

The diagrams show four variations of the device's keypad layout. Each device has a display at the top showing three dots and a small 'x' icon. The keypad layouts are as follows:

- Top-left: 1 2 3, 4 5 6, 7 8 9, * 0 #
- Top-right: 1 2 3, 4 5 6, 7 8 9, * 0 #
- Bottom-left: 1 2 3, 4 5 6, 7 8 9, * 0 #
- Bottom-right: 1 2 3, 4 5 6, 7 8 9, * 0 #

Each device also features a circular button or indicator at the bottom.

CONTENTS	
INTRODUCTION	INSTALLATION
1	3
STANDALONE MODE	CONTROLLER MODE
5	13
WIEGAND READER MODE	ADVANCED APPLICATION
15	17

INTRODUCTION

The device is a single door multifunction standalone access controller or a Wiegand output reader.

Supports multi access modes, face/fingerprint/card/PIN, the operation is very user-friendly, and low-power circuit makes it long service life.

The device can be made with Tuya WIFI version.

Features

- Touch keypad
- With camera for face recognition
- Capacitive fingerprint sensor
- Metal case, anti-vandal
- Waterproof, conforms to IP66
- PIN length: 4-6 digits
- EM+Mifare cards
- EM card: Wiegand 26-44 bits input & output
- Mifare card: Wiegand 26-44, 55, 58bits input & output
- Can be used as Wiegand reader with LED & buzzer output
- Card block enrolment
- Integrated alarm & buzzer output
- Pulse mode, Toggle mode
- User data can be transferred (except face/fingerprint users)
- 2 devices can be interlocked for 2 doors
- Built-in light dependent resistor (LDR) for anti tamper
- Backlit keypad, can be set automatic OFF after 20 seconds
- Support Authorized User

Specifications

User Capacity	5800
Face User	300
Common Card/PIN User	4987
Authorized User	2
Panic User	1
Visitor User	10
Fingerprint User	500 (fingerprint version only)

PIN Length	4-6 digits
Operating Voltage	12-18V DC
Idle Current	<80mA
Active Current	<250mA

— 01 —

Proximity Card Reader	EM-Mifare
Radio Technology	125KHz ± 13.56MHz
Read Range	1~3cm
Wiring Connections	Relay output, exc button, alarm, door control, Wiegand input/output
Relay	One (NO, NC, Common)
Adjustable Relay Output	0~99 seconds (5 seconds default)
Time-Lock Output Load	2 Amp Maximum
Wiegand Interface	EM card: Wiegand 26~44 bits input & output. Mifare card: Wiegand 26~44bits 56bits, 58bits input & output. (Factory default: Wiegand 26bits for EM card, Wiegand 34bits for Mifare card)
Pin Out	4 Dts, 8 bits(ASCII), 10 digits Virtual Number (Factory Default 4bits)
Environment	Meets IP66 -20°C ~ -60°C (-13°F ~ -140°F) 10% ~ 95%RH
Operating Humidity	
Physical Color	Zinc-Alloy
Dimensions	L140 X W68 X D25 (mm)
Unit Weight	500g
Shipping Weight	615g
Carton Inventory	

INSTALLATION

- > Remove the back cover from the unit
- > Drill 2 holes(A,C) on the wall for the screws and one hole for the cable
- > Thread the supplied rubber tubes to the screw holes(A,C)
- > Fix the back cover firmly on the wall with 4 flat head screws
- > Knock the cable through the cable hole(B)
- > Attach the unit to the back cover

Wiring

Wire Color	Function	Notes
Basic Standalone Wiring		
Red	DC+	12~18V DC Power Input
Black	GND	Negative Pole of DC Power Input
Blue & Black	Relay NO	Normally Open Relay Output (Install device provided)
White & Black	Relay Common	Common Connection for Relay Output
Green & Black	Relay NC	Normally Closed Relay Output (Install device provided)
Yellow	OPEN	Request to Exit(REX) Input
Pass-Through Wiring (Wiegand Reader or Controller)		
Green	Data 0	Wiegand Output (Pass-through) Data 0
White	Data 1	Wiegand Output (Pass-through) Data 1
Advanced Input and Output Features		
Brown	Alarm Output	Alarm Output Contact for Alarm
Brown	Version Input	Door/Gate Contact Input (Normally Closed)
WiFi Connection with Doorbell		
Brown & Black	Doorbell A	Contact for Doorbell
Yellow & Black	Doorbell B	Contact for Doorbell

