

ARMATURA

# User Manual

ARMATURA CONNECT App

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## About the Manual

This manual introduces the operations of **ARMATURA CONNECT App**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Features and parameters with ★ are not available in all devices.

# Table of Contents

- 1 Introduction ..... 1**
  - 1.1 Purpose ..... 1
  - 1.2 Intended Audience ..... 1
  - 1.3 ARMATURA Reader Management Solution Overview ..... 2
- 2 ARMATURA CONNECT APP ..... 3**
  - 2.1 Download And Install The App ..... 3
  - 2.2 Log Into The App ..... 3
  - 2.3 Home Screen Layout ..... 4
  - 2.4 App Menu Items ..... 5
    - 2.4.1 Company Settings ..... 6
      - 2.4.1.1 View The Company List ..... 6
    - 2.4.2 Parameter Settings ..... 6
      - 2.4.2.1 View The Reader Information ..... 8
      - 2.4.2.2 Configure The Reader Parameters ..... 9
    - 2.4.3 Template Settings ..... 14
      - 2.4.3.1 Create a New Template ..... 14
      - 2.4.3.2 Edit Template ..... 15
      - 2.4.3.3 Apply The Template To The Reader ..... 15
    - 2.4.4 Sign Out ..... 16
- 3 Basic App Functionality ..... 17**
  - 3.1 Search The Reader ..... 17
  - 3.2 Change The Reader Name ..... 18
  - 3.3 Assign The Reader To A Company ..... 19
  - 3.4 Audio & Visual Settings ..... 20
  - 3.5 Communication Settings ..... 22
- 4 Appendix ..... 24**
  - Privacy Policy ..... 24

# 1 Introduction

## 1.1 Purpose

This document provides an overview of the ARMATURA Reader Management Solution. Procedure for registering customers and assigning installers with the Armatura Credential Management System (“ACMS”) and providing information to customers and integrators:

- Download and install the ARMATURA CONNECT mobile app.
- Register and authenticate the ARMATURA CONNECT app on a mobile device.
- Enroll Integrators and issue Mobile Credentials in the ACMS portal.
- Change configurations for supported Explorer Series Outdoor Multi-tech Smart readers.
- Update firmware for supported Explorer Series Outdoor Multi-tech Smart readers.
- The supported Explorer Series Outdoor Multi-tech Smart readers are connected to the controller through RS485 or Wiegand.

## 1.2 Intended Audience

This document is intended for personnel performing the following roles:

- **Integrator:** the Systems Integrator performs the following tasks:
  - Carrying out compatibility checks for the reader and ARMATURA CONNECT App.
  - Self-registration within the ARMATURA CONNECT App.
  - Assigning readers to their company.
  - Performing reader configuration changes and firmware upgrades.
  - Reader configuration update testing.

### 1.3 ARMATURA Reader Management Solution Overview

The ARMATURA Reader Management solution streamlines management of BLE capable readers in the field.

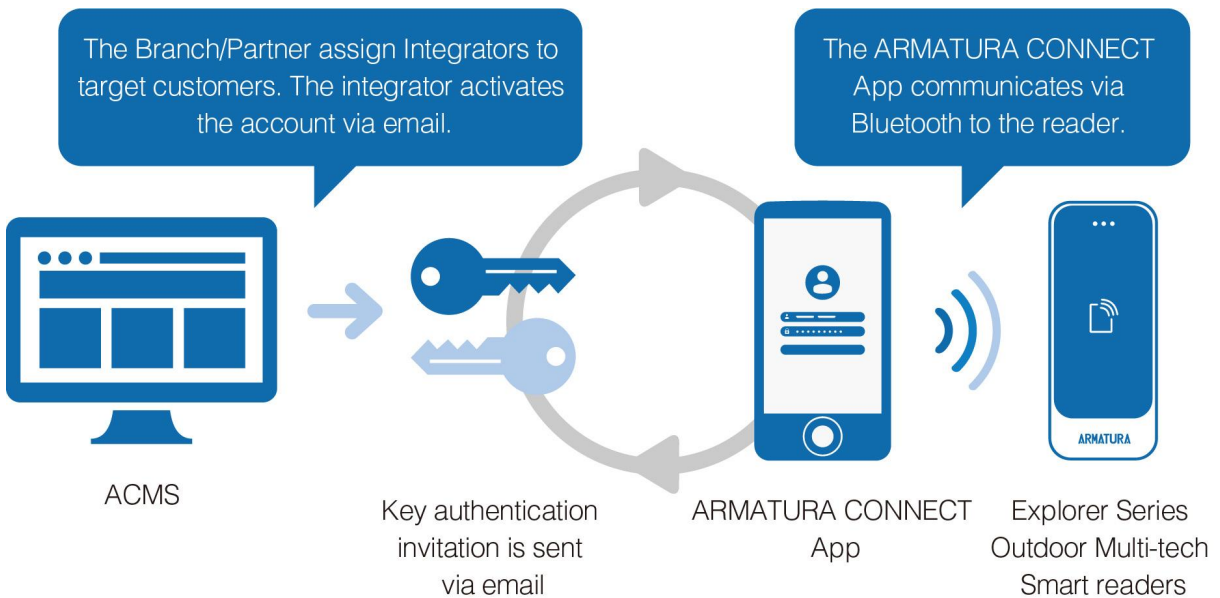
Integrators can easily adjust certain configuration settings such as audio/visual settings, BLE read range settings, upgrade firmware, check reader status & more.

