SOYAL® ACCESS CONTROL SYSTEM

Contents

AR-321H [Metal Case]
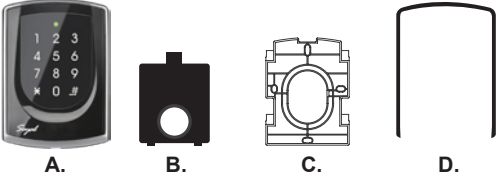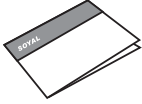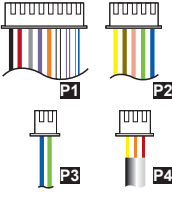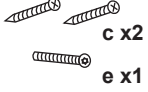
❶ Product   ❷ User Guide   ❸ Terminal Cables   ❹ Tools   ❺ Water proof Strip

P1   P2   P3   P4

d x2

AR-721H

❶ Product   ❷ User Guide   ❸ Terminal Cables   ❹ Tools

P1   P2   P3   P4

f x2

AR-725H [Illuminated Touch-panel]

AR-725H-M

❶ Products   ❷ User Guide   ❸ Terminal Cables   ❹ Tools

A.   B.   C.   D.

P1   P2

P3   P4

c x2

e x1

AR-725H

❶ Products   ❷ User Guide   ❸ Terminal Cables   ❹ Tools

A1.   E.   F.

P1   P2

P3   P4

f x2

AR-725X

❶ Products   ❷ Tools

A2.   A3.   B.   C.   G.   H.   D.

a x2   e x1

b x2

c x2

AR-757H

❶ Product   ❷ User Guide   ❸ Terminal Cables   ❹ Tools

P1   P2   P3   P4   P6

f x2
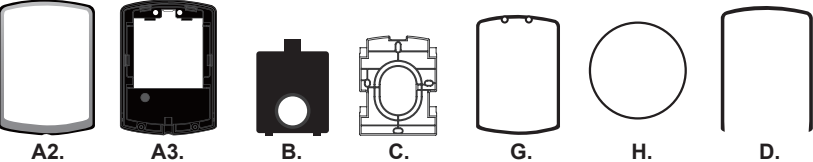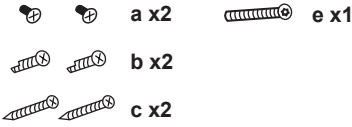
Parts Description

a. Button Head Pozidriv Tapping Screw: M3x10

b. Button Head Pozidriv Slotting Screw: 2.5x10

c. Flat Head Cap Philips Tapping Screw: 4x19.1

d. Flat Head Cap Philips Tapping Screw: 4x38

e. Security Torx Screw: M3.5x15

f. Flat Head Hex Socket Screw: M3x8

Access Controller

Metal Case / Illuminated Touch-panel

V090810

Installation

AR-321H [Metal Case]
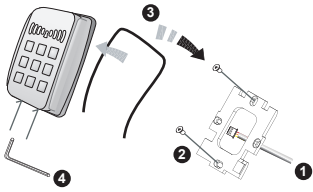
- Pull the cables from the square hole of the mounting plate.
- Use a screwdriver to screw the mounting plate onto the wall.
- Attach the water proof strip to the body, then connect the terminal cables to the body and attach the body to the mounting plate.
- Use the Allen key and screws (accessories supplied) to assemble the body onto the mounting plate.
- Turn on the power, and LED will light and beep will sound.

AR-721H
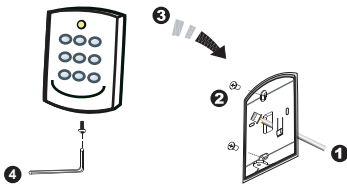
- Pull the cables from the square hole of the mounting plate.
- Use a screwdriver to screw the base onto the wall.
- Connect the terminal cables to the body and attach the body to the mounting plate.
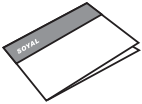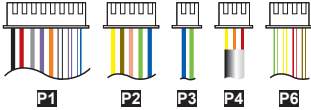- Assemble the covers with the Allen key and screws (accessories supplied).
- Turn on the power and LED will light and beep will sound.

AR-725H [Illuminated Touch-panel]

AR-725H-M
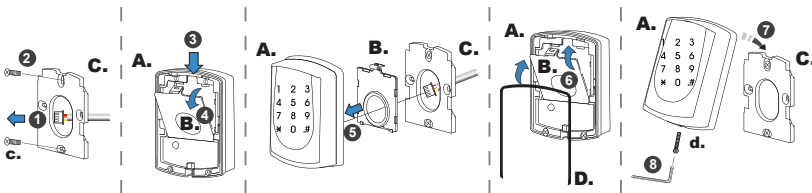
- Pull the cables from the square access hole of the mounting plate **C**.
- Use a screwdriver to screw the metal plate **C** onto the wall.
- Take off the plastic mounting plate **B** from the body **A**, and pull the cables through the access hole of **C** and **B**, then connect to the body **A**.
- Assemble plate **B** with the body **A**, and embed the water proof strip **D** onto the plastic side frame.
- Assemble the body **A** onto the mounting plate **C** with the Allen key and screws (accessories supplied).
- Turn on the power and LED will light and beep will sound.

