INSTALLATION GUIDE
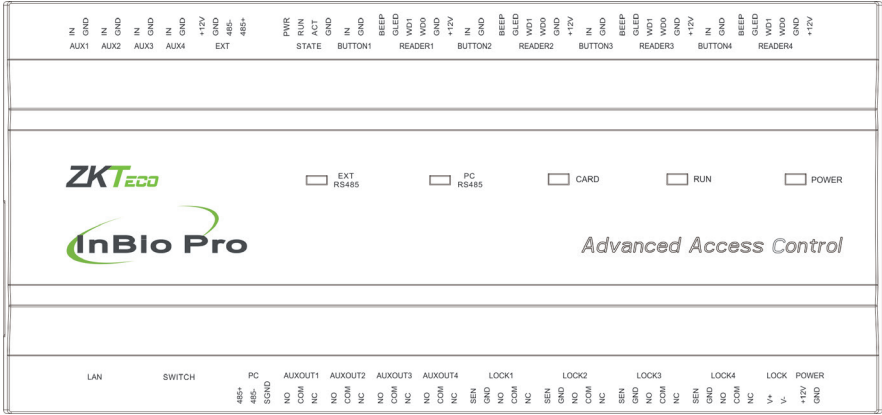
InBio Pro Series Access Control Panels

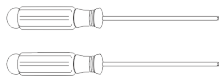Date: April, 2021
Version: 1.4

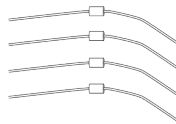# What's in the Box

2 Screws & Anchors　　　2 Screwdriver　　　4 Diode

CONTENT

ZKBioSecurity Software

Optional accessories

Wiegand Card Reader

Prox Card

InBio Pro Cabinet

K2 Exit Button

ZK4500 Enrollment reader

CR20E Card Enroller

RS485 Fingerprint Reader

Safety Precautions

The following precautions are to keep user's safe and prevent any damage. Please read carefully before installation.

Do not install the device in a place subject to direct sun light, humidity, dust or soot.

Do not place a magnet near the product. Magnetic objects such as magnet, CRT, TV, monitor or speaker may damage the device.

Do not place the device next to heating equipment.

Be careful not to let liquid like water, drinks or chemicals leak inside the device.

Do not let children touch the device without supervision.

Do not drop or damage the device.

Do not disassemble, repair or alter the device.

Do not use the device for any other purpose than specified.

Clean the device often to remove dust on it. In cleaning, do not splash water on the device but wipe it out with smooth cloth or towel.

Contact your supplier in case of a problem.

Product PIN Diagram

4 Aux Inputs

RS485 Fingerprint Reader

State Indicator

#1 Door Exit Button

#1 Door Card Reader

#2 Door Exit Button

#2 Door Card Reader

#3 Door Exit Button

#3 Door Card Reader

#4 Door Exit Button

#4 Door Card Reader

ZKTeco

InBio Pro

Advanced Access Control

EXT RS485 · PC RS485 · CARD · RUN · POWER

LAN · SWITCH · PC · AUXOUT1 · AUXOUT2 · AUXOUT3 · AUXOUT4 · LOCK1 · LOCK2 · LOCK3 · LOCK4 · LOCK · POWER

SD Card Slot

LINK LED

Ethernet Port

ACT LED

DIP Switches

4 Aux Output

4 Lock & Door Sensor

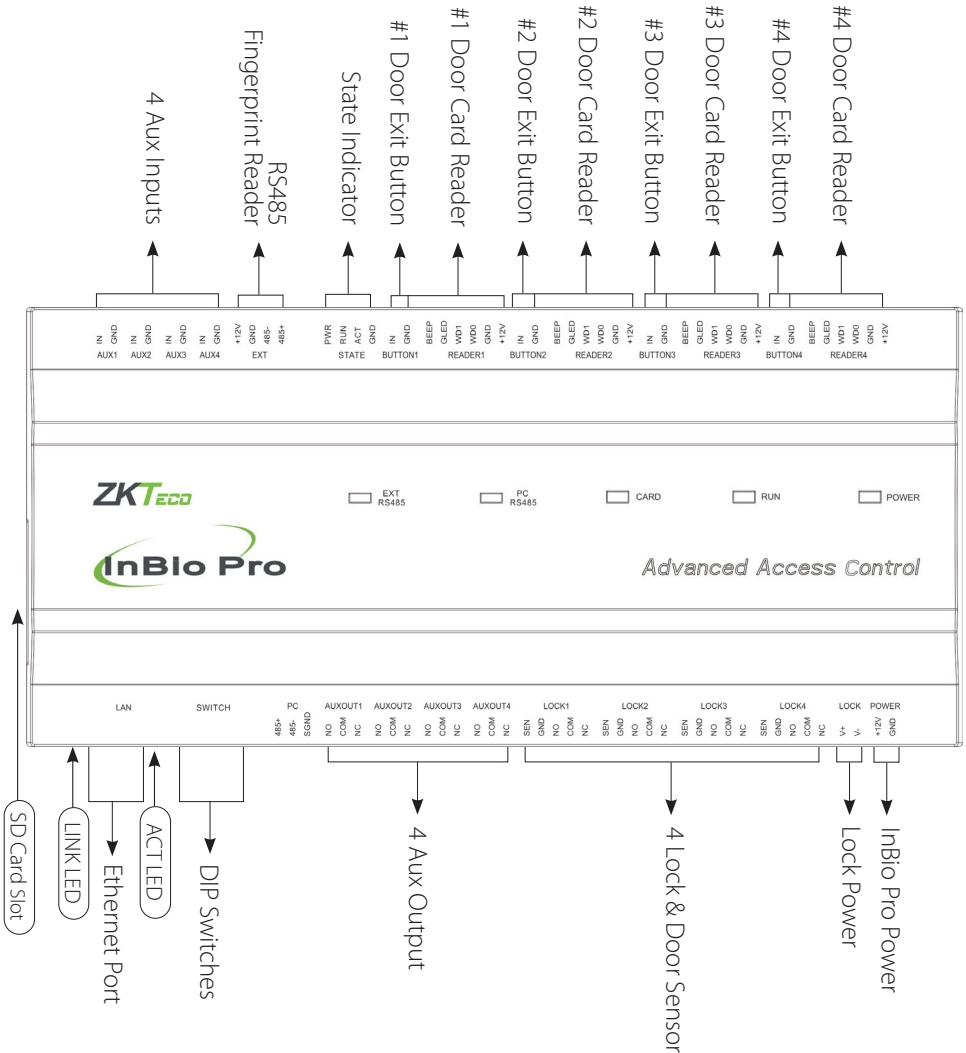Lock Power

InBio Pro Power

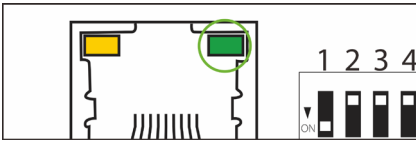Figure 1

LED Indicators

Figure 2

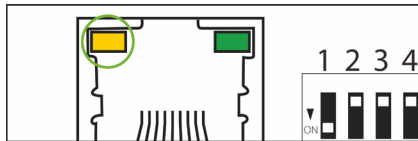**LINK Solid Green LED** indicates TCP/IP communication is normal.

Figure 3

Flashing (ACT)Yellow LED indicates data communication is in progress.

Figure 4

EXT RS485 (TX/RX) Flashing Yellow & Green LED indicates communication is in progress.

Figure 5

Flashing (POWER) Red LED indicates the panel is powered on.

Figure 6

Flashing (RUN) Green LED indicates that panel is in normal working state.
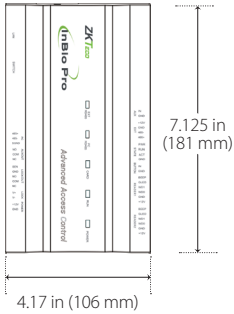

Figure 7

Flashing (CARD) Yellow LED indicates that the card is read by the panel.

