

INSTALLATION GUIDE

InBio Pro Series Access Control Panels

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Version: 1.4

CONTENT

What's in the Box.....	2
Optional accessories.....	4
Safety Precautions.....	5
Product PIN Diagram.....	6
LED Indicators.....	7
Product Dimension.....	8
Installation of Panel & Cabinet.....	9
Wiring Legend.....	10
Power Wiring Diagram	11
Without Backup Battery.....	11
With Backup Battery.....	11
RS485 Fingerprint Reader Connection.....	12
DIP Switch Setting for RS485 Reader.....	13
Wiegand Connection.....	14
REX Connections.....	15
Lock Connection	16
Connecting a Lock with External to Power Supply.....	16
Switching Dry Contact to Wet Contact	17
Lock Connection	18
Normally Open Lock Powered From Lock Terminal.....	18
Normally Closed Lock Powered From Lock Terminal....	18
Aux. I/O Connection	19
Aux. Input Connection	19
Aux. Output Connection.....	19
Ethernet Connection	20
LAN Connection.....	20
Direct connection.....	20
PC485 Extension Connection.....	21
Connecting EX0808 through PC485.....	21
DIP Switch Setting for RS485/OSDP Communication..	22
Restore Factory Setting	23
Installation Diagram.....	24
ZKpanelWeb.....	25
Troubleshooting.....	31
Electrical Specifications	32
Specifications	33



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

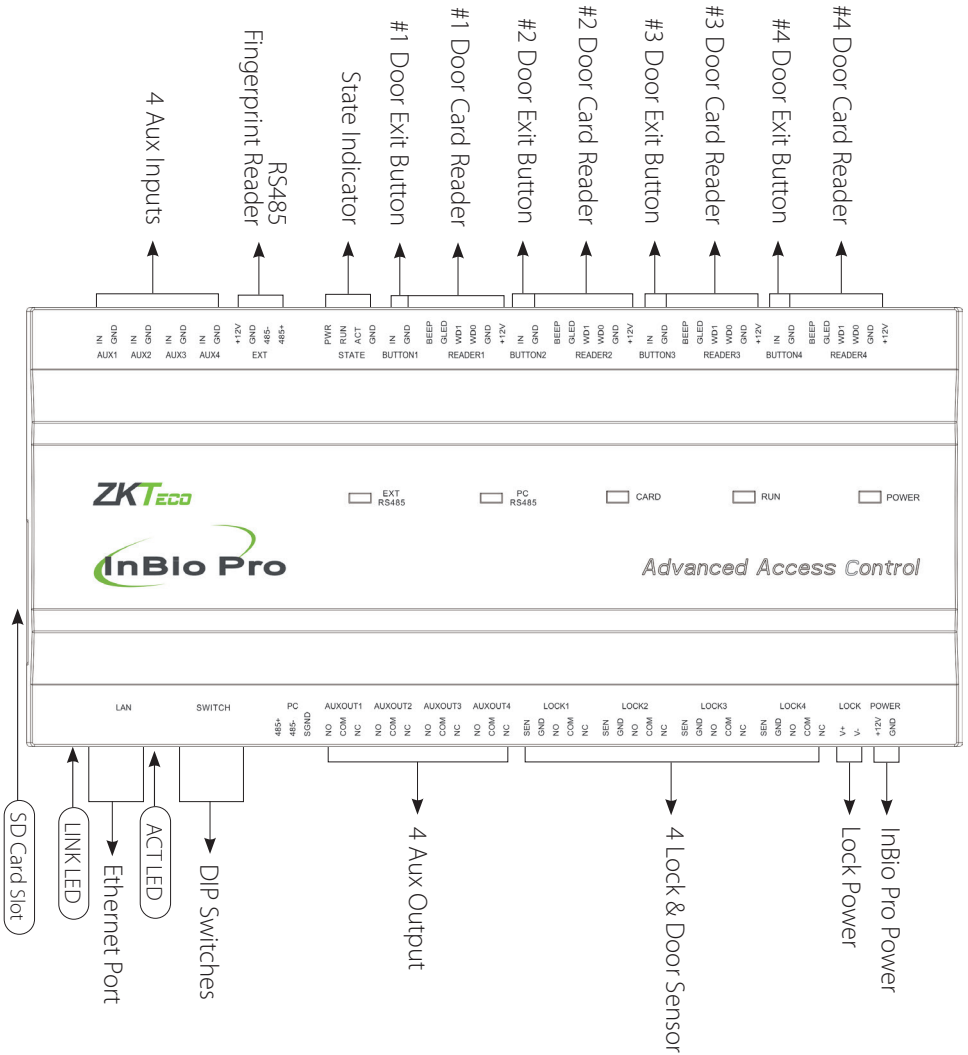


Figure 1

LED Indicators

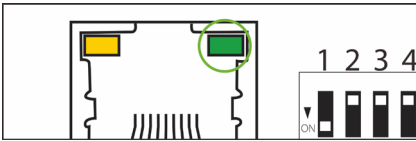


Figure 2

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

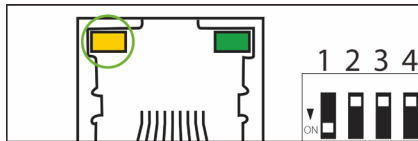


Figure 3

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.

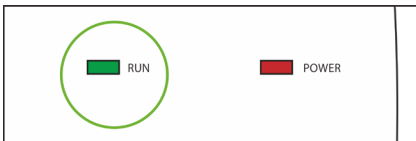


Figure 6

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



7.125 in
(181 mm)

4.17 in (106 mm)

InBio260Pro



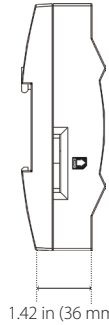
4.17 in (106 mm)

InBio460Pro



4.17 in (106 mm)

8.89 in
(226 mm)



1.42 in (36 mm)