- 03 -

Sound and Light Indication			
Operation Status		LED	Buzzer
Standby		Red light bright	—
Enter into programming mode		Red light shines	One beep
In the programming mode		Orange light bright	One beep
Operation error		—	Three beeps
Exit from the Programming mode		Red light shines	One beep
Open lock		Green light bright	One beep
Alarm		Red light Shines quickly	Beeps

Basic Configure	
Enter and Exit Program Mode	
Programming Step	Keystroke Combination
Enter Program Mode	* (Master Code) # (Factory default is 123456)
Exit Program Mode	*

Set Master Code	
Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Update Master Code	0 0 # (New Master Code) # (Repeat New Master Code) # (Master code is any 6 digits)
3. Exit Program Mode	*

Set the Working Mode	
Notes: The device has 3 working modes: Standalone Mode, Controller Mode, Wiegand Reader Mode, choose the mode you use. (Factory default is Standalone Mode / Controller Mode)	
Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Standalone/Controller Mode OR 2. Wiegand Reader Mode	7 4 # 0 # (factory default) 7 4 # 1 #
3. Exit	*

STANDALONE MODE

The device can work as Standalone Access Control for single door.
(Factory default mode) → 7 4 0 #

Connection Diagram

Common Power Supply

The diagram illustrates the wiring for the device in Standalone Mode. It features a central 'Power Supply' block with a 12V input and a GND terminal. Various inputs are connected to the 12V line, while others connect to GND. The outputs include a Lock, a Door Bell, and a Door Bell + Door Bell +.

Inputs:

- DI0: Green
- DI1: White
- DI2/INH: Brown & Black
- DI2/INH: Yellow & Black
- DC: Red
- DC: Green & Black
- NO: Blue & Black
- ALARM: Grey
- GND: (Common Ground)

Outputs:

- Lock: Connected to DI2/INH (Yellow & Black) and DC (Red).
- Door Bell: Connected to DI2/INH (Brown & Black) and DC (Red).
- Door Bell + Door Bell +: Connected to DI2/INH (Brown & Black) and DC (Red).

Diode Wiring Diagram:

A separate diagram shows a diode connected between the Lock and the Door Bell + Door Bell + lines. The diode is oriented with its cathode towards the Lock and its anode towards the Door Bell + Door Bell + line.

Attention:

Install a 1N4004 or equivalent diode is needed when use a common power supply, or the keypad might be damaged. (1N4004 is included in the packing).

The diagram shows a 26-pin connector on the left and a 'Special Power Supply' block on the right. The pins are labeled as follows:

- Pin 1: D1+ (VCC)
- Pin 2: D1- (GND)
- Pin 3: NC
- Pin 4: D2+ (VCC)
- Pin 5: D2- (GND)
- Pin 6: NC
- Pin 7: D3+ (VCC)
- Pin 8: D3- (GND)
- Pin 9: NC
- Pin 10: D4+ (VCC)
- Pin 11: D4- (GND)
- Pin 12: NC
- Pin 13: D5+ (VCC)
- Pin 14: D5- (GND)
- Pin 15: NC
- Pin 16: D6+ (VCC)
- Pin 17: D6- (GND)
- Pin 18: NC
- Pin 19: D7+ (VCC)
- Pin 20: D7- (GND)
- Pin 21: NC
- Pin 22: D8+ (VCC)
- Pin 23: D8- (GND)
- Pin 24: NC
- Pin 25: D9+ (VCC)
- Pin 26: D9- (GND)

Connections from the power supply block:

- Pin 1 (D1+) connects to VCC.
- Pin 2 (D1-) connects to GND.
- Pin 4 (D2+) connects to VCC.
- Pin 5 (D2-) connects to GND.
- Pin 7 (D3+) connects to VCC.
- Pin 8 (D3-) connects to GND.
- Pin 10 (D4+) connects to VCC.
- Pin 11 (D4-) connects to GND.
- Pin 13 (D5+) connects to VCC.
- Pin 14 (D5-) connects to GND.
- Pin 16 (D6+) connects to VCC.
- Pin 17 (D6-) connects to GND.
- Pin 19 (D7+) connects to VCC.
- Pin 20 (D7-) connects to GND.
- Pin 22 (D8+) connects to VCC.
- Pin 23 (D8-) connects to GND.
- Pin 25 (D9+) connects to VCC.
- Pin 26 (D9-) connects to GND.