Product Dimension

InBio160Pro   InBio260Pro   InBio460Pro
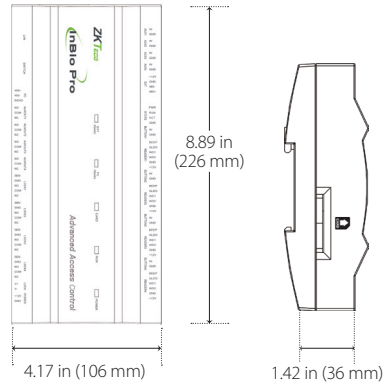

8.89 in
(226 mm)

7.125 in
(181 mm)

4.17 in (106 mm)   4.17 in (106 mm)   4.17 in (106 mm)   1.42 in (36 mm)

Figure 8

InBio Pro- Metal Cabinet

13 in
(330 mm)

15.7 in (400 mm)   3.56 in
(90.5 mm)
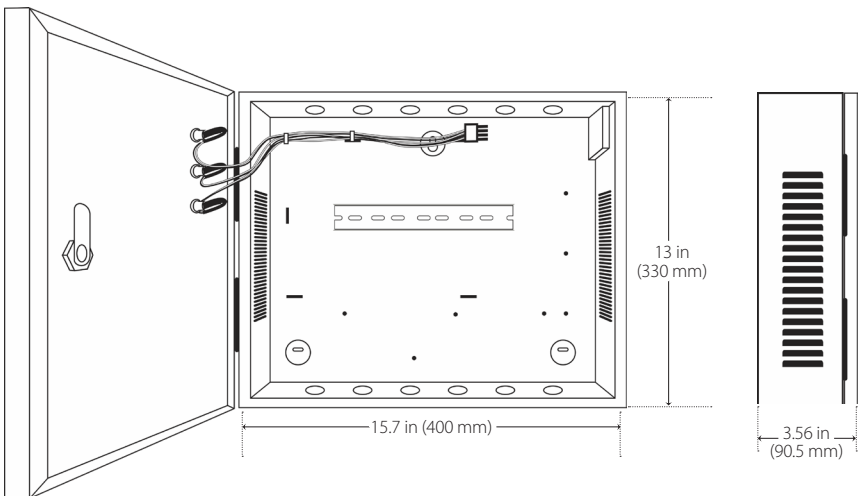
Figure 9

Installation of Panel & Cabinet

Cable Conduit
(Punch Hole for cables)

Temper Switch

InBio Pro Panel

Heat Dissipation Grill

Power Supply

Backup Battery
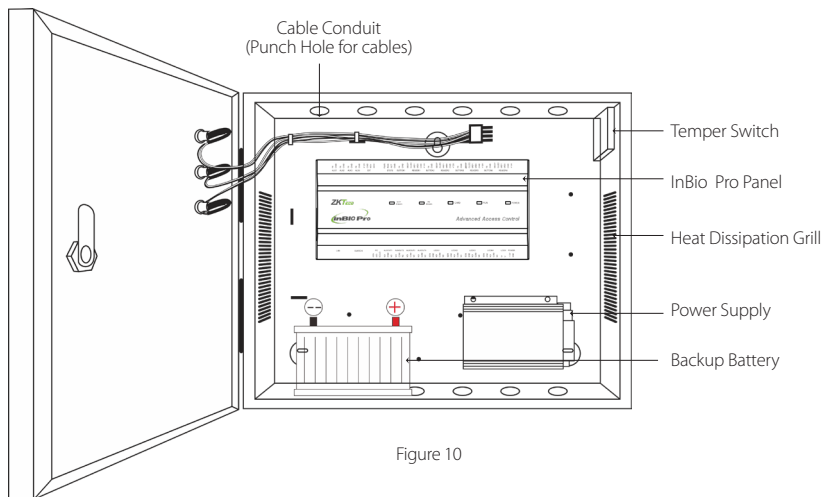
Figure 10

Step 1
Pass the cable through holes

Step 2
Mount the Metal Cabinet

Step 3
Insert the InBio Pro Panel as it shown

State Indicators   Mounting Holes   Inserting Panel to Rail
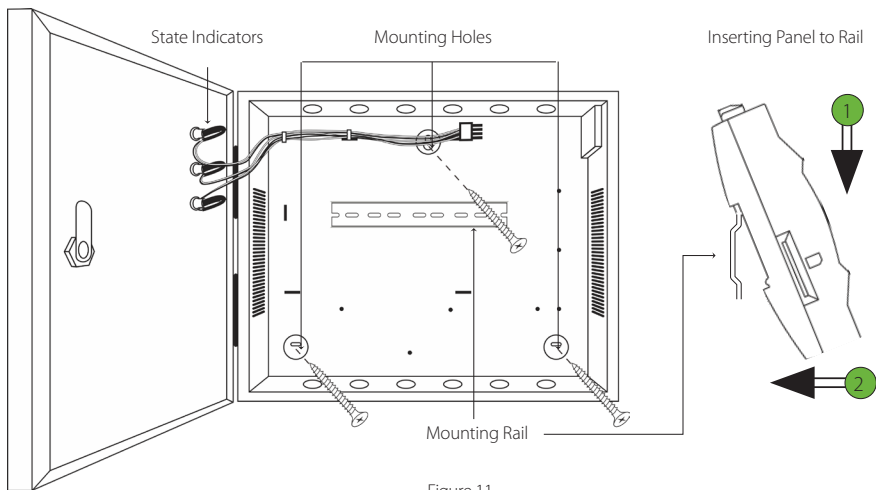
1

2

Mounting Rail

Figure 11

We recommend drilling the mounting plate screws into solid wood (i.e. stud/beam). If a stud/beam cannot be found, then use the supplied drywall plastic mollies (anchors).
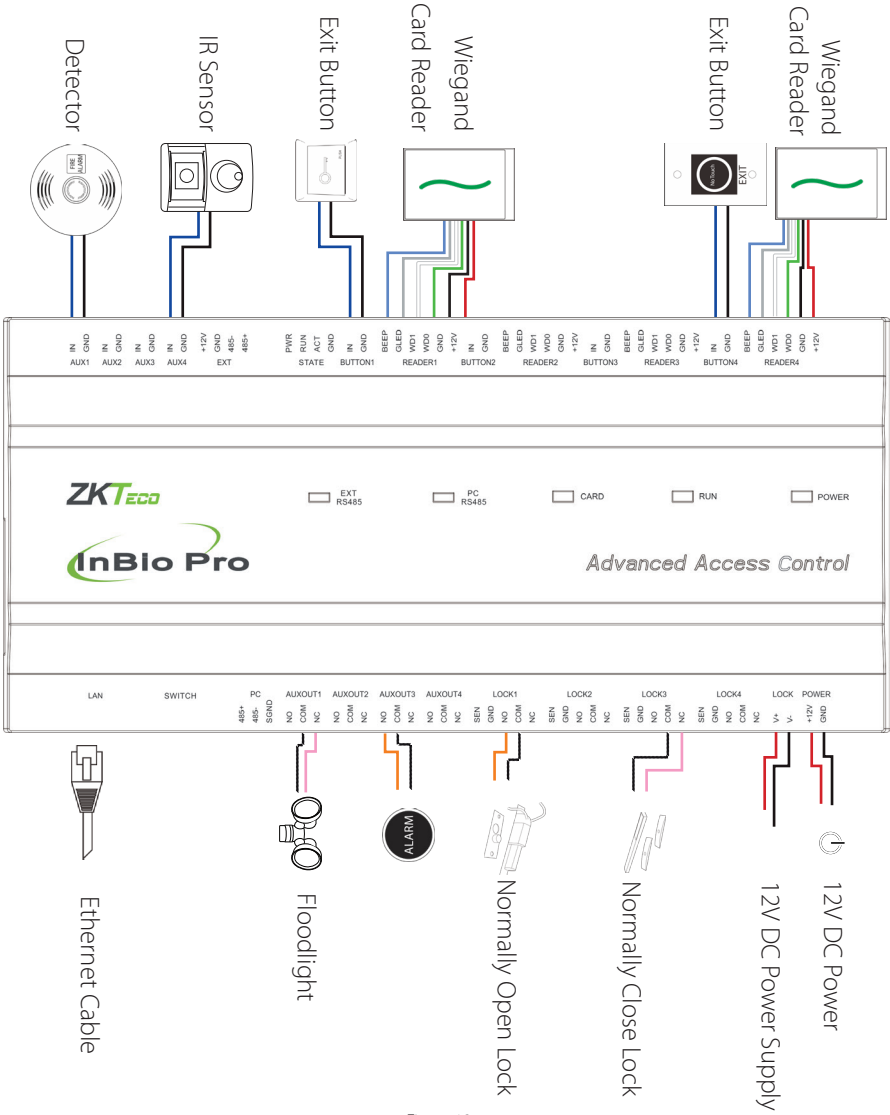
Wiring Legend

