

INSTALLATION GUIDE

Applicable Models: inPulse, inPulse+

Version: 1.1

Date: Jan., 2016

Green
Label

Safety Precautions

Before installation, please read the following safety precautions for user safety and to prevent product damage.



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.



Do 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 purpose other than those specified.



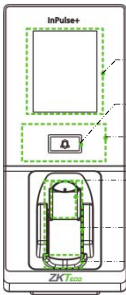
Clean the device often to remove dust on it. In cleaning, do not splash water on the device but wipe it out with smooth cloth or towel.

Contact your supplier in case of a problem!

Device Overview

❖ inPulse+

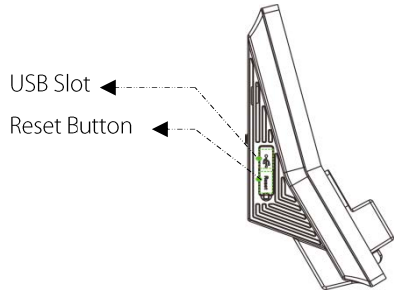
Front



- ▶ Touch Screen
- ▶ Doorbell
- ▶ Card Reader Area
- ▶ Fingerprint Reader
- ▶ Finger Vein Reader
- ▶ Finger Vein Sensor:

During registration, after finger touches the sensor, device begins collecting and verifying fingerprint and finger vein.

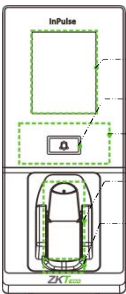
Left Side



- ▶ USB Slot
- ▶ Reset Button

❖ inPulse

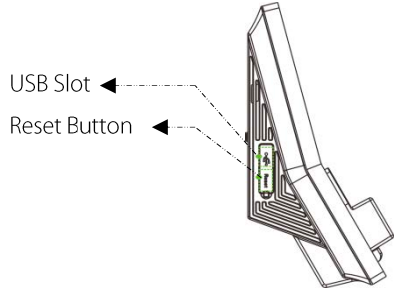
Front



- ▶ Touch Screen
- ▶ Doorbell
- ▶ Card Reader Area
- ▶ Finger Vein Reader
- ▶ Finger Vein Sensor:

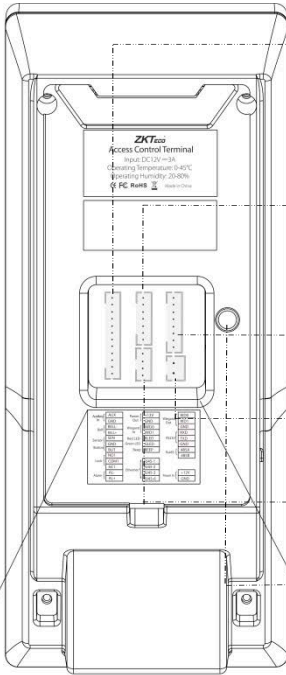
During registration, after finger touches the sensor, device begins collecting and verifying finger vein.

Left Side



- ▶ USB Slot
- ▶ Reset Button

Device Overview



▶ 12 Pin Cable Connectors

▶ 7 Pin Cable Connectors

▶ 8 Pin Cable Connectors

▶ 2 Pin Cable Connectors

▶ 4 Pin Cable Connectors Ethernet (TCP/IP)

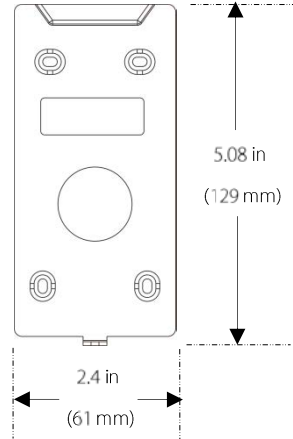
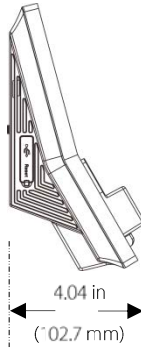
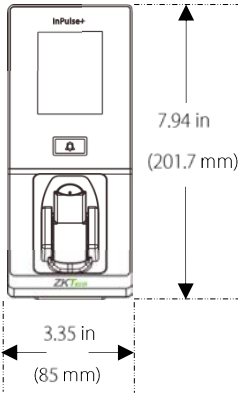
▶ Tamper Alarm Button