The main components of the ARMATURA Reader Management solution are:

**ARMATURA CONNECT Application:** Mobile app which connects via Bluetooth, to a reader for configuration changes, firmware upgrades and reader status.

**Armatura Credential Management System:** ACMS facilitates integrators to use the ARMATURA CONNECT app with EP Series readers. The ACMS can be used by customers & integrators to manage & issue credentials.

**Controller:** The supported EP Series readers are connected to the controller through RS-485 or Wiegand.



# 2 ARMATURA CONNECT APP

This section provides the required steps and procedures to be performed by the integrator in order to install, register, and activate the ARMATURA CONNECT App on a mobile device. The section also provides information on the functionality of ARMATURA CONNECT App.

## 2.1 Download And Install The App

1. Ensure your mobile device is connected to the internet via a mobile or Wi-Fi network.
2. On your mobile device open the Google Play (Android) or Apple (iOS) store.
3. Search for **ARMATURA CONNECT**.
4. Download and install the app on your mobile device.

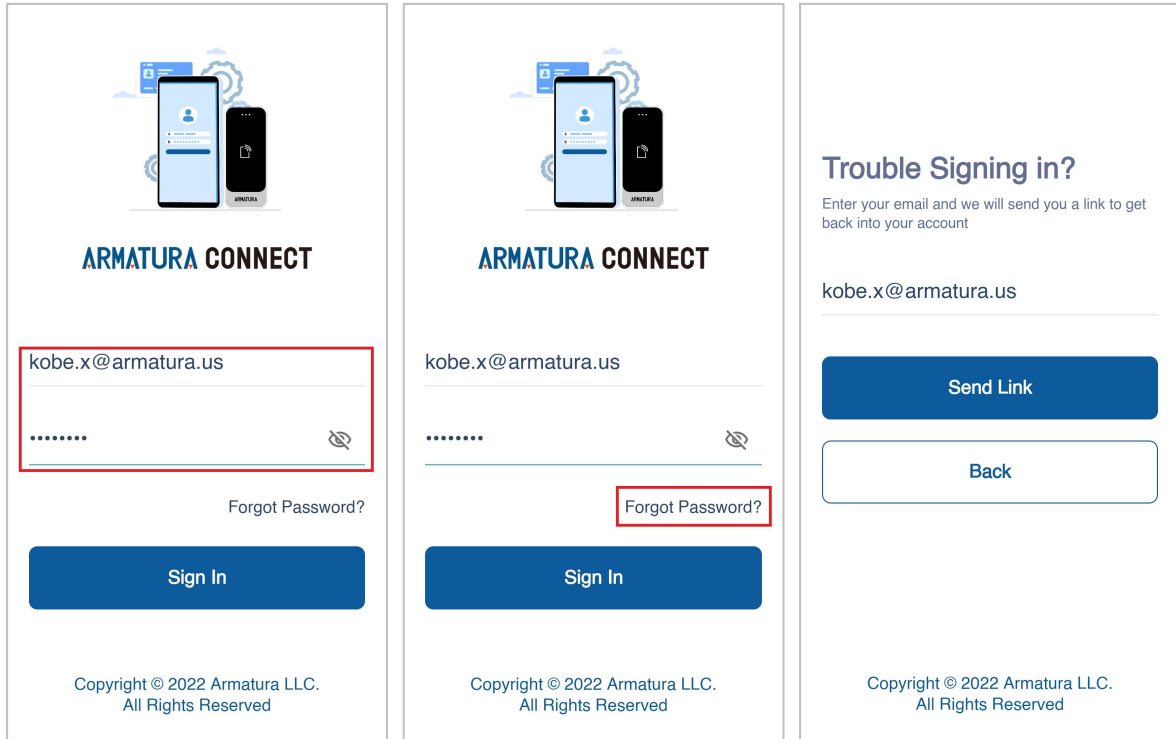


ARMATURA CONNECT

## 2.2 Log Into The App

After the account activation process is complete, you can log in to the ARMATURA CONNECT App with your account and password.