Figure 12

Power Wiring Diagram

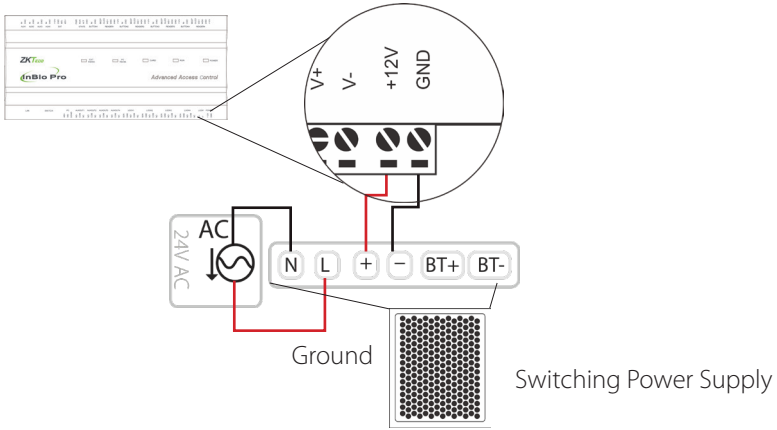## Without Backup Battery

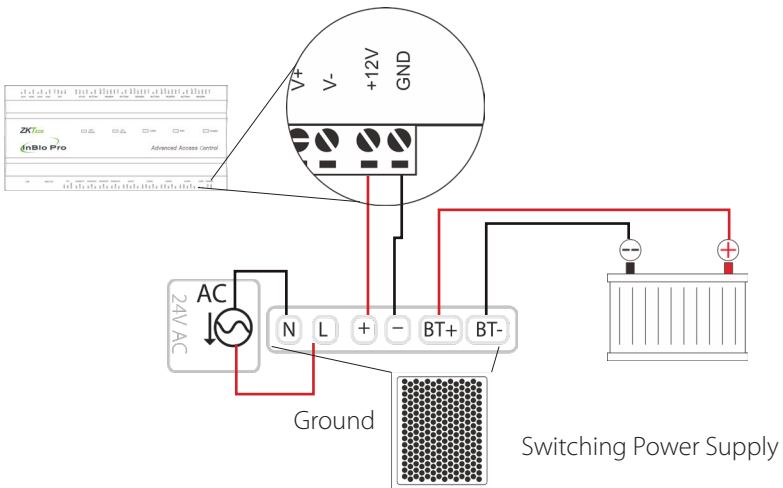Figure 13

With Backup Battery
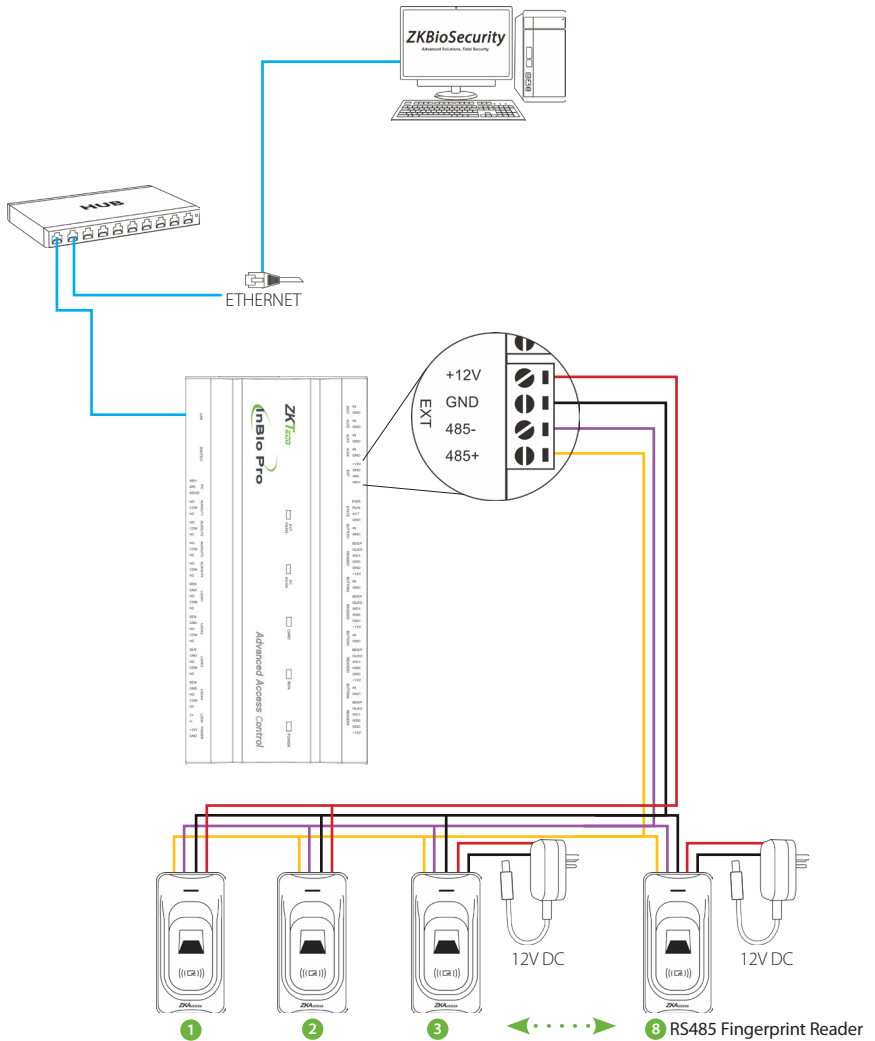

Figure 14

RS485 Fingerprint Reader Connection

Figure 15

DIP Switch Setting for RS485 Reader

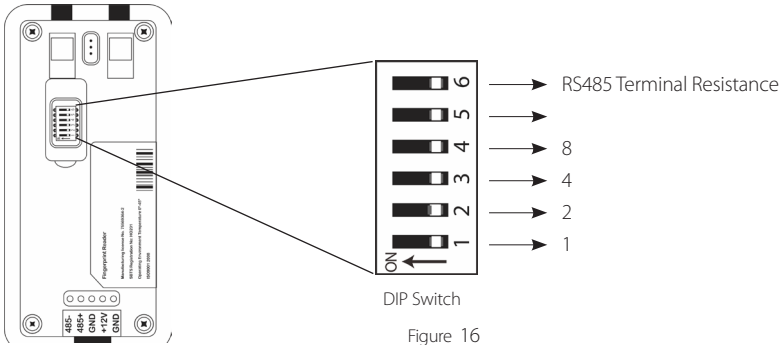RS485 Terminal Resistance
8
4
2
1

DIP Switch

Figure 16

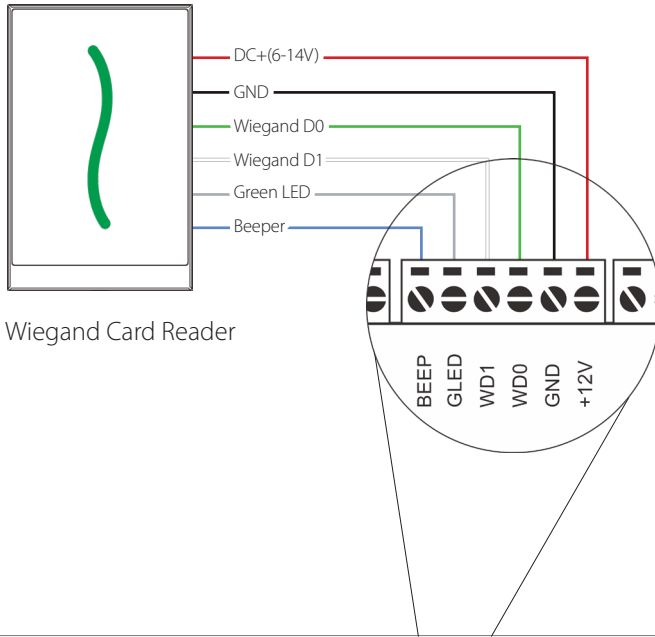| Address	Switch Settings	Address	Switch Settings
1	ON 1 2 3 4 5 6	5	ON 1 2 3 4 5 6
2	ON 1 2 3 4 5 6	6	ON 1 2 3 4 5 6
3	ON 1 2 3 4 5 6	7	ON 1 2 3 4 5 6
4	ON 1 2 3 4 5 6	8	ON 1 2 3 4 5 6

Important Notes

1. There are six DIP switches on the back of RS485 fingerprint reader, Switches 1-4 is for RS485 address, switch 5 is reserved, switch 6 is for reducing noise on long RS485 cable.

2. Set the odd number for IN reader, and the even number for OUT reader (for eg. For two readers for one door- the RS485 address 1 is for IN reader, RS485 address 2 is for OUT reader)

3. If RS485 fingerprint reader is pow-