Figure 8

InBio Pro- Metal Cabinet

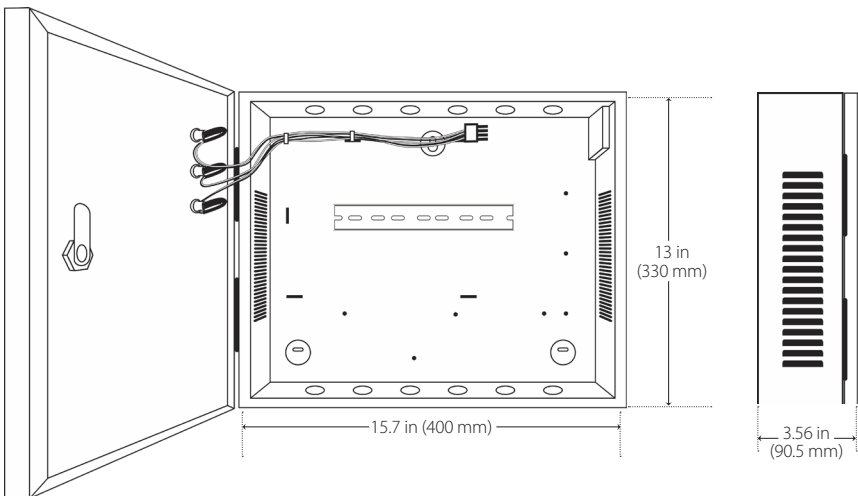
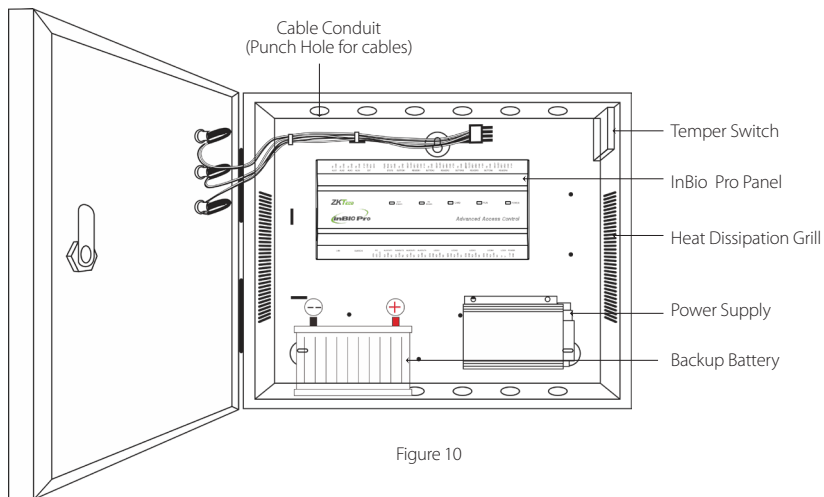


