

# Quick Start Guide

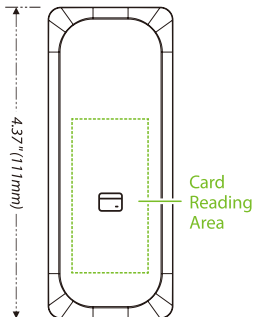
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## KR900 Series

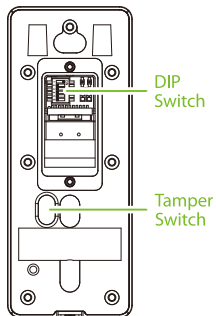
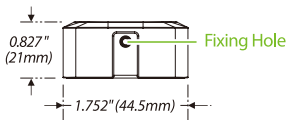
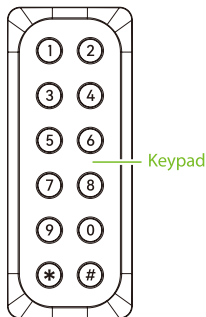
Version: 1.0

# 1. Overview

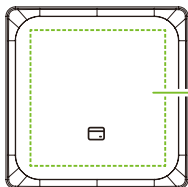
**KR901**



**KR902**

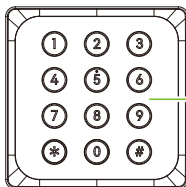


## KR903

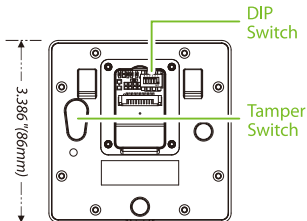


Card  
Reading  
Area

## KR904

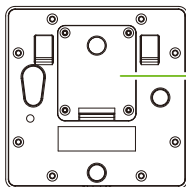


Keypad

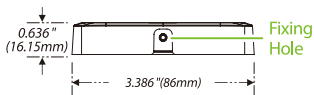


DIP  
Switch

Tamper  
Switch



Back  
Cover

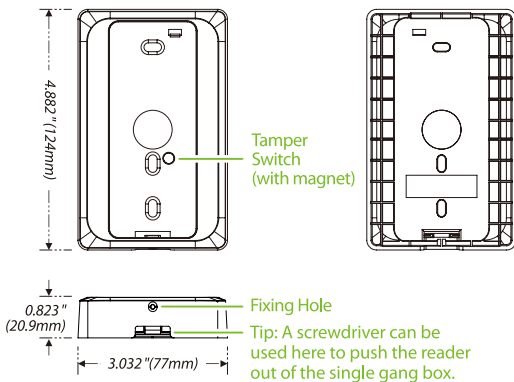


Fixing  
Hole

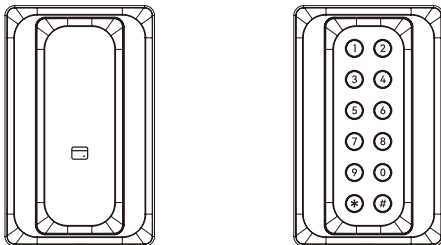


Fixing  
Hole

## Single Gang Box Compatible (Wall-Mounted)



This single gang box is only compatible with KR901 and KR902.



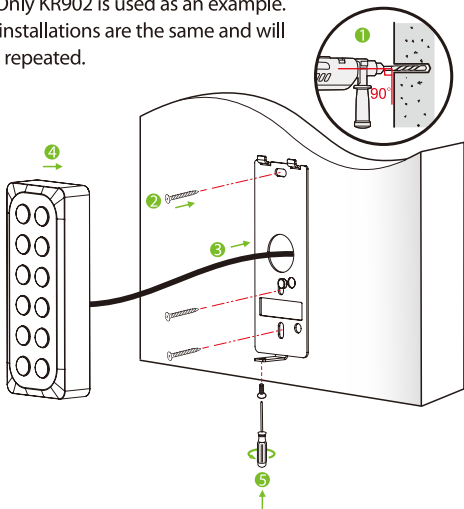
## 2. Device Installation

### Install on the wall via the backplate

1. Drill holes in the wall at suitable locations according to the holes in the backplate.
2. Fix the backplate on the wall with the wall mounting screws.
3. Pass the cable through the wiring hole, and then snap the device onto the backplate from top to bottom.
4. Fasten the device to the backplate with a security screw.

Note: Only KR902 is used as an example.

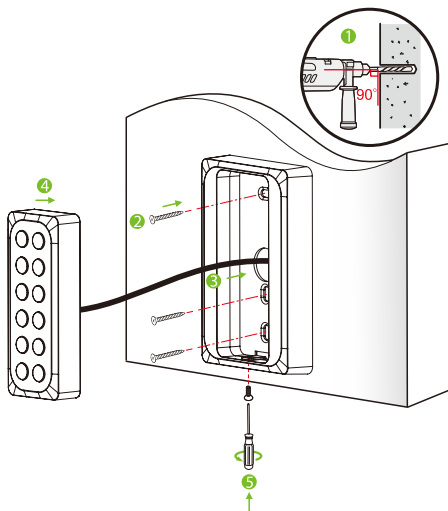
Other installations are the same and will not be repeated.