ered from InBio460Pro panel ,the length of wire should be less than 100 meters or 330 ft.

4. The External RS485 interface can supply maximum 500mA current, The RS485 fingerprint reader's startup current is 240mA. So InBio-460Pro only can power two RS485 fingerprint readers.

5. If the cable length is more than 200 meters or 600 ft , the number 6 switch should be ON as below:

ON 1 2 3 4 5 6 ← Distance: More than 200 meters → ON 1 2 3 4 5 6

Wiegand Connection

DC+(6-14V)
GND
Wiegand D0
Wiegand D1
Green LED
Beeper

Wiegand Card Reader

BEEP GLED WD1 WD0 GND +12V
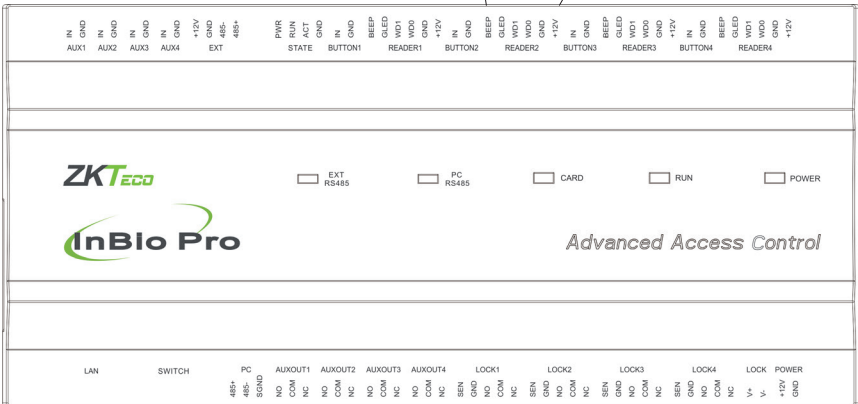
Figure 17

REX Connections

Separate Power Supply

12V DC(+)
12V DC(•)

Unused

COM

NO

K2 Exit Switch

No Touch

EXIT

BUTTON

GND

PUSH

ZK ABK Exit Button

GND IN GND BEEP

+12V IN GND BEEP

ZKTeco

InBio Pro

Advanced Access Control

EXT RS485   PC RS485   CARD   RUN   POWER
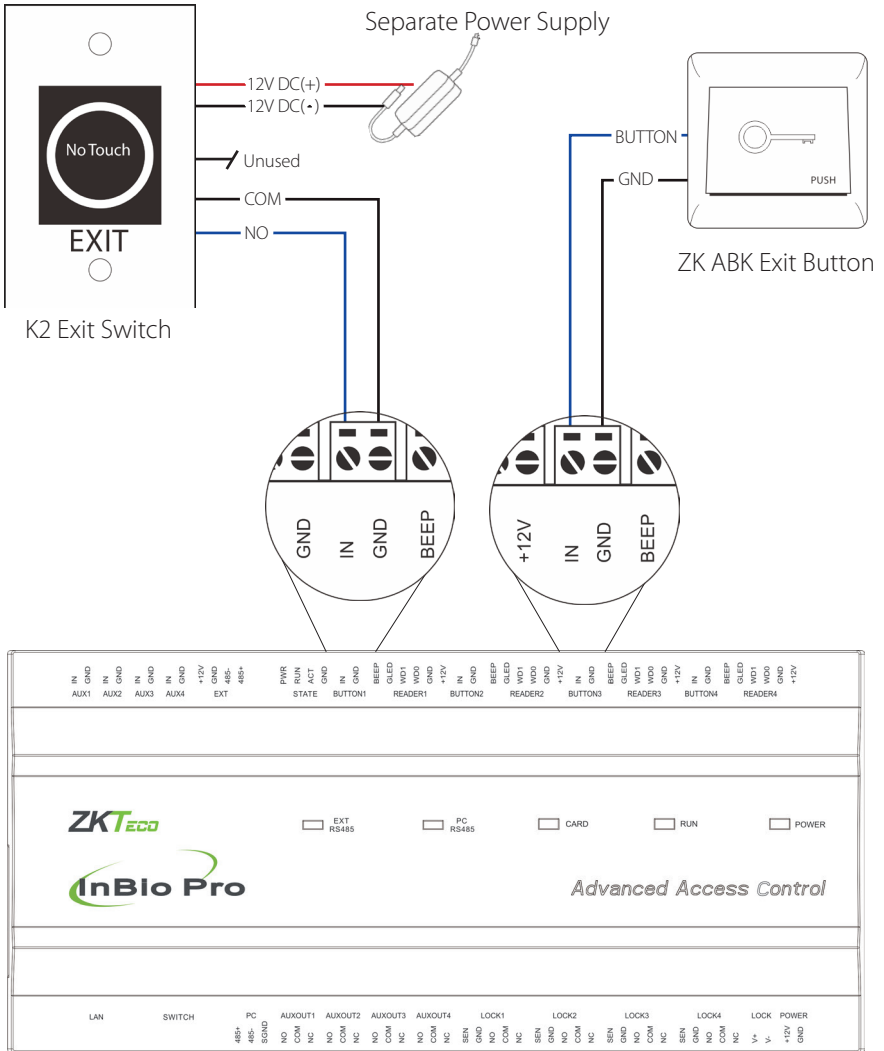
Figure 18

Lock Connection

Connecting a Lock with External to Power Supply (Dry Contact)

