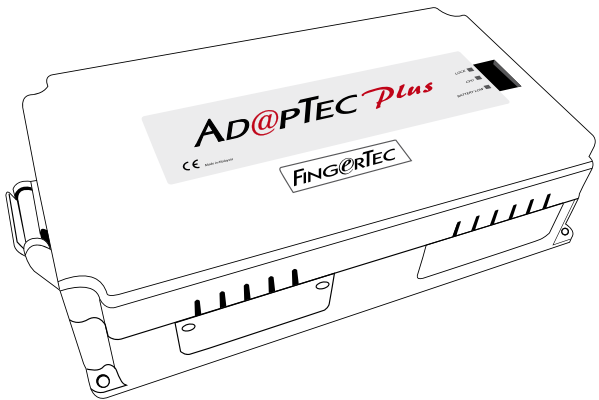


# FINGERTEC



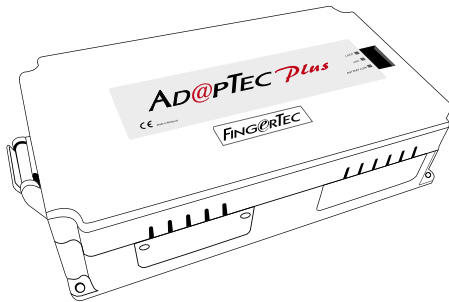
# AD@PTEC Plus

Installer Guide



# AD@PTEC Plus

Adaptability to Enhanced Security



AdapTec Plus combines power supply and door access controller features in a compact casing for an encrypted and secure I/O function, enhancing door access control functionalities and easing installation processes. AdapTec Plus is an exceptional FingerTec accessory in a small package!

## UNDERSTANDING ADAPTEC PLUS FUNCTIONS

### Enhanced Security with Encrypted Signals

It supports FingerTec encrypted 26-bit Wiegand communication output; providing enhanced security level for extra protection.

### Power Up Terminals & Door Lock Systems

A single AdapTec Plus can support a maximum of 2 units of FingerTec terminals and 2 sets of door lock accessories such as the EM lock and drop bolt in one single system installation.

### Prolonged Life Span of Hardware

With data encryption, the life span of the terminals can be prolonged without the risk of short-circuiting when using AdapTec Plus

### Control IN/OUT Terminals at an Entrance

AdapTec Plus is a perfect choice for an IN/OUT installation, where a door is controlled both at the entrance and the exit.

### Supports Rechargeable Backup Battery

Connects well to any 12VDC rechargeable backup battery, providing power to ensure protection of access during any events of power failure.

### Emergency Alerts with Siren

Compatible with an NC siren type with a maximum of 0.5A load for an emergency event e.g. if the terminal is being dismantled without authorization.

### Seamless Integration with FingerTec Terminals

Mix and match the FingerTec terminals via AdapTec Plus for a cost effective access control system suitable for small and medium sized offices.

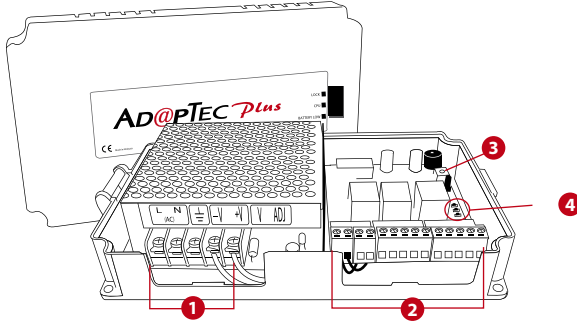
## UNDERSTANDING THE TECHNICAL SPECIFICATIONS

<b>PHYSICAL APPEARANCE</b>	
Surface finishing	Acrylonitrile Butadiene Styrene (ABS)
Dimension, mm	212 x 49 x 114
Weight, kg	0.6
CPU	High Performance RISC CPU
<b>POWER SUPPLY</b>	
Power input	AC 110 ~ 240V (Universal Input)
Power output	12VDC 3A
Backup Power system	UPS or 12VDC Rechargeable battery
<b>INPUT – OUTPUT SIGNAL</b>	
Input signal	26-bit FingerTec encrypted Weigand signal
Output signal	12VDC 0.5A Siren 12VDC 3A EM output (NO/NC Type door locks)
<b>ALERTS &amp; NOTIFICATIONS</b>	
Over input voltage	Yes, 3 long beeps
Door release	Yes, 2 short beeps
Door force open	Yes, continuous beeps (May opt to output external siren system)
Illegal dismantle FingerTec terminals	Yes, continuous beeps (May opt to output external siren system)
Door unlock timer	VR type, LED blinks to indicate unlock time in Seconds.
On Board LED indicators	EM LED lit up – door lock output is working. Status LED lit up – CPU is working. Battery low LED lit up – Battery is low and cut-off.
<b>ON BOARD PROTECTION</b>	
Over voltage alarm	>15 VDC
Fuses	PTC type
Battery cut-off	8.5 ~ 9.5 VDC

