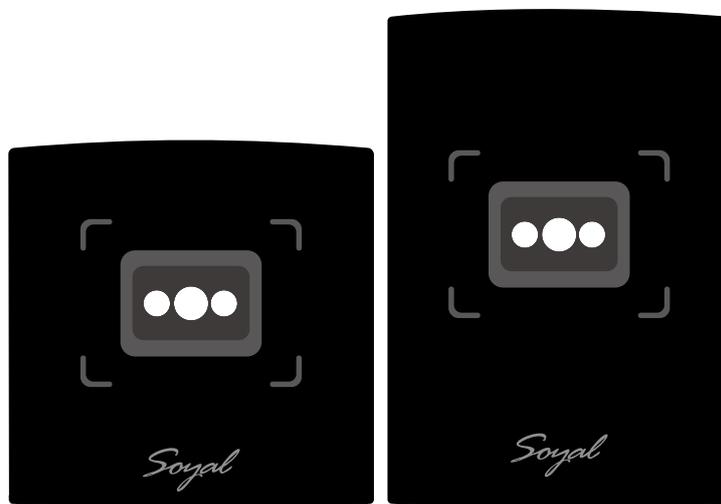# Dual-Band QR Code Reader
AR-888-UL

1. Product Features

- Built-in RFID and QR Code scanning technology, providing temporary access by QR Code and normal access by RFID card
- 2-in-1 Function RS485 Reader and Wiegand Reader
- Support Date Limit or Frequency limit of QR Code access, with higher security!
- It is suitable for places that require the use of regular and short-term access, such as visitor systems, temporary building permit, dormitory, suite management, and etc.
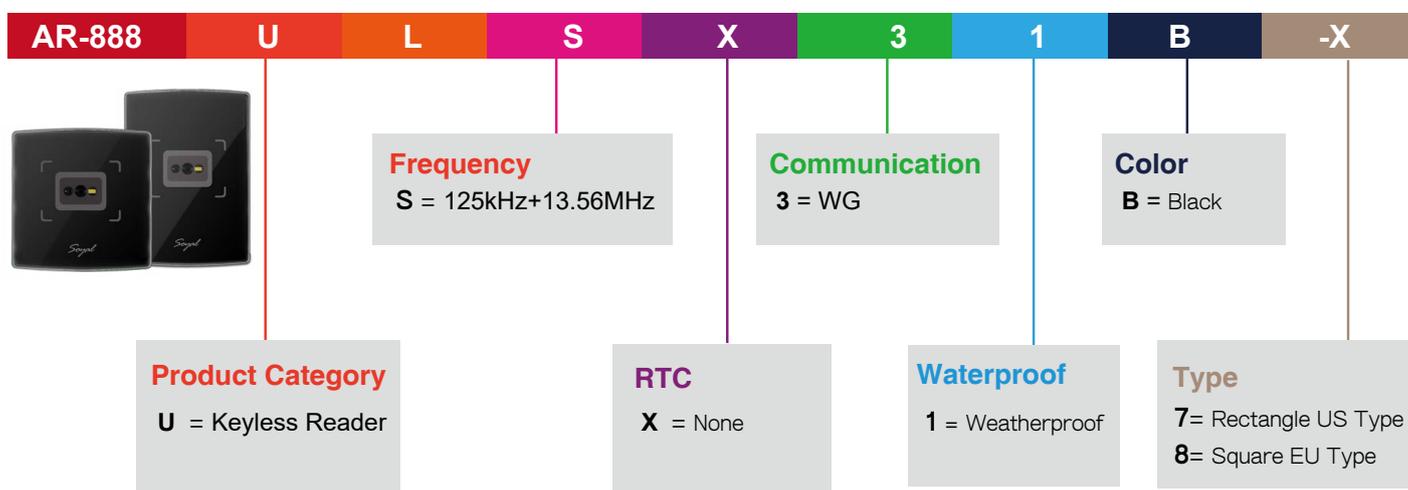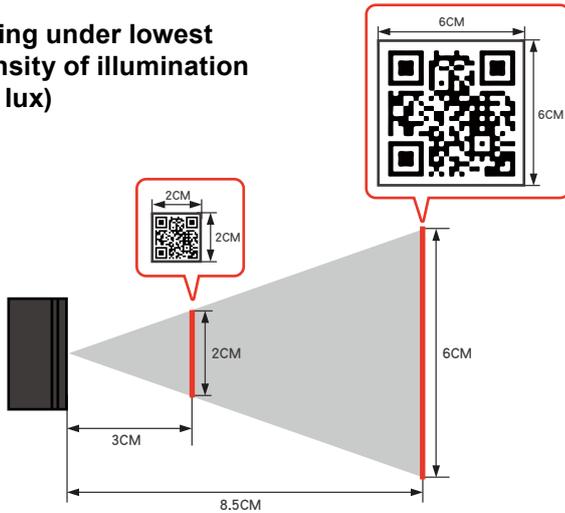
2. How to Order