AR-725H
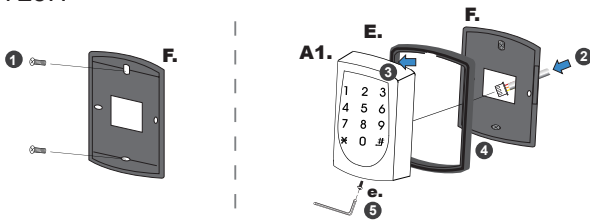
- Use a screwdriver to screw the base F onto the wall.
- Attach the water proof gasket to the body **A1**, and pull the cables from the square hole of the base F, and connect to the body **A1**.
- Assemble the body **A1** with the base **F**.
- Screw **A1** and F tight with the Allen key and screws (accessories supplied).
- Turn on the power and LED will light and beep will sound.

AR-725X
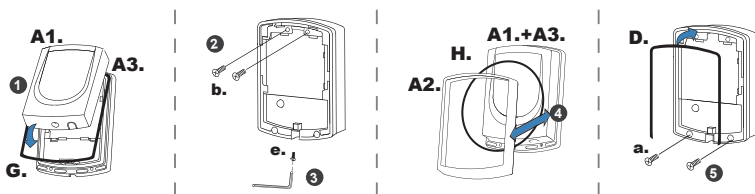
- Put on **G**, and attach **A1** onto the plastic plate **A3**, and screw it with the Allen key and screws (accessories supplied).
- Put the ring O on the metal frame, and put them together onto the reader **A1**+**A3**, and screw them and buckle up the 4 buckles on the back.
- Embed the water proof strip **D** onto the frame side of the base.
- Following by the install process of AR-725H-M.

AR-757H
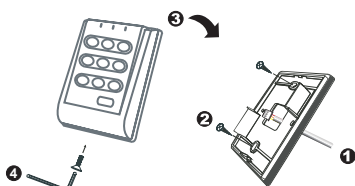
- Pull the cables from the square hole of the mounting plate.
- Use a screwdriver to screw the base onto the wall.
- Connect the terminal cables to the body and attach the body to the mounting plate.
- Assemble the covers with the Allen key and screws (accessories supplied).
- Turn on the power and LED will light and beep will sound.

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 reader and lock with the same power supply. The power for reader may be unstable when the lock is activating, that may make the reader malfunction.

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

Connector Table

AR-321H [Metal Case]

125kHz

AR-721H

125kHz   13.56MHz

AR-725H [Illuminated Touch-panel]

125kHz   13.56MHz

AR-757H

125kHz   Main Board   13.56MHz   Main Board

I/O Board   I/O Board
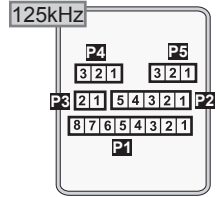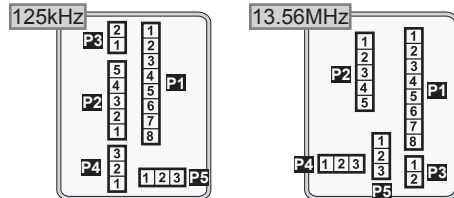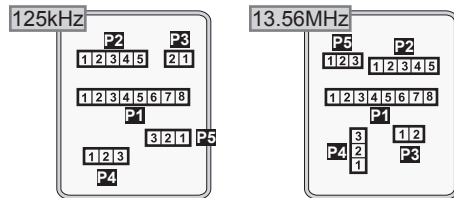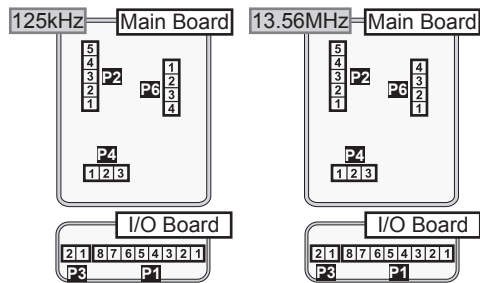
Connectors Comparison

AR-321H	125kHz	P1 P2 P3 P4 (P5 Optional)
AR-721H	125kHz	P1 P2 P3 P4 (P5 Optional)
	13.56MHz	P1 P2 P3 P4 (P5 Optional)
AR-725H	125kHz	P1 P2 P3 P4 (P5 Optional)
	13.56MHz	P1 P2 P3 P4 (P5 Optional)
AR-757H	125kHz	P1 P2 P3 P4 P6
	13.56MHz	P1 P2 P3 P4 P6

Cable: P1

Wire Application	Pin	Color	Description
Door Relay	1	Blue White	(N.O.) DC24V1Amp
	2	Purple White	(N.C.) DC24V1Amp
Common-COM-Point	3	White	(COM) DC24V1Amp
Door Sensor	4	Orange	Negative Trigger Input
Exit Switch	5	Purple	Negative Trigger Input
Alarm	6	Gray	N.O. or N.C. shift by JP1 jumper and Shared Com with Door Relay
RelayPower	7	Thick Red	DC Power 12V
	8	Thick Black	DC Power 0V

Cable: P2

Wire Application	Pin	Color	Description
Wiegand	1	Thin Blue	Wiegand DAT:1 Input
	2	Thin Green	Wiegand DAT:0 Input
Beeper	3	Pink	Beeper Output 5V/100mA, Low
LED	4	Brown	LED Green Output 5V/20mA, Max
	5	Yellow	LED Red Output 5V/20mA, Max

Cable: P3

Wire Application	Pin	Color	Description
Networking	1	Thick Green	RS-485(B-)
Module	2	Thick Blue	RS-485(A+)

Cable: P4   Contact Rating: 1A 125VAC/24VDC

Wire Application	Pin	Color	Description
Tamper Switch	1	Red	N.C.
	2	Orange	COM
	3	Yellow	N.O.