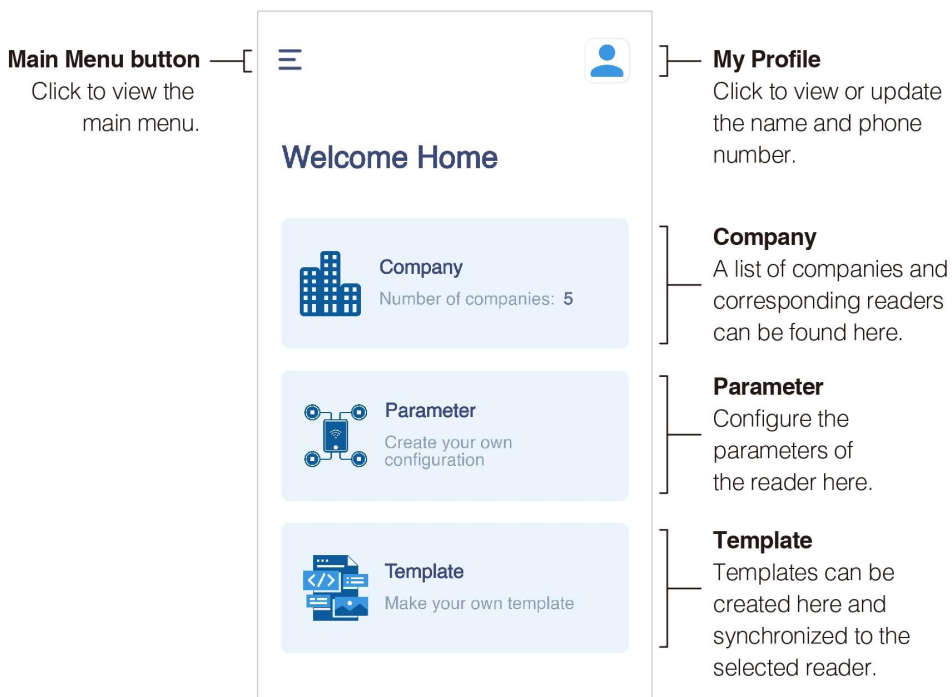
1. Enter the account and the password. Click **Sign In** to log into the app. The password is set when the account was activated.
2. If you have forgotten your login password, tap **Forgot Password?**. Enter your email address and tap **Send Link**. Your password will be reset through the ACMS mailbox.



**Remark:** Please refer to the *ACMS User Manual* for instructions on how to obtain an account and password.

## 2.3 Home Screen Layout


After successfully logging in, you will enter the home screen

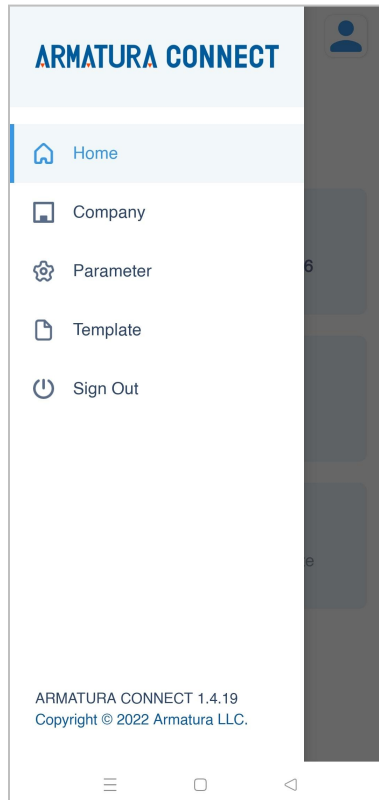




## 2.4 App Menu Items

The following provides a description of the menu options available in the app.

