

Quick Start Guide

InBio Pro Plus Series

Version: 1.2

1. Cautions

⚠ Please note the following cautions. Mis-operation may lead to any injury or equipment failure:

- 1. Do not energize the system before installation is complete; never carry out installation activities when the system is energized. All peripheral devices must be grounded.
- 2. The conduits of wires under relay must be matched with metaled conduits, other wires can use PVC conduits.
- 3. It is strongly recommended that the length of the exposed part of any connection cable should not be longer than 4 mm. Professional clamping tools may be used to avoid unintentional contact of exposed wires to avoid short-circuit or communication failure.
- It is recommended that the card readers and the buttons should be installed at a height of 1.4m-1.5m above ground.
- 5. It is recommended to use the power supply for the control panel, and external power supply for each lock.
- The appliance shall be installed and wired in accordance with the national electrical code and by qualified personnel only.

Description of normal working state:

• Connect the system to the power supply. If the system works properly, the POWER indicator (red) is lit constantly and the RUN indicator (green) flashes.

Valve regulated lead-acid battery:

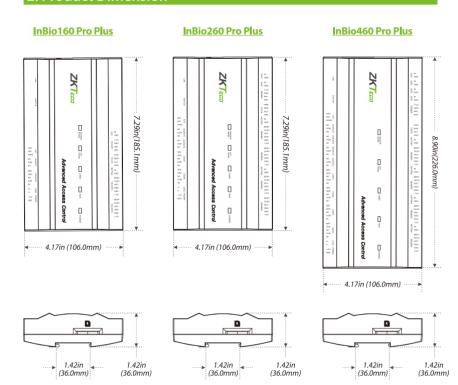
- Constant voltage charge voltage regulation Cycle use: 14.5V to 14.9V(25)
- Initial current: less than 2.88A

- Standby use: 13.6V to 13.8V(25)
- Capacity: 12V, 7.2Ah/20hr
- Battery Type: LC-RA127R2T1

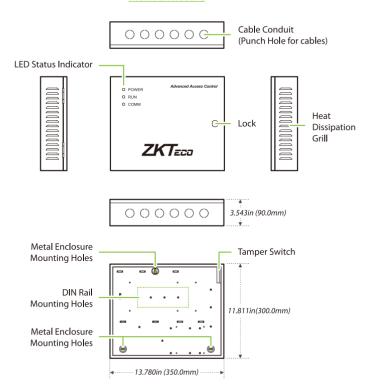
Cautions:

- Do not charge in a gas tight container
- Do not attempt to disassemble the battery
- Do not short the battery terminals
 Do not incinerate
- Flush with water at once if contact is made with electrolyte (Acid)

2. Product Dimension

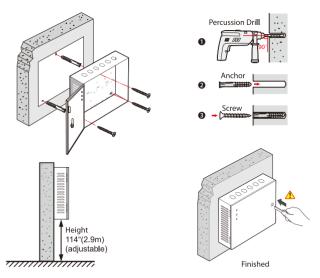


Metal Enclosure



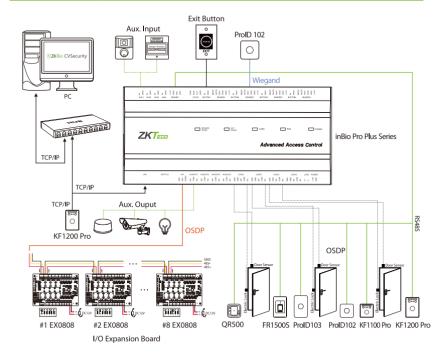
3. Installation of Metal Enclosure on the wall

- 1. According to the mounting holes position of the metal enclosure. Drill three mounting holes in a suitable spot on the wall and make sure it is about 114 inches (2.9m) above the ground, which can be adjusted according to actual needs. Take care to leave at least 3.937 inches (100 mm) on the left side of the metal enclosure
- 2. Place the Anchors in the mounting holes.
- **3.** Then fix the metal enclosure with the self-tapping screws as shown below.