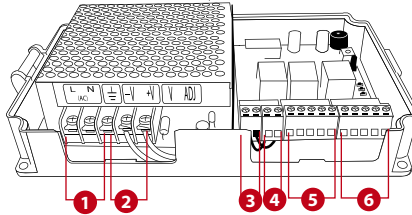
**NOTE:** Specifications are subject to change. Check <http://product.fingertec.com> for latest product information.

# UNDERSTANDING THE DESIGN

AdapTec Plus consists of 2 main modules



- 1 Power supply/power input module
- 2 Power output/access control module
- 3 Door lock timer
- 4 LED status indicator



## Power supply/power input module

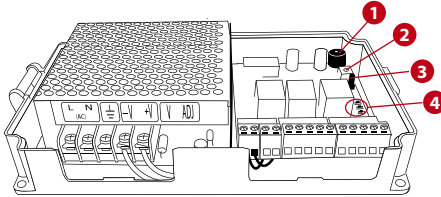
- 1 This portion is to be connected to a power source with AC110~240V. An AC current should be supplied into this side and a 12VDC 3A current will be generated as output.
- 2 These two cables, -V and +V are default and are connected to the inner part of AdapTec. Please do not remove or change these cables.

## Power output/access control module

- 3 These cables connect to the 12VDC power from the power supply/input module. Do not remove or dismantle these cables.
- 4 These cables connect to a 12VDC rechargeable backup battery. During a power failure, the backup battery will power up AdapTec Plus.
- 5 These are the power output ports from AdapTec Plus. Refer to the wiring diagram for details.
- 6 These are the Wiegand data input ports from the FingerTec terminals. Refer to the wiring diagram for details.

## OTHER FEATURES

You will find a buzzer, 4 LED indicators, and a door lock timer on the board. Check and set each of them accordingly after powering up the system.



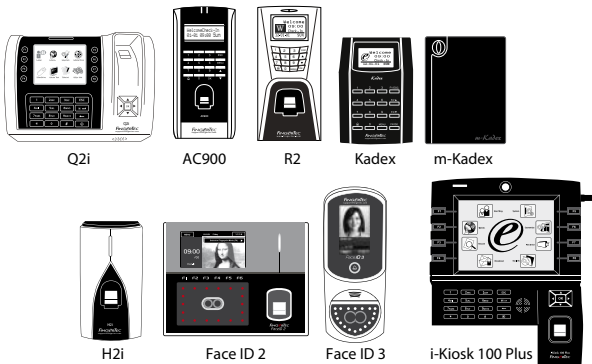
- 1** You will hear the buzzer beep to indicate:
  - **Unlocked Door (Short buzz)**  
Door is unlocked and access granted (during verification or pressing push release button).
  - **Over Voltage (Non-stop buzzing after startup)**  
Over voltage of power input (Stop the power supply to the system immediately and check the input voltage, consult [support@fingertec.com](mailto:support@fingertec.com))
- 2** Adjust the door lock timer for a longer or shorter unlocking time period by turning the screw clockwise. Count the LED blinks after turning it. Each blink represents 1 second and the recommended time period is 5 seconds (5 blinks).
- 3** Select the type of door lock to use, NO type or NC type.
  - **PIN 1&2 – NO** Type door lock system.
  - **PIN 2&3 – NC** Type door lock system (default)
- 4** The LED lights up to indicate the following:
  - **EM lock LED** - The EM lock system is charged up and working properly.
  - **Status LED** - The overall system is working properly.  
**Note:** Contact [support@fingertec.com](mailto:support@fingertec.com) if either of the above LED lights are not lit up.
  - **Bat Low LED** - The battery is weak and needs to be charged or replaced.

## DETAILS OF WIRING

AdapTec Plus supports 2 types of installations, Convenient or Secure. You can select between modes by applying different wiring arrangements during installation. Under Convenient mode, AdapTec Plus will unlock doors immediately after receiving responses from FingerTec devices. This feature is supported by all FingerTec models.