1. Open the ARMATURA CONNECT App on your mobile device.
2. Click  to access the menu options.



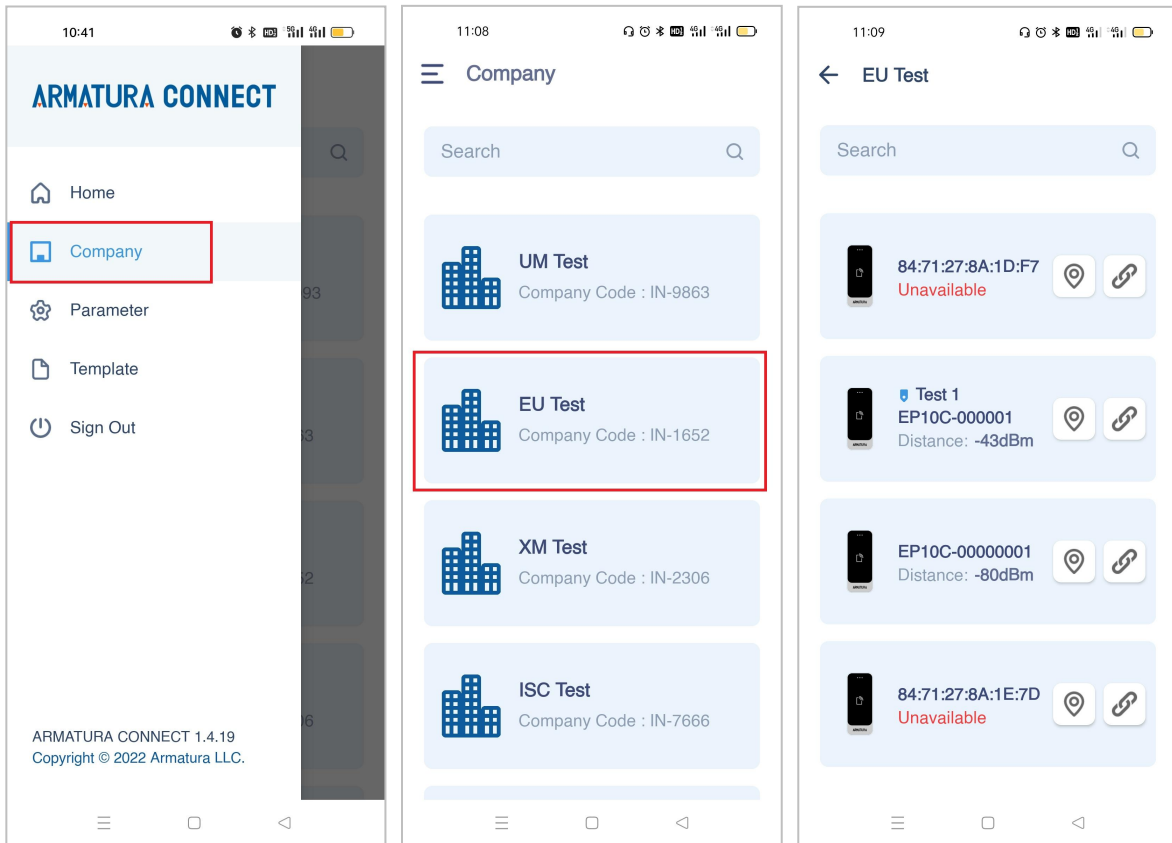
### Function Description:


Menu	Descriptions
Home	Displays the Home screen.
Company	Displays the list of companies assigned to integrators. And the readers assigned to the company.
Parameter	Search and set parameters of the reader.
Template	When a template is created it can be applied to multiple readers that require the same configuration.
Sign Out	Log out of the current account.

## 2.4.1 Company Settings

This function is convenient for viewing the list of authorized companies and the corresponding readers under each company. Here you can set the parameters of the readers that have been assigned to this company.

### 2.4.1.1 View The Company List

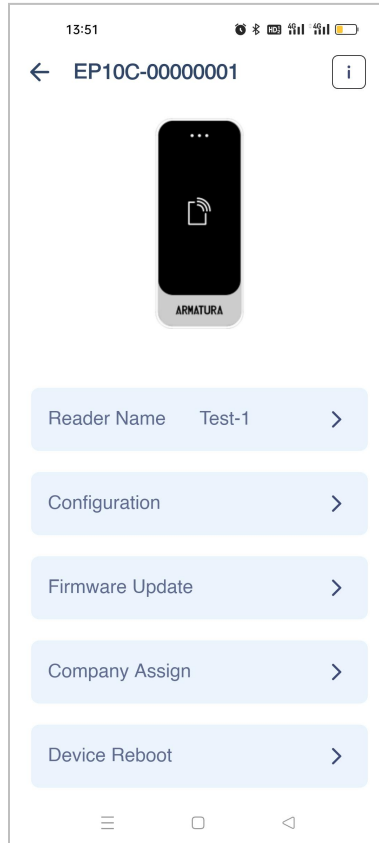


1. Click  > **Company** to enter the company list screen. It will display a list of companies assigned to integrators.
2. Select a company to enter the reader list. In the reader list, you can view the information of the reader, such as the reader name, operating status and distance, etc.

## 2.4.2 Parameter Settings

This function is mainly used by the integrator to search for the reader, set the relevant parameters of the reader, and assign the reader to the company.






After you select the reader and enter the reader parameter setting interface, you can view the reader information, configure parameters, update the firmware and reboot the reader.