Figure 9

Installation of Panel & Cabinet



Step 1

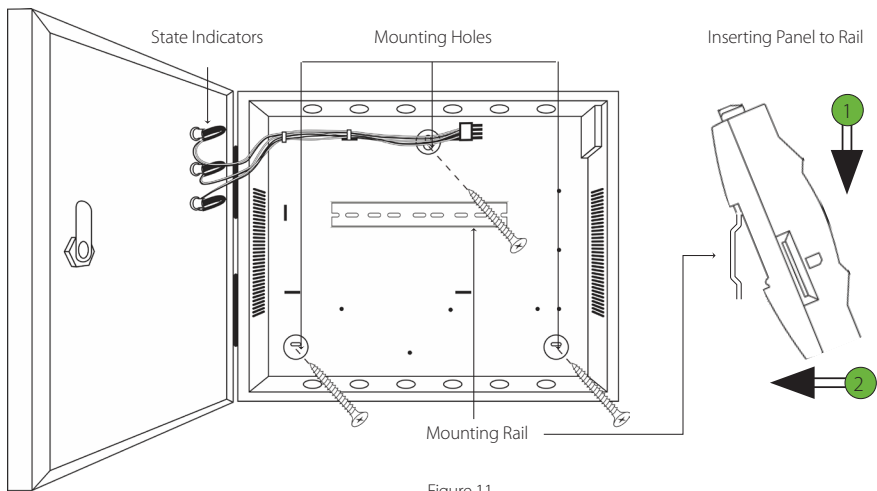
Pass the cable through holes

Step 2

Mount the Metal Cabinet

Step 3

Insert the InBio Pro Panel as it shown



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

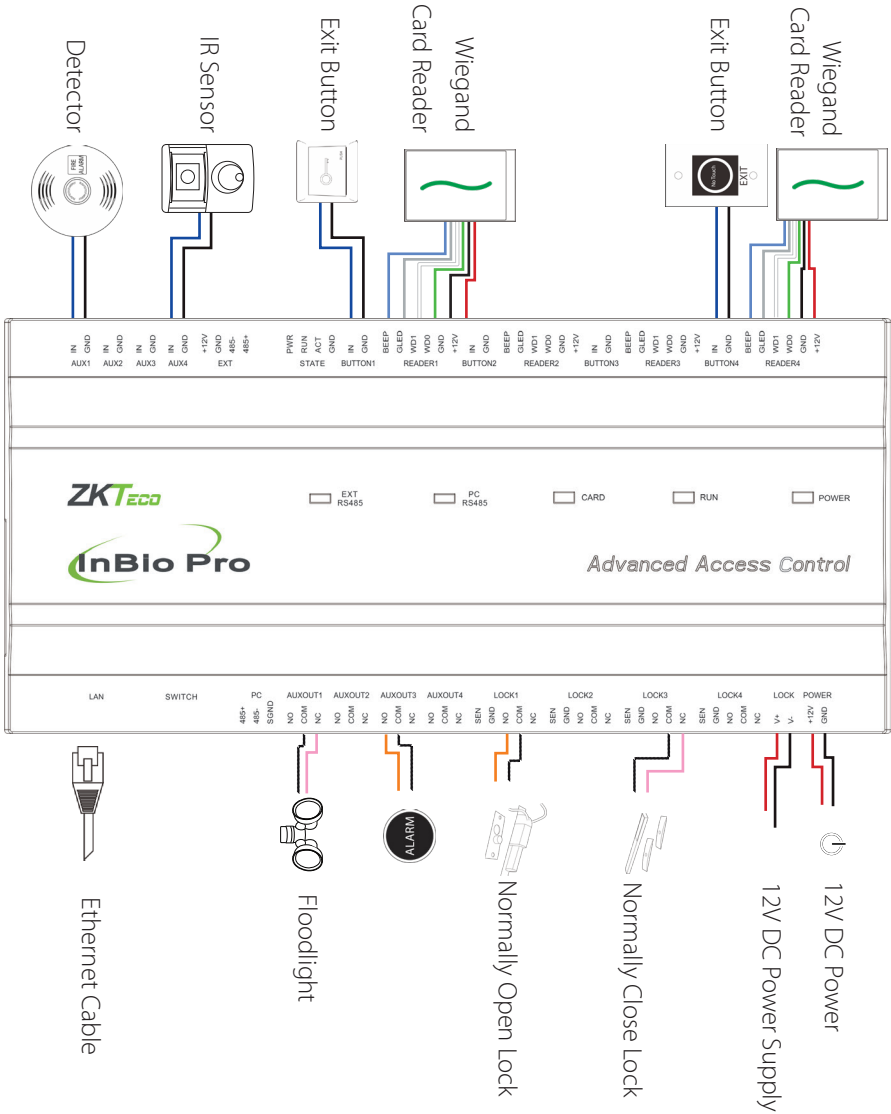


Figure 12

Power Wiring Diagram

Without Backup Battery

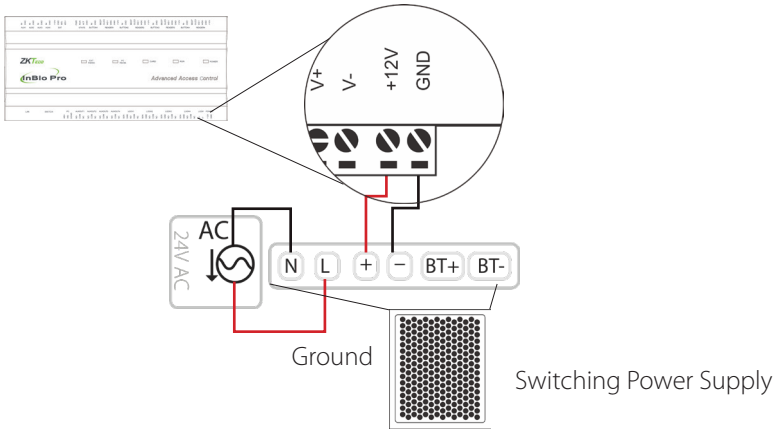


Figure 13

With Backup Battery

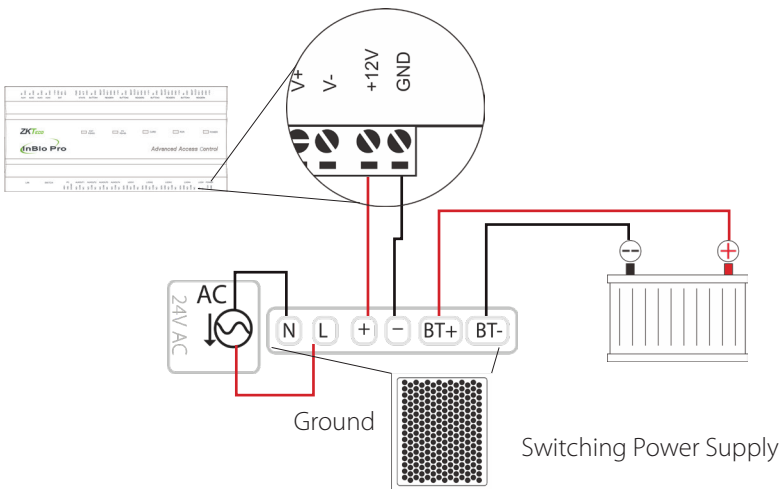


Figure 14

RS485 Fingerprint Reader Connection

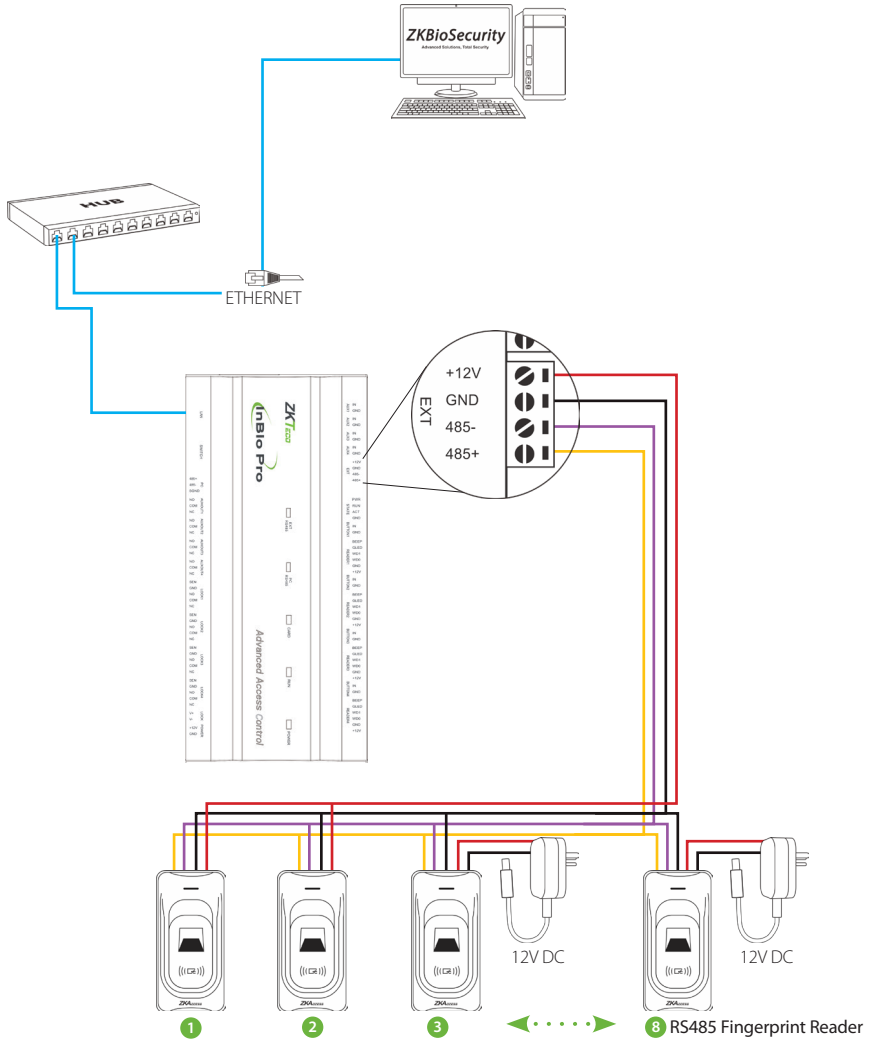
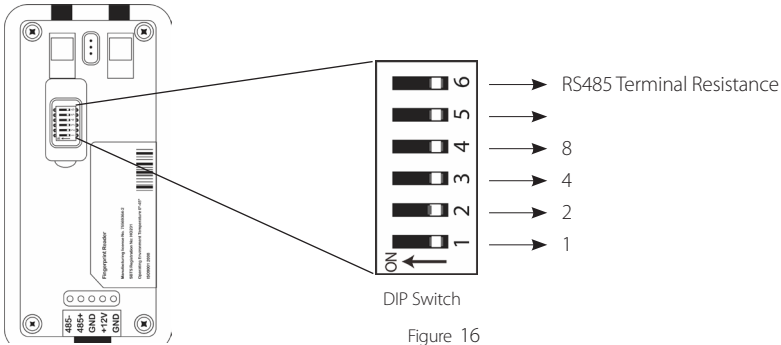