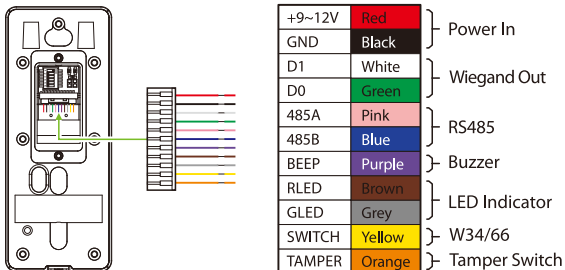
## Install on the wall via the single gang box

1. Drill holes in the wall at suitable locations according to the holes in the single gang box.
2. Fix the single gang box on the wall with the wall mounting screws.
3. Pass the cable through the wiring hole and push the device into the single gang box.
4. Fasten the device to the single gang box with a security screw.

Note: This installation is for KR901 and KR902 only.



### 3. Terminal Block



### 4. Communication Methods

The KR900 series can communicate with the control panel via either RS-485 or Wiegand.

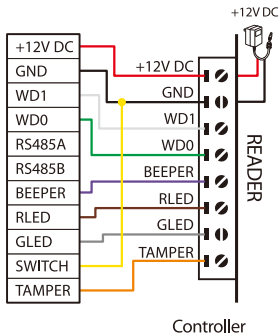
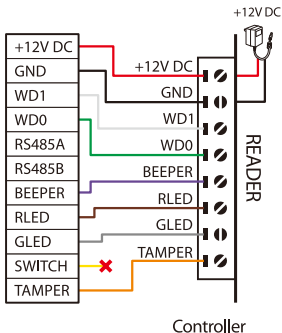
#### 1. Connection via Wiegand

##### **Note:**

- 1) The default Wiegand format is W34. It can be switched to W66 when supporting IC cards.
- 2) The format can be switched via the terminal SWITCH. By default, it is W34 when SWITCH is not grounded, and it becomes W66 when SWITCH is grounded.

Connect the reader to the controller via Wiegand as follows and then connect the +12V power supply. The controller shown in the diagram is only partially wired. The Wiegand wiring reference is shown below:

1. Wiegand format is W34 (default):
2. Wiegand format is W66:

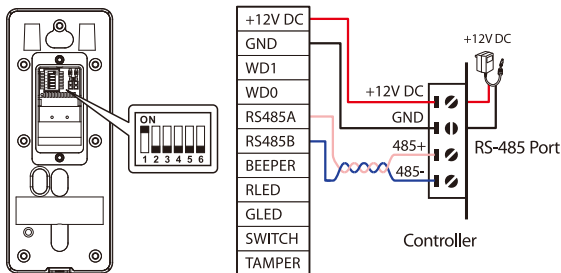


### Notes:

1. Controller models that support reader connection via Wiegand are: **C3 Plus**, **inBio Pro Plus** and **EC16 Elevator Controller**.
2. The Wiegand tamper alarm is only compatible with the latest **EC16** controller. Other models, such as the C3 Plus and InBio Pro Plus, do not support this function.



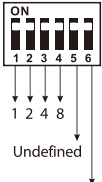















## 2. Connection via RS-485



### Notes:

1. The RS-485 address of each reader is set via the DIP switch before power is applied.
2. Each controller supports up to 16 readers.
3. Each reader requires a separate power supply.
4. RS485 communication supports the following two protocols:  
Encrypted and unencrypted versions of the ZK485 protocol.
5. Controller models that support reader connection via RS-485 are: C3 Plus, inBio Pro Plus and EC16 Elevator Controller.

## 5. DIP Switch Setting

Description	RS485 Address	DIP Switch	RS485 Address	DIP Switch	RS485 Address	DIP Switch
 <p>RS485 Terminal Resistance (Reserved)</p>	1		6		11	
	2		7		12	
	3		8		13	
	4		9		14	
	5		10		15	

## 6. Status Indicator & Buzzer

RS485 (ZK485) communication is connected successfully:

Working Status	Description
Standby Mode	Breathing blue light, with one breath cycle every 2 seconds.
Card Detected	The buzzer beeps once briefly, and the blue light turns on.

Working Status	Description
Received the verification result	<p><b>Successful verification:</b> the buzzer beeps once and the indicator light (green) lights up.</p> <p><b>Failed verification:</b> buzzer beeps twice, indicator light (red) lights up briefly twice.</p> <p><b>Authentication mode error:</b> red light, two quick beeps and one long beep.</p> <p><b>No authority:</b> the buzzer short beep four times, the indicator (red) short light four times.</p> <p><b>Combination of validation to continue validation:</b> indicator (red) short three times.</p> <p><b>Combination verification is not completed:</b> buzzer short beep four times (timeout time is 10s), indicator (red) short light four times.</p> <p><b>Verification timeout:</b> the buzzer sounds three times (timeout is 8s), and the indicator (red) lights up three times.</p>
Standby status light when RS485 is not connected	<p>Breathing blue light, with one breath cycle every 4 seconds.</p> <p><b>Note:</b> The RS485 protocol standby status lamp is determined by the master.</p>
When the tamper alarm is triggered	<p>The buzzer sounds long, the standby status light remains unchanged.</p> <p><b>Note:</b> The tamper alarm will be canceled and the beeping will stop after the tamper button (magnet) is held in place for 5 seconds.</p>

## 7. Password Verification

The \* key is the delete key. The # key is the confirmation key. The reader supports **1~8** digit password verification.

## 8. Hardware Parameters

Working environment temperature: -20°C ~ 60°C

Swipe distance: <4 cm

Card reading speed: <0.3 seconds

Voltage: DC 9V~12V

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