Other connections:

- Pin 3 (NC) connects to Alarm In.
- Pin 6 (NC) connects to Alarm In.
- Pin 9 (NC) connects to Alarm In.
- Pin 12 (NC) connects to Alarm In.
- Pin 15 (NC) connects to Alarm In.
- Pin 18 (NC) connects to Alarm In.
- Pin 21 (NC) connects to Alarm In.
- Pin 24 (NC) connects to Alarm In.
- Pin 27 (NC) connects to Alarm In.
- Pin 28 (NC) connects to Alarm In.
- Pin 29 (NC) connects to Alarm In.
- Pin 30 (NC) connects to Alarm In.
- Pin 31 (NC) connects to Alarm In.
- Pin 32 (NC) connects to Alarm In.
- Pin 33 (NC) connects to Alarm In.
- Pin 34 (NC) connects to Alarm In.
- Pin 35 (NC) connects to Alarm In.
- Pin 36 (NC) connects to Alarm In.
- Pin 37 (NC) connects to Alarm In.
- Pin 38 (NC) connects to Alarm In.
- Pin 39 (NC) connects to Alarm In.
- Pin 40 (NC) connects to Alarm In.
- Pin 41 (NC) connects to Alarm In.
- Pin 42 (NC) connects to Alarm In.
- Pin 43 (NC) connects to Alarm In.
- Pin 44 (NC) connects to Alarm In.
- Pin 45 (NC) connects to Alarm In.
- Pin 46 (NC) connects to Alarm In.
- Pin 47 (NC) connects to Alarm In.
- Pin 48 (NC) connects to Alarm In.
- Pin 49 (NC) connects to Alarm In.
- Pin 50 (NC) connects to Alarm In.
- Pin 51 (NC) connects to Alarm In.
- Pin 52 (NC) connects to Alarm In.
- Pin 53 (NC) connects to Alarm In.
- Pin 54 (NC) connects to Alarm In.
- Pin 55 (NC) connects to Alarm In.
- Pin 56 (NC) connects to Alarm In.
- Pin 57 (NC) connects to Alarm In.
- Pin 58 (NC) connects to Alarm In.
- Pin 59 (NC) connects to Alarm In.
- Pin 60 (NC) connects to Alarm In.
- Pin 61 (NC) connects to Alarm In.
- Pin 62 (NC) connects to Alarm In.
- Pin 63 (NC) connects to Alarm In.
- Pin 64 (NC) connects to Alarm In.
- Pin 65 (NC) connects to Alarm In.
- Pin 66 (NC) connects to Alarm In.
- Pin 67 (NC) connects to Alarm In.
- Pin 68 (NC) connects to Alarm In.
- Pin 69 (NC) connects to Alarm In.
- Pin 70 (NC) connects to Alarm In.
- Pin 71 (NC) connects to Alarm In.
- Pin 72 (NC) connects to Alarm In.
- Pin 73 (NC) connects to Alarm In.
- Pin 74 (NC) connects to Alarm In.
- Pin 75 (NC) connects to Alarm In.
- Pin 76 (NC) connects to Alarm In.
- Pin 77 (NC) connects to Alarm In.
- Pin 78 (NC) connects to Alarm In.
- Pin 79 (NC) connects to Alarm In.
- Pin 80 (NC) connects to Alarm In.
- Pin 81 (NC) connects to Alarm In.
- Pin 82 (NC) connects to Alarm In.
- Pin 83 (NC) connects to Alarm In.
- Pin 84 (NC) connects to Alarm In.
- Pin 85 (NC) connects to Alarm In.
- Pin 86 (NC) connects to Alarm In.
- Pin 87 (NC) connects to Alarm In.
- Pin 88 (NC) connects to Alarm In.
- Pin 89 (NC) connects to Alarm In.
- Pin 90 (NC) connects to Alarm In.
- Pin 91 (NC) connects to Alarm In.
- Pin 92 (NC) connects to Alarm In.
- Pin 93 (NC) connects to Alarm In.
- Pin 94 (NC) connects to Alarm In.
- Pin 95 (NC) connects to Alarm In.
- Pin 96 (NC) connects to Alarm In.
- Pin 97 (NC) connects to Alarm In.
- Pin 98 (NC) connects to Alarm In.
- Pin 99 (NC) connects to Alarm In.
- Pin 100 (NC) connects to Alarm In.