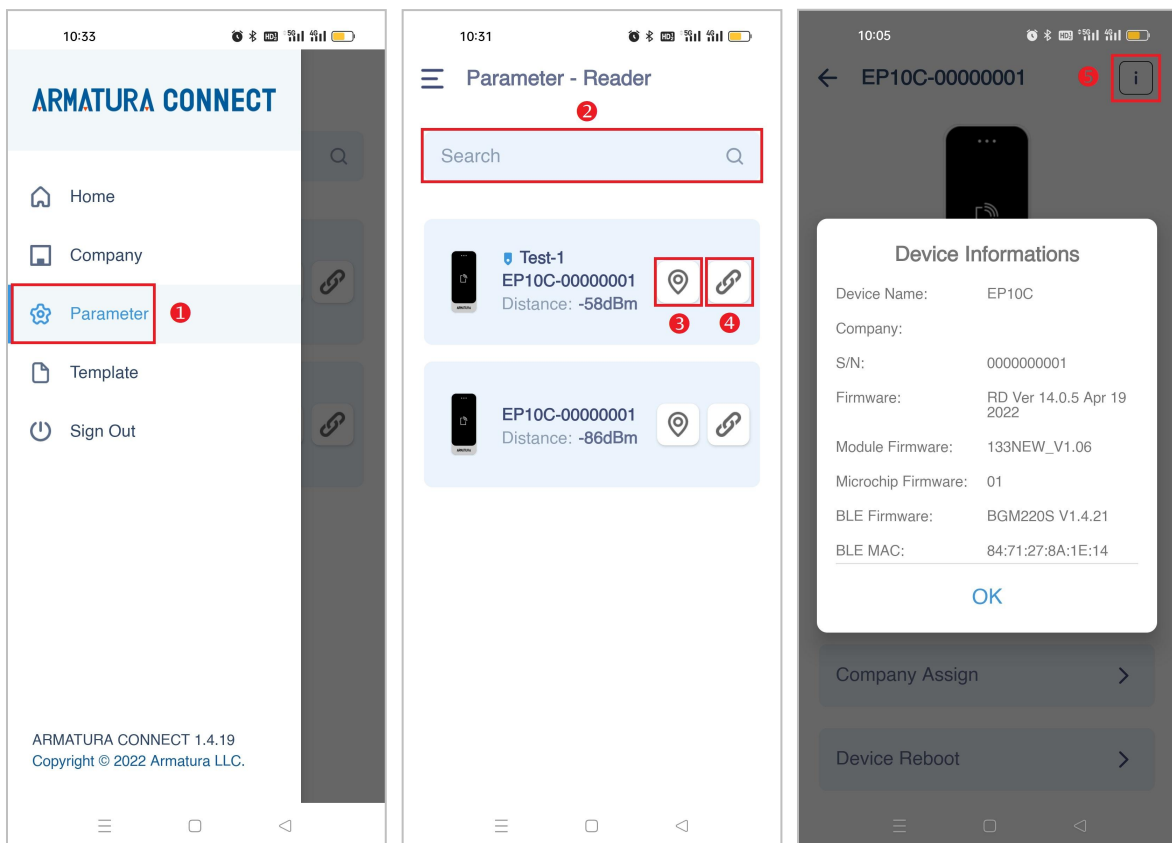


**Function Description:**


Menu	Descriptions
<b>Reader Name</b>	Set the name of the reader as required.
<b>Configuration</b>	Configure the reader parameters, including communication, function, ISO14443A UID output, mobile credentials, 125kHz, 13.59MHz, visual & audio, keypad and QR.
<b>Firmware Update</b>	Displays the current firmware information, click <b>Offline Update</b> to upgrade the firmware.
<b>Company Assign</b>	Assign the current reader to the company and click <b>Assign</b> to complete.
<b>Device Reboot</b>	Click <b>Device Reboot</b> to reboot the reader. Click <b>OK</b> to confirm.

### 2.4.2.1 View The Reader Information

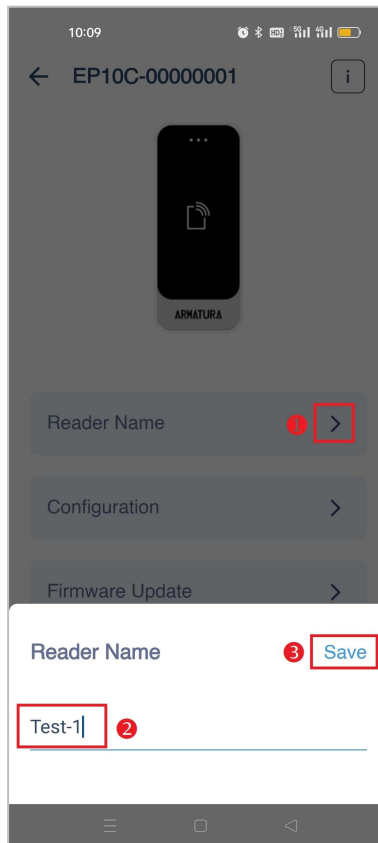
1. Click  > **Parameter** to enter the parameter setting screen.
2. Turn on the Bluetooth function of the mobile device, and click  to search for the reader. All searched readers will be displayed in the list.
3. Click  to confirm your reader.
4. Click  to enter the reader parameter setting screen. Here you can set the relevant parameters of the reader.
5. Click  to view reader information, including device name, company, S/N, firmware, module firmware, microchip firmware, BLE firmware and BLE MAC. As shown in the following figure.