- Auxiliary In
- Bell
- Sensor
- Button
- Lock
- Alarm
- Power Out
- Wiegand In
- LED, Beep
- Wiegand Out
- RS232
- RS485
- Power In

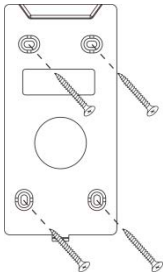
Auxiliary In	AUX GND	Power Out	+12V GND	Wiegand Out	WD0 WD1 GND
Bell	BELL- BELL+	Wiegand In	IWD0 IWD1	RS232	RXD TXD GND
Sensor	SEN GND	Red LED	RLED	RS485	485A 485B
Button	BUT NO1	Green LED	GLED		
Lock	COM1 NC1	Beep	BEEP		
Alarm	AL- AL+	Ethernet	RJ45-1 RJ45-2 RJ45-3 RJ45-6	Power In	+12V GND

Product Dimensions & Installation

❖ Product Dimensions

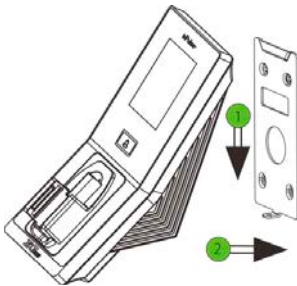


❖ Mounting the Device on Wall

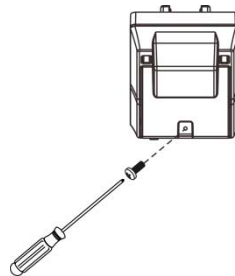


- 1 Fix the back plate onto the wall using wall mounting screws.

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



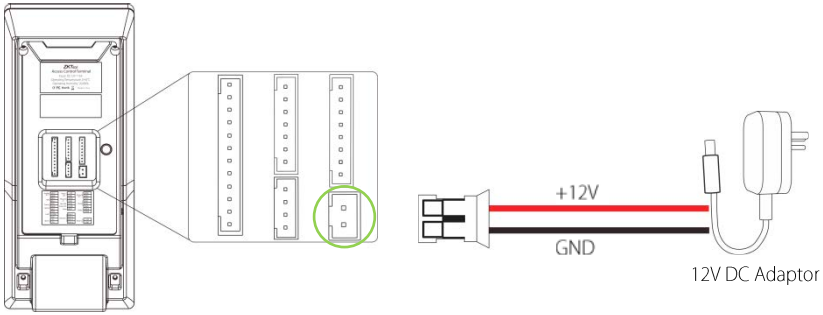
- 2 Insert the device to back plate.



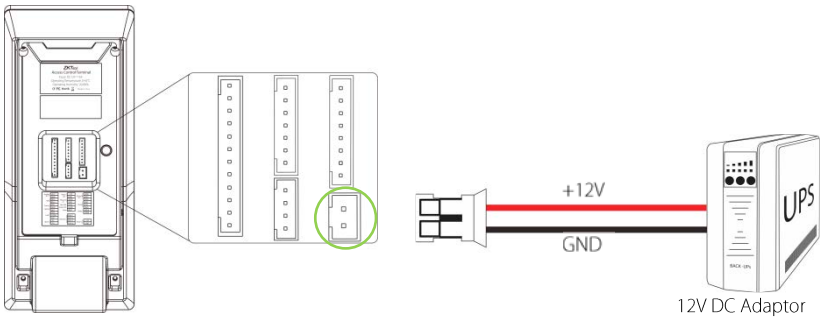
- 3 Use security screws to fasten the device to back plate.

Power Connection

❖ Without UPS



❖ With UPS (Optional)