Add Common Users	
<p>When adding users directly, the ID number will be automatically searched and increased from the last ID number.</p> <p>(Admin PIN user ID: 14987, PIN Length: 4-6 Digits; Face ID: 5001-5300 Fingerprint User ID: 6001-6499) (Fingerprint Version only)</p>	
Programming Step	Keystroke Combination
1. Enter Program Mode	# (Master Code) #
Add Card User	
2. Using Auto ID (Allows the device to assign Card ID to next available User ID number)	10 # (Read Card) / (Input 8/10/17 Digits Card Number) # The cards can be added continuously.
OR	
2. Select Specific ID (Allows Master to define a specific User ID to associate the card to)	10 # (User ID) # (Read Card) / (Input 8/10/17 Digits Card Number) #
OR	
2. Add Card: Block Enrollment (Allows Master to add up to 500 cards each time to the reader in a single step. Green LED on along with a beep means done successfully)	10 # (User ID) # (Card Quantity) # (Read Card) # (First Card 8/10/17 Digits Number) # Cards number must be consecutive. Card quantity = number of cards to be enrolled.
Add PIN User	
2. Select Specific ID (Allows manager to define a specific User ID to associate the PIN to)	10 # (User ID) # (PIN) #
Add Face User	
2. Using Auto ID (Allows the device to assign Face ID to next available User ID number)	11 # (Record Face) ... # The faces can be added continuously.
OR	
2. Select Specific ID (Allows the device to assign Face ID to next available User ID number)	10 # (User ID) # (Record Face) #
Add Fingerprint User	
2. Using Auto ID (Allows the device to assign Fingerprint ID to next available User ID number)	10 # (Fingerprint) (Repeat Fingerprint) # Fingerprints can be added continuously.
OR	

2. Select Specified ID (Allow Master to associate a specific User ID to the fingerprint to)	10 # (User ID) # (Fingerprint) (Repeat Fingerprint) (Repeat Fingerprint) (Repeat Fingerprint) (Repeat Fingerprint)
3. Exit	*

Tips for PIN Security (Only valid for 6 digits PIN):
 For higher security we allow you to hide your correct PIN with other numbers up to a max of 9 digits.
 Example PIN: 123434
 You could use "1234343" or "123434"
 ("*" can be any numbers from 0-9)

Add Master Fingerprint (By Specified ID: 6500) (Fingerprint Version only)	
Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Master Fingerprint	10 # (6500) # (Fingerprint) (Repeat Fingerprint) (Repeat Fingerprint)
3. Exit	*

Add Authorized User
 (User ID number is 4988; PIN length: 4-6 digits)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Add Card OR Add PIN	10 # (4988) # (Read Card Input 8/10 Digits Card number) # (4988) (PIN) #
3. Exit	*

Remark:
 Authorized user can be card or PIN, read the Authorized Card or input Authorized PIN, then all valid users can access; read the Authorized Card or input Authorized PIN again, then all valid users can access again.

Add Panic Users (Valid for Card / PIN Users)
 (User ID number is 0050-0500 PIN length: 4-6 digits)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #

2. Add Card	10 # (User ID) # (Read Card / Input 8/10/17 Digits Card number) #
OR	
2. Add PIN	10 # (User ID) # (PIN) #
3. Exit	*

Add Visitor Users (Valid for Card / PIN Users)
 (User ID number is 4091 - 51000. PIN length: 4-6 digits)
 There are 10 groups Visitor/PIN Card available, the users can be specified up to 10 times of usage, after a certain number of times (i.e. 5 times, the PIN/Card were invalid automatically.

