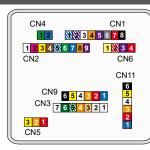


Connector Table



Cable: P1 CN1

Wire Application	Wire	Color	Description
Leals Dalays		Blue White	(N.O.)DC24V1Amp
Lock Relay	2	Purple White	(N.C.)DC24V1Amp
Common-COM-Point	3	White	(COM)DC24V1Amp
Door Contact	4	Orange	Negative Trigger Input
Exit Switch	5	Purple	Negative Trigger Input
Alarm Relay		Gray	Transistor Output Max. 12V/100mA
Alaminelay	6	Giay	(Open Collector Active Low)
Power	7	Thick Red	DC 12V
rowei	8	Thick Black	DC 0V

Cable: P2 CN2

Wire Application	Wire	Color	Description			
DI1	1	White	Reserved			
Beeper	2	Pink	Beeper Output 5V/100mA, Low			
LED	3	Yellow	Red LED Output 5V/20mA, Max			
LED	4	Brown	Green LED Output 5V/20mA, Max			
Door Output	5	Blue White	Transistor Output Max. 12V/100mA			
	5	Dide Mulle	(Open Collector Active Low)			
Wingond	6	Thin Green	Wiegand DAT: 0 Input			
Wiegand	7	Thin Blue	Wiegand DAT: 1 Input			
WG Door Contact	8	Orange	Negative Trigger Input			
WG Exit Switch	9	Purple	Negative Trigger Input			

Cable: P3 CN	13							
Wire Application	Wire	Color	Description					
	1							
	2							
	3	Orange White	Net - TX+					
	4	Orange	Net - TX-					
TCP/IP Output	5	Green White	Net - RX+					
	6	Germ	Net - RX-					
	7							
Cable: P4 CN4								
Wire Application	Wire	Color	Description					
RS-485 for Lift	1	Thick Green	RS-485(B-)					
Controller	2	Thick Blue	RS-485(A+)					
Cable: P5 CN	۷5							
Wire Application	Wire	Color	Description					
Aut Tauran	1	Red	N.C.					
Anti-Tamper Switch	2	Orange	СОМ					
Switch	3	Yellow	N.O.					
Cable: P6 CN	٧6							
Wire Application	Wire	Color	Description					
Power	1	Red	DC 12V Output					
Security trigger signal	2	Purple	Security trigger signal Output					
Arming	3	Red White	Arming Output					
Duress	4	Yellow White	Duress Output					
Cable: P3 CN	19/C	N11						
Wire Application	Wire	Color	Description					
	1	Blue	CLK					
	2	Red	DC 5V					
TTL Output	3	Orange	RX					
	4	White	TE					
	5	Yellow	TX					
	6	Black	DC 0V					

Fingerprint

FC (C (MA) **50**7

V170511

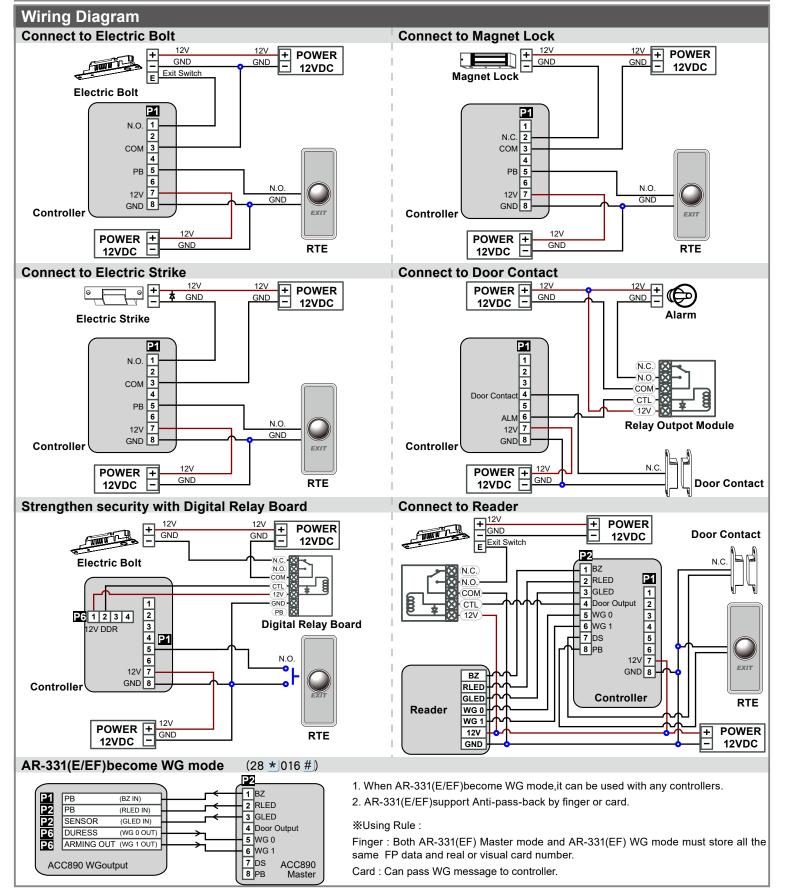
Notice

1.Tubing: The communication wires and power line should NOT be bound in the same conduit or tubing.