Note: The metal enclosure is equipped with an tamper alarm switch. When it is working normally, please keep the enclosure closed.

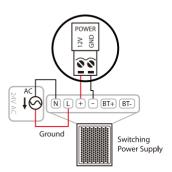
4. Controller System Installation



5. Power Connection

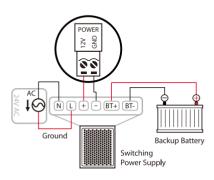
Without Backup Battery





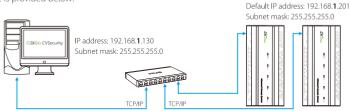
With Backup Battery





6. Ethernet Connection

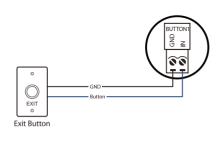
Establish the connection between the device and the software using an Ethernet cable. An illustrative example is provided below:



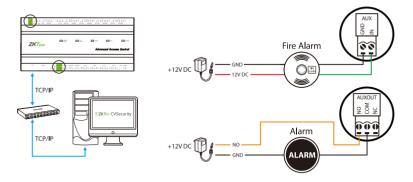
Note: In LAN, IP addresses of the server (PC) and the device must be in the same network segment when connecting to the software.

7. Exit Button Connection

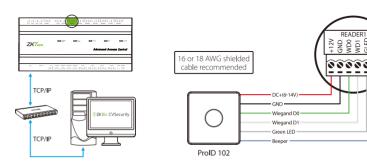




8. Auxiliary Input & Output Connection



9. Wiegand Connection

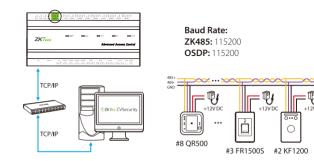


Controller Supported Wiegand reader Models:

Reader Model	Wiegand26/34	Wiegand66
KR100/101/102E/M	✓	×
KR200/201/202E/M	✓	×
KR310	✓	×
KR500E/501M/502E/M/503E	✓	×
KR600/601/602E/M	✓	×
KR610/611/612E	✓	×
KR610/611/612D	✓	✓
KR610/611/612DL	✓	\
ProID10/20/30/40 E/M	✓	×
ProID10/20/30/40 D	✓	✓
ProID20/30BEMD-RS	✓	~
KR900 Series	✓	>

Remarks: ✓ means connectable. × means not connectable.

10. RS485 Connection



+12V DC

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#1 ProID 103

Controller Supported RS485 Reader Models:

Reader Model	485 Unencrypted	485 Encryption	OSDP Unencrypted	OSDP Encryption
Kf1100 Pro/KF1200 Pro	✓	>	×	×
FR1200/FR1500S	✓	>	×	×
ProID101/102/103/104	✓	×	✓	×
KR900 Series	✓	>	✓	<
QR50/QR500/QR600	✓	>	×	×

Remarks:

- 1. / means connectable. × means not connectable.
- 2. In 485 communication encryption mode, the ProID100/KR900 reader supports tamper alarm function. When the reader is illegal tampering, it will send a tamper signal to the controller via 485, and the controller will report to the software to form a tamper alarm event. Users can configure the alarm linkage on the software side and connect the alarm to the auxiliary output. Encryption is turned on on the software side via the Access > Access Device > Reader > Encrypt path.

Setting the RS485 Address:

RS485 reader connection: Set the RS485 address (device number) of the reader by DIP switch or software.

RS485 address	1	2	3	4	5	6	7	8
Control Panel		-	,	The state of the s	,	٥	,	Ů
InBio160 Pro Plus	#1Door IN	#1Door OUT						
InBio260 Pro Plus	#1Door IN	#1Door OUT	#2Door IN	#2Door OUT				
InBio460 Pro Plus	#1Door IN	#2Door IN	#3Door IN	#4Door IN	#1Door OUT	#2Door OUT	#3Door OUT	#4Door OUT

Important Notes:

- 1. RS485 communication wires should be a shielded twisted pair cable and adopt bus cascade topology.
- 2. A single RS485 bus can connect up to 63 access control panels, but preferably 32 is recommended maximum.
- 3. To eliminate signal attenuation in communication cables and suppress interference, if the bus is longer than 200 meters, set the number 8 DIP switch to the **ON** position.