AR-888	U	L	S	X	3	1	B	-X

Frequency
S = 125kHz+13.56MHz

Communication
3 = WG

Color
B = Black

Product Category
U = Keyless Reader

RTC
X = None

Waterproof
1 = Weatherproof

Type
7 = Rectangle US Type
8 = Square EU Type

Table of Contents

01. QR Code Scan Area

Testing under lowest intensity of illumination (250 lux)

02. Supported QRCode Format

The standard firmware supports QR Code format as below and other QR Code format can be supported by customized firmware.

- QRCo08A12345678
- QRCo55W1234556789
- QRCo10A1234567890
- QRCo08H33CDAB88
- QRCo14A12345678901234
- QRCo16H001122334455667788

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

03. Setting Process of Generating / Receiving QR Code

Receiving QR Code ways

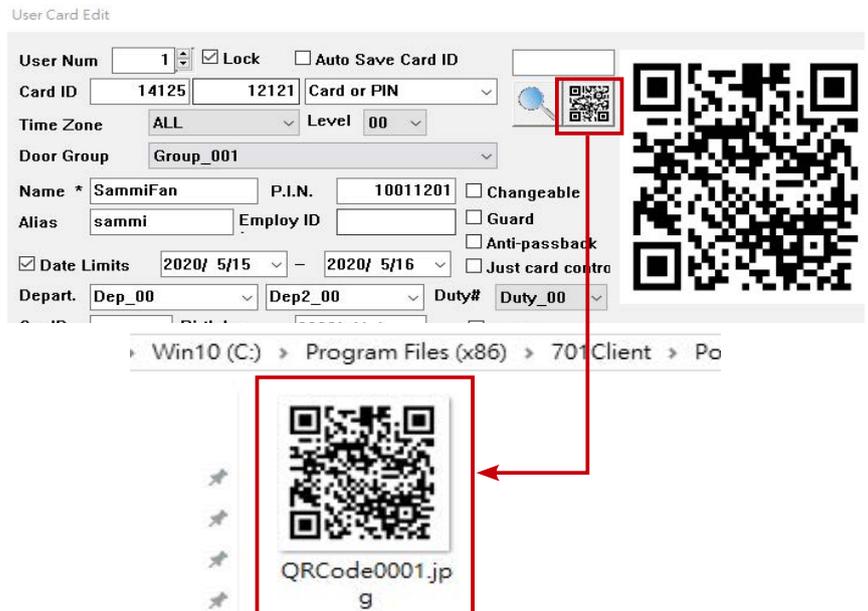- **User Configuration**

  Step 1: Click on "8. User Card Edit" in the 701Client.

  Step 2: Select the user address.

  Step 3: Set the card ID, door group, name, and expiration date.

  Step 4: Check the box to specify the access period.

  Step 5: Click "Save" to generate a new access QR code.

  Step 6: Click "Download" to transfer the user data to the controller.

