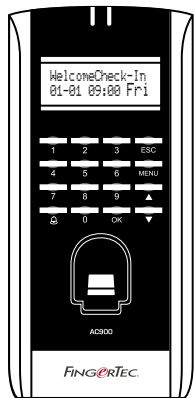# FINGERTEC
### We Make Things Easy

# Installation Guide



## AC900
### Fingerprint Door Access & Time Attendance System

## Step 1
### Determine the Location and Positioning of the Installation

- Avoid installing the terminals in locations that has contact with a strong light source (e.g direct sunlight, spotlight, fluorescent light, etc)



- Avoid installing the terminals in locations with high moisture or condensation levels in the air
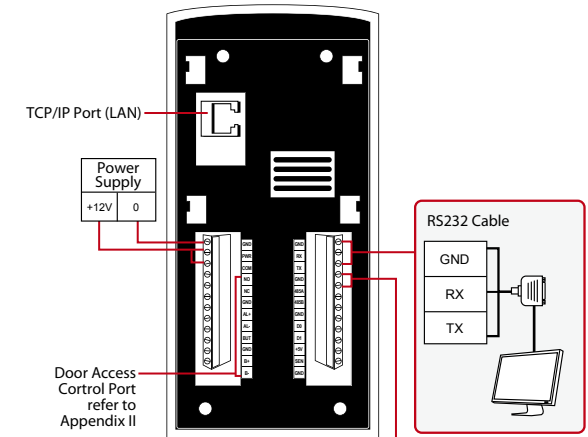- The recommended installation height of the terminal from the ground is 1.2 meter.

## Step 2
### Mounting of Terminals on A Wall
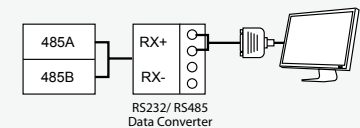


Back Plate

4 feet / 1.2 meter (recommended)
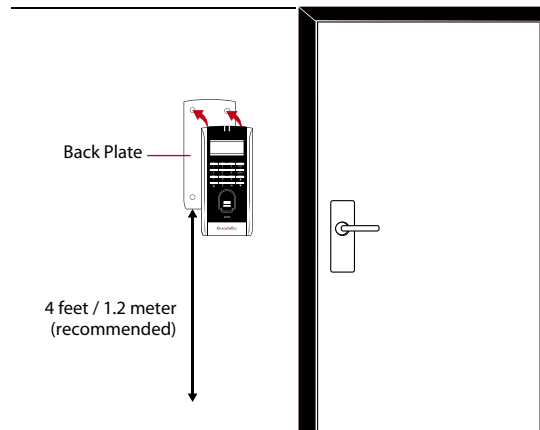
- After determining the height of the terminal from the ground level and have made the relevant marks on the wall, based on the measurements in Appendix II, drill the screws into the wall to hang the terminals.

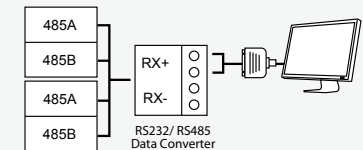## Step 3
### Wiring for Power Supply

The power input port for AC900 is located at the rear of the terminal. There is no adapter plug supplied with AC900, instead you need to source for power cable (red and black cables) to connect AC900 and AdapTec.



TCP/IP Port (LAN)

Power Supply
+12V | 0

Door Access Cortrol Port refer to Appendix II

RS232 Cable
GND
RX
TX

1. RS485 Single Connection

485A
485B

RX+
RX-

RS232/ RS485 Data Converter

2. RS485 Network Connection

485A
485B
485A
485B

RX+
RX-

RS232/ RS485 Data Converter

# Step 4
## Setting Up Data Communications

### TCP/IP – LAN Connection
For TCP/IP connection, plug the special RJ45 jack into the TCP/IP (LAN) Port of the terminal. Connect the other end (normal RJ45 jack) to the local area network hub or a PC. Configure the device ID, IP address, subnet mask and Gateway in the terminal (refer to the hardware user manual for details).

### RS232 – Serial Port Connection
Plug the communication jack that is provided in the package to connect to the communication port of the terminal. Select wires with label RX, TX and GND, and connect the other end of these wires to a DB9 female connector. Configure the device ID and baudrate of the terminal (refer to the hardware user manual for details). Use the normal RS232 cable to plug into the RS232 port of the terminal.