Figure 15

DIP Switch Setting for RS485 Reader



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

Important Notes

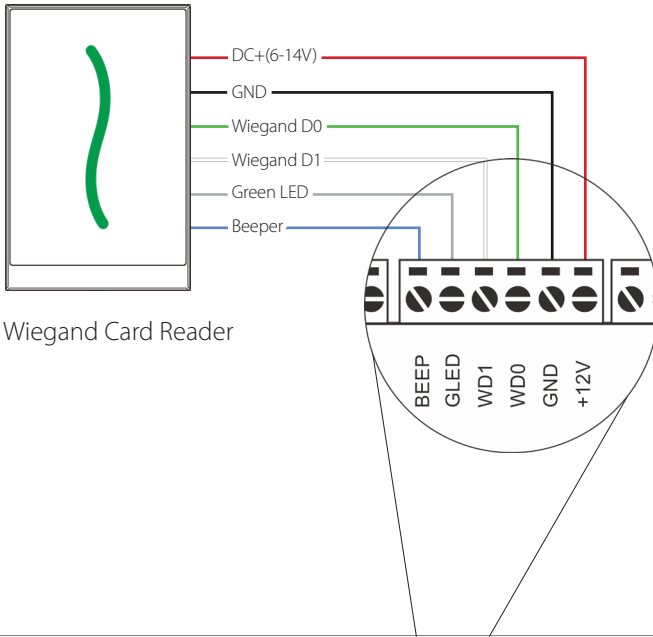
- There are six DIP switches on the back of RS485 fingerprint reader, Switches 1-4 is for RS485 address, switch 5 is reserved, switch 6 is for reducing noise on long RS485 cable.
- Set the odd number for IN reader, and the even number for OUT reader (for eg. For two readers for one door- the RS485 address 1 is for IN reader, RS485 address 2 is for OUT reader)
- If RS485 fingerprint reader is powered from InBio460Pro panel, the length of wire should be less than 100 meters or 330 ft.
- 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.
- If the cable length is more than 200 meters or 600 ft, the number 6 switch should be ON as below:



← Distance: More than 200 meters →



Wiegand Connection



Wiegand Card Reader

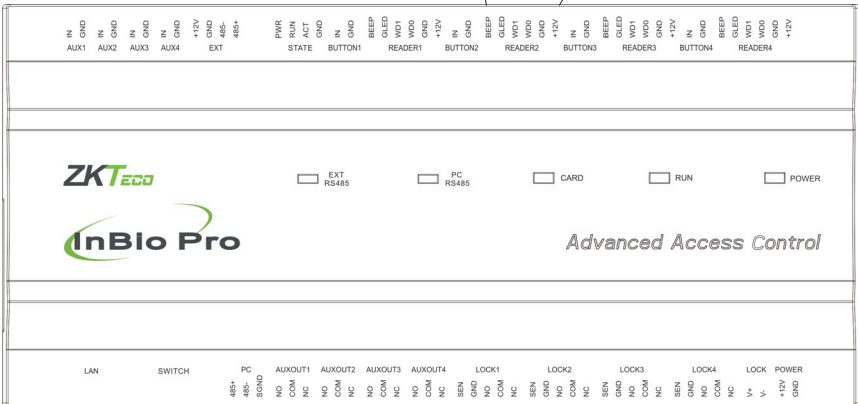


Figure 17

REX Connections

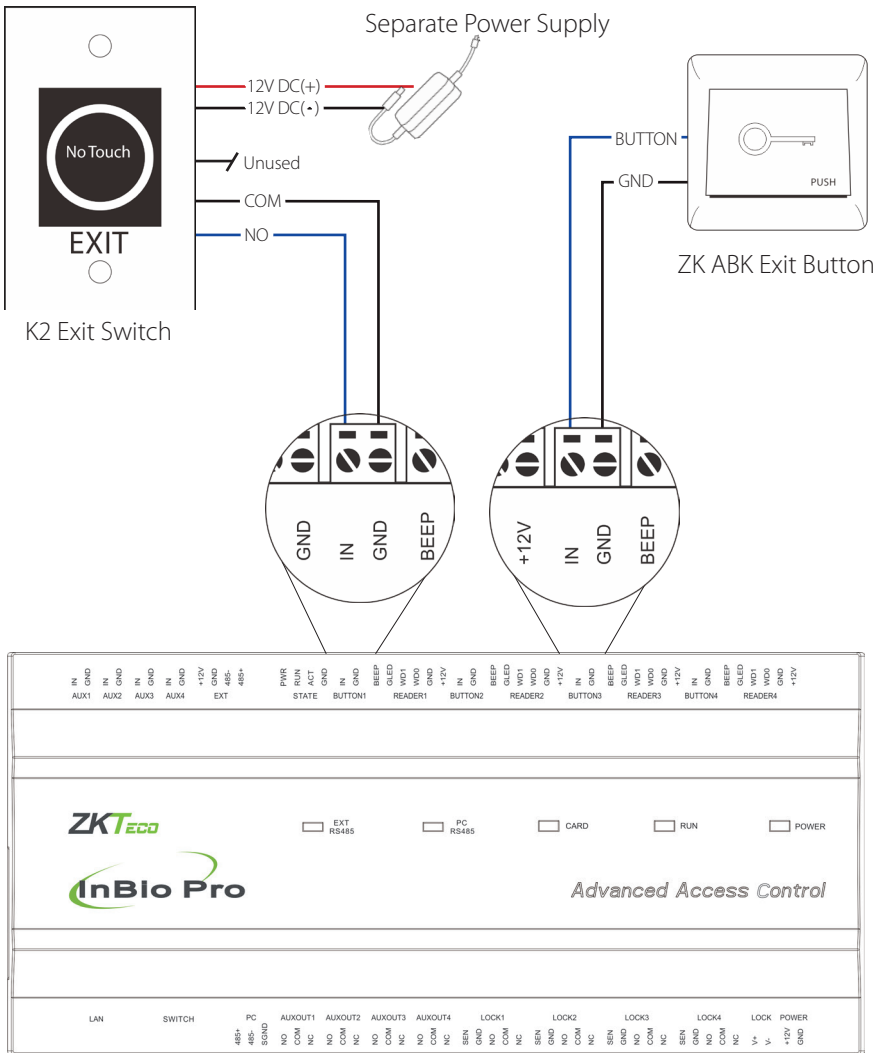


Figure 18

Lock Connection

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

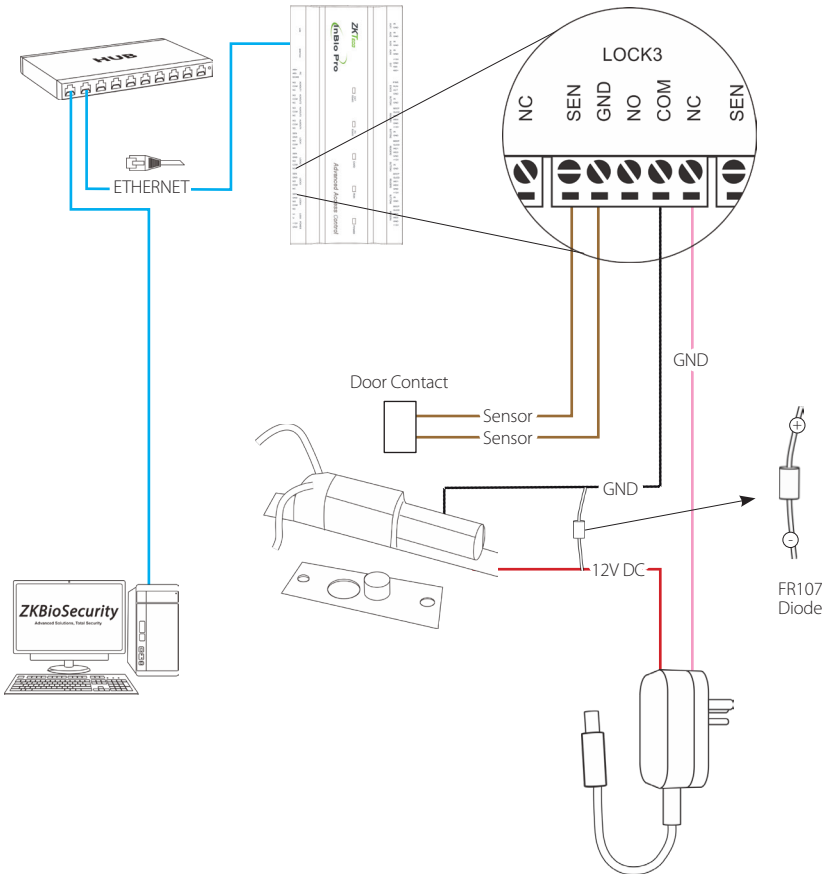




Figure 19

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)

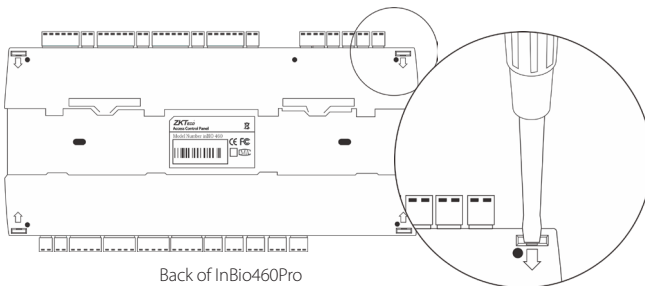
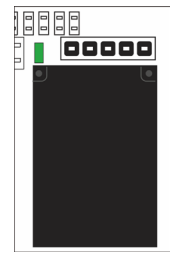


Figure 20



Select one Relay

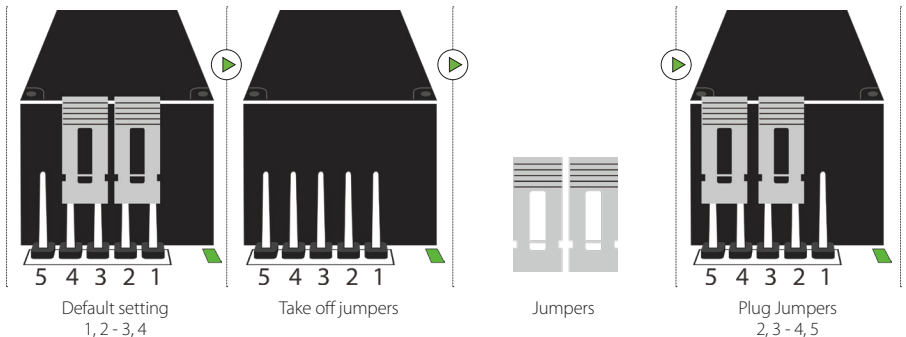
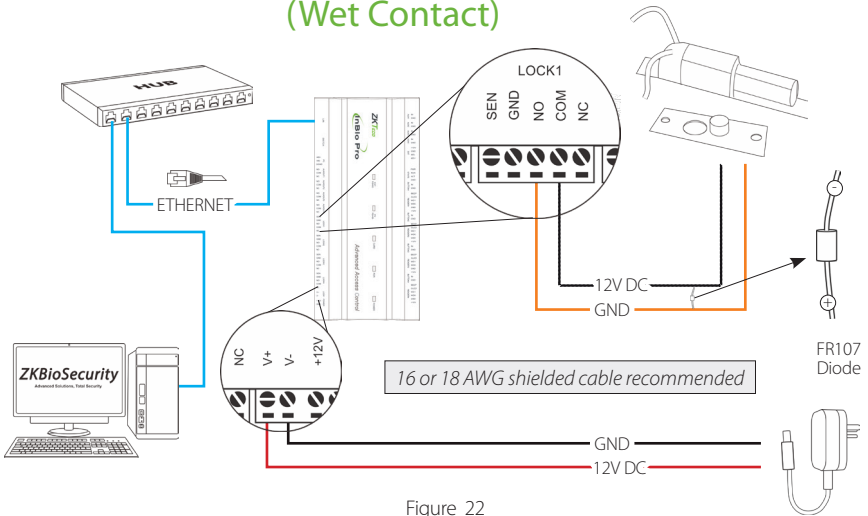