- **Save QR Code Image to the folder**

  When clicking the button whether or not you configure Email, QR code image will be saved to the path of

  C:\Program Files (x86)\701Client\PopGra with the filed name QRCodeXXXX.jpg

  (XXXX mean User Address)
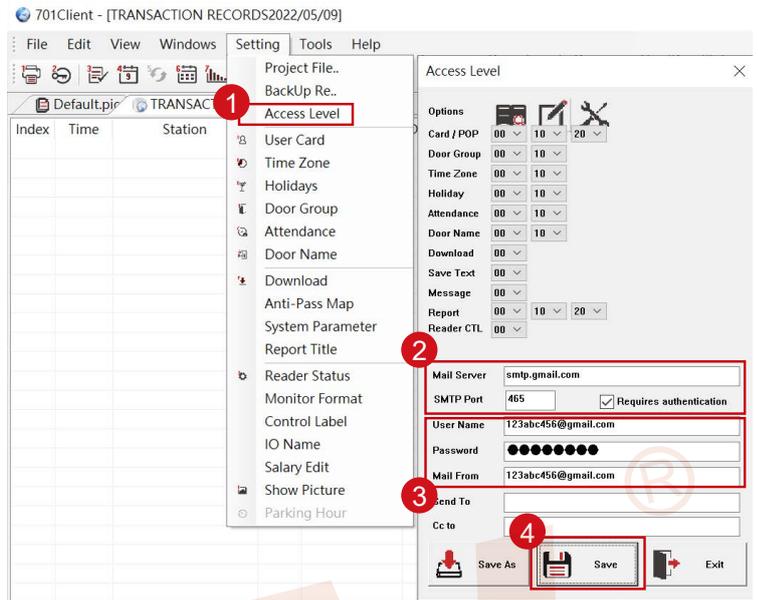
- **Send out QR Code via Email**

1. Configure Email Server data on "User level Menu"

Step.1 Click " Access Level "
Step.2 Setting Mail Server, SMTP Port

SERVER	SMTP MAIL SERVER
GMAIL	MAIL SERVER: smtp.gmail.com PORT: 465 or 587
YAHOO	MAIL SERVER: smtp.mail.yahoo.com PORT: 465 or 587
Local Provider (Example: ChungHwa Telecom in Taiwan, Server for Business Email is Hibox)	MAIL SERVER: www.hibox.hinet.net PORT: 25

If you use a Gmail or Yahoo account as your email server outgoing email notification, please opt "less secure app access". This setting required to grant access for TaskBot to send emails using Gmail or Yahoo accounts on your behalf.
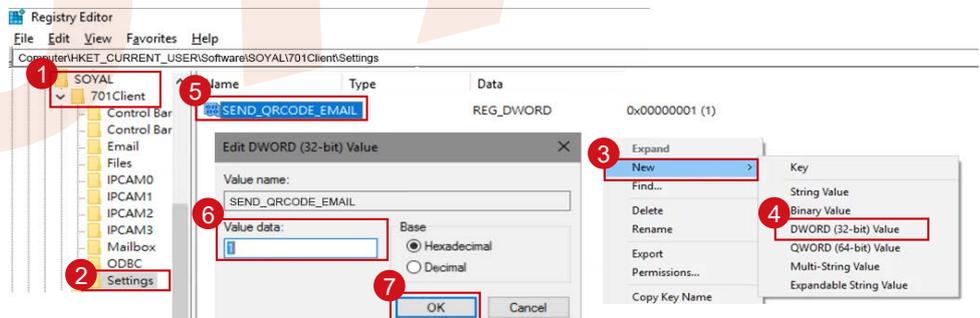
Step.3 Setting User Name (Email Username), Password (Email Password) ,Mail From (Email Address)
Step.4 Save after sending

2. Enter to "Registry Editor" to configure Email Value

Add "SEND_QRCODE_EMAIL" under Settings/701Client/ SOYAL,and Set its value to 1

3. Fill in the assigned E-mail address; after click the button, QR Code image will be sent to the assigned E-mail address.

Step.1 Fill the E-mail address that needs to receive the QR Code.
Step.2 Finally Click the QR Code Button,then the QR Code image will be sent to the assigned E-mail address,and also save to the image file under the path of C:\Program Files (x86)\701Client\ PopGra.