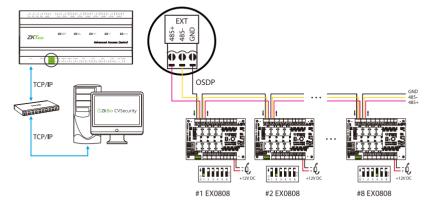
4. The InBio Pro Plus Series adopts RS-485 interfaces supporting ZKTeco's RS-485 protocols for facial reader (KF1100 Pro/KF1200 Pro) and fingerprint reader (FR1200/FR1500S). InBio Pro Plus Series also accommodates ZKTeco's RS-485 and OSDP (Ver 2.1.7) for card reader access and the Series is compatible with ZKTeco's QR code readers (QR50 / QR500 / QR600). Also, the InBio Pro Plus Series integrates seamlessly with third-party access control readers via Wiegand interface (W26/W34/W66).

How to switch the fingerprint algorithm version?

- 1. The InBio Pro Plus series supports ZKFingerprint V10.0/V13.0 (default) algorithm versions. You can switch the algorithm version by logging into the Webserver as follows:
- 2. Login to the Webserver, click[System]>[SystemSettings]>[FingerprintVersion], selectthealgorithm version, and click [Confirm] to confirm.
- 3. And the interface will popup with aprompt: It will reboot the device and clear the original biometric data, pleasere-synchronize the data to the device.
- 4. Click [Confirm] to confirm.



11. Connecting EX0808 via PC485



Important Notes:

- 1. Configure the **ZK485** protocol through the PC485 port to connect up to eight EX0808 expansion boards to expand a certain number of auxiliary inputs and auxiliary outputs.
 - **Note:** Set DIP switch #5 of the expansion board to the **OFF** position.
- 2. Configure the OSDP protocol through the PC485 port to connect up to eight EX0808 expansion boards to expand a certain number of auxiliary inputs and auxiliary outputs.
 - **Note:** Set DIP switch #5 of the expansion board to the **ON** position.
- 3. The RS485/OSDP address of each EX0808 is set via the DIP switch before power is applied.
- **4.** Each EX0808 requires a separate power supply. Up to eight auxiliary input devices and eight auxiliary output devices can be connected to one EX0808.
 - Note: PC485 communication function is a customized function, not standard, please contact your dealer if you need it.

❖ DIP Switch Setting for RS485/OSDP Communication

Description	RS485 Address	DIP Switch	RS485 Address	DIP Switch	RS485 Address	DIP Switch
+	1	O N 1 2 3 4 5 6 E	6	0 N 1 2 3 4 5 6 E	11	O
O N 1 2 3 4 5 6	2	O N 1 2 3 4 5 6	7	0 N 1 2 3 4 5 6	12	O N 1 2 3 4 5 6
1 2 4 8	3	V N 1 2 3 4 5 6	8	0 N 1 2 3 4 5 6	13	O N 1 2 3 4 5 6
MODE (RS485/OSDP) RS485 Terminal Resistance	4	O N 1 2 3 4 5 6	9	V N 1 2 3 4 5 6	14	O N 1 2 3 4 5 6
	5	V N 1 2 3 4 5 6	10	V 0 1 2 3 4 5 6	15	O

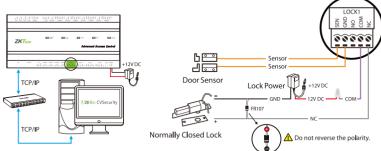
Important Notes:

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.
- 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.

12. Lock Relay Connection

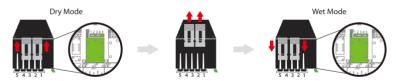
Controller not sharing power with the lock



Switching dry and wet modes

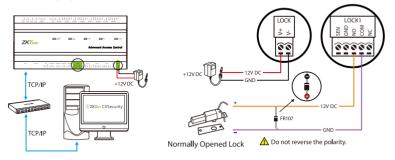
Dry Mode supports separate power supply for the lock using an external independent power supply. **Wet Mode** supports the lock sharing power with the controller. The factory default jumper setting is dry mode. Switch between wet and dry mode by following the steps below.