※After S/N: 0706-XXXXXX

Cable: P5 (Optional)

Wire Application	Pin	Color	Description
3-PIN Connector	1	Black	GND.
	2	White	Duress
	3	Purple	Arming

Cable: P6

Wire Application	Pin	Color	Description
Door bell	1	Brown White	BE Output
Arming	2	Red White	AR Output
Duress	3	Yellow White	DU Output/ TTL out
LED indicator	4	Green White	Hi input/ Green light brighten

Wiring Diagram

Connector to Electric Bolt
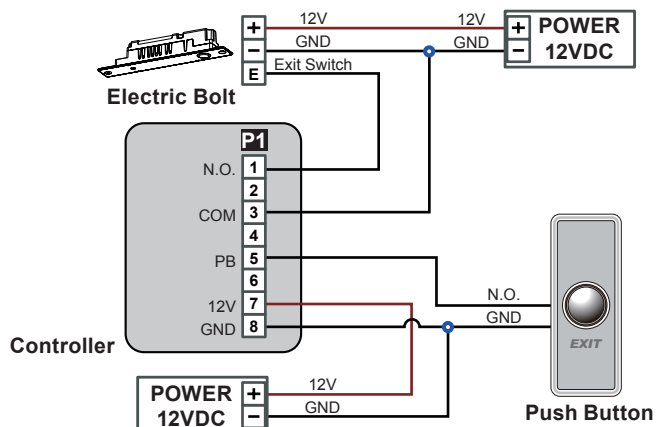
Connector to Magnet Lock
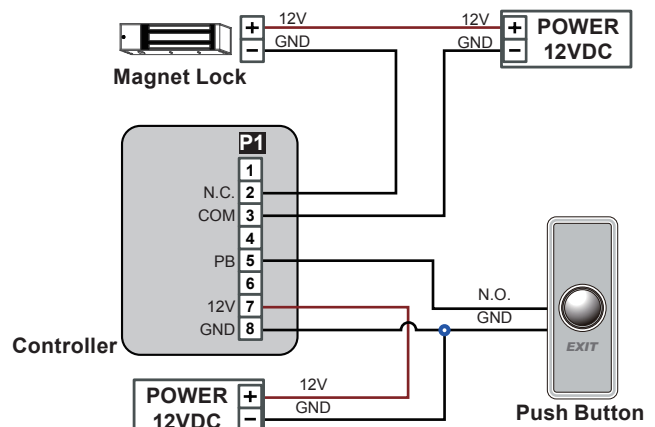
Connector to Electric Strike

Electric Strike
12V / GND — 12V / GND — POWER 12VDC

Controller P1
- N.O. 1
- 2
- COM 3
- 4
- PB 5
- 6
- 12V 7
- GND 8

POWER 12VDC + / − 12V / GND

Push Button (EXIT) N.O. / GND
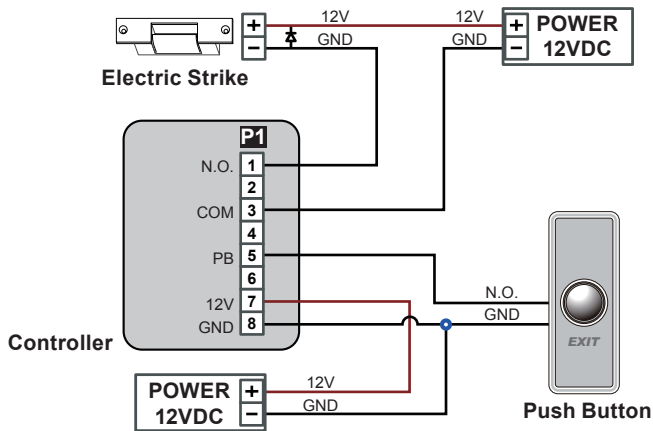
Connector to Door Sensor

POWER 12VDC + / − 12V GND — 12V GND + / − Alarm

Controller P1
- 1
- 2
- 3
- Door Sensor 4
- 5
- ALM 6
- 12V 7
- GND 8

N.C. / N.O. / COM / CTL / 12V
Relay Outpot Module

POWER 12VDC + / − 12V GND

Door Sensor

Connector to Reader

Reader
- WG 1
- WG 0
- BZ
- GLED
- RLED
- 12V
- GND

Controller P1
- 1 WG 1 / 1
- 2 WG 0 / 2
- 3 BZ / 3
- 4 GLED / 4
- 5 RLED / 5
- P2 / 6
- 7
- 8
- 12V / GND