Programming Step	Keystroke Combination
1. Enter Program Mode	** (Master Code) #
2. Add Card	10 # (User ID) # (0-9) # (Read Card / Input 8/10/17 Digits Card Number) #
OR	
2. Add PIN	10 # (User ID) # (0-9) # (PIN) # (0-9 means times of usage, 0-10 times)
3. Exit	*

Delete Users

Programming Step	Keystroke Combination
1. Enter Program Mode	** (Master Code) #
2. Delete User-By Fingerprint/ Card	20 # (Input Fingerprint/ Read Card) # The users can be deleted continuously.
OR	
2. Delete User-By ID number	20 # (User ID) #
OR	
2. Delete User-By Card number	20 # (input 8/10/17 Digits Card Number) #
OR	
2. Delete User-By Face	21 # (Record Face) #
OR	
2. Delete ALL Users	20 # (Master Code) #
OR	
2. Delete ALL Card/PIN Users	20 # 1 (Master Code) #
OR	
2. Delete ALL Face Users	20 # 2 (Master Code) #
OR	
2. Delete ALL Fingerprint Users	20 # 3 (Master Code) #
3. Exit	*

-09-

Simplified Instruction	
Function Description	Operation
Enter the Programming Mode	* - Master Code - # When you can do the programming (123456 is the factory default master code)
Change the Master Code	00-#-New Code-#-Repeat New Code-# (code: 6 digits)
Add Card User	10-#-Read Card-# (can add cards continuously)
Add Fingerprint User	10-#-Fingerprint-Repeat Fingerprint-Repeat Fingerprint Again-#
Add PIN User	10-#-(User ID)-#-PIN-# (The PIN is any 4-6 digits)
Add Face User	11-#-Record Face-#
Delete User	20-#-Read Card-# 20-#-User ID-# 20-#-Fingerprint-# 21-#-Face-#
Exit from the Programming Mode	*
How to release the door	
Face User	Present Face
Fingerprint User	Input Fingerprint
Card User	Read Card
PIN User	Input PIN

Set Relay Configuration

The relay configuration sets the behaviour of the output relay on activation.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)
2. Pulse Mode	3 0 # (1-99) # (factory default) The relay time is 1-99 seconds. (Default is 5 seconds)
OR	3 0 # 0 #
2. Toggle Mode	Sets the relay to ON/OFF Toggle mode
3. Exit	*

Set Access Mode

For Multi User access mode, the interval time of reading can not exceed 5 seconds, or else, the device will exit to stand automatically.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)
2. Card Access	4 0 # 0 #
OR	4 0 # 1 #
2. PIN Access	4 0 # 2 #
2. Fingerprint Access	4 0 # 3 #
OR	4 0 # 4 # (factory default)
2. Card/PIN/Face/Fingerprint Access	4 1 # (2-9) # (Only after 2-9 valid users, the door be opened)
2. Multi User Access	
3. Exit	*

Under Multi User Access, needs to use command 0 # to wake up for face recognition

Set Face Recognition

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)
2. Face Record Way	5 0 # (0/1) #
OR	0 # Record front face only [factory default] 1 # Record face by multiple angles

- 10 -

2. Record Repeatly or not OR	51# (0)1# 0 = Same face can't be recorded repeatly (factory default) 1 = Same face can be recorded repeatly (will occupy extra User ID)
2. Sensing Distance	01# (0)12# Larger value = farther distance (factory default: 2)
3. Exit	*

Set Strike-out Alarm

The strike-out alarm will engage after 10 failed entry attempts (Factory is OFF). It can be set to deny access for 10 minutes after ringing or discharge only after entering a valid Fingerprint/Card/PIN Master Code or Master Code/Fingerprint/C

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Strike-OUT OFF OR	6 0 0 # (factory default)
2. Strike-OUT ON OR	6 0 1 # (Access will be denied for 10 minutes (Exit button is still workable)
2. Strike-OUT ON (Alarm)	6 0 2 #

Set Alarm Time

When use with an optional magnetic contact or built-in magnetic contact (1 minute)
Enter Master Code # or Master Fingerprint/
Card or valid user fingerprint / card / PIN
silence

3. Exit	*
---------	---

Set Door Open Detection

Door Open Too Long (DOTL) Detection

When use with an optional magnetic contact or built-in magnetic contact of the lock, if the door is opened normally, but not closed after 1 minute, the inside buzzer will beep automatically to remind people to close the door. The beep can be stopped by closing the door, master users or valid users, or else, it will continue to beep the same time with the alarm time set.

Door Forced Open Detection

When use with an optional magnetic contact or built-in magnetic contact of the lock, if the door is opened by force, the inside buzzer and external alarm of the lock will both operate, they can be stopped by master users or valid users, or else, it will continue to sound the same time with the alarm time set.

