

# Installation Guide

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FR1500S

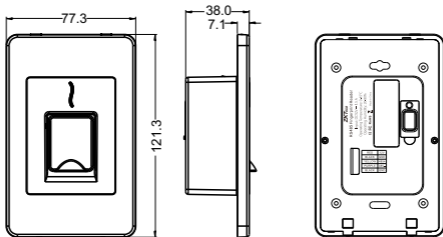
Version: 1.0



Due to regular upgrades of systems and products, ZKTeco could not guarantee exact consistency between the actual product and the written information in this manual.

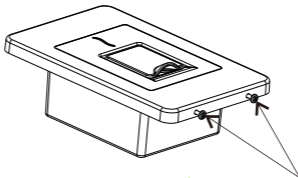
# Installation

Dimensions(mm)



**Note: Not all the devices have the fingerprint cover. The real product prevails.**

Procedure to be followed before installation

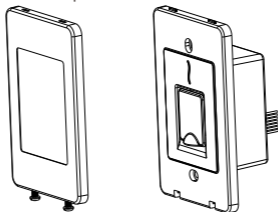


**STEP 1**

Remove both the screws

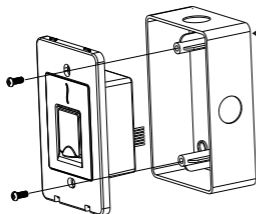


Take out the front panel as shown below



### Method 1: Mounting on the standard Single gang junction box

Lay the cables from the desired hole in Single gang junction box and fix the machine part to the box part.

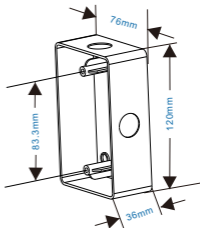


The Single gang junction box's size recommendations:

Location column: 83.3mm

Inside of the box Depth: Minimum 36mm

Outside the box size: maximum length 120mm , maximum width 76mm



## Method 2: Mounting inside the wall

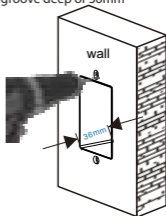
**STEP 1**

Place the mounting sticker to the place where device needs to be installed



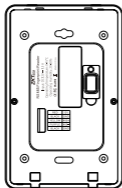
**STEP 2**

Drill fixing holes and dig mounting groove deep of 36mm



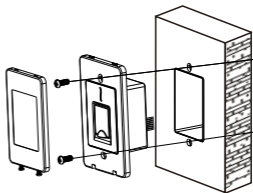
**STEP 3**

If cables need to be laid from behind then it must be done before installing



**STEP 4**

Install the device with the screws



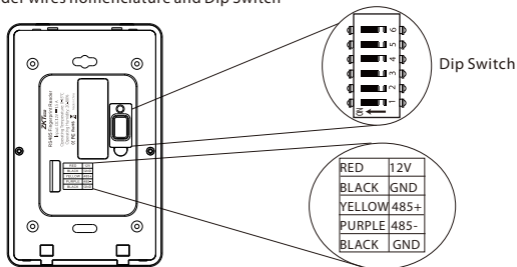
**STEP 5**

After installing the back plate attach the machine part in the same reverse manner as shown in previous page

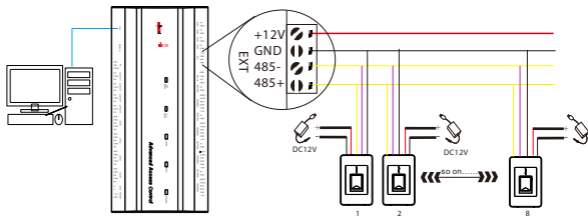
# Wiring Terminals

This reader is an innovative Silk ID reader. It needs to be connected to a host machine so that fingerprint information can be transferred through Rs485.

Reader wires nomenclature and Dip Switch



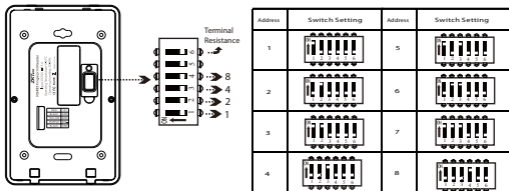
## 1. Connection with a Control Panel.



Connected as inBIO Pro Reader(with External 485), maximum 8 readers can be connected. The reader requires a separate power supply.

# Working Principle

## > Dip Switch setting with control panel



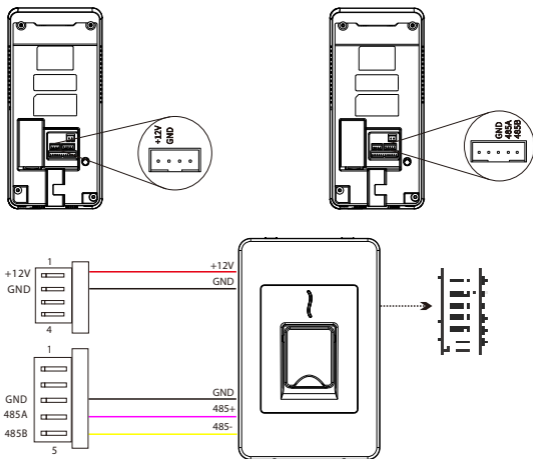
Number 1, 2, 3, 4 of the dip switch are used to set the address of RS485, 5 is the restart switch, and 6 is the Terminal Resistance.

Number 5 is the restart switch: dial up and dial down. The machine will restart. The right side figure shows the address number setting.

Number 6 switch is used to set the terminal resistance in RS485.

Communication: If the 485 communication wire is longer, than 100 meters, it is needed to set the number 6 dip switch of the last reader to ON state, that is parallel a terminal resistance of 120 ohm between 485+ and 485-.

## 2. Connection with a Standalone Access Controller



When using the reader with Standalone access controller device, please move the dial code "1" to the ON position as shown above.

## Verification Process

Connection with the controller:

Unsuccessful:	LED flashes blue light twice every one second.
Successfully:	LED flashes blue light once every one second.

When verifying the fingerprint or punching the card:

Successful Verification:	Green LED lights, short BEEP
Authentication error:	Red LED lights, two short and a long BEEP
Data Error:	Red LED lights, one short and a long BEEP
Timeout:	Red LED lights, four short BEEP
Authentication failed:	Red LED, two short BEEP
No rights:	Red LED, three short BEEP
Verify unfinished:	Red LED flashes three times

## Safety Precautions

1. Power cable should be connected at last, after all the wiring. If the device is working abnormally, immediately shutdown the device.
2. Please read the terminals description and wiring by rule strictly. Any damage caused by improper operations will be out of the range of our guarantee.
3. Please connect the 'GND' before all the other wiring especially under the serious electrostatic environment.
4. Keep the exposed part of wire less than 5mm to avoid unexpected connection, and result in machinery damage.
5. If the distance between power supply and device is little long, please do not use the Internet cable or other types of cable instead. When choosing the power supply cable, you should consider that the transmission distance may cause voltage attenuation.

**FCC warning:**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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