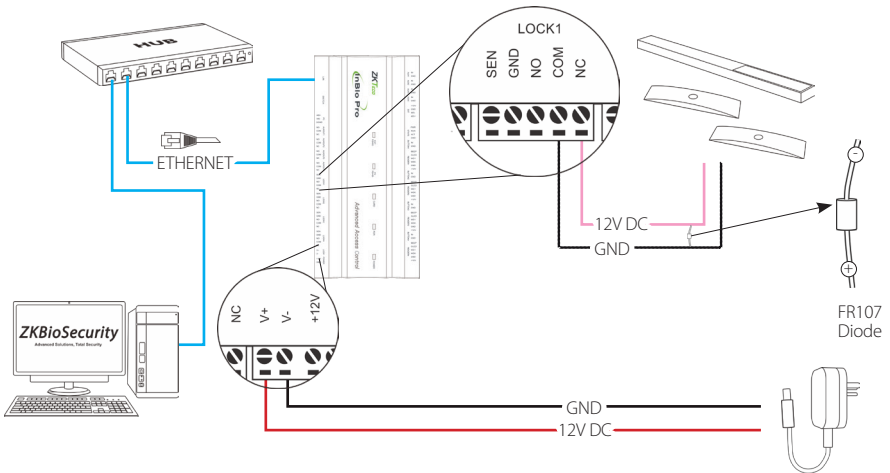
Figure 21

Lock Connection

Normally Open Lock Powered From Lock Terminal (Wet Contact)



Normally Closed Lock Powered From Lock Terminal (Wet Contact)



Aux. I/O Connection

Aux. Input Connection

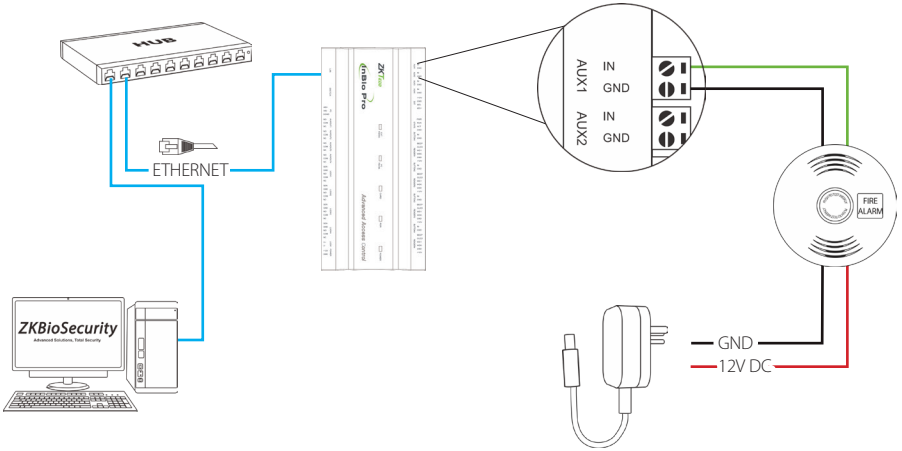


Figure 24

Aux. Output Connection

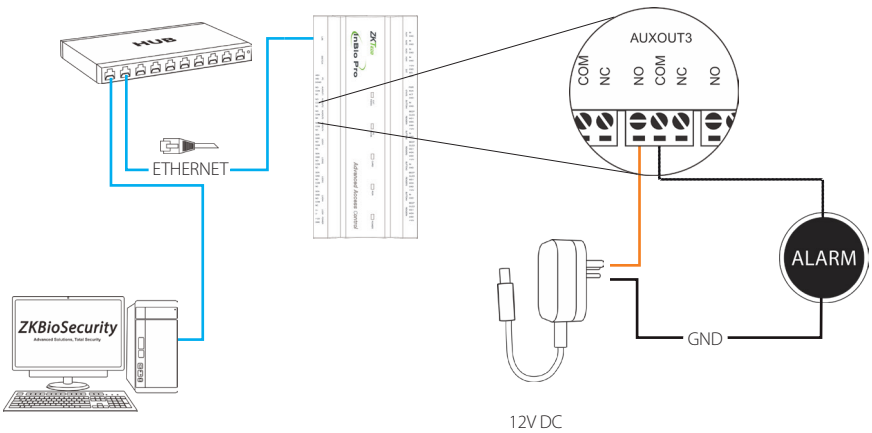


Figure 25

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.

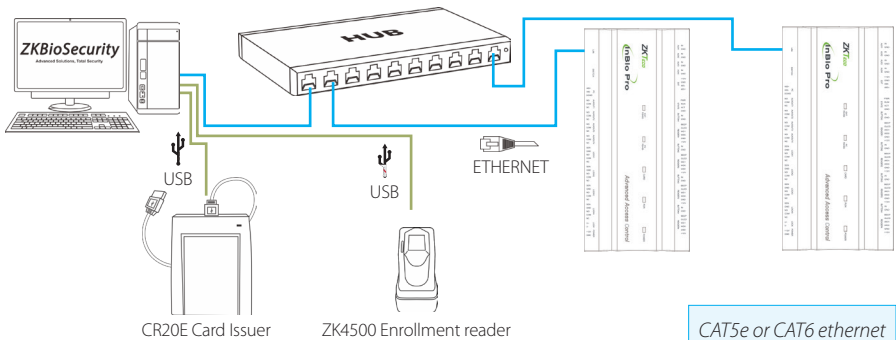


Figure 26

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.

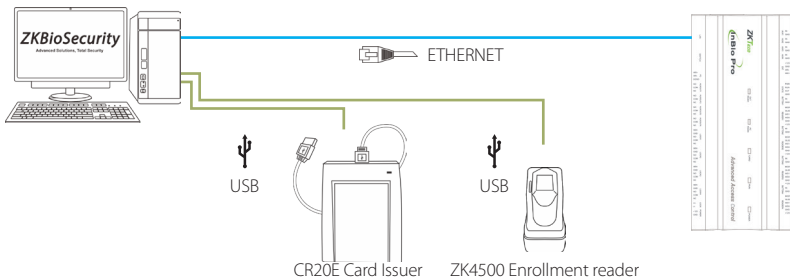


Figure 27

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.