04. Related Links

Manual : SOYAL QRCode Supported

Manual : QRCode Function Setting Steps

05. Connector Table

AR-888-UL

8 7 6 5 4 3 ⧅ 2 1
CN1   CN2

CN1 8PIN Cable

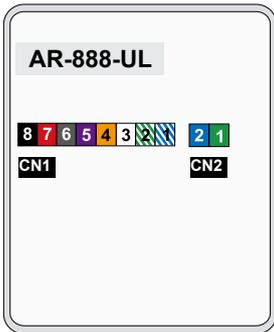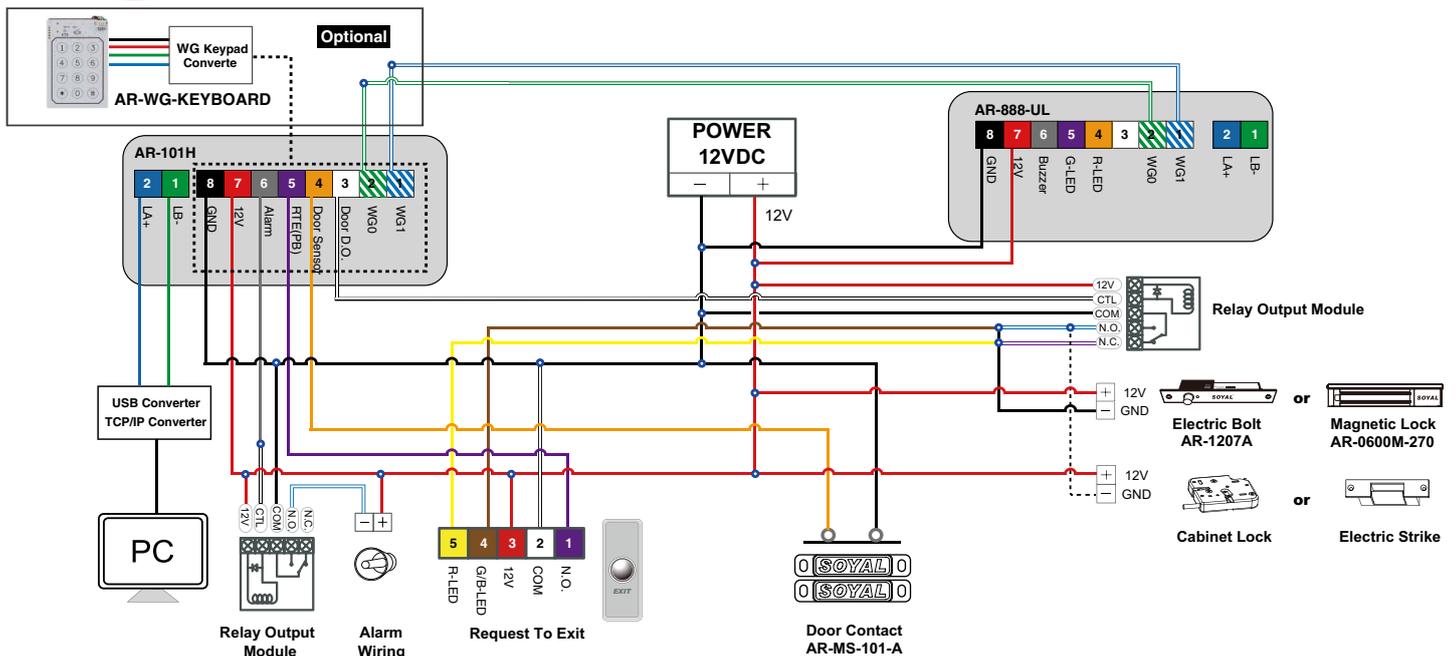| Function	Dip-switch		Wire	Color	Wiegand Mode Description	RS485 Reader Mode Description
	SW1	SW2				
ABA13	ON	ON	Wire	Color	Wiegand Mode Description	RS485 Reader Mode Description
WG34/64	ON	OFF				
ABA10	OFF	ON				
WG26/64	OFF	OFF				
CN1 Main	WG Output		1	Blue White	WG DATA 1 Output	---
			2	Green White	WG DATA 0 Output	---
	Card Present		3	White	Card Present (Low output)	Door Lock
	LED		4	Orange	LED Red Input (Input Low)	Door Sensor
			5	Purple	LED Green Input (Input Low)	Egress
	Buzzer		6	Gray	Transistor Output Max. 12V/100mA (Open Collector Active Low)	Transistor Output Max. 12V/100mA (Open Collector Active Low)
	Power		7	Thick Red	DC 12~24V	DC 12~24V
			8	Thick Black	DC 0V	DC 0V