ETHERNET

LOCK3

NC SEN GND NO COM NC SEN

GND

Door Contact

Sensor
Sensor

GND

12V DC

FR107
Diode

ZKBioSecurity
Advanced Solutions, Total Security
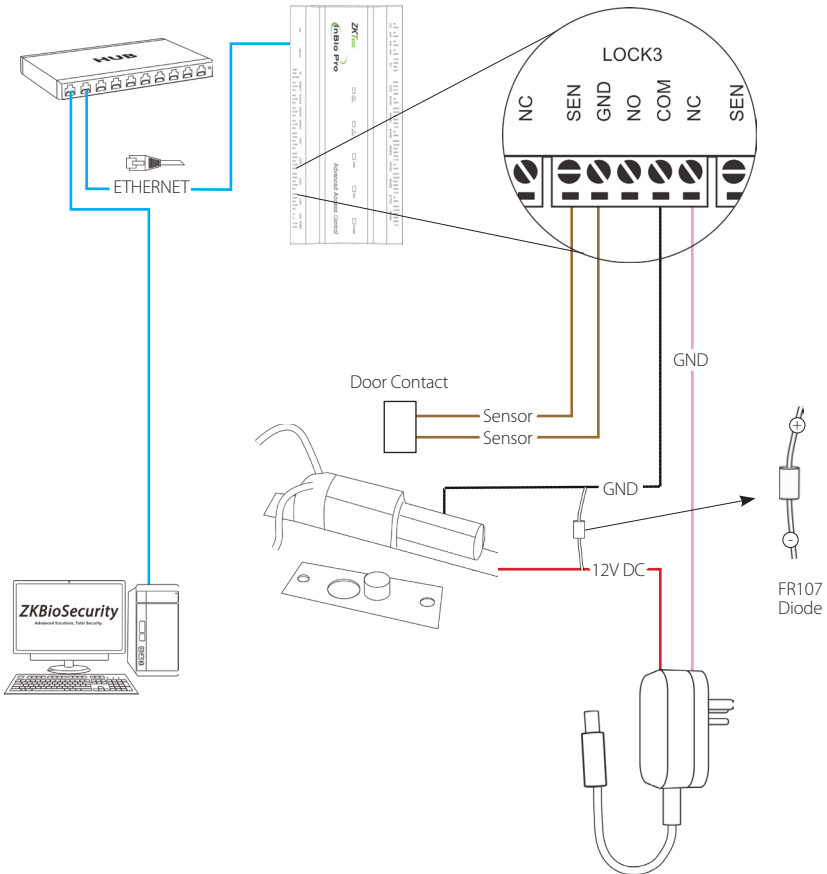
Figure 19

Switching Dry Contact to Wet Contact

Important Notes:

The factory default jumper setting is set as dry mode. If you want to power the lock from the panel, you must take the following steps:

1. Take apart the cover of InBio460Pro. Push the tab inward (see figure 21)

2. Select the appropriate lock relay and find its jumpers

3. Take off the jumpers and change ▭▭▭ to ▮▭▭

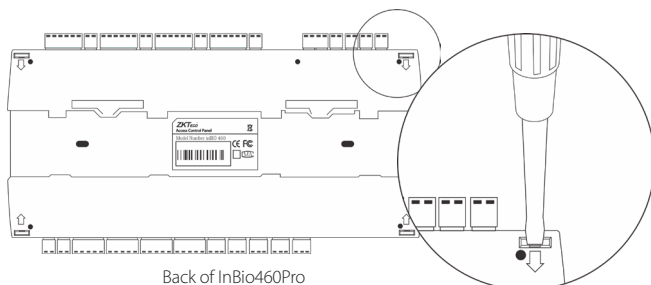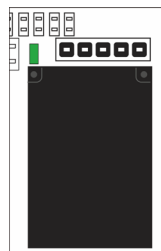4. Connect the lock as show in the diagram, (see figure 23 and 24)

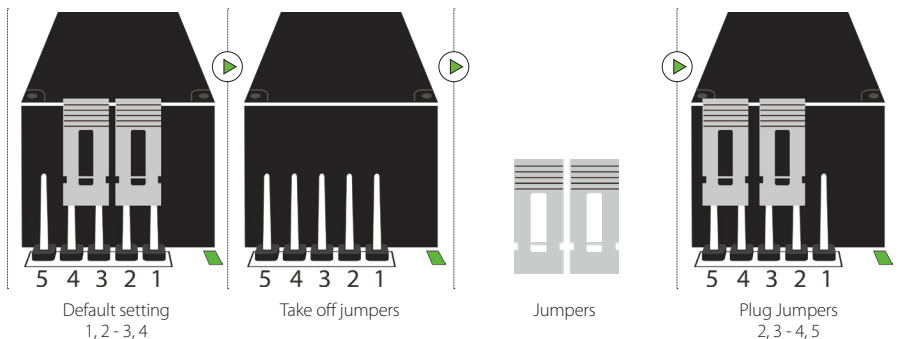Back of InBio460Pro   Select one Relay

Figure 20

5 4 3 2 1	5 4 3 2 1		5 4 3 2 1
Default setting	Take off jumpers	Jumpers	Plug Jumpers
1, 2 - 3, 4			2, 3 - 4, 5

Figure 21

Lock Connection

Normally Open Lock Powered From Lock Terminal (Wet Contact)

16 or 18 AWG shielded cable recommended
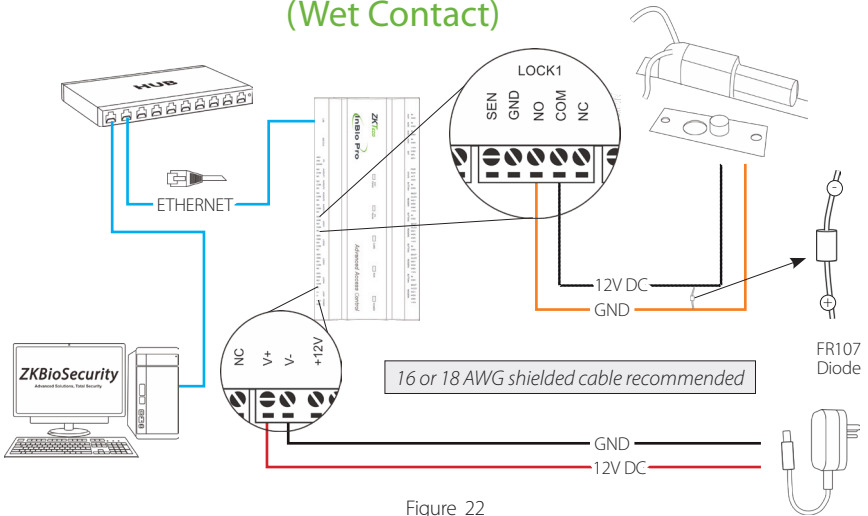
Figure 22

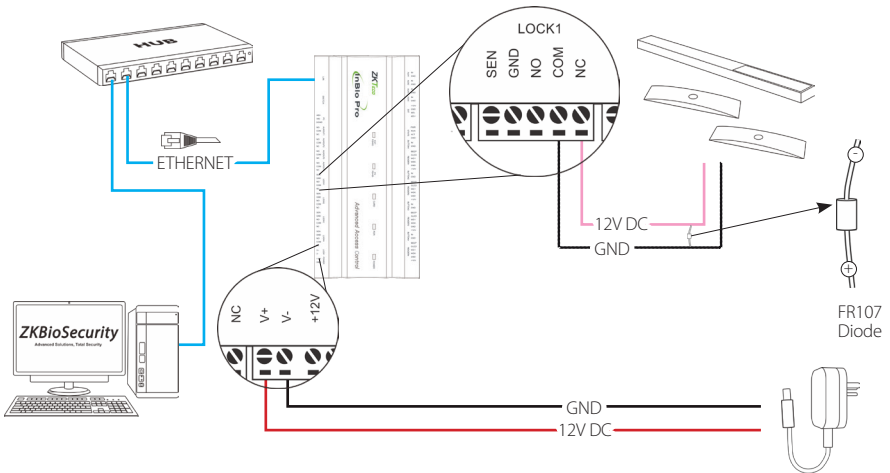## Normally Closed Lock Powered From Lock Terminal (Wet Contact)