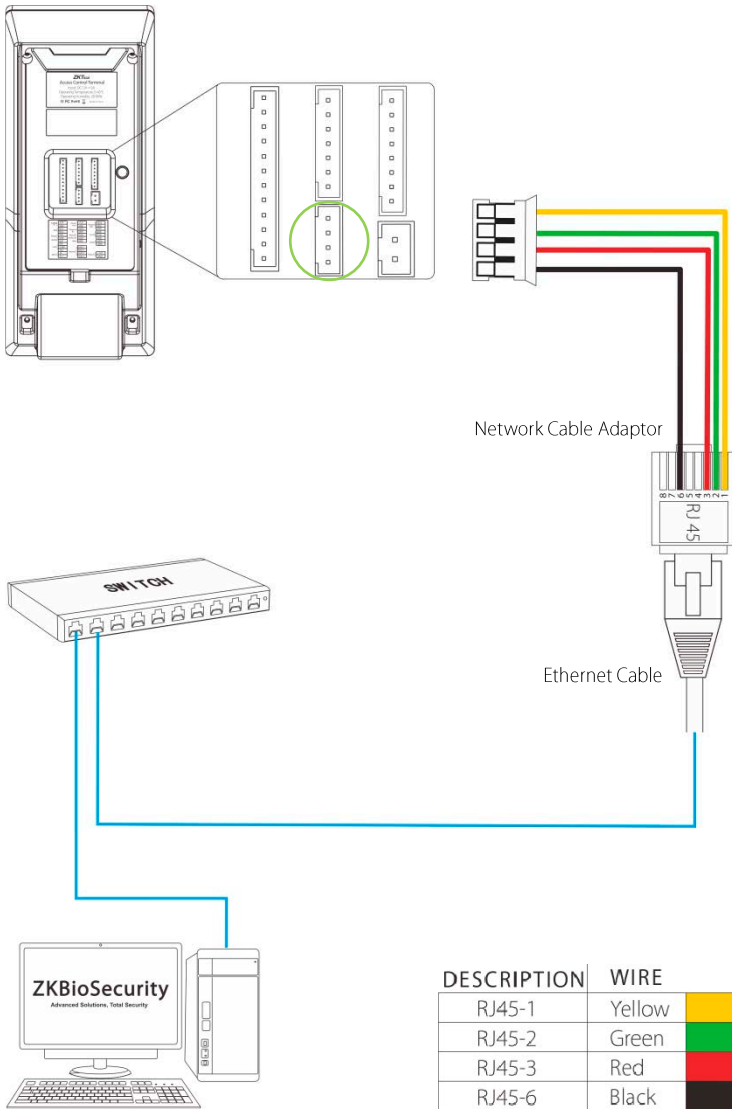


❖ Recommended Power Supply

- 12V±10%, at least 500MA.
- To share the power with other devices, use a power supply with higher current ratings.

