Manuals+ — User Manuals Simplified.

EXPERT 4 HOUSE

V5 Smart WiFi
Access Control
with Outdoor
Facial Recognition

Expert4house V5 Smart WiFi Access Control with Outdoor Facial Recognition User Manual

Contents

EXPERT 4 HOUSE

Expert4house V5 Smart WiFi Access Control with Outdoor Facial Recognition

Face Recognition Access
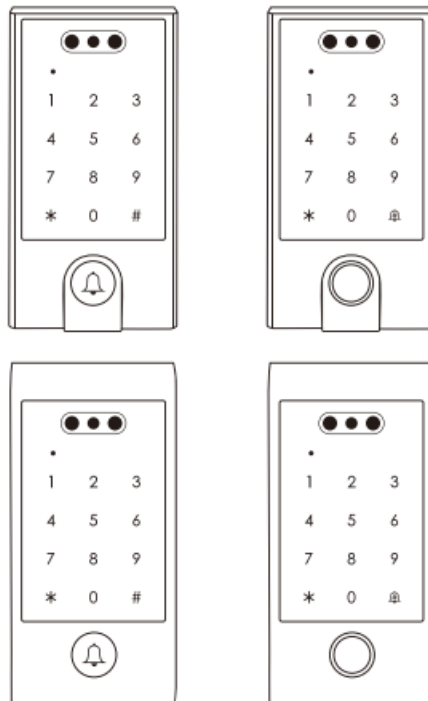
INTRODUCTION

The device is a single-door multifunction standalone access controller or a Wiegand output reader. It supports multi-access modes, face/fingerprint/card/PIN, the operation is very user-friendly, and the low-power circuit makes it a long service life. The device can be made with the Tuya WIFI version.

Features

- Touch keypad
- With a 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, 56, 58bits input & output
- Can be used as a 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
- The backlit keypad can be set automatically OFF after 20 seconds
- Support Authorized User

Specifications

|	
U, er Cacapcity Face User Common Card/PIN User Authorized User Panic User VisITorUser Fingerprint User	5800 Aco 4967 " rn 500 (r.ngerprint version only)
PIN Length	4-6 digits
Operating Voltage Idle Current Activ e Current	12-1avDc <80mA <250mA

Proximity Card Reader	EM+Mifar<a
Radio Technology Read Range	125KHz+13.56MHz 1- 3cm
Wiring Connections	Relay output. Exit button. Alarm. Door contact. Wi and input/ output
Relay Adjustable Relay Output TimeLock Output Load	One (NO, NC, Common) 0-99 Seconds(5 seconds default) 2 Amp Maximum
Wiegand Interface PIN Output	EM card: Wiegand 26-44 bits Input & output Milare card: Wieg nd 26 44b il:! 56bits, 58bits input & output {Faelory d"1"autt: Wi @qand 26bi'8 /0< EM card \\'legend 34bits for Milare card) 4 blts,6 blle(ASCIIJ,10 dlgll.aVlrt\JalNurrt,er (Sactoe;Det.ut<b"5)
Environment Operating Temperature Operating Humidity	Meets IP66 ·20″C ~ 60'C (·13″F~ 140″F) 0%RH-98%RH
Physical Color Dimensions UnitWeigh l Sh ip ping W night	Zinc-Alloy L141) X W6$X D20 (m m) 500g 615g