### RS485 – Serial Port Connection
Plug the communication jack that is provided in the package to connect to the communication port of the terminal. Select wires with label RS485+, RS485- and GND, and connect the other end of these wires to an RS232/485 data converter. Connect the other end of the data converter to a DB9 female connector. Configure the device ID and baudrate of the terminal (refer to the hardware user manual for details).
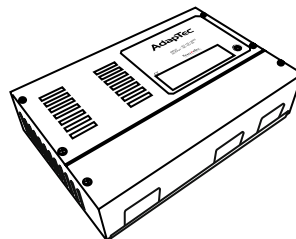
# Step 5
## Finalizing the installation

1. Check that all cable connections are done correctly.

2. Attach the terminal to the corresponding back plate, tighten the screws to secure the terminal on the wall

3. Switch on the power to the terminal.

4. Start using the terminal.

# Other Accessories
**Note:** *All Accessories are offered at http://accessory.fingertec.com*

## AdapTec



### AdapTec AC
The AdapTec AC is a 12VDC power supply inclusive of a 110~240VAC switching linear power. The AdapTec supplies 12VDC power to the FingerTec terminal and door lock system as well as charges a 12VDC 7.0Ah backup battery simultaneously. During an event of a power failure, the back up battery automatically provides power to the terminal and maintains the door lock system. The AdapTec AC also prevents a secured door from being opened if it has been tampered with.
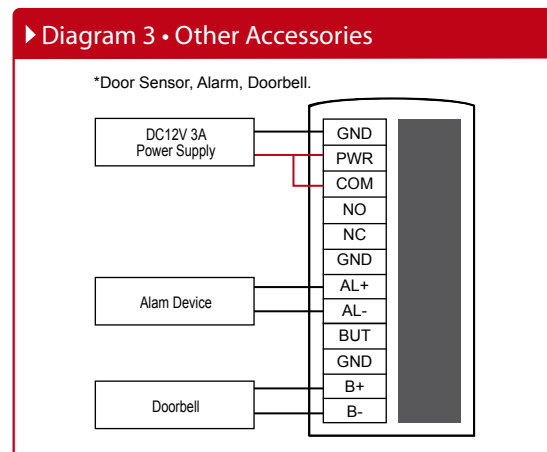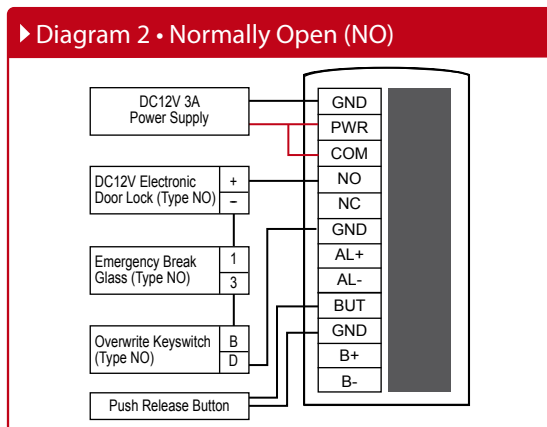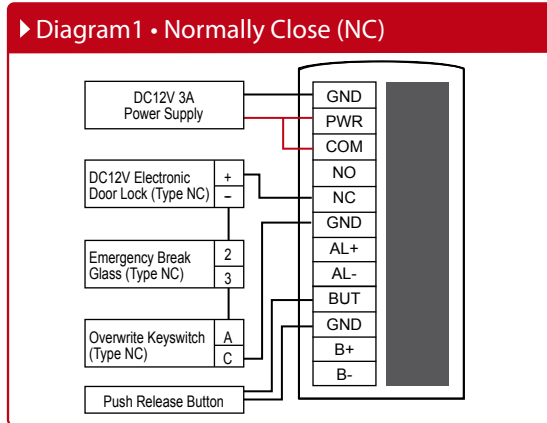
## Enclosures
FingerTec offers enclosures to protect the terminals from being meddled with by unauthorized persons.

## Door Lock Accessories
FingerTec offers various door locks accessories to complement FingerTec door access product range.