### 2.4.2.2 Configure The Reader Parameters

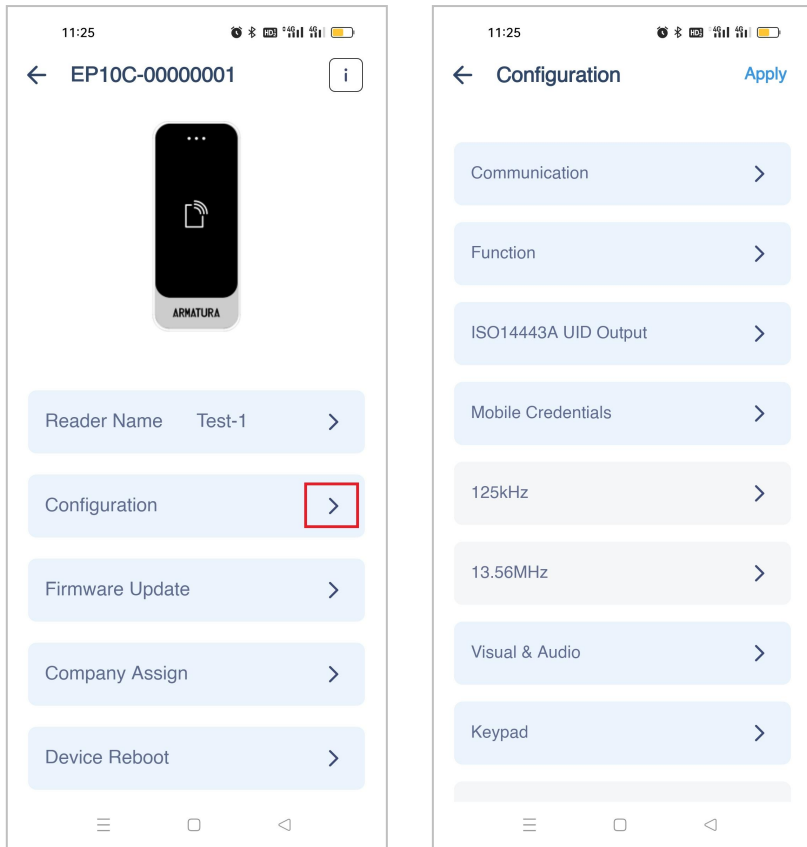
Search your reader on the **Parameter-Reader** screen and select it, then click  to enter the reader parameter setting interface. Then you can operate the following steps.


#### Modify the reader name



1. Click  of the Reader Name item to open the edit window.
2. To enter the new reader name.
3. Click **Save** to save and exit when finished.

**Configuration the reader parameters**



1. Click  of the **Configuration** item to open the configuration setting interface.
2. To configure the reader parameters. The details are shown in the table below.

**Function Description:**

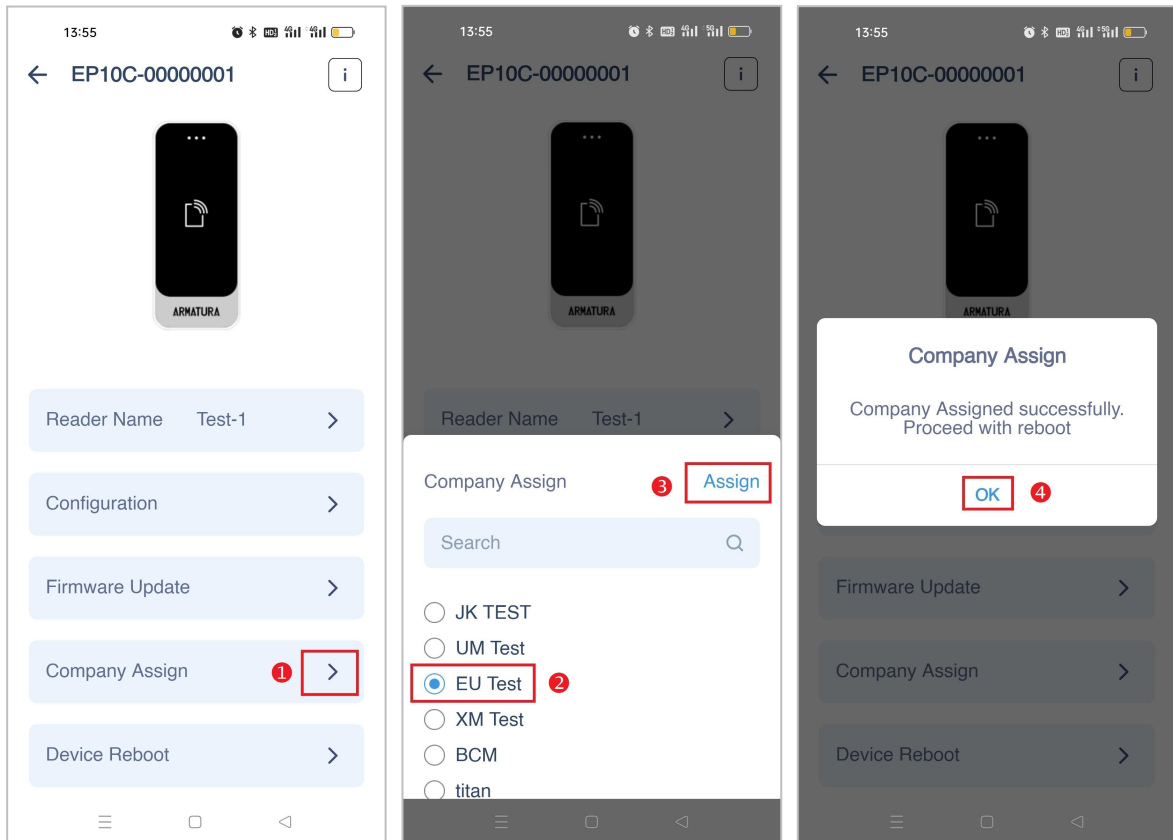
Menu	Descriptions
<b>Communication</b>	Set the communication type of the reader, there are two options: OSDP (via RS-485) and Wiegand.
<b>Function</b>	<ul style="list-style-type: none"> <li>▪ <b>Tamper Alarm:</b> Enable/disable the tamper alarm function.</li> <li>▪ <b>Card Detect Timeout:</b> The amount of time taken to detect card verification. Valid value: 5 to 10 seconds.</li> </ul>
<b>ISO14443A UID Output</b>	<p>To set the format of ISO14443A UID output, Wiegand and RAW are optional.</p> <ul style="list-style-type: none"> <li>▪ <b>UID Output:</b> Choice of RAW or Wiegand.</li> </ul>