POWER 12VDC − / + GND / 12V
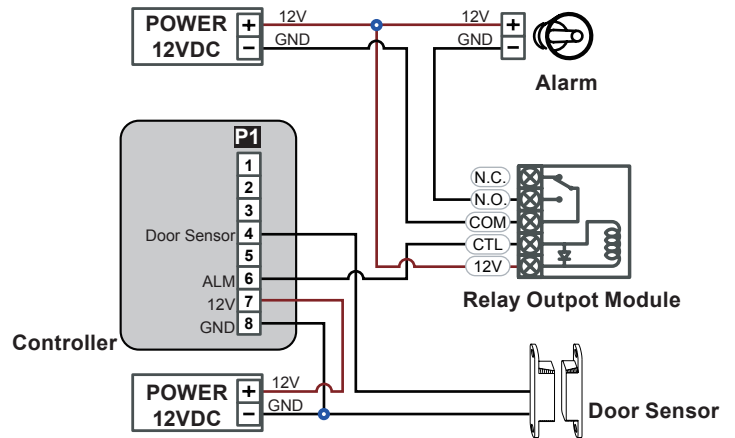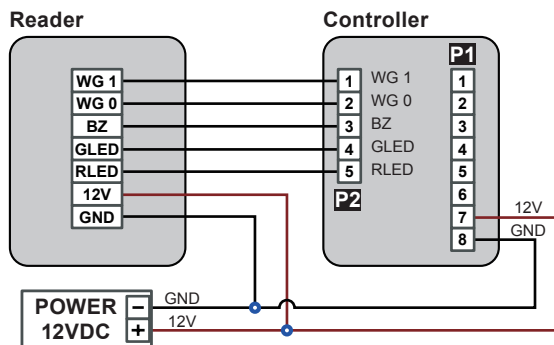
Connector to Networking

PC — Converter (A+ / B−) — GND 12V — POWER 12VDC − / +

Node ID 001 AR-716E
+ / −
- Host B− / A+
- CH1 B− / A+
- CH2 B− / A+

Controller P3 B− / A+ 1 / 2
Node ID 254

Door No. 1 ...... Door No. 8
- P3 B− / A+ 1 / 2 **Controller**
- P3 B− / A+ 1 / 2 **Controller**

Door No. 9 ......Door No. 16
- P3 B− / A+ 1 / 2 **Controller**
- P3 B− / A+ 1 / 2 **Controller**
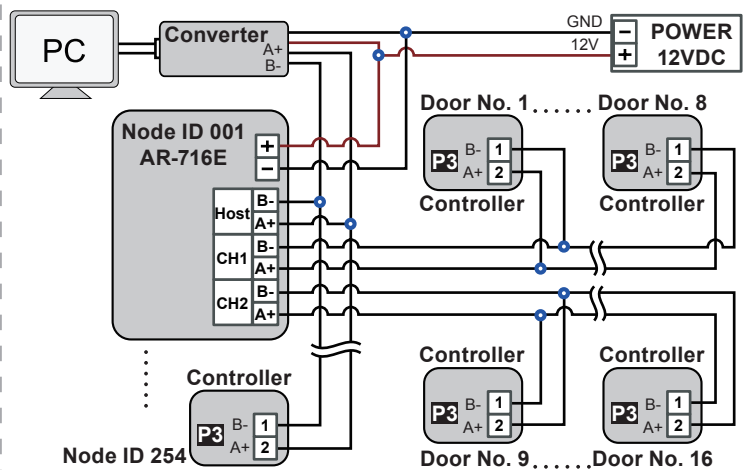
Adding and Deleting Tag

Mode4/Mode8

● **Add Single Tag or Random tags**

Input ∗ 123456 # (or Master Code) → 19 ∗ UUUUU ∗ 00001 # → Induct the tag(s) with reader (single tag or random numbered cards one by one) → Done

[e.g.] 2 readom cards with user addresses No. 100 and No. 101:

Access programming mode → 19 ∗ 00100 ∗ 00001 # → Induct the tags one by one → Done

● **Add the Sequential tags**

Input ∗ 123456 # (or Master Code) → 19 ∗ UUUUU ∗ QQQQQ # → Induct 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 → 19 ∗ 00101 ∗ 00120 # → Close Tag into RF Area(only use the tag **NO.62312**) → OK

● **Delete a Single Tag**

Input ∗ 123456 # (or Master Code) → 10 ∗ SSSSS 9 EEEEE #

[e.g.] Delete User Address: 00058

Access programming mode → 10 ∗ 00058 9 00058 #

● **Delete a batch of Tags**

Input ∗ 123456 # (or Master Code) → 10 ∗ SSSSS 9 EEEEE #

[e.g.] Delete User Address: 00101~00245

Access programming mode → 10 ∗ 00101 9 00245 #

● **Delete All Tags**

Input ∗ 123456 # (or Master Code) → 29 ∗ 29 ∗ #

Tag Information

0000848795
000012.62362 — CARD CODE
— SITE CODE

0000848795 000012.62362 — CARD CODE
— SITE CODE

Mode6 ※At this mode, User Address = Card Code

● **Add Tags**

Input ∗ 123456 # (or Master Code) → 11 ∗ SSSSS ∗ EEEEE # → OK

[e.g.] Add User Address: 00100~01254

Access programming mode → 11 ∗ 00100 ∗ 01254 # → OK

● **Delete Tags**

Input ∗ 123456 # (or Master Code) → 10 ∗ SSSSS ∗ (or 9)EEEEE # → OK

[e.g.] Delete a tag with card code 62362

Access programming mode → 10 ∗ 62362 ∗ 62362 # → OK

● **Delete All Tags**

Input ∗ 123456 # (or Master Code) → 29 ∗ 29 ∗ #

Operation process

A. Enter/ Exit Program Mode

- **Enter the program mode**

  Input `*` 123456 `#` or `*` PPPPPP `#`

  [e.g.] The Default Value= 123456, if already changed the Master Code= 876112, input `*` 876112 `#` → program mode accessed

- **Exit the program mode**

  Input `*` `#`

- **Master Code modification**

  Access programming mode → 09 `*` PPPPPPRRRRRR `#`   [Input the 6-digit new master code twice.]