Carton Inventory
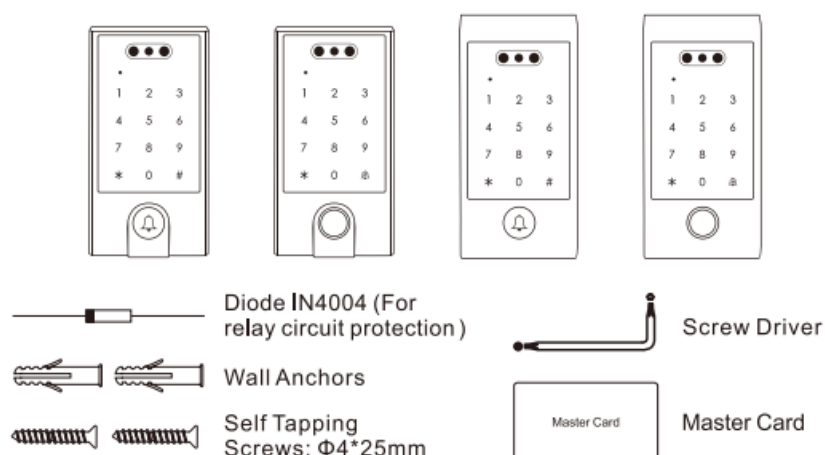
INSTALLATION

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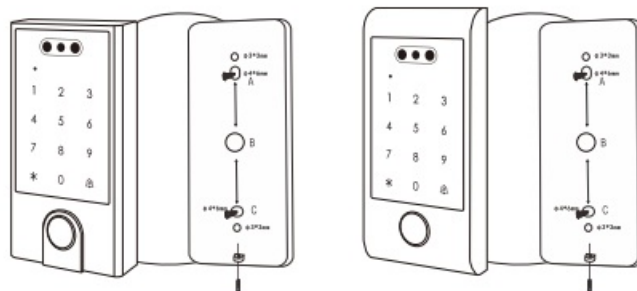
Wiring

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 diode provided)
White & Black	Relay Common	Common Connection for Relay Output
Green & Black	Relay NC	Normally Closed Relay Output (Install diode 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		
Grey	Alarm Output	Negative contact for Alarm
Brown	Contact Input	Door/Gate Contact Input (Normally Closed)
WIFI Version with Doorbell		
Brown & Black	Doorbell A	Contact for Doorbell
Yellow & Black	Doorbell B	Contact for Doorbell

Sound and Light Indication

Oper ation Statu s	o		
		--	
		-	
	Re dlig		

Stand by	htb right	One beep	
Enter into programming mode.	Red light shines	One beep	
In ! he programming more	Orange light bright	One beep	
Operation error		Three beee	
Exilfrorn 1 he Programming rT We	Red light shines	One beboop	
Open lock	Greenlight bright	One "") I)	
Alarm	Red light Shines quickly	Beeps	

Basic Configure
Enter and Exit Program Mode

PrngrammingStep	Key,troic,, Combinalicn
Enter Program Mcxte	* (MastorCode)# (Factory default is 123456) •
Exit Pmgram MOOe	

Set Master Code

ProgrammlngStep	Keystrcke ComblnaUon
1.Enter Program Mode	* (MasterCode)#
2. Update Master Coda	DO #(New Ma•l•rCode)#(Ropoat NewMaster Codel# (Master code is any 6 .j digits) •
3. Exit Program Mode	

**Set the Working Mode**

Notes:
The device has 3 working modes: Standalone Mode, Controller Mode, and Wiegand Reader Mode, choose the mode you use. (Factory default is Standalone Mode / Controller Mode)

Programming Step	Keystrcl<e Combin.action
1. Enter Program Mode	* (Master Code)#
o2., Standalone/Cont roller MOOe	7 4 # O#(faclOl)assault)
2. Wiegand Read-er Mode	74#1#
3. Exit	