Figure 23

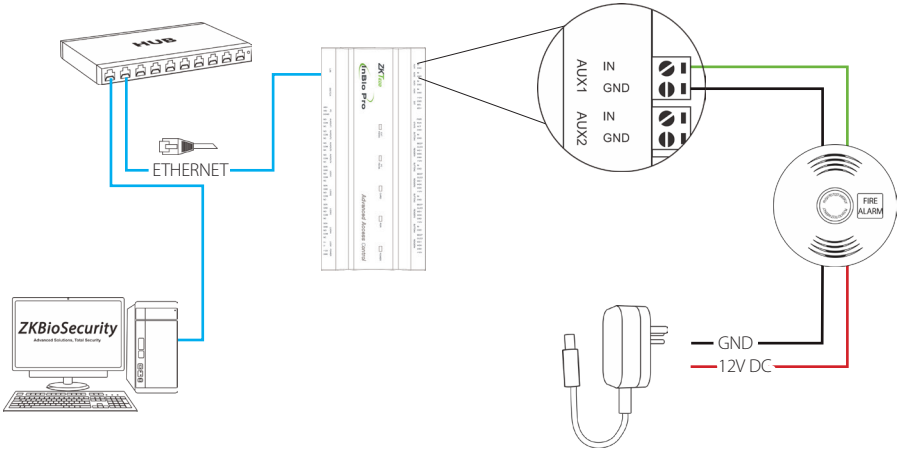# Aux. I/O Connection

Aux. Input Connection
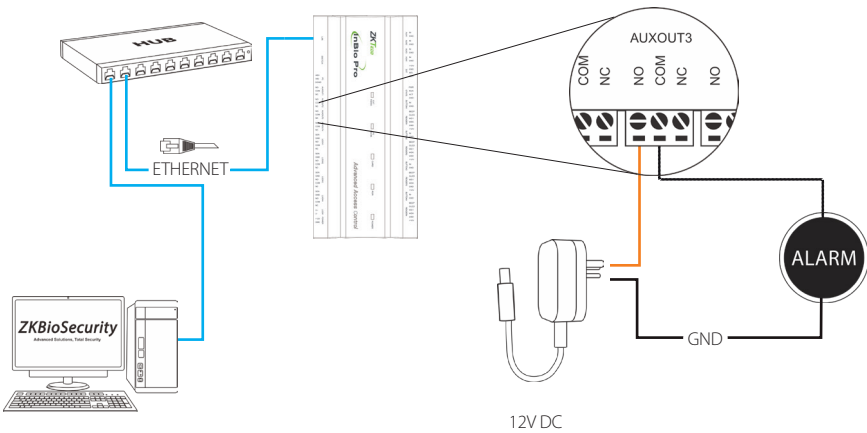

Figure 24

Aux. Output Connection

Figure 25

Ethernet Connection

LAN Connection

Important Notes:

1. Both 10Base-T and 100Base-T are supported

2. This cable distance must be less than 330 ft. (100m)

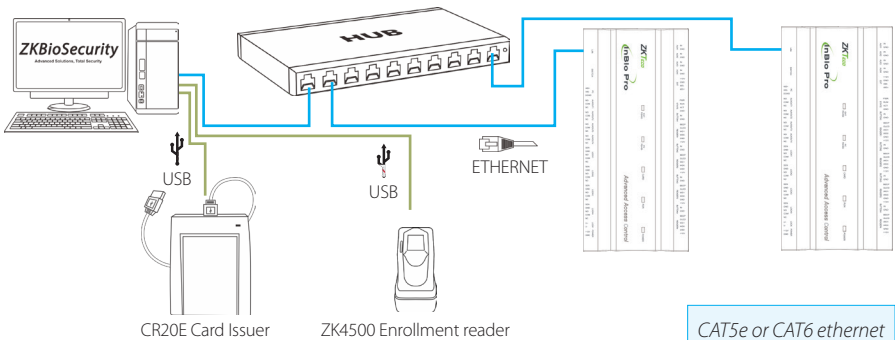**3.** For cable length of more than 330 ft. (100m). use HUB to amplify the signal.

USB

USB

ETHERNET

CR20E Card Issuer

ZK4500 Enrollment reader

CAT5e or CAT6 ethernet cable recommended

Figure 26

Direct connection

To connect InBio Pro Panel with a PC directly, connect both devices with a straight network cable. As the InBio Pro Panel supports auto MDI/MDIX, it is not necessary to use a crossover type cable.
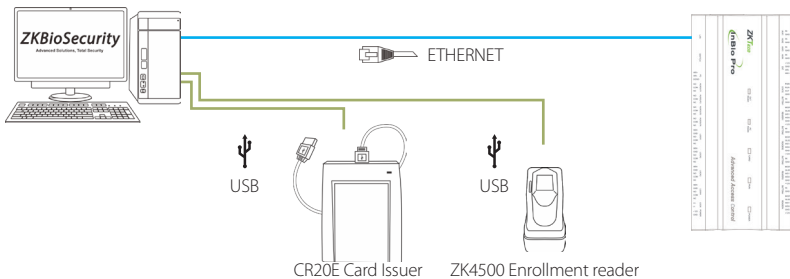
ETHERNET

USB

USB

CR20E Card Issuer

ZK4500 Enrollment reader

Figure 27

PC485 Extension Connection

Connecting EX0808 through PC485

What is EX0808?

EX0808 is an extended module for controllers which is used for connecting more number of auxiliary devices.

Important Notes:

1. A maximum of eight EX0808 extended boards can be connected to an inBioX60 Pro controller.

2. Each EX0808 can connect a maximum of eight auxiliary input devices and eight auxiliary output devices.

3. A separate power supply is required for each EX0808.

4. Set the RS485/OSDP addresses of each EX0808 by the DIP switch before power is supplied.
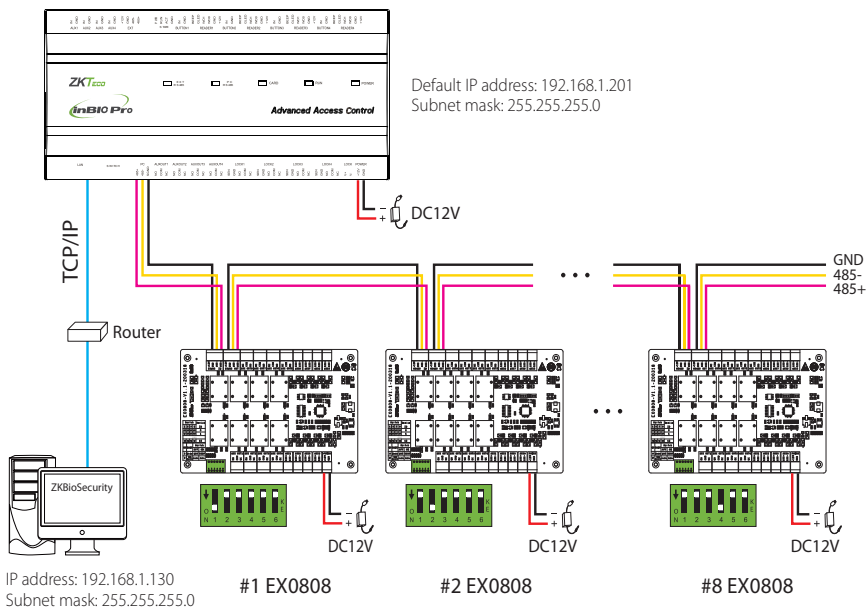
Figure 28

PC485 Extension Connection

DIP Switch Setting for RS485/OSDP Communication
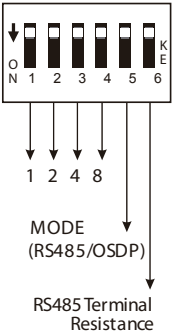
Description	RS485 Address	DIP Switch	RS485 Address	DIP Switch	RS485 Address	DIP Switch
	1		6		11	
	2		7		12	
	3		8		13	
	4		9		14	
	5		10		15	

Figure 29

Important Notes:

There are six DIP switches on the EX0808 expansion board and their functions are:

1. Switches 1-4 are used to set the RS485/OSDP addresses.

2. Switch 5 is for RS485/OSDP mode switching. When set to **OFF**, RS485 mode is used, and when set to **ON**, OSDP mode is used.