  [e.g.] Set the Master code to be 876112, input `*` 123456 `#` → 09 `*` 876112876112 `#`

B. Chang the Node ID of Reader

Access programming mode → 00 `*` NNN `#`   [Node ID: 001~254]

C.Set up M4/M6/M8

Access programming mode → 04 `*` N `#` [N=4/6/8]

D. Set up the password

- **M4/M8: Individual pass code**

  Card or PIN: Access programming mode → 12 `*` UUUUU `*` PPPP `#` [i.e. User address: 00001 and pass code: 1234, input 12 `*` 00001 `*` 1234 `#`]

  Card and PIN: Access programming mode → 13 `*` UUUUU `*` PPPP `#` [i.e. User address: 00001 and pass code: 1234, input 13 `*` 00001 `*` 1234 `#`]

- **M6: Public pass word**

  PIN only: Access programming mode → 15 `*` PPPP `#` [Input 4-digit pass code, default value: 4321]

  Card and PIN: Access programming mode → 17 `*` PPPP `#` [Input 4-digit pass code, default value: 1234]

E. Dual Door Open(M4/M8)

Requires indoor reader and outdoor readers.

Access programming mode → 28 `*` 064 `#` [064= Dual Door Open]

F. Anti-pass-back(M4/M8)

Usually, anti-pass-back is commonly applied to parking areas in order to prevent from multi-entry with one card at a time, or to situations need access and exit monitor.

- **Reader enable**

  Access programming mode → 20 `*` 128 `#` [128= Anti-pass-back enable.]

- **Card enable**

  Access programming mode → 26 `*` SSSSS `*` EEEEE `*` N `#`

  [SSSSS= User address start; EEEEE= User address end; N=0(control)/ 1(Not control)/ 2(reset)]

  [e.g.] User address from 00152 to 00684 enable the anti-pass-back function: 26 `*` 00152 `*` 00684 `*` 0 `#`

G. Auto Open Time Zone

Door will keep open after the first flashing card.There are 2 time zones supported when Stand-Alone, and 64 time zones when it is on network.

- **Enable/Disable auto open zone**

  Access programming mode → 20 `*` 004 `#` [004= enable Auto-Open Time Zone; 000= disable Auto-Open Time Zone]

- **Enable/Disable auto open door without presenting card**

  Access programming mode → 24 `*` 001 `#` [001= enable Auto-Open Time Zone; 000= disable Auto-Open Time Zone]

- **Set up open time**

  Access programming mode → 08 `*` N `*` HHMMhhmm `*` FFFFFFF `#`

  N: 2 sets of auto-open zone (N=0=1st set; N=1=2nd set)

  HHMMhhmm=Staring time to ending time (e.g. 08301200=08:30 to 12:00)

  FFFFFFF= 7 days of week (Sat/Fri/Thu/Wed/Tue/Mon/Sun) (F= 0: disable; 1: enable)

  [e.g.] To set the second time zone as 9:30 AM to 4:20 PM, Monday, Wednesday and Friday: 08 `*` 1 `*` 09301612 `*` 0101010 `#` → Done

H. Lift control

Connect with **AR-401RO16B** to control which floors the user will be able to access.

- **Enable**

  Access programming mode → 24 `*` 002 `#` [002= enable lift control]

- **Single floor**

  Access programming mode → 27 `*` UUUUU `*` FF `#`

  UUUU=User Address FF=Floor number (01~32 floor/stop)

  [e.g.] User address NO. 45, allow to access the 24th floor: 27 `*` 00045 `*` 24 `#`

- **Multi floors**

  Access programming mode → 21 `*` UUUUU `*` S `*` FFFFFFFF `#`

  [UUUUU=User address S: 4 sets of lift control (Input: 0~3) FFFFFFFF: 8 floors/stop setting (F=0=Disable, F=1=Enable)

  [e.g.] User address NO. 45, only to the 6th and the 20th floor:

      Access programming mode → 21 `*` 00168 `*` 0 `*` 00100000 `#` → 21 `*` 00168 `*` 2 `*` 00001000 `#`

Please refer to below floor chart

Set	Floor/ Stop							
	F	F	F	F	F	F	F	F
0	8	7	6	5	4	3	2	1
1	16	15	14	13	12	11	10	9
2	24	23	22	21	20	19	18	17
3	32	31	30	29	28	27	26	25

I. Setting Up the Arming

● **Conditions:**

1. Arming is enabled

2. Alarm system connected

● **Application:**

1. Door open too long: 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 abnormal: When power is off and then on, reader on arming bffore power off.

● **Enable/Disable Arming status:**

Standby Mode			
Card only		Card or Passcode	Card and Passcode
After door open	Door is not open	Input 5 digit user address →	**Induct valid card** → **Input 4 digit**
Induct valid card → **Input 4 digit arming code** → #	* → **Input 4 digit arming code** → **Induct valid card**	**Input 4 digit pass code** → # → **Input 4 digits arming code** → #	**pass code** → # → **Input 4 digits arming code** → #
Enter Program Mode			
Enable: Access programming mode → * * #		**Disable:** Access programming mode → * #	

※ **There is NO arming mode for M6. Factory default armingcode is: 1234**

Function Default Value

AR-321H / AR-721H / AR-725H / AR-757H

20 * DDD #				※Default Value
Function	**Selection**		**Value**	**Application**
Attendance	※0: Yes	1: No	001	Networking
Auto Re-lock	※0: Disable	1: Enable	002	Networking/Stand-Alone
Auto Open	※0: Disable	1: Enable	004	Networking/Stand-Alone
Door open buttin inpu	0: Disable	※1: Enable	016	Networking/Stand-Alone
Master Reader of Network	※0: Slave	1: Mater	032	Networking
Access/Exit	※0: Exit	1: Access	064	Networking
Anti-pass-back	※0: Disable	1: Enable	128	Networking

Selection= 0(none value)/ 1(1 x each value)
[i.e.] DDD value of Enable "Auto Open" + "Exit by Push Button +"Anti-pass-back" =004+016+128=148; As a result of that, the command will be 20 * 148 #.