STANDALONE MODE

The device can work as a Standalone Access Control for a single door. (Factory default mode) – 7 4 # 0 #
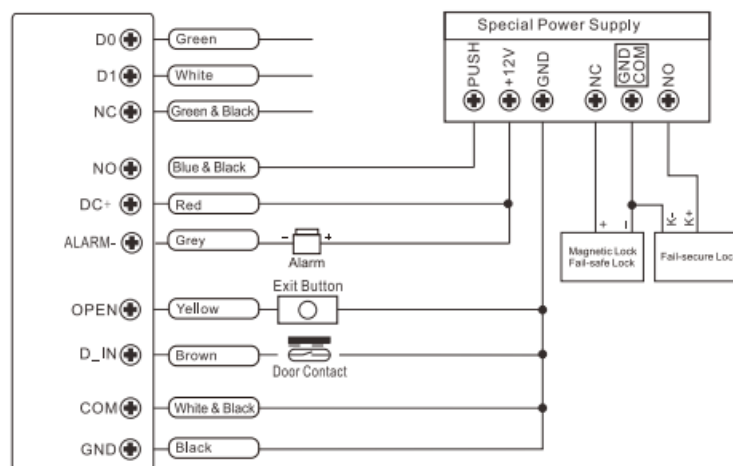
Connection Diagram
Common Power Supply
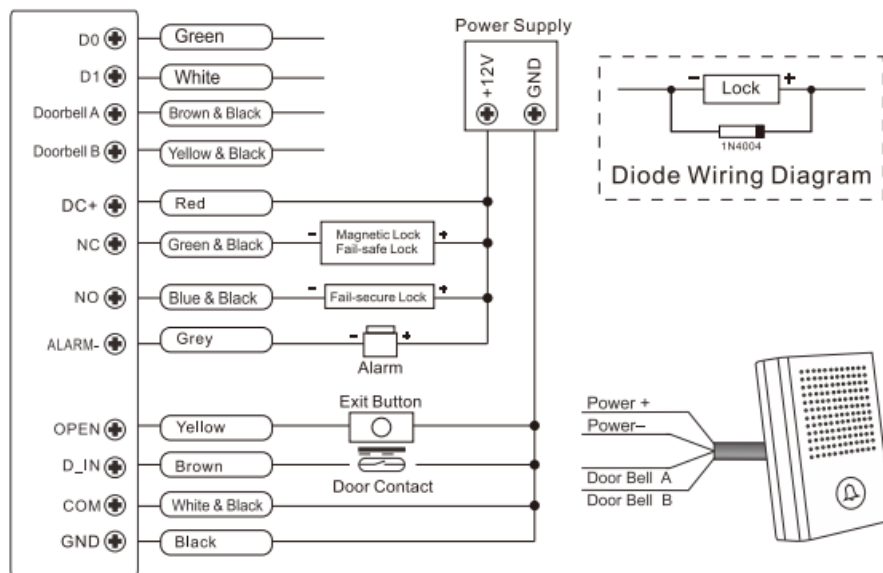
Attention:
Install a 1N4004 or equivalent diode is needed when using a common power supply, or the keypad might be damaged. (1N4004 is included in the packing)

Access Control Power Supply

Programming
Programming will vary depending on access configuration. Follow the instructions according to your access configuration.

Notes:

User ID number:
Assign a user ID to the access Face /Card /PIN / Fingerprint to track it.

User ID number:

- The Common Card/PIN user ID: 1-4987
- Authorized User ID: 4988
- Panic User ID: 4989~4990
- Visitor User ID: 4991-5000
- Face user ID: 5001-5300

- Fingerprint User ID: 6001-6499 (Fingerprint version only)
- Master Fingerprint ID: 6500

IMPORTANT:
User IDs do not have to be proceeded with any leading zeros. Recording of User ID is critical. Modifications to the user require the User ID to be available.

- **Proximity Card:**

  Proximity Card: EM+Mifare cards
- **PIN:**

  Can be any 4~6 digits.

Add Common Users
When adding users directly, the ID number will be automatically searched and increased from small to large.
 Card/PIN user ID: 1-4987, PIN length: 4~6 digits; Face ID: 5001-5300

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)#
Add Card User	
2.UslngA.utolD (/\llows to device to assign Card to o, next an available User ID number:lef) 2 . SelactSpecif>clD (Allows Master to define a specific o, User ID to associate the card to) 2. Add Card: Block Enrollment (Allow Master to add up to 500 cards each time to tile reader in a single step. Green LED on along with a beep means done successfully)	10 # (Raad Card) / (Input 8110/ 17Dlgl!S Card Number)# Tlle cards can be added continuously. 10 # (User IDI # (Read Card) I (Input S/10117 CligiW Card N mbe<) 1D#(UHr ID)# (Card QoanUty)# (Road c… I I (no First Card 8110117 Digits Number)# earns· number must be conserved Card quantity number of cards to be enrolled
Add PIN Us r	
2.SelectSpecificID (Allows rJ\aoagerto to define a specific User ID to associate tile PINto)	10#(UBerID)#(PIN)#
Add Face User	
2. Using Auto ID (Allows the devi ce le assiQn F a ce le onA,t x available Use r ID n1Jmb er) 2. Select Specific ID (Allows tile dsvi ca to assign Faco to the next available User ID number)	11 # (Record Face)..,# The faces can be added,d con ti nu all y 10 # IUser IDI # (Record Face)#
Add Fingerprint User	
2. Using Auto ID (Allows the device to assign Fingerprint to net available User ID number) OR	10# (Fin fingerprint)(Repeat Fingerprint) (Repeat Fingerprint again) Fingerprints can be added continuously

2. Selec t Specified ID (Allows Master to define a specific User ID to associate the fingerprint ta)	10#(User ID)# (Fingerprint) (Repeat Fingerprint! (Repeat Fingerprint) Fingerpr int s can be added continuously
3. Extt	•