FING@RTEC
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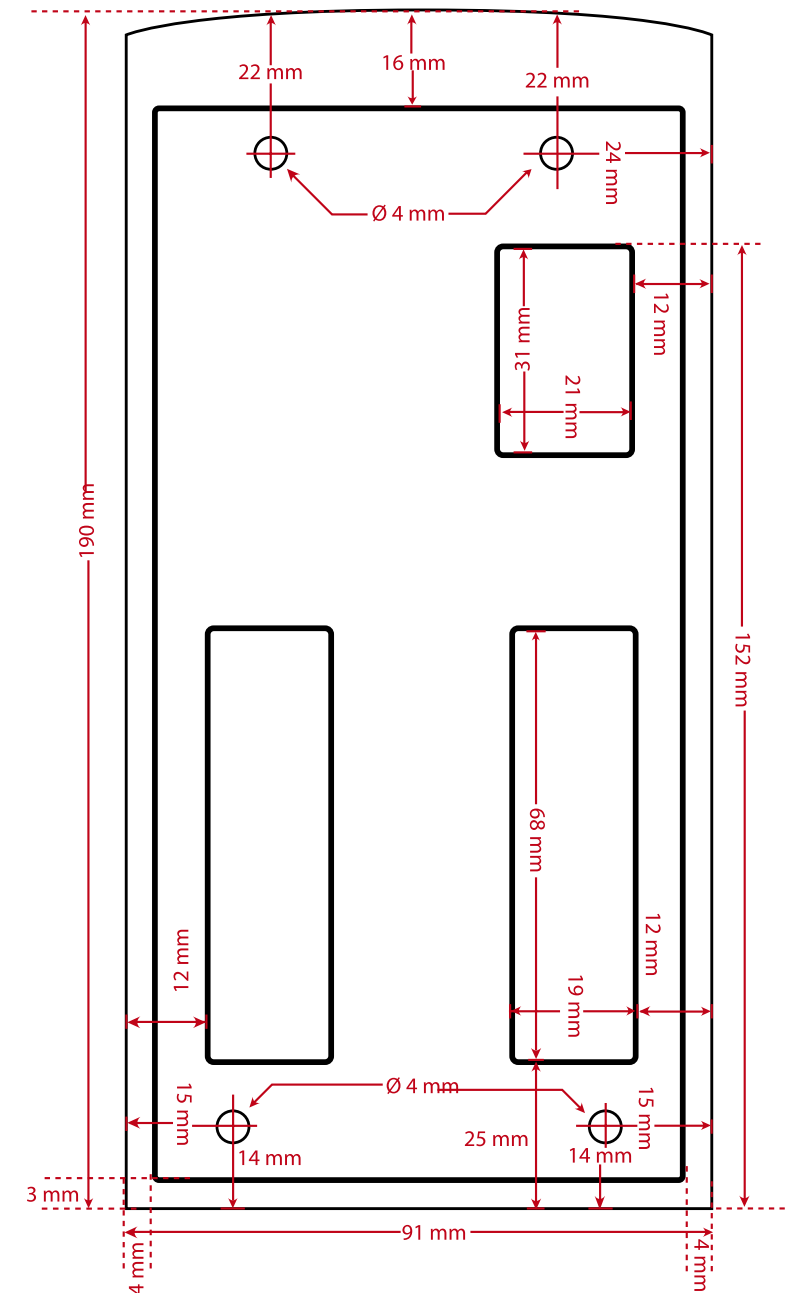# Appendix I
## Power Supply & Door Lock System Wiring Diagrams

### ▶ Diagram 1 • Normally Close (NC)

DC12V 3A Power Supply — GND, PWR, COM

DC12V Electronic Door Lock (Type NC) — + / − — NO, NC, GND

Emergency Break Glass (Type NC) — 2 / 3 — AL+, AL−

Overwrite Keyswitch (Type NC) — A / C — BUT, GND

Push Release Button — B+, B−

### ▶ Diagram 2 • Normally Open (NO)

DC12V 3A Power Supply — GND, PWR, COM

DC12V Electronic Door Lock (Type NO) — + / − — NO, NC, GND

Emergency Break Glass (Type NO) — 1 / 3 — AL+, AL−

Overwrite Keyswitch (Type NO) — B / D — BUT, GND

Push Release Button — B+, B−

### ▶ Diagram 3 • Other Accessories

*Door Sensor, Alarm, Doorbell.

DC12V 3A Power Supply — GND, PWR, COM

NO, NC, GND

Alam Device — AL+, AL−

BUT, GND

Doorbell — B+, B−

## Door Lock Connectors

| WIRING PORT | USAGE |
| --- | --- |
| COM | **Dry Contact** (Independent power supply for door lock) • NO type door lock (NO-COM) • NC type door lock (NC-COM) **Power Contact** (Using power from terminal to power on door lock) • COM1 - +12V |
| NO / NC | **Dry Contact** (Independent power supply for door lock) • NO type door lock (NO-COM) • NC type door lock (NC-COM) **Power Contact** (Using power from terminal to power on door lock) • NO type door lock (NO-GND) • NC type door lock (NC-GND) |
| AL+ / AL− | **Alarm System** (NO or NC Type – Check in Advance Options) |
| BEL+ / BEL− | **Door Bell** |
| SEN / GND / BUT | **Door Sensor** (SEN-GND) **Release Button** (BUT-GND) |

The terminal will trigger the alarm output (NO or NC) for the following situations:

• Door forced open (A door sensor must first be installed)

• Door open time out (A door sensor must first be installed)

• Terminal has been illegally dismantled

# Appendix II
## Terminal Dimensions and Measurements



22 mm · 16 mm · 22 mm · 24 mm · Ø 4 mm · 12 mm · 31 mm · 21 mm · 190 mm · 152 mm · 12 mm · 68 mm · 12 mm · 19 mm · 15 mm · 14 mm · Ø 4 mm · 25 mm · 14 mm · 15 mm · 3 mm · 91 mm · 4 mm · 4 mm

*Front View of AC900*