2.Wire selection: Use AWG 22-24 Shielded Twist Pair to avoid star wiring.

3.Power supply: Don't equip controller and lock with the same power supply. The power for controller may be unstable when the lock is activating, that may make the controller malfunction.

The standard installation: Door relay and lock use the same power supply, and controller use independent power supply.





Adding and Deleting Tag Add Single Tag or Random tags Input * 123456 # (or Master Code) \rightarrow 19 * UUUUU * 00001 # \rightarrow Present the tag(s) with Controller (single tag or random numbered cards one by one) \rightarrow Done [e.g.] 2 readom cards with user addresses No. 100 and No. 101: Access programming mode \rightarrow 19 * 00100 * 00001 # \rightarrow Present the tags one by one \rightarrow Done Add the Sequential tags Input * 123456 # (or Master Code) - 19 * UUUUU * QQQQQ # - Present the tags (Present the tag with the lowest number first.) - OK [e.g.] User Address NO.101 to NO.120 have 20 pcs of sequential tags:(62312~62332): Access programming mode \rightarrow 19 * 00101 * 00120 # \rightarrow Close Tag into RF Area(only use the tag NO.62312) \rightarrow OK Delete a Single Tag Input *123456 # (or Master Code) \rightarrow 10 *SSSSS 9 EEEE # **Tag Information** [e.g.] Delete User Address: 00058 Access programming mode \rightarrow 10 * 00058 9 00058 # ිධ Delete a batch of Tags 0000848795 000012:62362 < -CARD CODE Input * 123456 #) (or Master Code) \rightarrow 10 * SSSSS 9 EEEEE #) [e.g.] Delete User Address: 00101~00245 SITE CODE SITE CODE Access programming mode \rightarrow 10 * 00101 9 00245 # Delete All Tags Input * 123456 # (or Master Code) \rightarrow 29 * 29 * #Programming A. 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 #) → Access programming mode • Exiting Input \star # Changing the Master Code Access programming mode → 09 * PPPPPRRRRR # [Input the 6-digit new master code twice.] [e.g.] If want to changing the Master Code= 876112, input * 123456 # \rightarrow 09 * 876112876112 #B. Changing the Node ID of Reader Access programming mode \rightarrow 00 * NNN * MMM * AAA # [NNN= Node ID: 000~254; MMM=AR-331(E/EF)Door NO.:1~255; AAA=WG Reader Door NO.:1~255 C. Anti-pass-back Usually, anti-pass-back is commonly applied to parking areas in order to prevent from multi-entry with one card at a time, or somewhere wants to monitor not only the access but also exit condition. Enable device Access programming mode \rightarrow 20 * U * DDD # U= Enable target unit(0=AR-331(E/EF),1=Reader) [Please refer to function default value for details.] [e.g.] If the AR-331(E/EF)set to exit reader, WG Reader set to access reader. Access programming mode \rightarrow 20 * 0 * 128 # \rightarrow 20 * 1 * 192 # [Please refer to function default value for details.] Enable card user Access programming mode \rightarrow 26 * SSSSS * EEEEE * P # SSSSS= starting user address; EEEEE = ending user address [P=0 Enable/ P=1 Disable/ P=2 Reset] [e.g.] User address from 00152 to 00684 enable the anti-pass-back function: 26 * 00152 * 00684 * 0 # D. Auto Open Zone Door will keep opening after first man flashing card. When the reader is stand-alone, supporting only 16 sets of auto-open zone by device setting. Auto-open zone can extend up to unlimited sets by Networking. Enable/Disable auto open zone Access programming mode \rightarrow 20 * U * DDD # U= Enable target unit(0=AR-331(E/EF),1=Reader) [Please refer to function default value for details.] [e.g.] If the AR-AR-331(E/EF)set to Enable aut open zone. Access programming mode \rightarrow 20 \star 0 \star 004 # [Please refer to function default value for details.] • Enable/Disable auto open door without presenting card Access programming mode \rightarrow 24 * U * DDD # U= Enable target unit(0=AR-331(E/EF),1=Reader) [Please refer to function default value for details.] [e.g.] If the WG Reader set to Enable aut open door without presenting card. Access programming mode \rightarrow 24 * 1 * 128 #) [Please refer to function default value for details.] Setting up access time Access programming mode → 08 * MW * NN * HHMMhhmm * 7123456H # [M=AR-331(E/EF); W=Reader(0=disable,1=enable); NN: 16 sets of auto-open zone (NN=00~15); HHMMhhmm=Starting time to ending time; 7123456H= 7 days of week + Holiday (F= 0: disable; 1: enable)] [e.g.] AR-331(E/EF)(without WG reader), to set second time zone which could be passed only at 9:30am to 4:20pm on Mon, Wed and Fri. Access programming mode → 08 * 10 * 02 * 09301620 * 01010100 # → setting is completed