CN2 2PIN Cable

Function	Wire	Color	Description
RS-485 Port	1	Thick Green	RS-485(B-)
	2	Thick Blue	RS-485(A+)

06. Diagram

WG Keypad Converte
AR-WG-KEYBOARD
Optional

AR-101H
2 1 | 8 7 6 5 4 3 ⧅
LA+ LB- | GND 12V Alarm RTE(PB) Door Sensor Door D.O. WG0 WG1

POWER 12VDC
− +
12V

AR-888-UL
8 7 6 5 4 3 ⧅ | 2 1
GND 12V Buzzer G-LED R-LED WG0 WG1 | LA+ LB-

USB Converter TCP/IP Converter

PC

Relay Output Module
12V CTL COM N.O. N.C.

Alarm Wiring

Request To Exit
5 4 3 2 1
R-LED G/B-LED 12V COM N.O.
EXIT

Door Contact AR-MS-101-A
SOYAL SOYAL

Relay Output Module
12V CTL COM N.O. N.C.

12V GND
Electric Bolt AR-1207A   or   Magnetic Lock AR-0600M-270

12V GND
Cabinet Lock   or   Electric Strike

3

07. Installation

- Pull the cables from the square holes of the eva foam gasket and mounting plate.
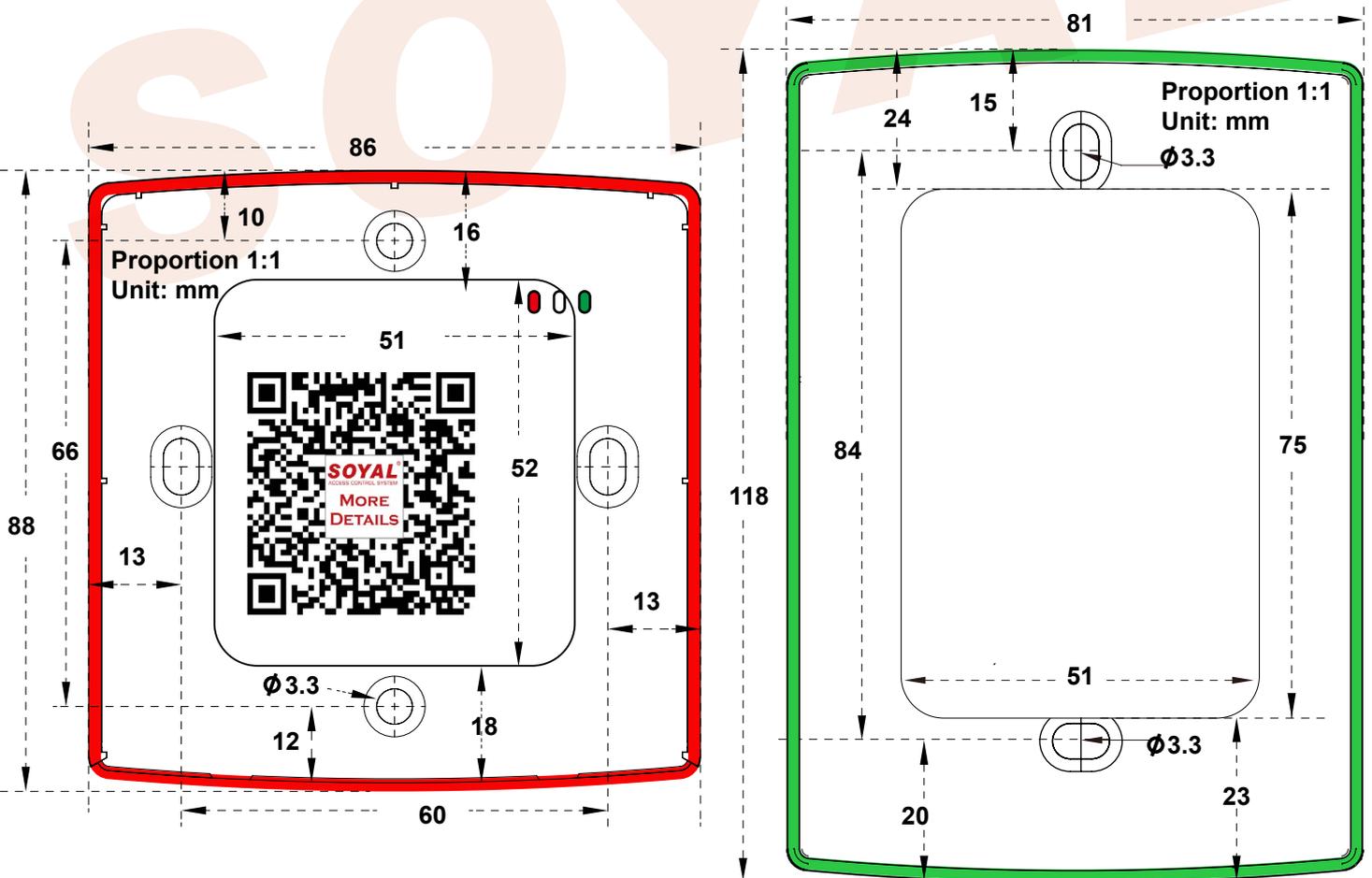- Use a screwdriver to screw the mounting plate **B** onto the wall with Flat Head Cap Philips Tapping Screws (Excluded, the Installer should prepare before installation.
- Connect the cables to the backside of body **C** and attach **C** to **B** at lower position of **B**. Push **C** up to make the cogging hooked completely.
- Use the Allen key and screws to assemble the body C onto the mounting plate **B**. Attach the Back Cover **D** to **C**.
- **Hands-off and clear any objects around the 888 Series**. Turn on the power and LED will light-up and beep will sound. Wait the Touch IC start for 10 sec. to operate.