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 **(123434) *or ** (123434) ("*" can be any number from 0~9)

Add Master Fingerprint (By Specified ID: 6500) (Fingerprint Version only)

Programming Step	KeystrokeComblnatlcn
1. Enter Program Mode	* (MasterCode)#
1. 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 Sl•p	Keystroke Combination
1. Enter Program Mode	*(Master Code)#
2. AddCard o, 2. Add PIN	10 # (49881 # IRead Card /input 8110 Digtts Card number) # (4M&)#(PIN)#
3. E, it	

Remark:
An authorized user can be a card or PIN, read the Authorized Card, or input the Authorized PIN. Then all valid users can't access; read the Authorized Card or input the Authorized PIN again, then all valid users can access again.

Add Panic Users (Valid for Card/ PIN Users)
/l learned IN numeric 1090 1000 DIN length. 126 dinite)

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

Programming Step	Keystroke Combination
2. Add Card o, 2. Add PIN	1o #(User ID)# (Read Card / Inpcit 8110117 Digits Card number)# 10#(UserID)#(PIN I#
3. Exit	•

Add Visitor Users (Valid for Card/ PIN Users)
(User ID number is 4991-5000, PIN length: 4~6 digits)

There are 10 groups of Visitor PIN/cards 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 becomes invalid automatically.

Programming Step	Keystroke Combination
1. Enter Program MoOO	*(Master Code)#
2. Add Card o, 2. Add PIN	10 # (User ID)# (0 9) # (Read Card) I (Input 8110117 Digits Card Number)# 10# (UserID)#(IHI) #(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 **OR**	2 0 # (Input Fingerprint)/ (Read Card) # The users can be deleted continuously.
2. Delete User - By ID number **OR**	2 0 # (User ID) #
2. Delete User - By Card number **OR**	2 0 # (input 8/10/17 Digits Card Number) #
2. Delete User- By Face **OR**	2 1 # (Record Face) #
2. Delete ALL Users **OR**	2 0 # (Master Code) #
2. Delete ALL Card/PIN Users **OR**	2 0 # 1 (Master Code) #
2. Delete ALL Face Users **OR**	2 0 # 2 (Master Code) #
2. Delete ALL Fingerprint Users	2 0 # 3 (Master Code) #
3. Exit	*

Sim pl ified Instruction	
Function Description	Operation
Enter the Programming Mode	*-MasterCode-# then you can do the programming {123456 Is the factory OOfault master code)
Change the Master Code	00-11-New Code-#-Repeat New Code-# {code:6digits)
Add Card Use<	10 -11- Read Card-# {can add cards continuously)
Add Finge RP rint Use r	10-11-FIngerprInt- Repeat Fingerprint Repeat Fingerprint- #
Add PIN User	10-11-(Usor ID)-#-PIN-# (The PIN is any H digits)
	11-#-Record Face-#
DaletaUsar	20-11-Read Card-# 20-11-User ID-# 20-ll •Fingerp rint •# 21 -11- Fac a-#
Exilfromthe ProgrammingM OOe	"

How	kl	ral•aao tho door	
Face User			Present Face
Fingerprint User			Input Fin fingerprint
Card User			Read Card
PIN User			lnr,.,tP IN #

Set Relay Configuration
The relay configuration sets the behavior of the output relay on activation.

Programming Stop	KeystrnkaCombination
1. Enter Program Mode	*(Master Codel #
2. Pulse Mode 2°. Toggle Mode	3 0 # (1 99) # (factory default) Tlle relay me is 1- seC01 1ds (Default is 5 secor>ds) 30#0# Sets the relay to ON/OFF Toggle mixte •
3, E<it	

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 standby automatically.

Pr<>gramm I ng Step	Key,tr<>ke Combination
1 . Enter Program Mo:Je	*(Master Cod•)#
2, CMR d Acce3S "2. PIN Acca s "o2.,Fac Access o2. , Fingerpri nt,\c c eos 2 . Car rt.'PIN/F ace/ Fi range print o, Access 2. Multi-User Access	40#0# 40#1 # 40#2# 40#3# 40# 4 # (fs c tn ry % fau lt) 41#(2 9)# (Only aner 2-9 valid users, the door be op ned i •
3.EKi t	

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

Set Face Recognition

Progn, min stop	Keystroke Combination
1. Enter Program Mcxte	*(Master Code)#
o2. , Face Record Way	50#(011)# O = Record front faoo only (factory default 1 = Record face t : y multiple angles

2. Rec ord Repeatly oral o, 2.Se asin g Dista nee	51/t(0/1)# O = S am e face can't ba recorrJe<J repea1ly (factory default) 1 a Sa me race can be recorded repeal (will occupy extra U ser ID) 52#(01112)# 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 engaging or disengage only after entering a valid Fingerprint/Card/PIN/Face or Master Code/Fingerprint/Card.