28 * NNN #				※Default Value
Function	**Selection**		**Value**	**Application**
Dual Door Open	※0: Disable	1: Enable	064	Networking/Stand-Alone
Force Open Alarm Output	※0: Disable	1: Enable	128	Networking/Stand-Alone

AR-321H / AR-721H / AR-725H

24 * DDD #				※Default Value
Function	**Selection**		**Value**	**Application**
Auto-open door without cards at auto open zone	※0: Disable	1: Enable	001	Networking/Stand-Alone
Alarm Output/ Lift Control	※0: Alarm Output	1: Lift Control	002	Networking/Stand-Alone
Stop Alarm by door open or door close button	0: None	※1: Yes	064	Networking/Stand-Alone
Door bell	※0: Disable	1: Enable	128	Networking/Stand-Alone

AR-757H

24 * DDD #				※Default Value
Function	**Selection**		**Value**	**Application**
Auto-open door without cards at auto open zone	※0: Disable	1: Enable	001	Networking/Stand-Alone
Lift Control/ Duress Function	※0: Lift Control	1: Duress	002	Networking/Stand-Alone
Stop Alarm by door open or door close button	0: None	※1: Yes	064	Networking/Stand-Alone

Mode4 / Mode6 / Mode8

Mode	Networking/ Stand-Alone	User Capacity	Access Mode	Auto-show Duty time	Event log Capacity	120 Holidays	Anti force	Time Zone	Lift Control	Anti-pass-back
M4	Networking/ Stand-Alone	1,024/ 3,000(725H)	1.Card only 2.Card and PIN (4-digit PIN) 3.Card or User address (5-digit) + Individual PIN (4-digit individual PIN)	Yes	1200/ 1500(725H)/ 3000(757H)	Yes	Yes	11	32	Yes
M6	Stand-Alone	65,535	1.Card only 2.Card and PIN (4-digit public PIN= Arming PWD) 3.Card or PIN (4-digit public PIN= Duress code)	No	No	No	No	No	No	No
M8	Networking/ Stand-Alone	1,024/ 3,000(725H)	1.Card only 2.Card and PIN (4-digit individual PIN) 3.Card or PIN (4-digit individual PIN)	Yes	1200/ 1500(725H)/ 3000(757H)	Yes	Yes	11	32	Yes

※ **Mode 6,** the number of users up to 65535, since it reads **CARD CODE**(5 digits) only, unlike that Mode4/Mode8 read **SITE CODE** and **CARD CODE**(10 digits).

Factory Reset by its commands

● **When the device is stand-alone (not networking)**

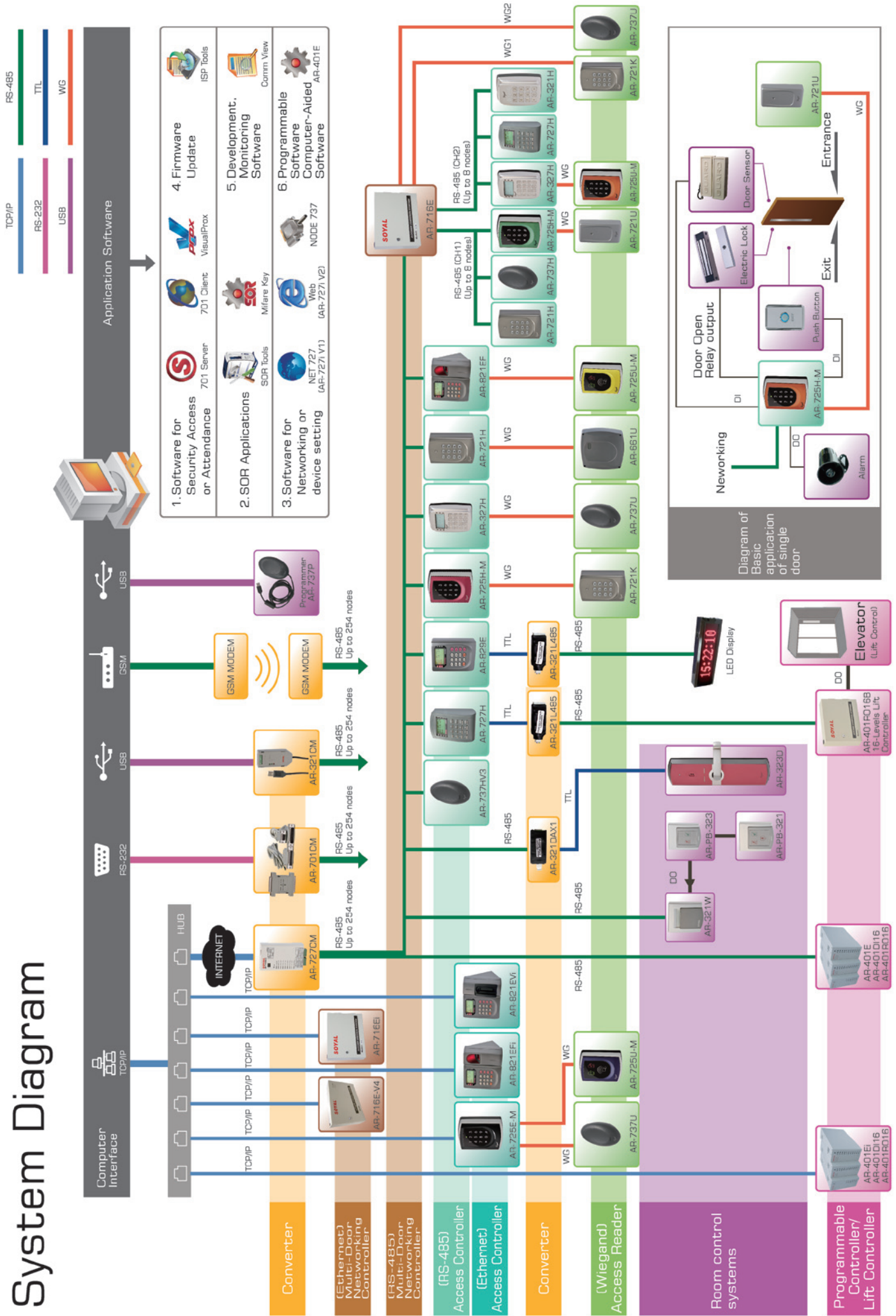Access programming mode → 20 * 016 # → 24 * 064 # → 26 * 00000 * 01023 * 1 # → 28 * 000 # → 29 * 29 * #