3. If the cable length is more than 200 meters, the switch 6 should be **ON** for noise reduction on long RS485 cables.
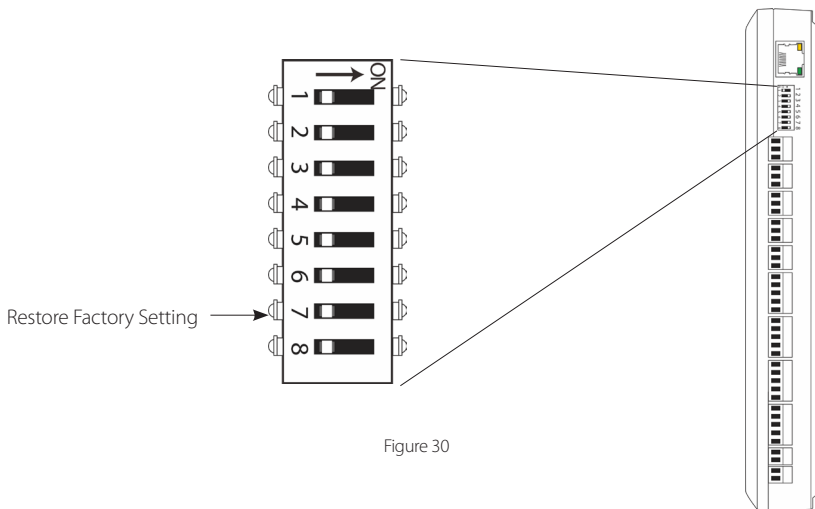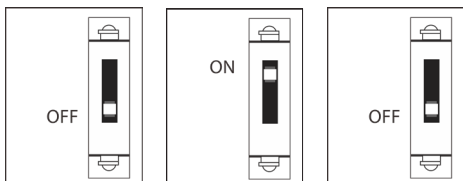
Restore Factory Setting

Figure 30

Restore Factory Setting

Restore factory setting

1. If you forget the IP address of the InBio Pro panel or the device does not work normally, you can use the number 7 DIP switch to restore InBio Pro Panel to factory default settings. The parameters which gets reset are device IP address, communication password, gateway, and subnet mask.

2. The switch is OFF by default. When it is moved up and down for three times within 10 seconds and finally returned to OFF position, the factory settings will be restored after the access control panel is restarted.

OFF

ON

OFF

To reset factory settings
Turn #7 switch ON and OFF

Repeat process 3 times

Figure 31

Installation Diagram

Ethernet Communication wire

220/110 V Input

InBio Pro Access Control Bundle

CEILING

Sensor

Electric Lock

OUTDOOR

INDOOR

Exit Button

Outdoor Wiegand card reader

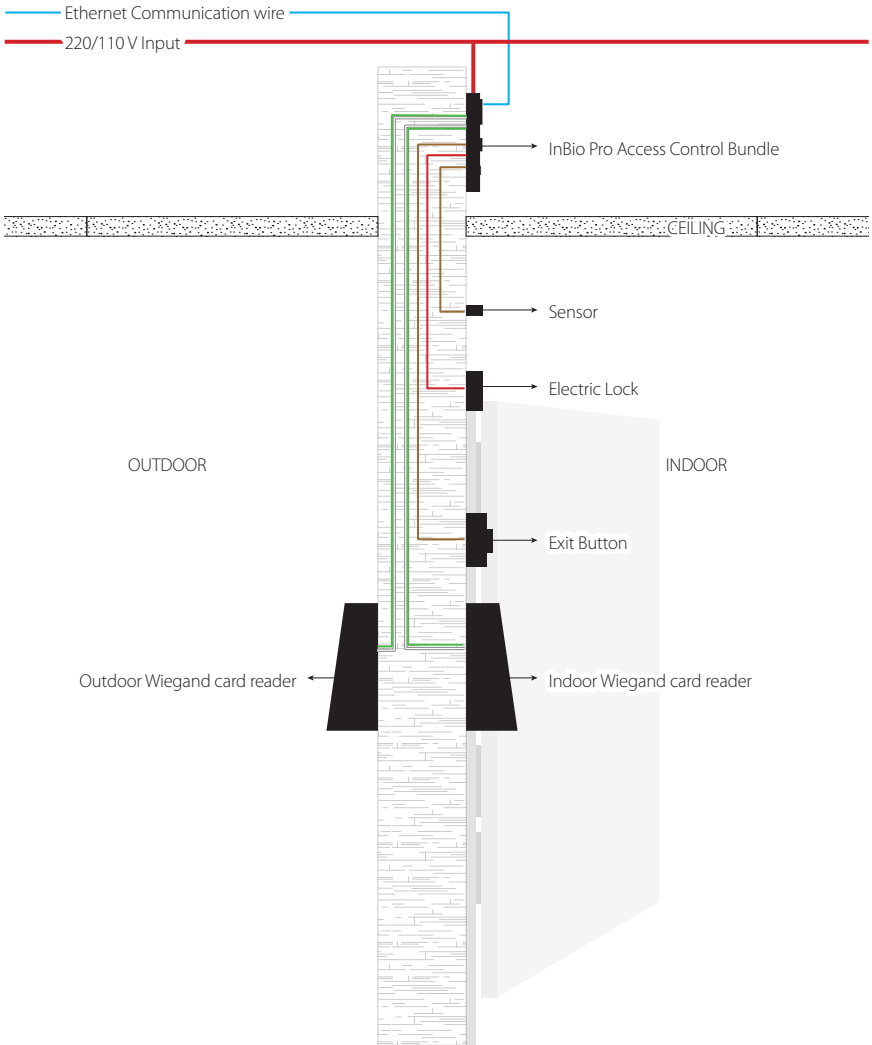Indoor Wiegand card reader

Figure 32

★ ZKPanelWeb

Note: The ZKPanelWeb function supports only the large-capacity version of inBio Pro.

To help users conveniently manage controllers, the built-in Web Server function is added to some models. With this function, a user can connect to the controller through a PC, and enter the IP address of the controller to access the web. Users can also use the Web Server function to perform other operations, such as network configuration, Push communication configuration, time synchronization, and user account management.

1. Login Web Server

a. Connect the controller to the network or PC, start the browser, enter the IP address of the controller, which is 192.168.1.201 by default. Then you can visit the Web Server.
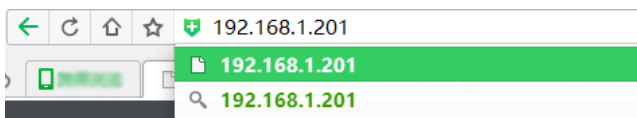
b. When Web Server is used, "User Name" and "Password" should be set firstly.The default "user name" is **admin** and the default "password" is **zkteco@12345**.

c. Click **Sign in** to enter the Web Server.

2. Basic Operation Bar of the Web Server

★ ZKPanelWeb

(1) Change of the Administrator's Password

a. Click [icon] . The following page is displayed:

b. Enter the old and new passwords, and click Confirm to change the administrator's login password.