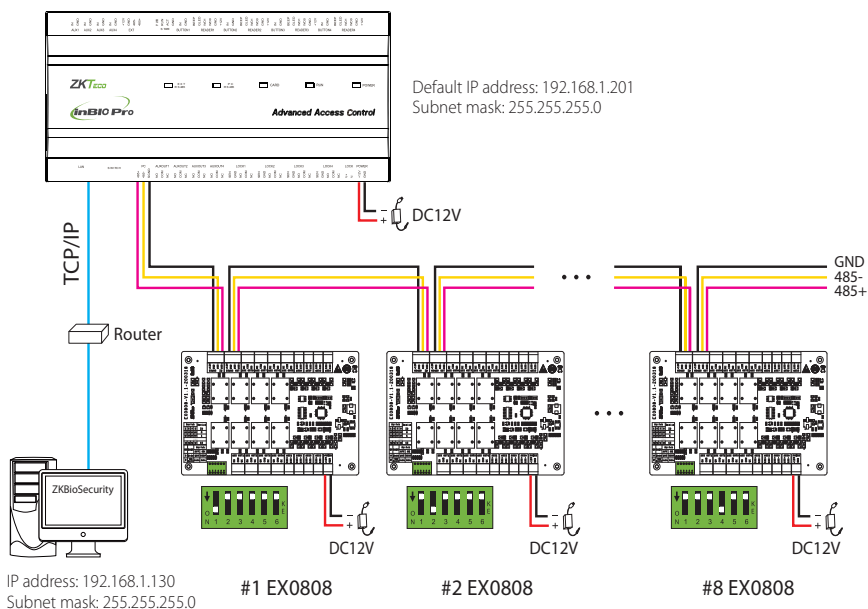


Figure 28

PC485 Extension Connection

DIP Switch Setting for RS485/OSDP Communication

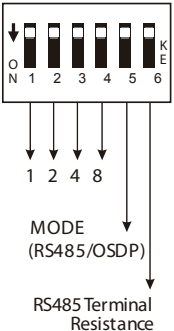















Description	RS485 Address	DIP Switch	RS485 Address	DIP Switch	RS485 Address	DIP Switch
 <p>MODE (RS485/OSDP)</p> <p>RS485 Terminal Resistance</p>	1		6		11	
	2		7		12	
	3		8		13	
	4		9		14	
	5		10		15	

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

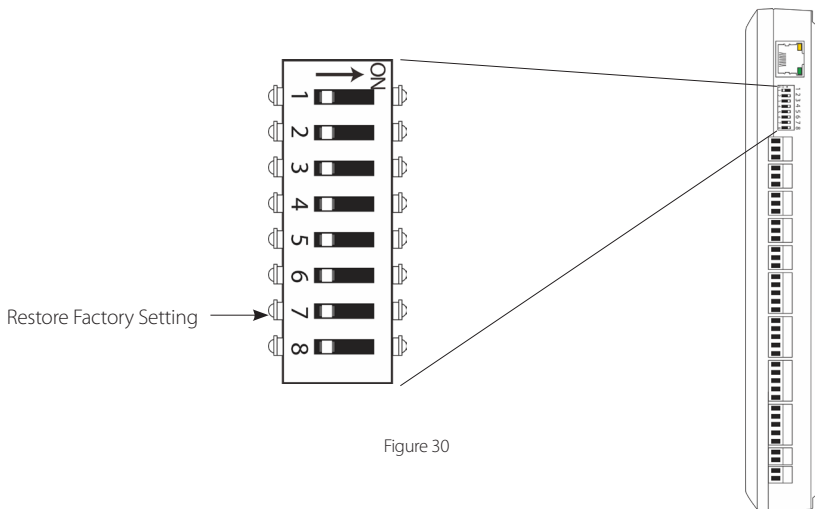
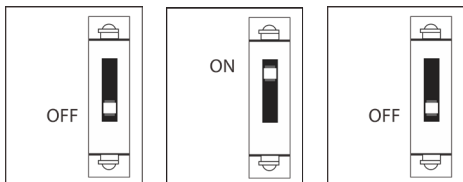


Figure 30

Restore factory setting

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.