For installations using Secure mode, there will be a 1s time delay when unlocking the door after verification at FingerTec devices. This delay is due to the 26-bit Wiegand transmission of encrypted password from device to AdapTec Plus. This is an optional security feature provided by AdapTec Plus for users who favor more security (slight delay) over convenience (no delays).

AdapTec Plus works with FingerTec terminals via an encrypted Wiegand signal to control the door open-close mechanism. Please make sure you are using the following FingerTec models that support the encrypted 26-bit Wiegand signal to work with the AdapTec Plus to setup a door lock system:



### Step 1

Look for the power input port on the FingerTec terminal. Normally the connection ports on the terminals are marked as PWR/+12V (red wire) and GND (black wire).

### Step 2

Convenient Installation: Look for the door lock output port NO and GND from the terminal.

Secure Installation: Look for the Wiegand output port, WDO (green), WD1 (white) and GND (black) from the terminal.

### Step 3

Connect the wires from the terminals to AdapTec Plus.

*Convenient Installation: See diagram 1, page 8 for details. Secure Installation: See diagram 2, page 8 for details.*

### Step 4

Connect the wires from AdapTec Plus to the door lock system.

*(See diagram 1, page 8 for details). (Ignore this if you only want to use the system for time attendance purposes)*

### Step 5

Connect AdapTec Plus to a 12VDC rechargeable backup battery.

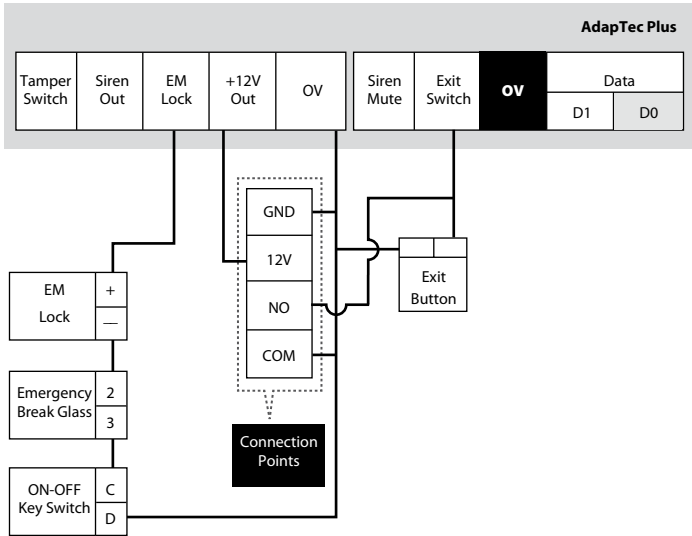
*(See diagram 1, page 8 for details). (This is optional. Ignore this if you do not need any backup power).*

### Step 6

Connect AdapTec Plus to a power source (12VDC 3A).

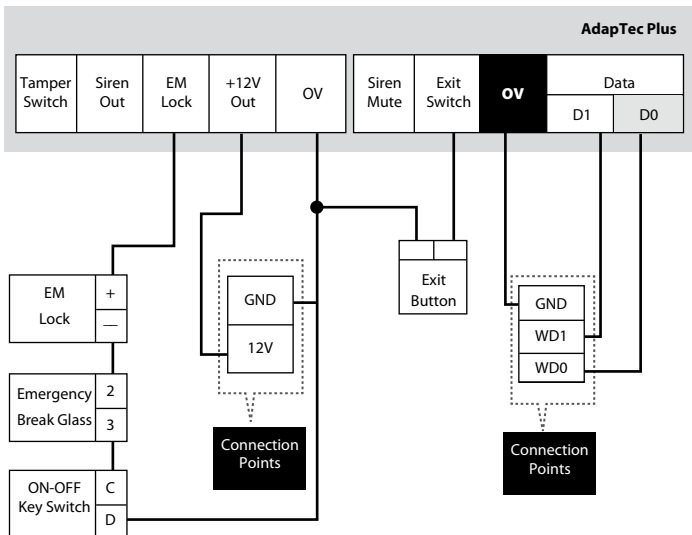
# WIRING DIAGRAMS **1**

## CONVENIENT INSTALLATION



# WIRING DIAGRAMS **2**

## SECURE INSTALLATION





## CONNECTING ADAPTEC PLUS TO AN ALARM SIREN



For all FingerTec door access control models, there is a security button behind the terminal. During normal operation, the security button is compressed and once the terminal is dismantled, the button will be released and a “System broken” message will appear onscreen.