C.

In-wall Depth 28mm ~35mm ❸

❹ ❺

D.

B.

❷ (Excluded)

❶

(Excluded) ❸

A. By order

Cable selection:
Use AWG 22-24 Shielded Twist Pair to avoid star wiring. Use CAT5 for TCP/IP connection.

Proportion 1:1
Unit: mm

86
10
16
51
66
52
88
13
13
Ø3.3
12
18
60

Proportion 1:1
Unit: mm
Ø3.3

81
24
15
84
75
118
51
Ø3.3
20
23

SOYAL®
ACCESS CONTROL SYSTEM
MORE DETAILS

08. Specification

Frequency	125Khz	EM
	13.56Mhz	ISO 14443/ISO 7816-4 Mifare Ultralight, Classic, DESFire EV1, NFC (card simulation)
UID Bits		24~64 (Adjustable)
RF Reading Range		2-15 cm
QR Code Scan Distance		5-20 cm
Read/Write		Read/Write
Host		RS-485 (9600 bps) / SSC (Soyal Security Communication)
Serial		UART PORT (Only Output)
Wiegand Input		Wiegand 24~34 (support external Wiegand Keyboard)
Wiegand Output		Wiegand Data 0 Data 1
Power Voltage		12-24 VDC
Power Consumption		<1W
Indicator	LED	Bi-Color LED Frame (Green/Red)
	Buzzer	1
TAMPER		No
Housing Material		Anti-Scratch PC+ABS / Tempered Glass Panel+ABS (Fire-proof level: 94V0)
Color		Black / Hairline texture printing
Keypad		No
Dimension (mm)	EU	88(H)X86(W)X34(D)
	US	110(H)X81(W)X34(D)
Net Weight(g)	EU	approx.110
	US	approx.120
Ingress Protection		IP65 (Surface)
Environment		-20℃ ~ +70℃

09. Content

❶ Product   ❷ Terminal Cables   ❸ Black ABS   ❹ Optional
Easy Install Kit (By Order)

AR-888-UL

CN1   CN2

Bottom Cover   Flat Head Hex Socket Screw: M3x8   Allen key 2MM / 48*15MM

MPLA-888XA18/19 (US / EU)