※Note: After the Master Code is changed, factory reset doesn't restore the Master Code back to 123456.

Command List

Function	Command	Description	Mode
Entering programming mode	＊ PPPPPP #	PPPPPP=Master Code, default value=**123456**	M4/M6/M8
Exiting programming mode	＊ #		M4/M6/M8
Exiting programming mode and enabling arming status	＊ ＊ #		M4/M6/M8
Node ID setting (Connecting to 716E,or total unit is ≤ 254)	00 ＊ NNN #	NNN=Node ID range: 001~254	M4/M8
Node ID setting (Connecting to PC directly without via 716E and > 254)	00 ＊ NNN ＊ VVV ＊ nnn #	NNN=Node ID of Access Controller, VVV=Virtual 716E Node ID, nnn=Door number;　range:001~254	M4/M8
Mifare tag / card format (Optional)	01 ＊ N #	N: 0=ISO14443A; 1=ISO14443B; 2=ISO15693;　　3=I Code1; 4=I Code2　PS.1. Please select the compliance,first.　　　2. Make sure reader and card using the same compliance.	M4/M8
Door relay time setting	02 ＊ TTT #	TTT=Door relay time　000= Output constantly　　　　　　001~600=1~600 sec.　　　　　　601~609=0.1~0.9 sec.	M4/M6M8
Alarm relay time setting	03 ＊ TTT #	TTT=Alarm relay time　001~600=1~600 sec.	M4/M6/M8
Control mode setting	04 ＊ N #	N=Mode 4=Mode4 ; 6=Mode6 : 8=Mode8	M4/M6/M8
Arming delay time setting	05 ＊ TTT #	TTT=Arming delay time　001~600=1~600 sec.	M4/M6/M8
Alarm delay time setting	06 ＊ TTT #	TTT=Alarm delay time　001~600=1~600 sec.	M4/M6/M8
Master card setting	07 ＊ SSSSS ＊ EEEEE #	SSSSS-EEEEE=00000-01023 (00000-03071 for AR-725H); SSSSS=Starting user address; EEEEE=Ending user address	M4/M8
Auto-open time zone setting	08 ＊ N ＊ HHMMhhmm ＊ FFFFFFF #	N= 0(1st time zone) / 1(2nd time zone) HHMM= Starting time; hhmm= ending time (i.e.: 08301200=08:30 to 12:00) FFFFFFF= 7 days of week (Sat/Fri/Thu/Wed/Tue/Mon/Sun) (F= 0: disable; 1: enable)	M4/M6/M8
Master code setting	09 ＊ PPPPPPRRRRRR #	PPPPPP=New master code RRRRRR=Repeat the new master code	M4/M6/M8
Suspend / Delete tag	10 ＊ SSSSS ＊ EEEEE #　10 ＊ SSSSS 9 EEEEE #	＊=Suspend　9=Delete; SSSSS=Starting user address, EEEEE=Ending user address	M4/M6/M8
Set a sequence of cards as "read and access"	11 ＊ SSSSS ＊ EEEEE #	SSSSS=Starting card number EEEEE=Ending card number	M6
Active the suspended cards	11 ＊ SSSSS ＊ EEEEE #	SSSSS=Starting user address EEEEE=Ending user address	M4/M8
Set the cards as Card mode OR PIN mode by user address	12 ＊ UUUUU ＊ PPPP #	Access mode: **Card or PIN**; UUUUU=user address;　　　　　　PPPP=4-digit pass code 0001~9999	M4/M8
Set the cards as Card AND PIN mode by user address	13 ＊ UUUUU ＊ PPPP #	Access mode: **Card and PIN**; UUUUU=user address;　　　　　　　PPPP=4-digit pass code 0001~9999	M4/M8
Arming output time setting	14 ＊ TTT #	TTT=Arming output time; 000~250=0~250 sec.	M4/M6/M8
M4/M8: Duress code setting M6: Public PIN setting (Card or PIN)	15 ＊ PPPP #	PPPP=4-digit pass code (default value=**4321**) P.S. Duress code will be unavailable and become a public PIN at access mode "**Card or PIN**" of **M6**	M4/M6/M8
Card number modification	16 ＊ UUUUU ＊ SSSSSCCCCC #	UUUUU= User address; SSSSS=5-digit site code; CCCCC=5-digit card code	M4/M8
M4/M8: Arming pass code setting M6: Public PIN setting (Card and PIN)	17 ＊ PPPP #	PPPP=4-digit pass code (default value=**1234**; disable Arming PWD=**0000**) P.S. Arming PWD code will be unavailable and become a public PIN at access mode "**Card PIN**" and of **M6**	M4/M6/M8
Door open waiting time	18 ＊ TTT #	TTT=Door open waiting time: 001~600=1~600 sec.; default value: 15 sec.	M4/M6/M8
Set the card by induction(M4/M8)	19 ＊ UUUUU ＊ QQQQQ #	UUUUU=User address; QQQQQ=Card quantity(**00001**=Continuously inducting)	M4/M8
Reader additional setting	20 ＊ DDD #	Please refer to function default value for details.	M4/M6/M8
Lift control setting: multi-doors	21 ＊ UUUUU ＊ S ＊ FFFFFFFF #	UUUUU=User address, S=4 sets of lift control(0~3); FFFFFFFF=8 assigned floor (F=0: Disable, 1: Enable)	M4/M8
Add/Delete tag by induction (M6 only)	22 ＊ N #	N=0(Delete tag); N=1(Add tag)	M6
AR-401ROsite number dip switch	23 ＊ NNN ＊ TTT #	NNN=site number, TTT= relay time: 000~600=1~600 sec.	M4/M8
Reader parameter setting	24 ＊ DDD #	Please refer to function default value for details.	M4/M6/M8
Real time clock setting	25 ＊ YYMMDDHHmmss #	YYMMDDHHmmss: Year/ Month/ Day/ Hour/ Min./ Sec.	M4/M6/M8
Anti-pass-back (Enable user)	26 ＊ SSSSS ＊ EEEEE ＊ N #	SSSSS=Starting user address; EEEEE=Ending user address; N=0/Enable; N=1/Disable; N=2/Initial	M4/M8
Single floor setting	27 ＊ UUUUU ＊ FF #	UUUUU=User Address; FF=Floor (01~32 floor)	M4/M8
Dual door control/ Active or inactive arming for force open	28 ＊ NNN #	Please refer to function default value for details.	M4/M6/M8
Delete all tags	29 ＊ 29 ＊ #		M4/M6/M8