Fingerprint

V170511

E. Lift control							
Connect with AR-401RO16B to control	I floors which the user will be able t	o access. [BAUD9600]	Please	e refer to	below floo	r chart	
• Single floor			Set	Floor			
Access programming mode \rightarrow 27 *			(G)	LL	LL	LL	LL
UUUU=User Address LL=Floor num	0	8 7	6 5	4 3	2 1		
[e.g.] User address NO. 45 only can Multi floors 	reach the elevator to the 24th floor:	27 * 00045 * 24 #	1	16 15 24 23		12 11 20 19	10 9 18 17
Access programming mode \rightarrow 21 *	3		22 21 30 29		26 25		
[UUUUU=User address G: 8 sets of			4		38 37		34 33
8 floors setting (L=0=Disable, L=1=E	,		5		46 45		42 41
[e.g.] User address NO. 168 can rea			6		54 53		50 49
	21 * 00168 * 0 * 00100000 #		7		62 61		58 57
	$0 \# \rightarrow OK$ (Please refer to floor ch	ian as right.)		-	1 - 1 -		
F. Setting Up the Arming							
Conditions:	Application:	D	4				
1. Arming is enabled	•	ng : Door is open longer ned without a valid user		•	•		
2.Alarm system connectedEnable Arming status:	• • •		,	,	0	•	
Standby Mode	3. Door position ab	normal: Arming is enab		poweris	suddenly		
Card only		Card or Passcode		Car	d and Pas	scode	
Enable all devices	Enable particular device	Input 5 digit user addre	ess → Input				4 digit pass
Induct valid card \rightarrow Input 4 digit	Induct valid card \rightarrow Input 4 digit	digit pass code \rightarrow #	•		e→# → I	•	U .
arming code \rightarrow * * #	arming code $\rightarrow *U\#$ or #	arming code \rightarrow * *	•	•	e→ *) *)	#) or *)U	#]
Enter Program Mode	·						
Enable all devices: Access program	mming mode \rightarrow * * #	Enable particular o	device: Acc	ess prog	ramming r	node \rightarrow *	*U#
• Disable Arming status:							
Standby Mode							
Card only		Card or Passcode		Car	d and Pas	scode	
Disable all devices	Disable particular device	Input 5 digit user addre	ess \rightarrow Input	4 Indu	uct valid car	d → Input 4	4 digit pass
Induct valid card \rightarrow Input 4 digit	Induct valid card \rightarrow Input 4 digit	digit pass code \rightarrow #	· · · · ·	Input 4 digits $\operatorname{code} \rightarrow \# \rightarrow \operatorname{Input} 4$ digits arming			
arming code $\rightarrow *9 \#$	arming code $\rightarrow \star U \#$ or $\#$	arming code \rightarrow * 9	# or * U #	¢ code	e → * 9	# or * U	#
arming code → * 9 # ※ Factory default armingcode is:			# or *U#	f cod	e→ * 9	# or * U	#
	1234. U=Reader unit (0=AR-331(#]or ★U#	¢ code	e → * 9	# or * U	<u>#</u>
 ※ Factory default armingcode is: G. Adding / Deleting Fingerpri Adding 	1234. U=Reader unit (0=AR-331() nt	E/EF), 1=WG Reader).	<u>#</u> or * U <u></u>	¢ cod	e → * 9	# or * U	<u>#</u>
 ※ Factory default armingcode is: G. Adding / Deleting Fingerpri Adding Access programming mode → 3 	1234. U=Reader unit (0=AR-331() nt	E/EF), 1=WG Reader).	<u>#</u>]or ★]U <u></u> #	≠j cod	e → ★ 9	#jor <u>*</u> U	<u>#</u>