During the release of the button, the terminal will output an alarm signal. However, no alarm sound will be emitted if the terminal is not equipped with an external siren.

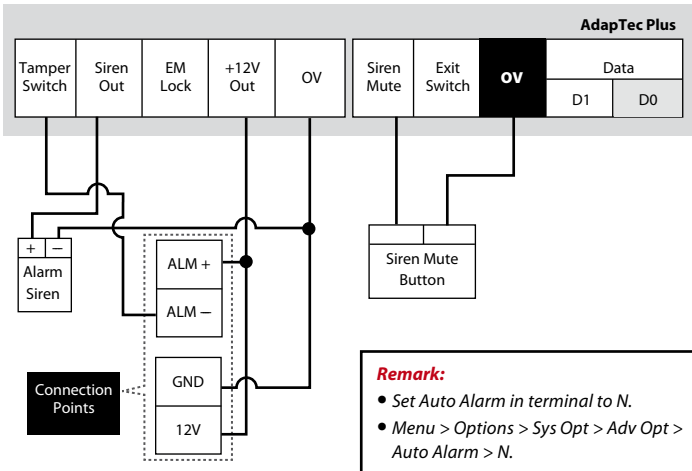
To use the siren feature, we recommend that you install an additional alarm siren and connect it to the FingerTec terminals.

### Benefits of Using AdapTec Plus with Alarm Siren

We recommend that you install a terminal along with AdapTec Plus if you plan to use the alarm siren. In AdapTec Plus, an additional port is readily built to receive the alarm signal from the FingerTec terminals. AdapTec Plus has an output of 12VDC and it is suitable for use with an alarm siren that has the same power input. You do not need to source an additional 12VDC power supply for this purpose. Furthermore, AdapTec Plus comes with a “Siren Mute” button where you can press the button to deactivate the alarm siren when required.