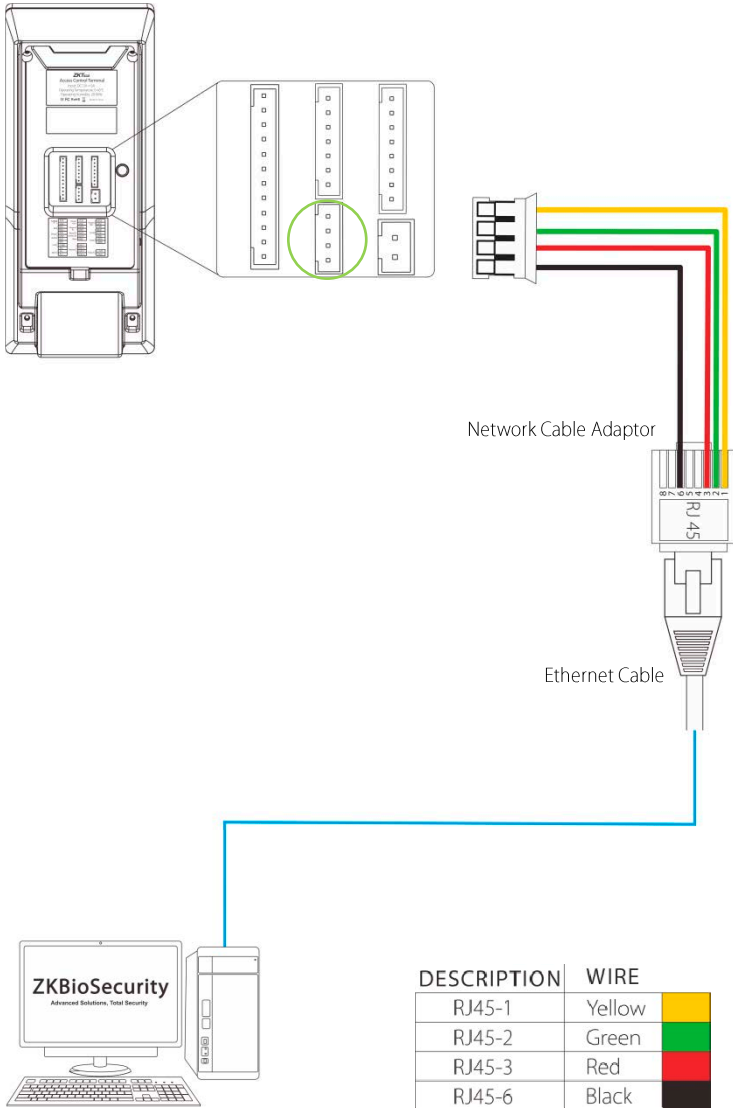
Ethernet Connection

❖ LAN Connection



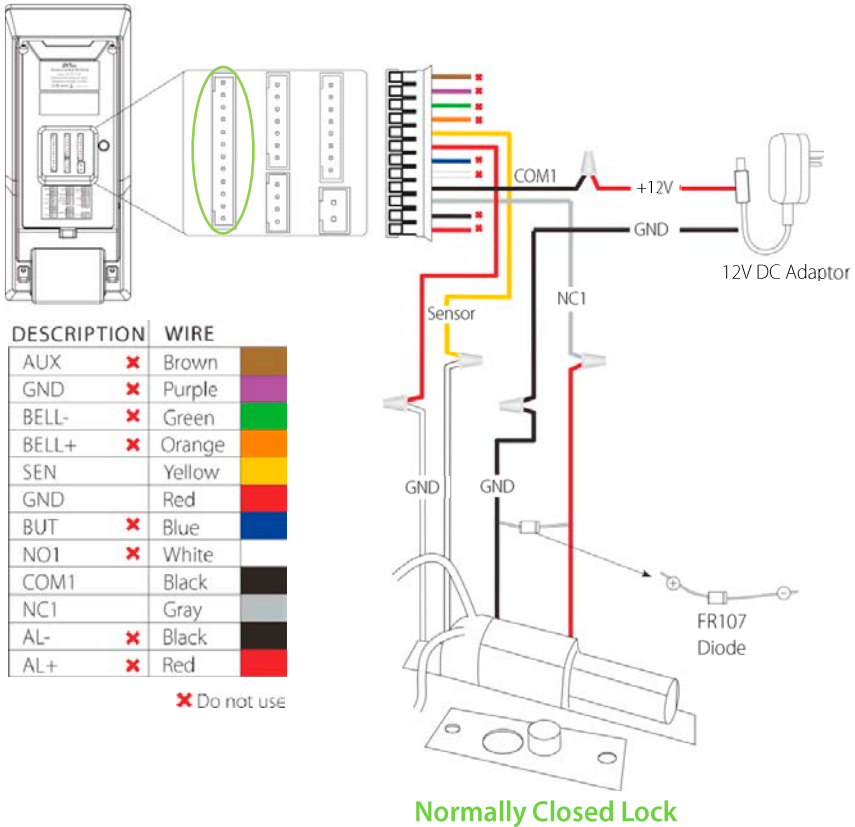
Ethernet Connection

❖ Direct Connection



Lock Relay Connection

❖ Device Not Sharing Power with the Lock



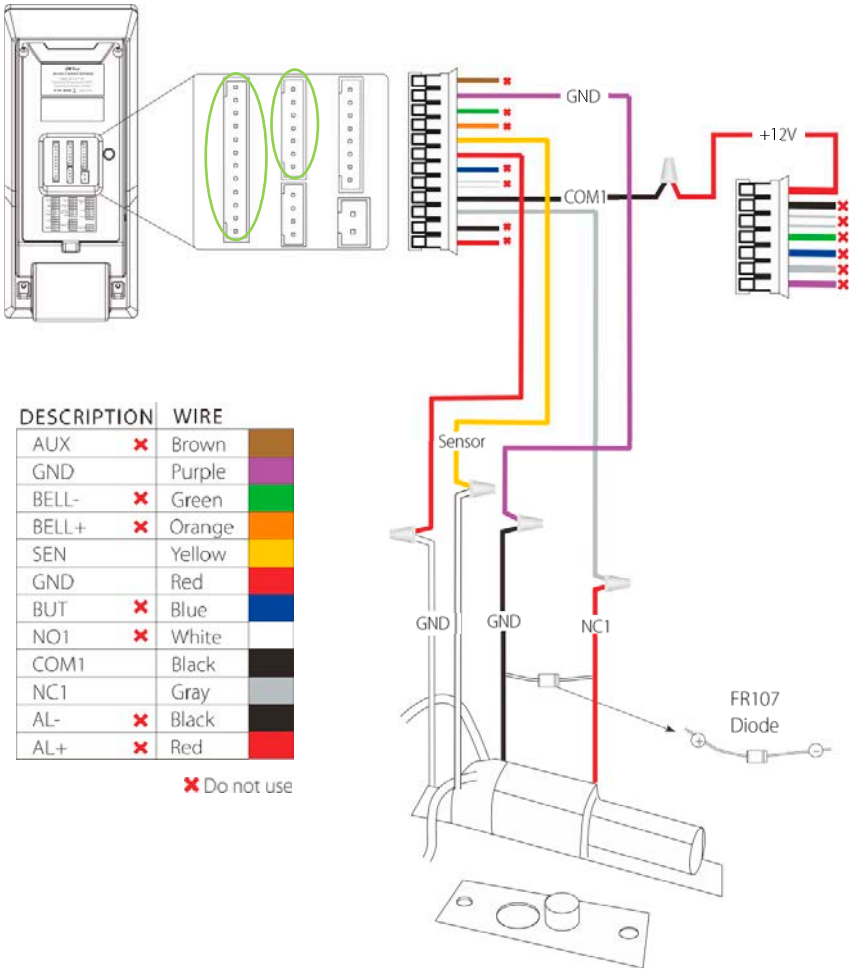
Notes:

1. The system supports **NO LOCK** and **NC LOCK**. For example the **NO LOCK** (normally opened at power on) is connected with '**NO1**' and '**COM1**' terminals, and the **NC LOCK** (normally closed at power on) is connected with '**NC1**' and '**COM1**' terminals.
2. When electrical lock is connected to the Access Control System, you must parallel one FR107 diode (equipped in the package) to prevent the self-inductance EMF from affecting the system.

⚠ Do not reverse the polarities.