	<p>When selecting Wiegand format, the following parameters need to be set:</p> <ul style="list-style-type: none"> <li>▪ <b>Wiegand:</b> Select the corresponding output bit digits of the Wiegand format, including 26 bits, 34 bits and 37 bits.</li> <li>▪ <b>MSB/LSB:</b> Set the significant bit. MSB: Most Significant Bit. LSB: least significant bit.</li> </ul> <p>When selecting RAW format, the following parameters need to be set:</p> <ul style="list-style-type: none"> <li>▪ <b>Length:</b> Valid bytes are 0 to 8.</li> </ul>
<p><b>Mobile Credentials</b></p>	<p>Set up the communication method for mobile credentials, includes two types: BLE (Bluetooth Low Energy) and NFC (Near Field Communication).</p> <p><b>BLE:</b> Includes three modes card mode, express mode and remote mode.</p> <ul style="list-style-type: none"> <li>▪ <b>Card Mode:</b> The adjustment range is 0 to 50 centimeters.</li> <li>▪ <b>Express Mode:</b> The adjustment range is 0 to 1000 centimeters.</li> <li>▪ <b>Remote Mode:</b> The adjustment range is 0 to 1000 centimeters.</li> </ul> <p><b>NFC:</b> Enable/Disable the NFC function.</p>
<p><b>125kHz</b></p>	<p>Set the relevant parameters of the 125kHz RFID card.</p>
<p><b>13.59MHz</b></p>	<p>Set the relevant parameters of the 13.59MHz RFID card.</p>
<p><b>Visual &amp; Audio</b></p>	<p>Customize the LED display effect and volume of the reader.</p> <p><b>Video:</b> Includes settings for the following parameters.</p> <ul style="list-style-type: none"> <li>▪ <b>Boot Up Successfully:</b> Set the time and color of the LED display after a successful boot. The time can be set to none, 1s, 2s and 3s, and 7 colors are available.</li> <li>▪ <b>Wiegand Idle:</b> Set the idle time and color of the reader in the Wiegand mode. The time can be set to none and ∞, and 7 colors are available.</li> <li>▪ <b>Controller Not Connected:</b> The time and color of the LED display when the reader is not connected to the controller. The time can be set to none and ∞, and 7 colors are available.</li> <li>▪ <b>Card Detect:</b> The time and color of the LED display when the card is detected. The time can be set to none, 1s, 2s and 3s, and 7 colors are available.</li> </ul>


	<ul style="list-style-type: none"> <li>▪ <b>Tamper Alarm:</b> The time can be set to none, 1s, 2s, 3s, 4s and ∞, and 7 colors are available.</li> <li>▪ <b>Card Swipe Timeout:</b> When swiping the card time operation to set the time, the time and color of the LED display. The time can be set to none, 1s, 2s, 3s and 4s, and 7 colors are available.</li> </ul> <p><b>Audio:</b> Adjust the volume of the reader; valid values are: 0, 30, 60, and 100.</p>
<b>Keypad</b>	Set keypad mode, with Password(4Bit) and Wiegand 26 Output optional. Applies only to readers equipped with a keyboard. The product actually purchased by the user shall prevail.
<b>QR</b>	Set the QR mode as RAW, Armatura ID or Atlas ZKey. Applies only to readers equipped with QR code reader.