 ※ Factory default armingcode is: G. Adding / Deleting Fingerpri Adding Access programming mode → 3 ([F=1= Adding 1 Finger data; F=2= A 	1234. U=Reader unit (0=AR-331() nt	E/EF), 1=WG Reader).	<u>#</u> or ★ U <u>#</u>	≠ cod	e → * 9	#jor <u>*</u> U	<u>#</u>
 ※ Factory default armingcode is: G. Adding / Deleting Fingerpri Adding Access programming mode → 3 [F=1= Adding 1 Finger data; F=2= A How to add a finger data: 	1234. U=Reader unit (0=AR-331() nt	E/EF), 1=WG Reader). In finger on the sensor address]	<u>#</u> or ★ U <u>#</u> Bi	≠ cod	Lor	∰ or ★U	<u>#</u>
* Factory default armingcode is: G. Adding / Deleting Fingerpri • Adding Access programming mode \rightarrow 3 G [F=1= Adding 1 Finger data; F=2= A How to add a finger data: Adding 1 Fingerprint (By DO) Adding (Finger	1234. U=Reader unit (0=AR-331(I nt) * F * UUUUU # Place you dding 2 Finger data; UUUUU= User Bi Di Bi Di Bi	E/EF), 1=WG Reader). In finger on the sensor address]	Bi	≠ cod	Lor (C	ng Bi	<u>#</u>
	1234. U=Reader unit (0=AR-331(i nt) * F * UUUUU # Place you dding 2 Finger data; UUUUU= User Bi Di Bi Long Bi Di Bi Long Bi Di Bi Long Bi Di Bi Cox	E/EF), 1=WG Reader). In finger on the sensor address] In Di	Bi Di E	3i	Lor (C	ng Bi ж) ж ж Х	
	1234. U=Reader unit (0=AR-331(Int) 1234. U=Reader unit (0=AR-331(Int) 11 1234. U=Reader unit (0=AR-331(Int) 1234. U=Reader unit (0=AR-331(Int) </td <td>E/EF), 1=WG Reader). ur finger on the sensor address] i Di Bi Di Bi Di Bi Di</td> <td>Bi 2011 E</td> <td>3i</td> <td>Lor (C Long Bi (OK)</td> <td>ng Bi)K) Gringer Rep ∂ Finger Rep 3 Fin</td> <td>peat</td>	E/EF), 1=WG Reader). ur finger on the sensor address] i Di Bi Di Bi Di Bi Di	Bi 2011 E	3i	Lor (C Long Bi (OK)	ng Bi)K) Gringer Rep ∂ Finger Rep 3 Fin	peat
* Factory default armingcode is: G. Adding / Deleting Fingerpri • Adding Access programming mode \rightarrow 3 § [F=1= Adding 1 Finger data; F=2= A How to add a finger data: Adding 1 Fingerprint (By DO) Adding 2 Fingerprint (By DO) Adding 3 Fingerprint (By DO) Adding Adding 4 Fingerprint (By DO) Adding 4	1234. U=Reader unit (0=AR-331(Interpretation of the second sec	E/EF), 1=WG Reader).	Bi E Di E Di E	3i 3i 1i r finger f	Lorg Bi (OK)	ng Bi ж) ж) Finger Rep З Finger Rep З Finger Rep впsor.	peat
 ※ Factory default armingcode is: G. Adding / Deleting Fingerpride Adding Access programming mode → 3 ⊆ [F=1= Adding 1 Finger data; F=2= A How to add a finger data: Adding 1 Fingerprint Adding 2 Fingerprint Bi Di Adding 3 Fingerprint Bi Di S Finger Bi Di Bi Di 	1234. U=Reader unit (0=AR-331(Interpretation of the second sec	E/EF), 1=WG Reader). ur finger on the sensor address] i Di Bi Di Di Bi Di Bi	Bi E Di E Di E	3i 3i 1i r finger f	Lorg Bi (OK)	ng Bi ж) ж) Finger Rep З Finger Rep З Finger Rep впsor.	peat
