programming mode \rightarrow **1**Add/ Delete \rightarrow **9** Antipass Group \rightarrow Input 5-digit starting user address \rightarrow Input 5-digit ending user address \rightarrow must select [1: Yes]

N. Lift control

[e.g.] Connect with AR-401RO16B to control which floor the user will be able to access. (BAUD9600)

Setting Lift control

Access programming mode \rightarrow 5 Tools \rightarrow 4 Terminal Port \rightarrow 0:Lift Controller \rightarrow Baud Selection 0: 9600 Access programming mode \rightarrow 5 Tools \rightarrow 5 Terminal Port \rightarrow 1:Lift Controller (need to use 725L485)

Set Floor/ Stop

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Single floor

Access programming mode \rightarrow **2**User Setting \rightarrow **4**Single Floor \rightarrow Input 5-digit user address \rightarrow Input single floor number: 1~64

Multi floors

Access programming mode \rightarrow 2 User Setting \rightarrow 5 Multi Floor \rightarrow Input 5-digit user address \rightarrow Select range: 1 or 2 or 3 or 4 \rightarrow Input 16 digits multi floors number [0:disable, 1: enable]

[e.g.] Set NO. 114, can use it through the 8 F and 16F:

Access programming mode \rightarrow 2)User Setting \rightarrow 5)Multi Floor \rightarrow 114 #) \rightarrow 1 #) \rightarrow 000000100000001 #)

O. Alarm Clock (for Factory)

Access programming mode \rightarrow **5** Tools \rightarrow **9** Daily Alarm \rightarrow Set (00~15) \rightarrow Set Start Tm (24 Hours) ; Set Effect Sec. (Seconds as the bell time, Range:1~255) \rightarrow Set Weekday (0:disable, 1: enable) \rightarrow Succeeded

Hardware installation



P. OpenZone

Access programming mode \rightarrow 3 Parameters[1] \rightarrow 2 OnOff OpenZone \rightarrow Main Controller Auto Open Zone (0:disable, 1:enable) \rightarrow Open Door Imm. During Open Zone (0:No, 1:Yes) \rightarrow WG1 Port Auto Open Zone (0:disable, 1:enable) \rightarrow Open Door Imm. During Open Zone (0:No, 1:Yes) \rightarrow Succeeded

Q. Open TimeZone

Access programming mode \rightarrow **5** Tools \rightarrow **6** Open TimeZone \rightarrow Set (00~15) \rightarrow Time (24 Hours) ; Main Port (0:disable, 1: enable) ; WG Port (0:disable, 1: enable) \rightarrow Weekday (0:disable, 1: enable) \rightarrow succeeded



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Firmware Upgrade

Get the upgrade software from SOYAL or our distributor and run "UdpUpdater" software

• Execute the software

The software is within SOYAL CD or please login the SOYAL website to download



Update the firmware

[Please login the SOYAL website to download the new ISP

- 1. Input the Target Address and Port
- 2. [Load F/W] open the documents that have the new ISP Firmware
- 3. Click the new ISP Firmware and [Open] it
- 4. Click [Update F/W] to start the firmware update
- 5. Till the screen shown [Firmware Update is Complete]

Restoring Factory Settings

Reset all device parameters and user card data

- Reset all device parameters and user card data:
- Access programming mode \rightarrow **4** Parameters2 \rightarrow **9** Factory Reset \rightarrow **0** : System Param ; **1** : User Setting ; **2** : System & User
- Reset IP Setting:
- When the device's power is on, press the [RESET] button on the main board untill the ERR (Red) LED of screen lights up. (Refere to the picture beside)
- X After operation as above, you will hear a long reminder sound, and wait until the sound disappears, and then reset the power of the controller. The device will be restored to factory settings.
- ※ After having done the "Factory Reset," the External Communication Port must be reset. Or the biometric sensor won't be functional.
 - 5 Tools \rightarrow 5 Ext. Comm Port (0:FP-200 ; 1:Lift ; 2:Vein2000 ; 3:FP-9000 ; 4:Reserved)

Manu Tree

1. Add/ Delete

1. Add > Card ID 1. Password

2. User Setting

2. Access Mode

4. Single Floor

6. Enroll Finger

7. Delete Finger

5. Multi Floor

3. Extend Options

- 2. Add > RF Learn
- 3. Suspend > Address
- 4. Suspend > ID #
- 5. Delete > Address
- 6. Delete > ID #
- 7. Recover > Address
- 8. Recover > ID #
- 9. Antipass Group

1. Node ID

- 2. OnOff OpenZone 3. Door Relay Tm
- 4. Door Close Tm
- 5. Alarm Relay Tm
- 6. Alarm Delay Tm
- 7. Arming Delay Tm
- 8. Arming PWD

4. Force Open 5. Close & Stop

- 6. Anti-pass-back
- n 7. Duress Code
 - 8. Password Mode
 - 9. Factory Reset



6. Quit

RESET

7. Quit & Arming

3. Parameters[1] 4. Paramete

4. Parameters[2]

2. Egress(R.T.E)

3. Miscellaneous

- 5. Tools 1. Language
 - 2. Master Code
 - Master Range
 Terminal Port
 Ext.Comm Port

6. Open Time Zone

7. Informations

8. Clock Setting

9. Daily Alarm

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