- 1. Remove the cover from the bottom by pushing the tabs inward as shown at right.
- 2. Select the appropriate lock relay and locate its jumper on the controller.
- 3. Remove the jumpers and change the jumper from parties to parties
- 4. Once this is done you can follow the wiring of the controller sharing power with the lock.

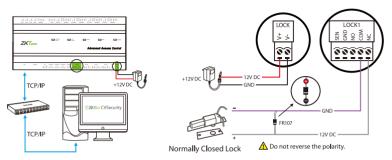


❖ Controller sharing power with the lock

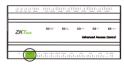
1. Normally Opened Lock Powered From Lock Terminal:

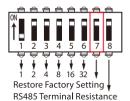


2. Normally Closed Lock Powered From Lock Terminal:



13. DIP Switch Setting





- 1. Number 1-6 are reserved to set the device number for RS485 communication. The code is binary, and the numbering starts from left to right. When the switch is set to ON position, it indicates 1 (on); when the switch is set downwards, it indicates 0 (OFF).
- 2. For example, to set a device number 39=1+2+4+32, which corresponds to the binary code 111001, put number 1, 2, 3, and 6 to ON position as show at right.

Restore Factory Setting

- 1. If you forget the IP address of the InBio Pro Plus series panel or the device does not work normally, you can use the number 7 DIP switch to restore it 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.
- 3. The procedure is shown below.







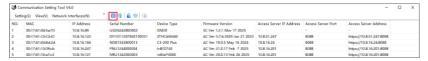


To reset factory settings Turn #7 switch ON and OFF Repeat process **3** times

14. Connect to ZKBio CVSecurity Software

1. Search for Devices

Search for devices using the **DeviceSettingTool V4.0** search tool. Click the **Q** icon to search for devices.



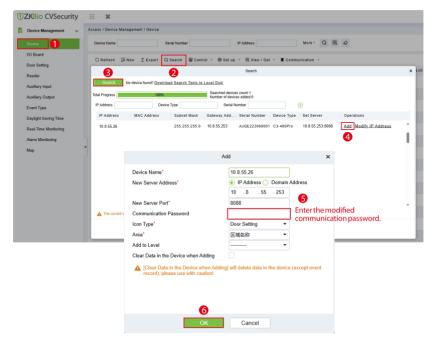
2. Change Communication Password

Select the searched device and click the $\frac{1}{2}$ icon to change the communication password. For the first time to change the password, the default communication password is **Zk@123**, and the new password is a combination of $2\sim6$ digit alphabetic characters. **Note:** If the communication password is forgotten, the device can be reset to its factory settings, and the password will automatically revert to the default value.



3. Add Device on the Software

- 1. Click [Access] > [Device Management] > [Device] > [Search], to open the Search interface in the software.
- 2. Click [Search], and it will prompt Searching......
- 3. After searching, the list and total number of access controllers will be displayed.
- **4.** Click [**Add**] in operation column, a new window will pop-up. Enter the communication password, select lcon type, Area, and Add to Level from each dropdown and click [**OK**] to add the device.



- **5.** Click [**Personnel**] > [**Person**] > [**New**] to register users in the software.
- 6. Add users to access levels.
- 7. Click [Access] > [Device Management] > [Device] > [Control] > [Synchronize All Data to Devices]. For more details, please refer to the ZKBio CV security User Manual.

15. 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.



2. Can we integrate IP Camera and NVR?

- Currently ZKBio CVSecurity/ZKBio CVAccess supports ZKTeco's NVR and IP Cameras.
- You can associate a camera to the reader 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 Plus 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, 2A power so an external power supply may be required.

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

16 or 18 AWG twisted shielded wire is recommended.

6. What is the default IP of the panel?

192.168.1.201

7. How long is the device under warranty?

2 Years 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.

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