	1234. U=Reader unit (0=AR-331(Int) nt a F ★ UUUUU # Place you dding 2 Finger data; UUUUU= User Bi Di Bi Oi Bi Bi Cox Finger 2 Sounds when you place finger of 9 0	E/EF), 1=WG Reader).	Bi E Di E Di E	3i 3i 1i r finger f	Lorg Bi (OK)	ng Bi ж) ж) Finger Rep З Finger Rep З Finger Rep впsor.	peat
	1234. U=Reader unit (0=AR-331(i nt) * F * UUUUU # Place you dding 2 Finger data; UUUUU= User Bi Di Bi Di Bi Bi Di Bi Long Bi Di Bi Long Bi Di Bi Long Cox, Finger 2 * sounds when you place finger of 9 * 0 * UUUUU #	E/EF), 1=WG Reader).	Bi Di E Di E elease your g mode → (3i 3i r finger f 3 9 *	Lor (C Long Bi (OK) From the se	ng Bi SK) ng Bi SK) Finger Rep 3 Finger ensor. 999 #	beat ger 2
* Factory default armingcode is: G. Adding / Deleting Fingerpri • Adding Access programming mode \rightarrow 3 § [F=1= Adding 1 Finger data; F=2= A How to add a finger data: Adding 1 Fingerprint (By DO) Adding 2 Fingerprint (By DO) Adding 3 Fingerprint (By DO) Adding 3 Fingerprint (By DO) Adding 3 Fingerprint (By DO) Adding 3 Fingerprint (By DO) Adding 3 Finger Bi Di 3 Finger 1 Bi Di Adding 3 Finger Bi Di 3 Finger 1 Bi Di 4 Adding 3 Finger Bi Di 3 Finger 1 Bi Di 4 Adding 3 Fingerprint 8 Di 4 Adding 3 Finger Bi Di 5 Deleting Access programming mode \rightarrow 3 (D) H. Enable/Disable Skip Finger • Access programming mode \rightarrow 4 (D)	1234. U=Reader unit (0=AR-331(Int) nt Image: Strategy of the strategy of th	E/EF), 1=WG Reader). Ir finger on the sensor address] i Di Bi Di Bi Bi Di Bi Di Bi Di Bi Di Bi Di Bi Di Bi Di Bi	Bi Di E Di E elease your g mode → ((Please c	3i 3i r finger f 3 9 * consult de	Lor (C Long Bi (OK) 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	ng Bi SK) ng Bi SK) Finger Rep 3 Finger ensor. 999 #	beat ger 2
* Factory default armingcode is: G. Adding / Deleting Fingerpri • Adding Access programming mode \rightarrow 3 § [F=1= Adding 1 Finger data; F=2= A How to add a finger data: Adding 1 Fingerprint (By DO) Adding 2 Fingerprint (By DO) Adding 3 Fingerprint (By DO) * If you hear continuous "beep" • Deleting Access programming mode \rightarrow 3 UUUUU= User address H. Enable/Disable Skip Finger • Access programming mode \rightarrow 4 0 NNNN= starting user address	1234. U=Reader unit (0=AR-331(int 1234. U=Reader unit (0=AR-331(int) 1234. UUUUU # 1234. Unit to the set of the set	E/EF), 1=WG Reader). Ir finger on the sensor address] i Di Bi Di Bi Bi Di Bi Di Bi Di Bi On the sensor, please r • Deleting All Access programmin	Bi Di E Di E elease your g mode → ((Please c Access M	3i 3i r finger f 3) 9) * consult de ode	Lor (C Long Bi (OK) / From the so 9 * 999 etail comm Way	Ig Bi SK) SK) Finger Rep Finger Rep SK SK SK SK SK SK SK SK SK SK	peat ger 2
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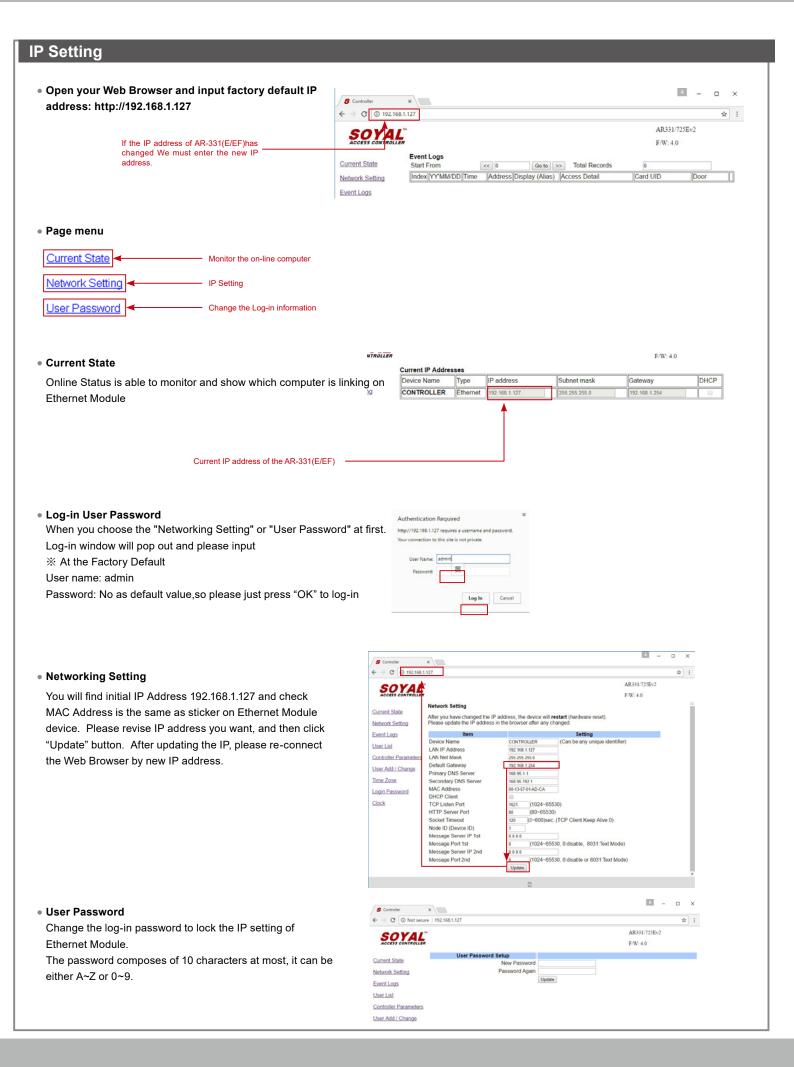