System Diagram

Computer Interface

Application Software

1. Software for Security Access or Attendance
2. SOR Applications
3. Software for Networking or device setting
4. Firmware Update
5. Development, Monitoring Software
6. Programmable Software Computer-Aided Software AR-401E

S 701 Server
SOR Tools
NET 727 (AR-727i V1)
701 Client
Mifare Key
Web (AR-727i V2)
VisualProx
Comm View
NODE 737
ISP Tools

TCP/IP
RS-232
USB
RS-485
TTL
WG

USB — Programmer AR-737P

GSM MODEM))) GSM MODEM — RS-485 Up to 254 nodes

USB — AR-321CM — RS-485 Up to 254 nodes

RS-232 — AR-701CM — RS-485 Up to 254 nodes

HUB / INTERNET — AR-727CM — RS-485 Up to 254 nodes

TCP/IP

AR-716E-V4
AR-716E(i)
AR-821EVi
AR-821EFi
AR-725E-M
AR-737U
AR-725U-M

Converter
(Ethernet) Multi-Door Networking Controller
(RS-485) Multi-Door Networking Controller
(RS-485) Access Controller
(Ethernet) Access Controller
Converter
(Wiegand) Access Reader
Room control systems
Programmable Controller/ Lift Controller

AR-716E
AR-716E-V4

AR-821EF — WG — AR-725U-M
AR-721H — WG — AR-661U
AR-327H — WG — AR-737U
AR-725H-M — WG — AR-721K
AR-829E — TTL — AR-321L485 — RS-485 — LED Display 15:22:10
AR-727H — TTL — AR-321L485 — RS-485
AR-737HV3
AR-321DAX1 — RS-485

RS-485 (CH2) (Up to 8 nodes)
RS-485 (CH1) (Up to 8 nodes)

AR-321H
AR-727H — WG
AR-327H — WG — AR-725U-M
AR-725H-M — WG — AR-721U
AR-737H
AR-721H
AR-721K
WG1
WG2 — AR-737U

AR-3E3D
AR-PB-323 — AR-PB-321
DO — AR-321W
AR-401E AR-401DI16 AR-401RO16
AR-401E AR-401DI16 AR-401RO16

Elevator (Lift Control)
DO
AR-401RO16B 16-Levels Lift Controller

Diagram of Basic application of single door

AR-721U — WG
Door Sensor
Electric Lock
Entrance
Exit
Push Button
DI
AR-725H-M
DO — Alarm
DI
Neworking
Door Open Relay output