Modify Password		Close
User Name:	admin	
Old Password:		* Enter a string of 4-30 characters!
New Password:		* Enter a string of 4-30 characters!
Confirm New Password:		* Enter a string of 4-30 characters!
	Confirm Cancel	

(2) Language Settings

Click [icon] , change the language in which the server interface is displayed, and click **Confirm.**

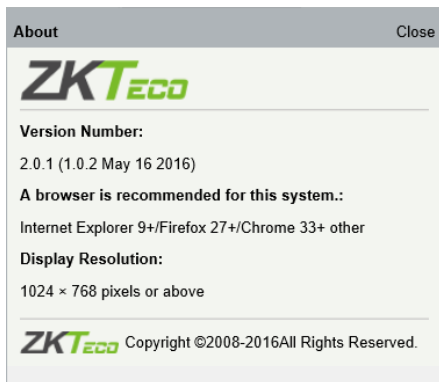| Personality	Close
Language:	English ⌄
	English
	Latin-Spanish
	Confirm Cancel

(3) Use Conditions of the Server

Click [icon] , and you can view the version of the current server, as well as the browser and resolution recommended for the server.
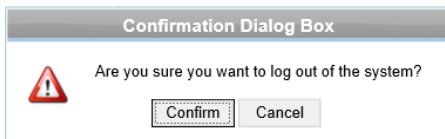
★ ZKPanelWeb

(4) Online Help of the Server

If you met some problems when using the server, click to view or down-load the user help document.
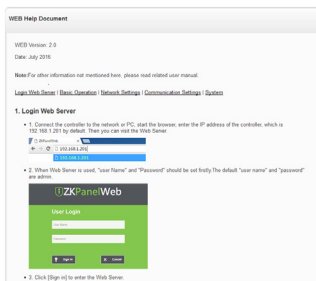
(5) Exit

Click , and then click **Confirm** to return to the server login page.

★ ZKPanelWeb

3. Network Settings

TCP/IP Settings

[function introduction] Set the TCP/IP communication parameters, which are used in the communications between device and PC.

[operating steps]

a. Click **Network Setting** > **TCP/IP Settings**

b. Input the device's IP address, Subnet Mask, Default Gateway.

> **IP address:** the default IP is 192.168.1.201, and you can modify according to the actual.

> **Subnet Mask:** the default subnet mask is 255.255.255.0, and you can modify according to the actual.

> **Default Gateway:** the default gateway is 0.0.0.0, and you can modify it according to the actual.

> **Primary DNS:** the default value is null, and you can set its value.

c. Click **Confirm** to write parameters into the device. please restart the device by manual.

4. Communication Settings

(1) PUSH Server Settings

PUSH Server: Indicates that the controller proactively pushes information to the server.

> **IP Mode:** the default server IP is 0.0.0.0, and you can modify it according to the actual.

> **Port:** the default Port is 80, and you can modify it according to the actual.

★ ZKPanelWeb

Domain Mode:the default value is null, and you can set its value.

(2) Port Settings

Http Port:Indicates that the client initiates an HTTP request to a specified port on the server. the default HTTP Port is 80, and you can modify it according to the actual.

(3) Communication Password

Communication Password: Indicates that network communication is encrypted. The default value is null, and you can set its value.

If you configure the communication password here, the same communication password must be configured on the server before the connection can be set up.

5. System
(1) User Settings

Click Edit to change the login password of an administrator or a user.

★ ZKPanelWeb

(2) Time Settings

You can manually configure the controller time or synchronize the controller time with the PC time, and click Confirm to complete the setting..

(3) System Settings

Click Reboot. The device will be restarted.

(4) Device Information

Troubleshooting

1. How to switch four door one way to two door two way?

› Connect four readers from reader 1 to reader 4.

› Connect two door locks, one connected to LOCK1, another connected to LOCK3.

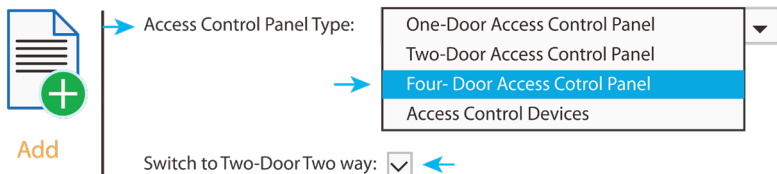› In the software configure reader 1-Indoor, and reader 2-Outdoor.

Access Control Panel Type:
One-Door Access Control Panel
Two-Door Access Control Panel
Four- Door Access Cotrol Panel
Access Control Devices

Add

Switch to Two-Door Two way:

Figure 34

2. Can we integrate IP Camera and NVR?

› Currently ZKBiosecurity software supports ZKTeco's IP Cameras and NVR

› You can associate a camera to the door and setup a linkage for the same.

3. What does it mean when I get a "Wiegand Format Error"?

› Your WD0 and WD1 wiring is reversed.

4. How do I connect a third party reader or a stand-alone reader to a InBio Pro panel?

› Connect the wiegand output to the WD0 and WD1 of the stand-alone readers on the panel's reader port.

Note: The board can only supply 12 V DC, 300mA power so an external power supply may be required.

5. What is the SD card slot used for?

› SD card, stores transactions from the panel and creates a back up in additional to internal memory.

6. What kind of wire is recommended for the panel?

› 16 or 18 AWG twisted shielded wire is recommended.

7. What is the default IP of the panel?

› 192.168.1.201

8. How long is the device under warranty?

› 1 Year from original purchase date, replacement/repair of hardware under ZK standard warranty requires an evaluation of the failed system by a ZK Technical Support specialist, and the issuance of a Technical Support RMA number.

Electrical Specifications

	Minimum	Typical	Maximum	Notes
WORKING POWER SUPPLY				
Voltage (V) DC	9.6	12	14.4	Use regulated DC power adaptor only
Current (A)			2	
ELECTRONIC LOCK RELAY OUTPUT				
Switching voltage (V)			12V	Use regulated DC power adaptor only
Switching Current (A)			2	
Auxiliary relay output				
Switching voltage (V)			12V	Use regulated DC power adaptor only
Switching Current (A)			1.25	
SWITCH AUX. INPUT				
VIH (V)				
VIL (V)				
Pull-up resistance (Ω)		4.7k		The input ports are pulled up with 4.7k resistors
WIEGAND INPUT				
Voltage (V)	10.8	12	13.5	
Current (mA)			500	
ZK ELECTRIC LOCK				
Voltage (V) DC	10.8	12	13.2	
Current (mA)			500	

Specifications

GL Exclusive Feature	InBio-160 Pro	InBio-260 Pro	InBio-460 Pro
Number of doors controller	1 Door	2 Door	4 Door
Numbers of readers supported	4(2 RS-485 Reader, 2 26-bit wiegand reader)	8(4 RS-485 Reader, 4 26-bit wiegand reader)	12 (8 RS-485 Reader, 4 26-bit wiegand reader)
Types of readers supported	26-bit Wiegand and RS485 FR Series Reader	26-bit Wiegand and RS485 FR Series Reader	26-bit Wiegand and RS485 FR Series Reader
Number of Inputs	3(exit Device and Door Status, 1 AUX)	6(2 Exit Device, 2 Door Status, 2 AUX)	12(4 Exit Device, 4 Door Status, 4 AUX)
Number of Outputs	2 (1-Form C Relay for Lock and One Form C Relay for Aux Output)	4 (2-Form C Relay for Lock and 2-Form C Relay for Aux Output)	8 (4-Form C Relay or Lock and 4-Form C Relay for Aux Output)
Card holders Capacity	60,000	60,000	60,000
Fingerprint Capacity	20,000	20,000	20,000
Log Events Capacity	100,000	100,000	100,000
Communication	TCP/IP	TCP/IP	TCP/IP
Package Dimension	350(L)*90(H)*300(W) mm	350(L)*90(H)*300(W) mm	350(L)*90(H)*300(W) mm
Package Weight	3.6kg	3.6kg	3.7kg
CPU	32 bit 1.2GHz CPU	32 bit 1.2GHz CPU	32 bit 1.2GHz CPU
RAM	128MB	128MB	128MB
Flash Memory	256MB	256MB	256MB
Power	9.6V-14.4V DC	9.6V-14.4V DC	9.6V-14.4V DC
Operating Temp	0-45℃	0-45℃	0-45℃
Operating Humidity	20% to 80%	20% to 80%	20% to 80%

Green
Label

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