Restoring Factory Settings Reset all device parameters and user card data Reset all device parameters and user card data: Press "IP Reset Button" of main board for few seconds, then IP and all device parameters will reset. (Reference to picture) Use the command: % After reset, you will hear the long reminder sound, and wait until the Access programming mode $\rightarrow 29 \times 29 9 \#$ sound disappear. Resupply the power to device will restore factory Use the Button on the PCB: setting. please refer to [38 * DDD #] command to reopen. Reset all user card data: **Deleting All Fingerprint:** Access programming mode \rightarrow 29 * 29 * # Access programming mode \rightarrow 39 * 9 * 99999 # Firmware Upgrade Get the upgrade software from CCTV CORE or our distributor and run "UdpUpdater" 2 Execute the software UDP Updater F/W File Check Sun 0x59EC The software is within CCTV CORE CD or Login 0 4 the CCTV CORE web to downloads • Update the firmware * 5 0 10 O [Please login the CCTV CORE web 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 No Docume 3. Click the new ISP Firmware and [Open] it 3 4. Click [Update Device] to start the firmware update 0 5. Till the screen shown [Firmware Update is Complete] My No AB881E (192 168 001 1 EnrollTool 1. Select correct "COM Port". × 2. Select "Node ID" of the device. Input "User Address". Now is 2017 Fri May 12 09:53:34.26 3. Select the number of enrolled fingers in assigned path (1FP or 2FP per User). C:\Program Files (x86)\Soyal Device Tools\ 4. Select the device type "AR-331(EF)". 5. Select "Save Path" in which will save fingerprint data. Enroll Fingers 6 Path 1 UserIndex << 03 Node 0 >> 01 02 6. Click "Enroll", follow pop-up picture and Status bar to enroll FP as below: SIF -> FP5 Device Type Connect to Controller—» Place 1st finger 1st time to Finger sensor—» O Delete All OACC995-V2/ACC999 ACC890BIO remove finger—» Place 1st finger 2nd time—» remove finge—» Place Write to Card 2nd finger 1st time—» remove finger—» Place 2nd finger 1st time—» Save FP data to File->> Registration Completed. Security Level Transfer fingerprint format V9 -> V5 Nor Secure More Secure COM port 7. Click "SIF→FP5 " ,select old AR-331EF FP file format. SIF , the COM2 COM3 COM4 ● COM5 COM6 Enroll COM1 system will automatically generate new single FP file format. FP5 COM7 COM8 COM9 COM10 ○ COM11 (COM12 into 701Server folder.FP5 into 701Server folder. Exit COM13 ○COM14 ○COM15 ○None Deleting fingerprint database on the device 8. Click"Delete All", all Fingerprint data from device will be deleted completely. Place the Finger(3-1), please !. Place the Finger(2-1). Place the Finger(1-1) ple C.\Program Files (x86)\Soyal Device Tools m Files (x86)\Soyal Device Tools rogram Files (x86)\Soyal Device Tools Place the Finger(3-2) please !. Place the Finger(2-2) please ! Place the Finger(1-2). C:\Program Files (x86)\Soyal Device Tools\ C:\Program Files (x86)\Soyal Device Tools C:\Program Files (x86)\Soyal Device Tools\ Place the Finger(1-3), please Place the Finger(2-3) please! Place the Finger(3-3), please !... C:\Program Files (x86)\Soval Device Tools C:\Program Files (x86)\Soyal Device Tools\ C:\Program Files (x86)\Soval Device Tools User uploading:0(0~497) C:\Program Files (x86)\Soyal Device Tools\