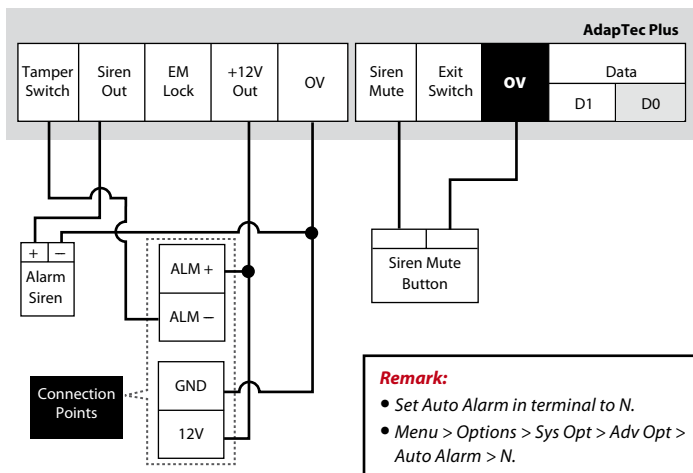
## WIRING DIAGRAMS 3

### ALARM SIREN • R2, Kadex, m-Kadex, H2i and Face ID3



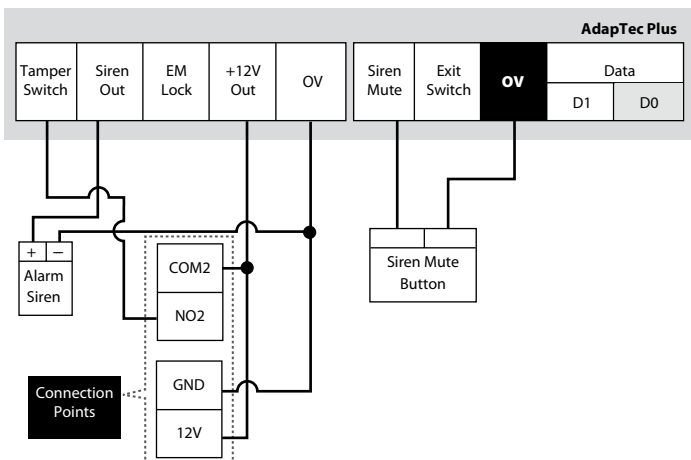
## WIRING DIAGRAMS 4

### ALARM SIREN • AC900



## WIRING DIAGRAMS 5

### ALARM SIREN • Face ID 2, Q2i and i-Kiosk 100 Plus



### Deactivating the Alarm Siren:

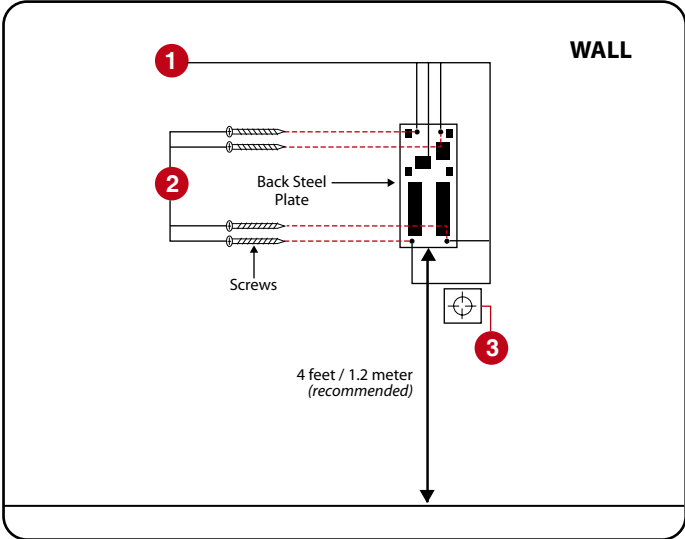
1. At the terminal, press **Menu** and select **Turn Off Alarm** to turn off the alarm siren.
2. To deactivate the alarm siren of Adaptec Plus, press the **Siren Mute Button** that is connected to the Adaptec Plus.

This will turn off the alarm siren function in the Adaptec Plus.

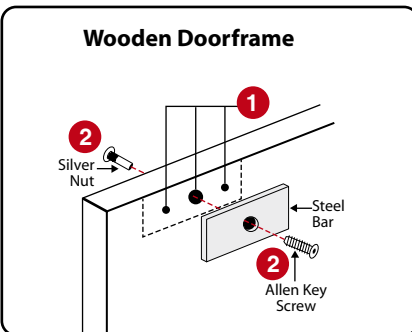
## UNDERSTANDING ADAPTEC PLUS INSTALLATION FOR

- *Wooden Door or Glass Door*

The diagrams below only highlights the use of an EM lock during installation. You may opt to use a dropbolt/deadbolt/door strike instead. Please consult a qualified technician/installer before proceeding with the installation.

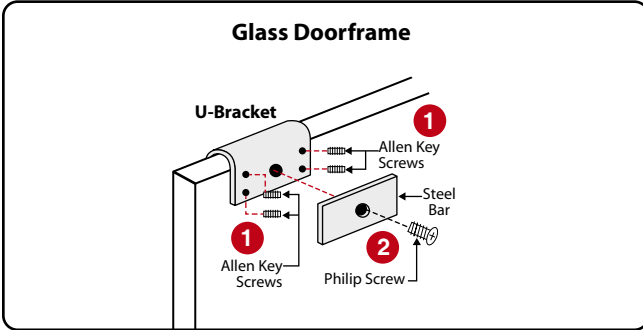


- 1 To install FingerTec AC900/R2 on a wall, drill 5 holes as shown. 4 small holes are for the screws and the bigger hole is for the network cable.
- 2 Tighten the 4 screws to fix the **Back Steel Plate** on the wall.
- 3 Install the keyswitch as per instructions given in the box. The keyswitch is an override key in case of a system failure or breakdown.



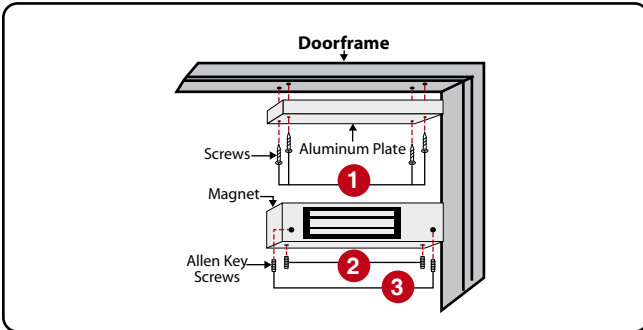
### *Wooden Door*

- 1 Drill 3 holes on the wooden door.
- 2 Place the **Steel Bar** on the door. Insert the **Silver Nut** on one side and the **Allen Key Screw** on the other side. Tighten the screw to lock the **Steel Bar** onto its position.