To reset factory settings
Turn #7 switch ON and OFF

Repeat process 3 times

Figure 31

Installation Diagram

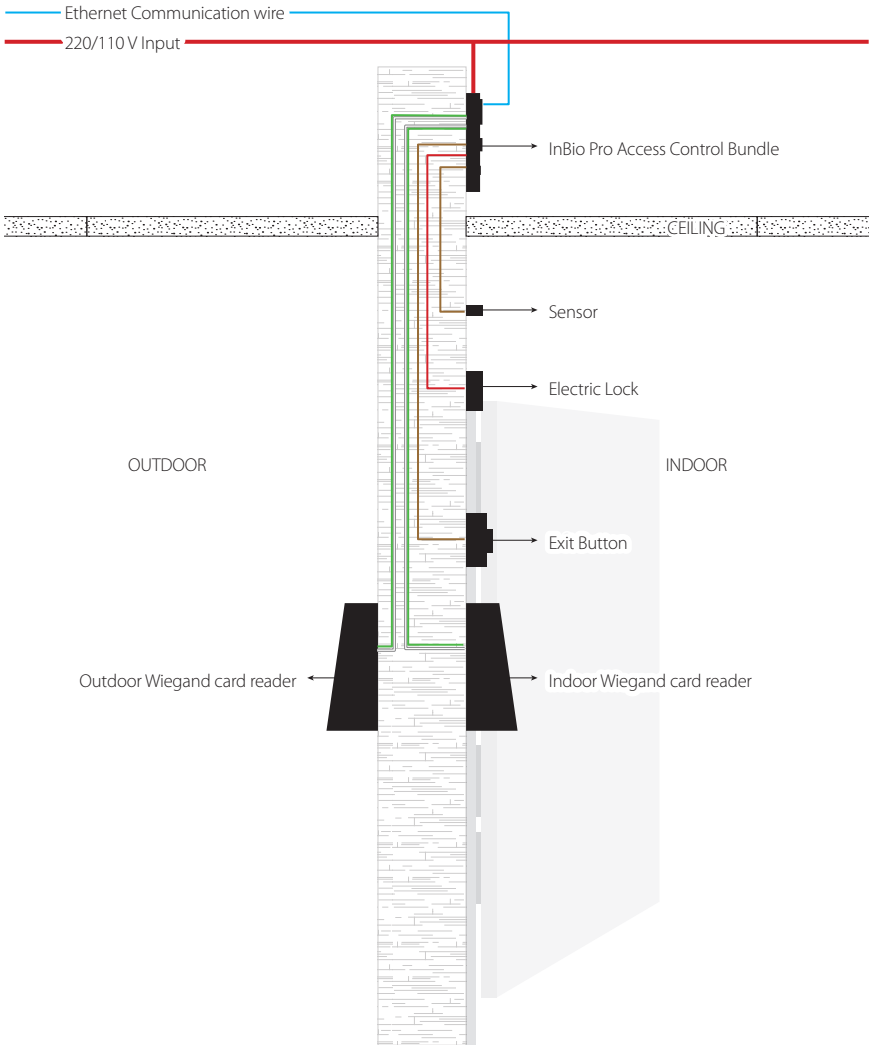


Figure 32

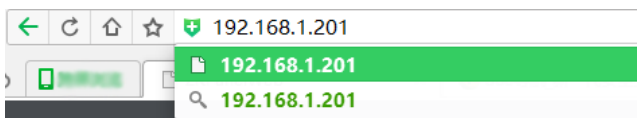
★ ZKPanelWeb

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**.


 A screenshot of the ZKPanelWeb user login interface. At the top, there is a dark grey header with the ZKPanelWeb logo and name. Below the header, the page has a green background. The text "User Login" is centered. There are two input fields: "User Name" and "Password". At the bottom, there are two buttons: "Sign In" (with a key icon) and "Cancel" (with an 'X' icon).

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

2. Basic Operation Bar of the Web Server



(1) Change of the Administrator's Password


- a. Click . 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:	<input type="text" value="admin"/>
Old Password:	<input type="password"/> * Enter a string of 4-30 characters!
New Password:	<input type="password"/> * Enter a string of 4-30 characters!
Confirm New Password:	<input type="password"/> * Enter a string of 4-30 characters!

Confirm
Cancel

(2) Language Settings

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

Personality
Close


Language: ▼

English

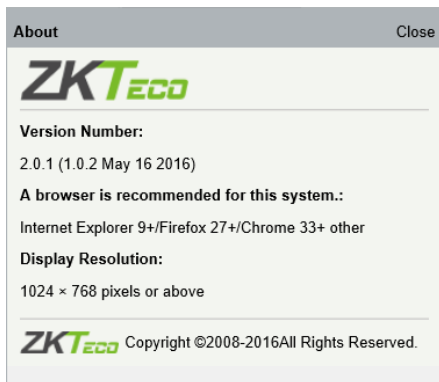
Latin-Spanish

Confirm
Cancel


(3) Use Conditions of the Server

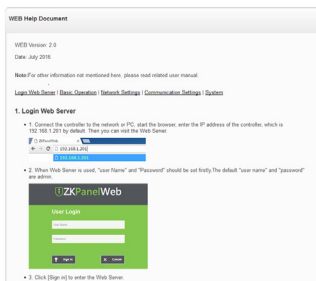
- Click , and you can view the version of the current server, as well as the browser and resolution recommended for the server.

★ ZKPanelWeb




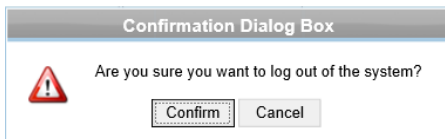
(4) Online Help of the Server

If you met some problems when using the server, click  to view or download the user help document.



(5) Exit

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



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

Server Mode:	<input type="radio"/> IP Mode	<input checked="" type="radio"/> Domain Mode
Domain Name:	<input type="text"/>	
		<input type="button" value="Confirm"/> <input type="button" value="Cancel"/>

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

(2) Port Settings

<ul style="list-style-type: none"> Network Settings Communication Settings PUSH Server Settings Port Settings Communication Password System 	Port Settings HTTP Port: <input type="text" value="80"/> (1-65535) <input type="button" value="Confirm"/> <input type="button" value="Cancel"/>
--	--

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

<ul style="list-style-type: none"> Network Settings Communication Settings PUSH Server Settings Port Settings Communication Password System 	Communication Password Old Password: <input type="text"/> Enter a string of 0-6 characters! New Password: <input type="text"/> Enter a string of 0-6 characters! Confirm New Password: <input type="text"/> Enter a string of 0-6 characters! <input type="button" value="Confirm"/> <input type="button" value="Cancel"/>
--	---

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

<ul style="list-style-type: none"> Network Settings Communication Settings System User Settings Time Settings System Settings Device Information 	User Settings <table border="1"> <thead> <tr> <th>User Name</th> <th>Note</th> <th>Operation</th> </tr> </thead> <tbody> <tr> <td>admin</td> <td>You can perform any configuration</td> <td>Edit</td> </tr> <tr> <td>user</td> <td>You can only view the device information and modify password of the current user</td> <td>Edit</td> </tr> </tbody> </table>	User Name	Note	Operation	admin	You can perform any configuration	Edit	user	You can only view the device information and modify password of the current user	Edit
User Name	Note	Operation								
admin	You can perform any configuration	Edit								
user	You can only view the device information and modify password of the current user	Edit								

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

(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

Device Information	
Device Name:	InBio460
Serial Number:	2015122690129
Platform:	ZMM200_InBioPro
Firmware Version:	AC Ver 5.7.6.3029 May 20 2016
Maximum user count:	60000 Remaining Capacity: 60000
Maximum fingerprint count:	20000 Remaining Capacity: 20000
Maximum log count:	100000
MAC Address:	00:17:61:D0:FA:32
IP Address:	192.168.1.129
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.254
Primary DNS:	
TCP Port:	14370
HTTP Port:	80

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.

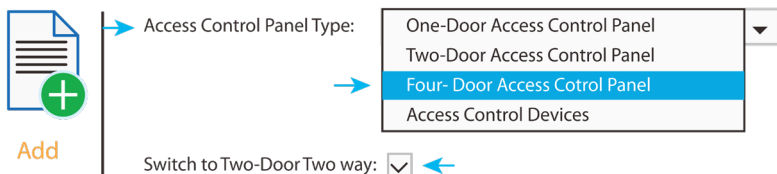


Figure 34

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 VDC, 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 addition 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				
V _{IH} (V)				
V _{IL} (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°C	0-45°C	0-45°C
Operating Humidity	20% to 80%	20% to 80%	20% to 80%



Green Label

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