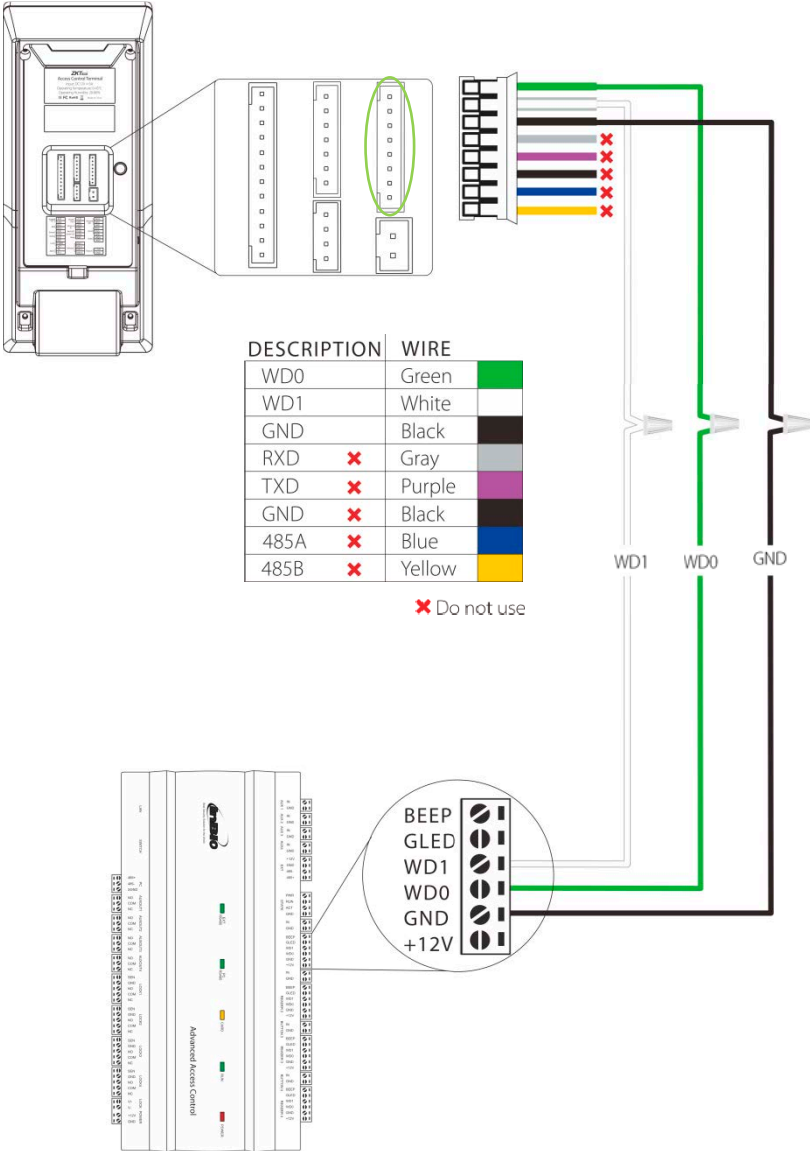
Lock Relay Connection

❖ Device Sharing Power with the Lock

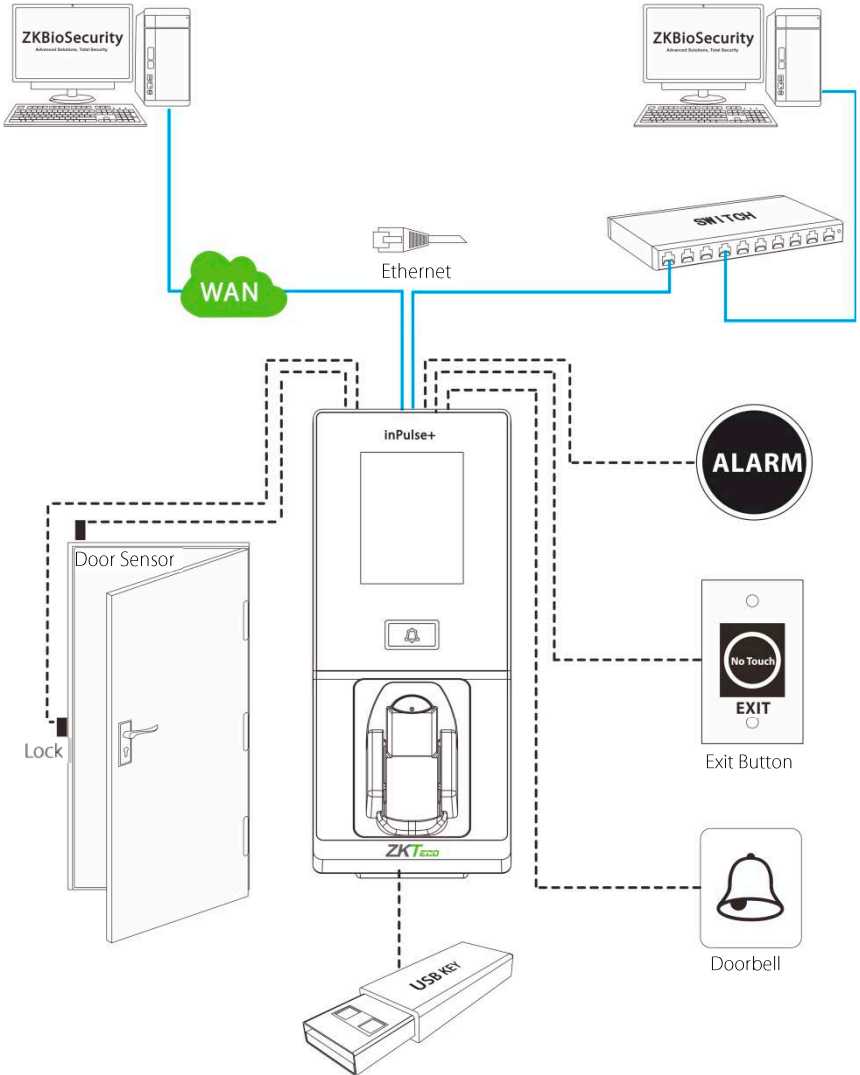


Normally Closed Lock

Wiegand Output Connection

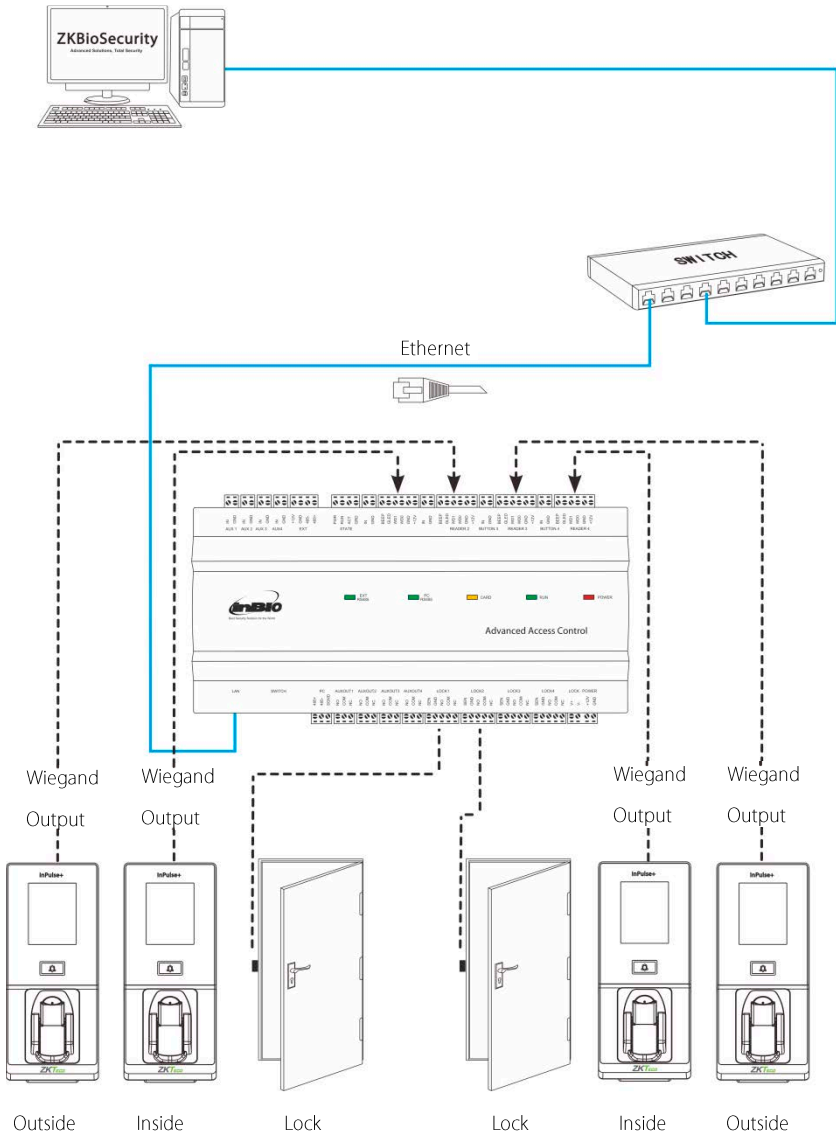


Standalone Installation

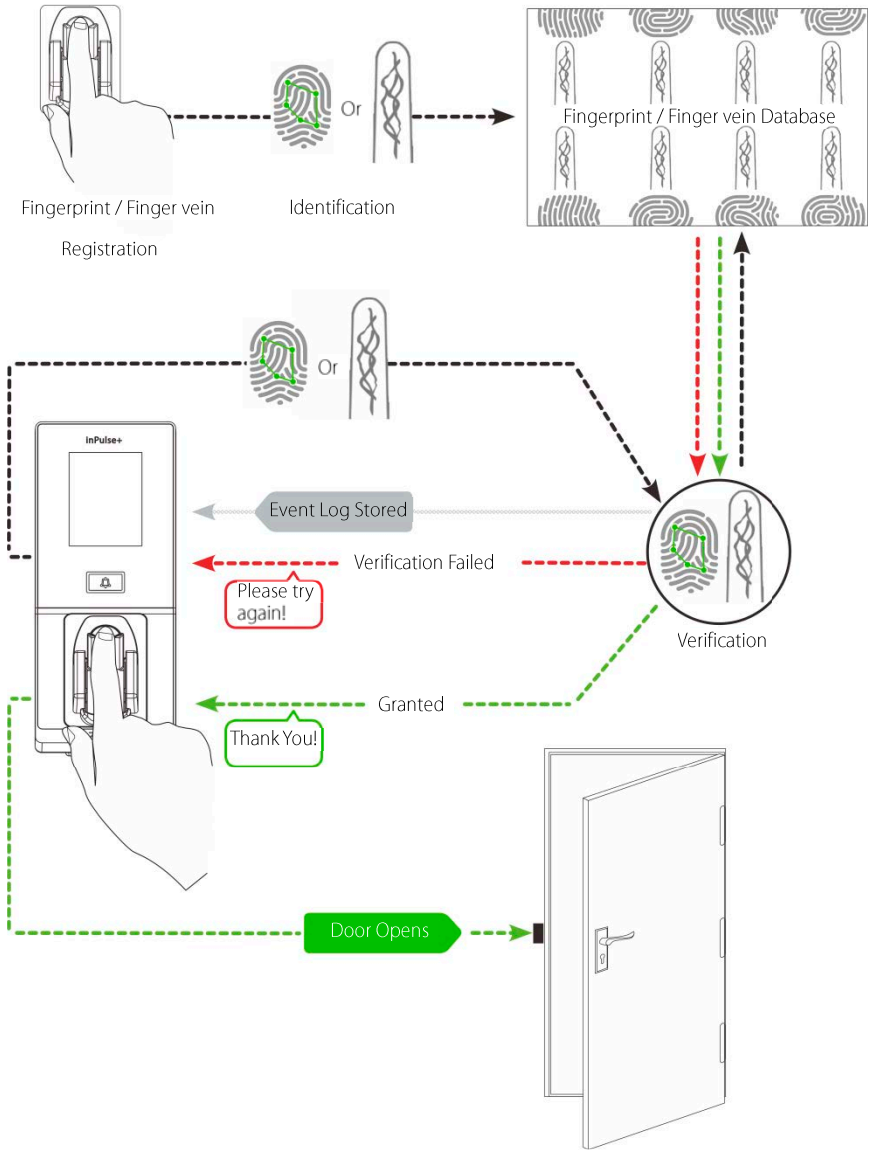


Third Party Controller

❖ Wiegand Output Connection



How Does inPulse / inPulse+ Work



Registration and Verification

Note: During finger vein registration process, fingerprint of the selected finger is also registered.

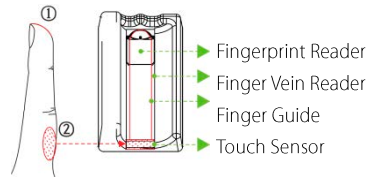
❖ Select a finger to enroll

- It is recommended to use an index finger or a middle finger.
- Thumb, ring or little finger are relatively difficult to place in the correct position



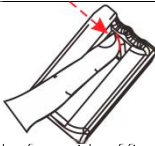