Programming Step	Keystroke Combination
1. Enter Program Moda	* (MasterCode)II
2. Strike-Out OFF o, z. Strike-OutON o, 2. Strike-Out ON (Alarm) Se! Alam, Time	6 O # O # (factory default) 6 O # 1 II A= will be OOniedfor 10 m0lute,; (Exit button is still worl::able) 60#2# 31#10-3) # (factory default is 1 minute) Enter Master Cede# or Master Finge print/card or valid user finger rin,t card / P I N to silence •
3. Exit	

Set Door Open Detection
Door Open Too Long (DOTL) Detection When used 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 user, or valid users, or else, it will continue to beep at the same time as the alarm time is set.

Door Forced Open Detection

When used 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 (if there is one) 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.

2. Rec ord Repeatly oral o, 2.Se asin g Dista nee	51/t(0/1)# O = S am e face can't ba recorrJe<J repea1ly (factory default) 1 a Sa me race can be recorded repeal (will occupy extra U ser ID) 52#(01112)# Larger value: farther distance (factory default: 2)
3. Exit	•

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

Set Audible and Visual Response

Programming Step	Kejf$troke Combination
1. EnterProgramMode	* (MasterCodel #
2. Muto Low Sound Medium Sound High Sound o, 2. LEDAlwaysOFF LED Always ON o, 2. Keypad Backl Mvays OFF Keypad Backlit Always ON Keypad Backl Auto=tic OFF	70#0# 70#1# 70#2# 7O # 3 # (factory default) 71#0# 7 1 # 1 # (factory default) 72#0# 72#1# 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. Exil	

Master Fingerprint/ Card Usage

(fare is nicer can't he add hu this way)

Using Mester Fingsrpr i nU Card to add and delete users	
Add Fingerprint/ Card/ PIN User,	1. In pu t (Master Fingerprint *I* Card) 2. Input (Fingerprint three times) or(Card) or (User ID#PIN#) R pe al sleµ 2 fur addi tion al us ers 3, Input (Master Fingerprint I Card) again

Delete Fingerprint/ Card/ PIN Users	1. Input **(Master Fingerprint/ Card Twice within 5s)** 2. Input **(Fingerprint)** or **(Card)** or **(User ID#)** Repeat step 2 for additional users 3. Input **(Master Fingerprint/ Card)** again

Users Operation & Reset to Factory Default

- **Open the door:**

  Read valid user fingerprint or user card or input valid user PIN #

- **Remove Alarm:**

  Enter Master Code # or Master Fingerprint/ Card or valid user fingerprint/card / PIN (for Master Card or User Card, only Mifare card is workable)

- **To reset to factory default & Add Master Card:**

  Power off, press the Exit Button, hold it, and power on, there will be two beeps, then release the exit button, the LED light turns yellow, then read any 125KHz EM card / 13.56MHz Mifare card, the LED will turn into red, means reset to factory default successfully. Of the card reading, it is the Master Card.

Remarks:

1. If no Master Card is added, must press the Exit Button for at least 5 seconds before release. (this will make the previously registered Master Card invalid)
2. Reset to factory default, the user's information is still retained.

CONTROLLER MODE

The device can work as a Controller, connected to the external Wiegand reader. (Factory default mode) — 7 4#0#

Connection Diagram

Attention:

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

Set Wiegand Input Formats

Please set the Wiegand input formats according to the Wiegand output format of the avtornal Roador.

Programming Step	Keystroic, Combination
1. Enter Program Mode	* (MaslerCode)#
2. W, and Input Bit	For EM Cllrd: 82#[.re–44I# (factory default is 26bits) For Milar<a Card: a 3 # (:IG–44,56,58) # (fa ctory delaulli s 34bitsl
3. Disable Pality Bil Enable Pality Bil	60″0# 60# 1 # (factory default) •
4, Exit	

Note:

For connecting Wiegand readers with 32, 40, and 56-bit output, need to disable parity bits.