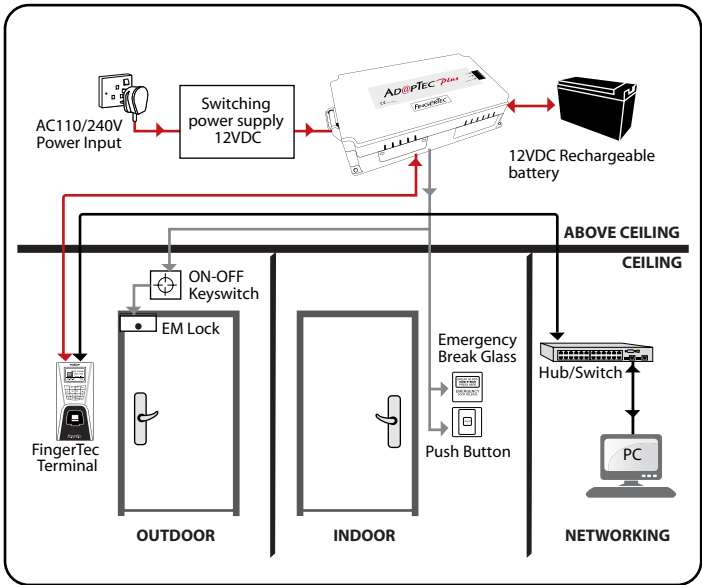
### Glass Door

- 1 Lodge the **U-Bracket** into the upper edge of the glass doorframe. Tighten the 4 **Allen Key Screws** to hold the **U-Bracket** into position.
- 2 Place the **Steel Bar** on the side of the **U-Bracket**. Tighten the **Philip Screws** to lock the **Steel Bar** onto position.



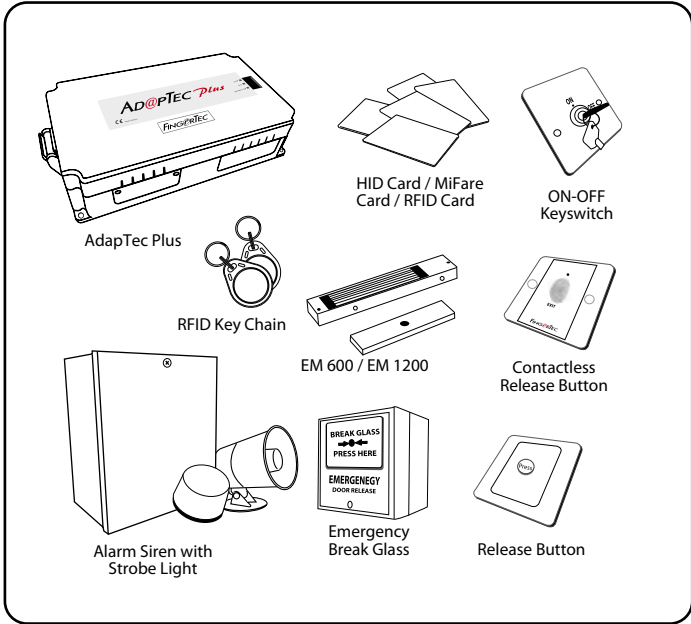
- 1 Drill 4 holes on the wooden frame. Tighten the 4 screws to fix the **Aluminum Plate** properly on the doorframe.
- 2 Use the Allen Key to tighten the 2 screws at the bottom of the **Magnet**. The **Magnet** will stick to the **Aluminum Plate** when the screws are tightened.
- 3 Use the Allen Key to tighten the other 2 screws on the sides of the **Magnet**.

## OVERVIEW OF THE WHOLE SYSTEM INSTALLATION



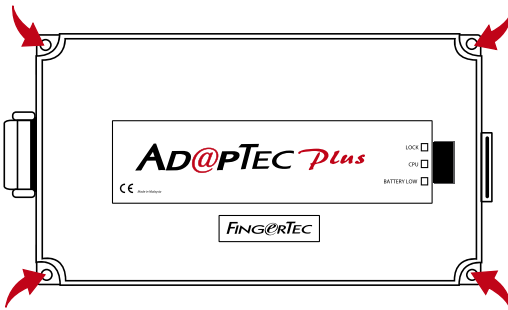
## FINGERTEC ACCESSORIES

For more accessories go to [accessory.fingertec.com](http://accessory.fingertec.com).



## MOUNTING AN ADAPTEC PLUS ONTO A WALL

*Mount the AdapTec Plus on a wall*



Identify a location to mount the AdapTec Plus on a wall.  
Fix the AdapTec Plus onto the wall by tightening the screws into the 4 holes.



**NOTE:** Details in this user guide are subject to change. Check <http://product.fingertec.com> for latest product information.

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