- 11 -

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Disable Door Open Detection	6 1 # 0 # (factory default)
OR	
2. Disable Door Open Detection	6 1 # 1 #
Set Alarm Time	6 1 # (0-3) # (factory default is 1 minute)
3. Exit	*

The function of **Set Alarm Time** also applies for anti-tamper alarm

Set Audible and Visual Response

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Mute	7 # 0 # 0 #
Low Sound	7 # 0 # 1 #
Medium Sound	7 # 0 # 2 #
High Sound	7 # 0 # 3 # (factory default)
OR	
2. LED Always OFF	7 # 1 # 0 #
LED Always ON	7 # 1 # 1 # (factory default)
OR	
2. Keypad Backlit Always OFF	7 # 2 # 0 #
Keypad Backlit Always ON	7 # 2 # 1 #
Keypad Backlit Automatic OFF	7 # 2 # 2 # (factory default)
	Automatic OFF after 20 seconds, it will go ON by pressing any key (this key isn't taken into consideration)
3. Exit	*

Master Fingerprint/ Card Usage

(how user can be added/delete by this way)

Using Master Fingerprint/ Card to add and delete users

Add Fingerprint/ Card/ PIN Users	1. Input (Master Fingerprint / Card)
	2. Input (Fingerprint three times)
	3. Input (Card or User ID/PIN)
	Repeat step 2 for additional users
	3. Input (Master Fingerprint / Card) again

- 12 -

[illegible]

Attention: Install a 1N4004 or equivalent diode is needed when use a common power supply, or the reader might be damaged. (1N4004 is included in the package.)

Set Wiegand Input Formats

Please set the Wiegand input formats according to the Wiegand output format of the external Reader.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)
2. Wiegand input Bit	For EID Card: 8 2 (#26~44) # (Factory default is 25343) For Mifare Card: 8 3 (#20~44,56) # (factory default is 34303)
3. Enable Parity Bit	0 0 0 #
4. Disable Parity Bit	0 0 #1 (#1 factory default)
4. Exit	*

Note: For connecting Wiegand readers with 32, 40, 56 bits output, need disable parity bits.

Programming

> Basic Programming is the same as Standalone Mode

> There are some exceptions for your attention:

- The device Connected with External Card Reader
 - If EM/Mifare card reader: users can be added/deleted on either the device or external reader.
 - If HID card reader: users can only be added/deleted on external reader.

The device Connected with Fingerprint Reader

For example:

Connect SF1 as the fingerprint reader to the device.

Step 1: Add the Fingerprint (A) on SF1. (Please refer to SF1 manual)

Step 2: Add the same Fingerprint(A) on the device:

1	Enter Program Mode * (Master Code)
2	1 (Press Fingerprint A) once on SF1) # (ID auto allocated)
CR:	
2	1 (User ID) # (Press Fingerprint A on SF1) # (Select specific ID)
3	Exit: *

- 14 -

The device Connected with Keypad Reader

The keypad reader can be 4 bits, 8 Bits (ASCII), or 10 Bits output format.
 Choose the below operation according to the PIN output format of your reader.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. PIN Input bits	8 1 # (4 or 8 or 10) # (factory default is 4 bits)
3. Exit	*

Remarks: 4 means 4 bits, 8 means 8 bits, 10 means 10 digits virtual number.

> Add PIN Users:
 To add PIN Users, after enter into programming mode to the device, PIN(s) can be input added on either the device or the external Keypad Reader.

> Delete PIN Users: the same way as add users.

WIEGAND CODED MODE

The device can work as Standard Wiegand Reader, connected to the third party Controller — 7 & 1 #

Connection Diagram

The diagram illustrates the connection between a Wiegand Reader and an Access Controller. The Wiegand Reader is shown on the left, featuring a keypad with buttons 1 through 9, an asterisk (*), and a zero (0). A cable connects the reader to the Access Controller on the right. The Access Controller has six terminals labeled with colors and codes: Red (+12V), Black (GND), Green (D0), White (D1), Brown (LED), and Yellow (BZ). The cable connects the reader's output to the Access Controller's input terminals.

Notes:

- > When set into Wiegand Reader mode, nearly all settings in Controller Mode will become invalid, and Brown & Yellow wires will be redefined as below:
 - Brown wire: Green LED light control
 - Yellow wire: Buzzer control
- > If you need to connect Brown/Yellow wires:
 - When the input voltage for LED is low, the LED will turn into Green; and when the input voltage for Buzzer is low, it will sound.