Programming

- Basic Programming is the same as Standalone Mode
- There are some exceptions for your attention:
- The device is connected to an 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 the external reader.
- The device is ce Connected to a 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:

C	enter Pro, gram Mode:* (Master Code)#
2 1 (Prass Fingerprint A once on SF1I II (ID auto allocated)	
2 1 (User ID)#(Prass Fingerprint Aon SF1)# (Select specific ID}	
3	E, it:*

The device is connected to a 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.

C	Keystroke Combination
1. EnterProgram Mode	* (MasterCode)#
2. PIN input bits	8 1 # (4 or8 or 10) # (factorydeiautt 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 entering into programming mode on the device, PIN(s) can be input/ added on either the device or the external Keypad Reader.

- **Delete PIN Users:**

  The same way as adding users.

WIEGAND READER MODE –
The device can work as a Standard Wiegand Reader, connected to the third-party Controller — 7 4 # 1 #

Connection Diagram

The Device   Access Controller
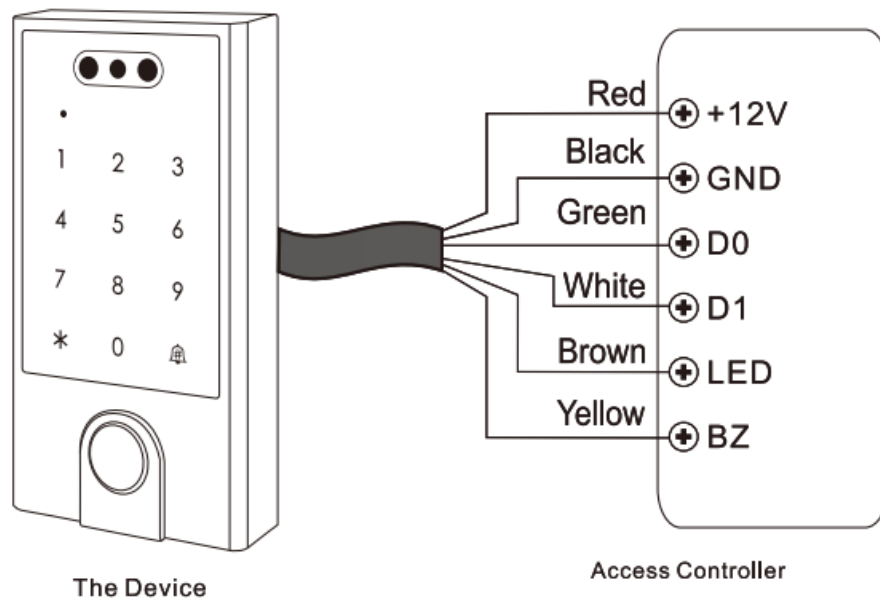
Notes:

- 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 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 according to the Wiegand input formats of the Controller.

Programming Step	Keystroke Combination
1. En1″ programMed"	* (Master Code)#
2. Wiegand Dulpul PINOulµul	For EM Card: 82#(26-44)# (facto,-y,d, fa u lt is %bits) For Milare Card; 8 3#126-44,56,56)# (factory default is :l4bits) a 1 #(4 ore or 10) #(factory default is 4 bits)
3, Disable Parity Bit Enable Parity Bit	80#0# 8 0 # 1 # (factory default)
4. Exit	

Note:
For connecting the Wiegand controller with 32, 40, and 556-bit input, need to disable parity bits.

ADVANCED APPLICATION

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

Connection Diagram:

-
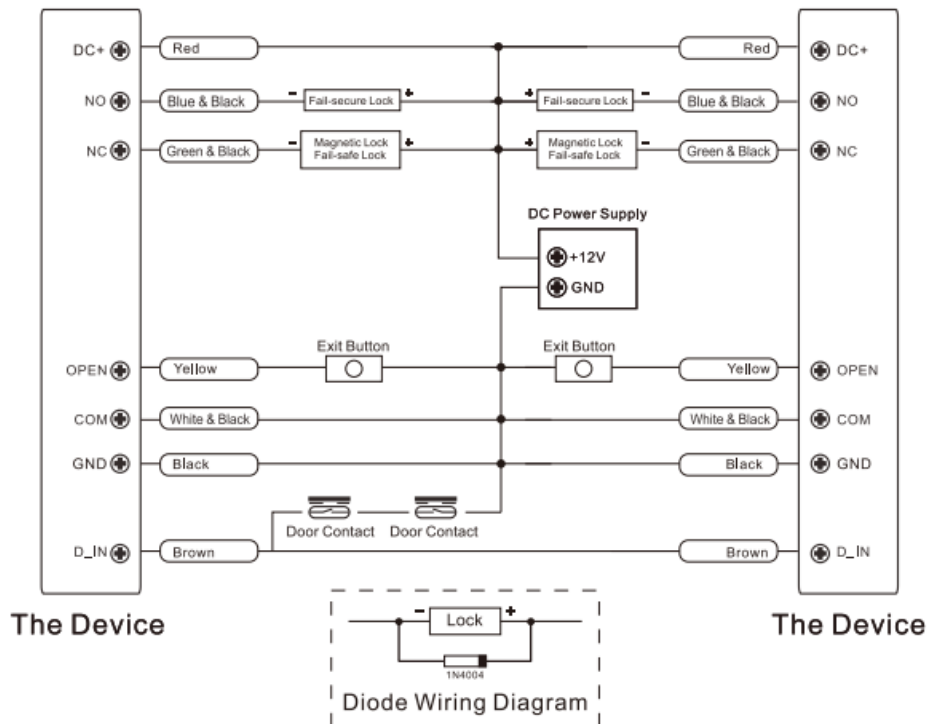
Remarks:

The Door Contact must be installed and connected as in the diagram.

Let's name the two Devices "A "and "B" for two doors "1" and "2"

- **Step 1:**

  Enroll the users on Device A, then transfer the users' information to Device B by the "User Information Transfer" function.
- **Step 2:**

  Set both of the two devices (A and B) to Interlock function

Programming Stop	Keystroke Combination
1. Enter Program Mode	* (MastarCode)#
o2.,Disable Interlock 2. En at:>le ln1″r lo ck	9 0 # 0 # (t,,story ct fault) 90#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, and door 1 will open; then when and only 1 is closed, read the valid fingerprint/card or input PIN on Reader B, door 2 will p.

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.

	Keystroke Combination	
i ProgrammingStep	*	
1. Enle< Pr<llJram Mode	(Masle<'Code)#	
o2,,Colleclion Card Mode OFF 2. Colleclion Card Mode ON	9 1 # 0# (fu factory default) 91 #1# •	
3. Exit		

User Information Transfer (Valid for Card / PIN Users)
The device supports the User Information Transfer function, and the enrolled user (cards, PINs) can be transferred from one (let's name it Master Unit) to another (let's name it Accept Unit).

Connection Diagram:
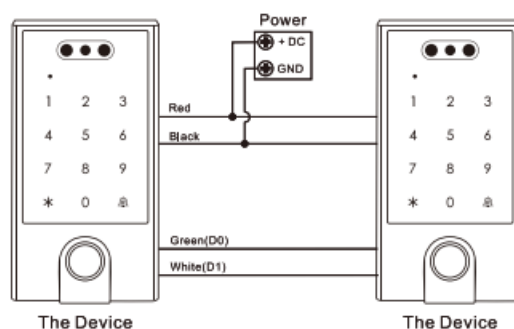
Remarks:

The Master units and Accept units must be the same series of devices.

- The Master Code of the Master Unit and the Accept Unit must be set to the same.
- Program the transfer operation on the Master Unit only.
- If the Accept 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.

ProgrammlngStap	Keyotroic,, Combination
1. Enter lhe programming mode	* (Maste.-Code)#
2. Settransfe1Ting	98#1#
Within 30 seconds, the Green LED shines, and after one boop, the tile LED will turn into Red, which means the users' information has been transferred successfully. sfully.	
3. Exit	*

App Features (Tuya version Only)
The device can be integrated with TUYA WIFI 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 unbind the WiFi for your reference

Pr0gmmmin11Step	Keystroke Combination
1. Enter Program Mode	* IMaster Code)#
App Alarm Notification	
o2.,Di sala 2. Enable	92#0# 92 # 1 # (factory dela lt)
Reset the WIFI	
2. Reset the WIFI	9 9 # (Master Code!# •
J.E<it	

Documents / Resources

References

- [**User Manual**](#)