Fingerprint

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Command List (By WG Keyboa	ard)					
Function	Command	Exposition				
Entering programming mode	* PPPPP #	PPPPP: Master Code, (Default value: 123456)				
Exiting programming mode	* #					
Exiting programming mode and enabling all device into arming status.	* * #	Including AR-331(EF), WG Reader				
Enabling each device into arming status.	* * U #	U=Enable target unit (0=AR-331(EF) , 1=WG Reader)				
		NNN=Node ID,(001~254)				
Node ID setting	00 * NNN * MMM * AAA #	MMM=AR-331(EF) Door Number,(001~255)				
		AAA=WG Reader Door Number,(001~255)				
		default value = 192.168.1.127				
		CCCCCCCCCCC = 192168001127				
IP Address assign (Must power reset)		If set to 000.000.000 will enable DHCP otherwise				
n Address assign (must power reset)		will disable DHCP				
	01 * 1 * 255255255000 #	Netmask				
	01 * 2 * 192168001254 #	Gateway assign				
		U=Enable target unit (0=AR-331(EF) , 1=WG Reader)				
Door relay time setting	02 * U * TTT #	TTT=Door relay time				
Door relay time setting		000 (Output constantly)				
		001~600=1-600 Sec. ; 601~609=0.1~0.9Sec.				
		TTT=Alarm relay time ; 000 (Output constantly)				
Alarm relay time setting	03 * TTT #	001~600=1~600 Sec.				
Arming delay time setting	05 * TTT #	Base on second, range: 001~255				
Alarm delay time setting	06 * TTT #	Base on second, range: 001~255				
Master card catting	07 ± 00000 ± EEEEE #	SSSSS-EEEEE=00000~15999				
Master card setting	07 * SSSSS * EEEEE #	SSSSS= starting user address; EEEEE= ending user address				
		M=AR-331(EF); W=WG Reader (0=disable; 1=enable)				
		NN=16 sets of auto-open zone (Range: 00~15)				
		HHMMhhmm=staring time to ending time				
Auto-open zone setting	08 * MW * NN * HHMMhhmm *	(e.g.: 08301200=08:30 to 12:00)				
	7123456H <u>#</u>	7123456: 7 days of week -Sun/Mon/Tue/Wed/Thu/Fri/Sat				
		(Input value: 0=disable; 1=enable)				
		H: Holiday (Input value: 0=disable; 1=enable)				
		PPPPP= New master code				
Master code settings	09 * PPPPPRRRRR #	RRRRR= Repeat the new master code				
	Suspend : 10 * SSSSS * EEEEE #	* :Suspend 9 :Delete				
Suspend or delete tags	Delete : 10 * SSSSS 9 EEEEE #	SSSS= starting user address; EEEE= ending user address				
Recover tag	11 * SSSSS * EEEEE #	SSSSS= starting user address; EEEEE= ending user address				
Catting up Cand as DIN made by year address		UUUUU= user address; PPPP=4-digit individual PWD				
Setting up Card or PIN mode by user address	12 *UUUUU * PPPP #	(Access mode: Card or PIN)				
		Base on 1ms, range:1~255, default value=10,				
Arming output setting	14 * TTT #	Input 0= Timeless				
Duress code setting		PPPP=4-digit PWD (0001-9999)				
	15 * PPPP #	Default value : 4321				
Arming PWD setting	17 * PPPP #	PPPP=4-digit PWD (0001-9999)				
		Default value : 1234				
Enabling or Disabling into arming status	Card+NNNN #	NNNN : Arming PWD				
Enabling or Disabling each device into arming status.	Card+NNNN * U #	U=Enable target unit (0=AR-331(E/EF), 1=WG Reader)				
Enabling all device into arming status.	Card+NNNN * * #	U-Ellable target unit (U-AR-331(E/EF), 1-WG Reader)				
Disabling all device into arming status.	Card+NNNN * 9 #					
Door open waiting time	18 *U *TTT #	U=Enable target unit (0=AR-331(EF) , 1=WG Reader)				
		TTT=Door open waiting time:001~600;default value:15 sec.				
Set the card by induction	19 * UUUUU * QQQQQ #	UUUUU=user address QQQQQ=Card quantity(00001=Continuously inducting)				
Reader additional setting	20 * U * DDD #	U=Enable target unit (0=AR-331(E/EF), 1=WG Reader) DDD=Function default value				
		UUUUU=user address; G=4 sets of lift control(0~3);				
Lift control setting: multi-doors	21 * UUUUU * G * LLLLLLL #	LLLLLLL=8 assigned floor (F=0: Disable, 1: Enable)				
		MMM=Node ID of lift controller				
AR-401RO16/ AR-401RO16B relay time setting	23 * MMM * TTT #	TTT= relay time: 000~600=1~600 sec.				
		U=Enable target unit (0=AR-331(E/EF), 1=WG Reader)				
Factory setting	24 * U * DDD #	DDD: Function default value				
Real time clock setting	25 * YYMMDDHHMMSS #	YYMMDDHHmmSS: Year/Month/Day/Hour/Min./Sec.				
v		•				