Set Wiegand Output Formats

Please set the Wiegand output formats of Reader as follows for the Wiegand input formats of the Controller.

Programming Step	Keystroke Combination
1. Enter Program Mode	** (Master Code) #
2. Wiegand Output	For EM Card: 8 2 # (26-44) # (factory default is 26bits) For Mifare Card: 8 3 # (26-44-56,58) # (factory default is 34bits)
PIN Output	8 1 # (4 or 8 or 10) # (factory default is 4 bits)
3. Disable Parity Bit	8 0 # 0 #
Enable Parity Bit	8 0 # 1 # (factory default)
4. Exit	

Note: For connecting Wiegand controller with 32, 40, 56 bits input, need disable parity bits.

- 16 -

ADVANCED APPLICATION

Interlock

The device supports the Interlock Function. It is of two Devices for two doors, and mainly used for banks, prisons, and other places where a higher level security is required.

Connection Diagram:

The diagram illustrates the wiring for two devices connected via their DO (NO) and DO (NC) terminals through a central DO Power Supply. The power supply provides +12V, -12V, and GND. The devices are labeled 'The Device' on both sides. Below the main diagram, a dashed box indicates the 'Door Wiring Diagram' showing 'Door Contact' and 'Door Control' components.

Remarks: The Door Contact must be installed and connected as the diagram. Let's name the two Devices as "A" and "B" for two doors "1" and "2".

Step 1:
Set both the users of Device A, then transfer the users' information to Device B by 'User Information Transfer' function.

Step 2:
Set both of the two Devices (A and B) to Interlock function

Programming Step	Keystroke Combination
1. Enter Program Mode	★ (Master Code) #
2. Disable Interlock OR	9 0 8 0 # (factory default)
2. Enable Interlock	9 0 8 1 #
3. Exit	★

If enable interlock, when and only door 2 is closed, the user can read the valid fingerprint/card or input PIN on Reader A, door 1 will open; then when and only door 1 closed, read valid fingerprint/card or input PIN on Reader B, door 2 will open.

Collection Card Mode

After this mode is turned on, all cards can open the lock. At the same time, the card is added to the device.

Programming Step	Keystroke Combination
1. Enter Program Mode	★ (Master Code) #
2. Collection Card Mode OFF OR	9 1 8 0 # (factory default)
2. Collection Card Mode ON	9 1 8 1 #
3. Exit	★

User Information Transfer (Valid for Card / PIN Users)

The device supports the User Information Transfer function, and the enrolled user (card's, PIN's) can be transferred from one (let's name it Master Unit) to another (let's name it Accept Unit).

Connection Diagram:

The diagram illustrates the connection between two devices. The left device, labeled 'The Device', has a power supply connected to its pins 1 (Power), 2 (GND), and 3 (GND). The RS485 connection is shown with a red line for 'A' and a black line for 'B'. The left device's pins 4 (A) and 5 (B) are connected to the right device's pins 4 (A) and 5 (B). The right device's pins 6 (A) and 7 (B) are also connected to the left device's pins 4 (A) and 5 (B).

~ 18 ~

Remarks:

- > The Master units and Accept units must be same series devices.
- > The Master Code of the Master Unit and the Accept Unit must be set to the same.
- > Program the transfer operation on Master Unit only.
- > If the Transfer Unit is already with the users enrolled, it will be covered after transferring.
- > For full users enrolled, the transfer takes about 30 seconds.

Set Transferring on Master Unit:

Programming Step	Keystroke Combination
1. Enter the programming mode	* (Master Code) #
2. Set transferring	9 8 1 #

Within 30 seconds, Green LED shines, after one beep, the LED will turn into Red, which means the user's information has been transferred successfully.

3. Exit	*
---------	---

App Features (Tuya version Only)

The device can be integrated with TUYA WIFI1 to manage the device in the TUYA Smart/Smart life App. On the device, how to turn off the alarm prompts on the app and upload the WIFI for your reference

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #

App Alarm Notification

2. Disable OR	9 2 # 0 #
3. Enable	9 2 # 1 # (factory default)

Reset the WIFI

2. Reset the WIFI	9 9 # (Master Code) #
3. Exit	*

- 19 -