❖ Finger Placement Position

- In order to read your fingerprint and finger vein data, touch the front side of finger vein reader with fingertip.
- The device starts collecting data once the finger root touches the finger vein reader.



❖ Verification Steps

①



Touch the front side of finger vein reader with fingertip, then press your finger upon the finger vein reader.

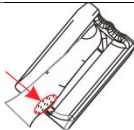


Place the finger according to the finger guide.



Finger-tip must touch the front of finger vein reader in order to properly collect fingerprint and finger vein images.

②

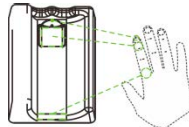
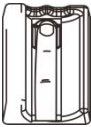


Touch the reader with finger root.



Improper positioning of finger will affect the proper collection of fingerprint and finger vein images.

③



The device starts collecting data once the finger root touches the finger vein reader. Remove finger after “beep” sound appears.

😊 Note:

- Maintain the natural hand gesture.
- Do not bend your fingers.
- Do not exert finger to press the reader.

Troubleshooting

1. “Invalid time zone” is displayed after verification?

- Contact Administrator to check if the user has the privilege to gain access within that time zone.

2. Verification succeeds but the user cannot gain access?

- Check whether the user privilege is set correctly.
- Check whether the lock wiring is correct.

3. The Tamper Alarm rings?

- To cancel the triggered alarm mode, carefully check whether the device and back plate are securely connected to each other, and reinstall the device properly if necessary.