Fingerprint

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Command List (By WG Keyboard) Command Exposition							
Function	Command	•					
Anti-pass-back (Enable user)	26 * SSSSS * EEEEE * P #	SSSSS= starting user address; EEEEE= ending user address P=0=Enable; P=1=Disable; P=2=Initial					
Lift control setting: single door	27 * UUUUU * LL #	UUUUU=user address; LL: Floor number(01~64 floor)					
Duress Function and Arming output setting	28 * FFF #	Arming output and Duress function: FFF= 008 (default value)					
Delete all tag/Delete all tag + parameters setting	29 * 29 * # / 29 * 299 * #						
Same tag reading interval time	31 * TTTT #	Base on 10ms, range from 10 to 6000					
Auto ring the clock alarm schedule	32 * SS * HHMMTT * 7123456H #	SS= 16 sets auto alarm schedule, range 0~15 HHMM= HH:MM (ex. 0830: Ring bell at 08:30) TT=Period of time to ring bell (Base on second, range 01~99 sec.) 7123456: 7 days of week -Sun/Mon/Tue/Wed/Thu/Fri/Sat (Input value: 0=disable; 1=enable) H: Holiday (Input value: 0=disable; 1=enable)					
Holiday Setting	35 * MMDD * F #	MM= Month of year (01=Jan10=Oct.) DD= Date of month (01=1st day of month) F= 0:Delete ; 1: Add					
Enabling or Disabling into Full Access status	36 * MW #	M=AR-331(EF); W=WG Reader (0=disable; 1=enable)					
RS485 port function setting (Needs to be restarted after setting)	37 * AB #	A=0:AR401RO B=0: 9600(default value) 1:Host (default value) 1: 19200 2:LED Panel 2: 38400 3:Printer 3: 57600					
Biometric forms set (Needs to be restarted after setting)	38 * DDD #	002=2000 Finger-Vein recognition 003=9000 Optical / Capacitive fingerprint recognition 004=200 Optical fingerprint recognition 008=200 Capacitive fingerprint recognition 012=200 Optical & Capacitive fingerprint recognition					
Adding / Deleting Fingerprint	39 * F * UUUUU <u>#</u>	F= 1: Adding one finger data 2: Adding two finger data 3:Adding three finger data 0: Delete					
Deleting All Fingerprint	39 * 9 * 99999 #	UUUUU=user address					
En/Disable Skip Finger/Tag	40 * F * NNNNN * EEEEE #	First 40*1*NNNN*EEEEE# Then 40*3*NNNN*EEEEE# Setting a pair of command Access mode: FP first and then Tag (Default Value) First 40*0*NNNN*EEEEE# Setting a pair of command Then 40*2*NNNN*EEEEE# Setting a pair of command Access mode: FP only or Tag only NNNN= starting user address;EEEE= ending user address					

Function Default Value

20 * U * DDD #									
Function				Option Value		Value	Application		
Time Attendance				· · · · · · · · · · · · · · · · · · ·		Networking			
Auto Re-lock			<u></u> %0: Г	Disable	1: Enable				
Auto Open			×0: E	Disable	1: Enable	004	Networking/Stand-Alone		
When Access Mode is "Card and PIN", Read	ers can skip pressing	PIN code	. : *0 : E	Disable	1: Enable	008	Networking/Stand-Alone		
Exit by Push Button			0: 0	Disable	※1: Enable	016	Networking/Stand-Alone		
Enable force Open			×0: 5	Slave	1: Mater	032	Networking		
As Access/Exit Reader			₩0: E	Exit	1: Access	064	Netwo	orking	
Anti-pass-back			₩0: E	Disable	1: Enable	128	Netwo	orking	
24 * U * DDD #								※Default Value	
Function			Option			Value Application			
Enable Egress Beep Sounds X			%0: Disable 1: Enable			001	Networking/Stand-Alone		
Skip Tag after FP Access		×0: I	%0: Disable 1: Enable			002	Networking/Stand-Alone		
Enable Arm/Disarm Zone(62)		×0: I	%0: Disable 1: Enable			008	Networking/Stand-Alone		
Reader and controller share the same door re	elay (only for reader)	0:	0: Disable %1: Enable			016	Networking/Stand-Alone		
Free Access Mode		×0: I	: Disable 1: Enable 032 Networking/S			Networking/Stand-Alone			
Stop Alarm by			lone	1: Pu	sh button/Door Closed		064	Networking/Stand-Alone	
Open door immediately without 1st card presented at auto open zone			Disable	1: En	able	ble 128 Networking/Stand-A			
28 * FFF #								*Default Value	
Function Option					Value		Application		
xpiry User Access Trigger Alarm			le		001	001 Networking/Stand-Alo		working/Stand-Alone	
Auto Reset Anti-pass on TZ61	to Reset Anti-pass on TZ61				002	002		Networking/Stand-Alone	
Duress Function and Arming output setting 0:Wiegand output %1:			ing and	Dures	s 008		Networking/Stand-Alone		
RS-485	RS-485 401RO16B:00 %HOS				000	016	Net	working/Stand-Alone	
	LED: 10 PR				032	048			