Company Assign

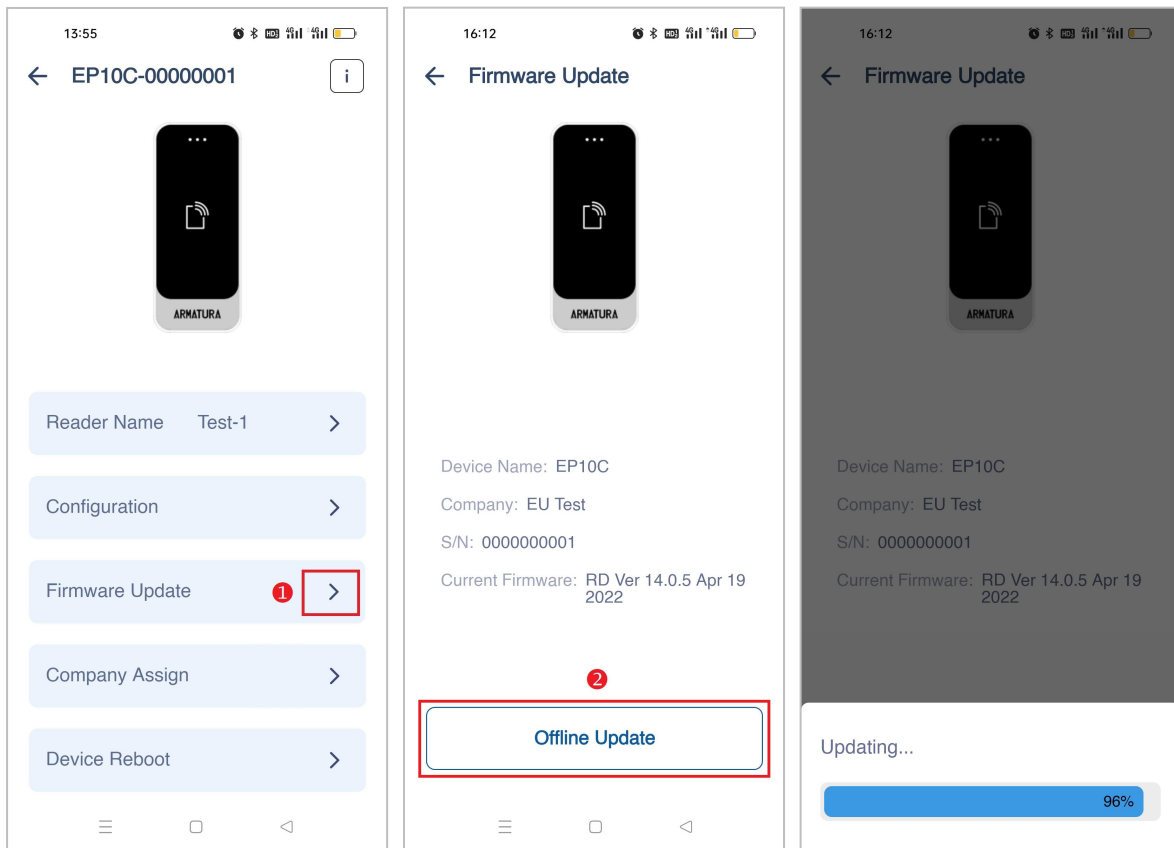
This function is used to assign the reader to the company. The Bluetooth function of the mobile device needs to be turned on before operation.






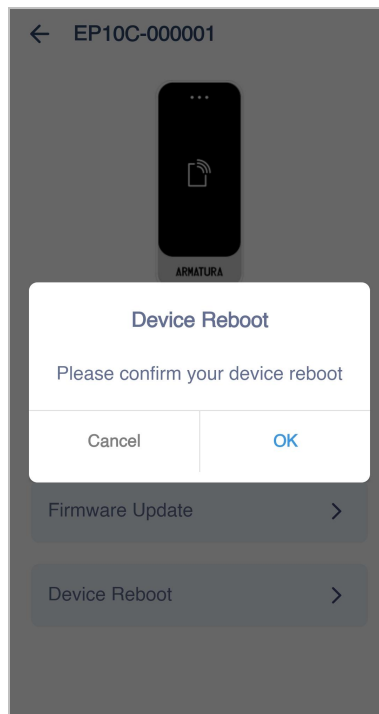
1. Click  of the **Company Assign** item to open the setting interface. And the Assignment window will pop up. Select the company and click **Assign** to assign the reader to the selected company.
2. Click **OK** when prompted that the assignment is successful.
3. After completing the above steps, please wait for the reader to reboot. **Note:** After each configuration of the reader parameters, the reader will reboot.

**Firmware Update**



1. Click  of the **Firmware Update** item to open the update setting interface. Here you can view the current firmware information.
2. Click **Offline Update** to upgrade the firmware.

## Device Reboot





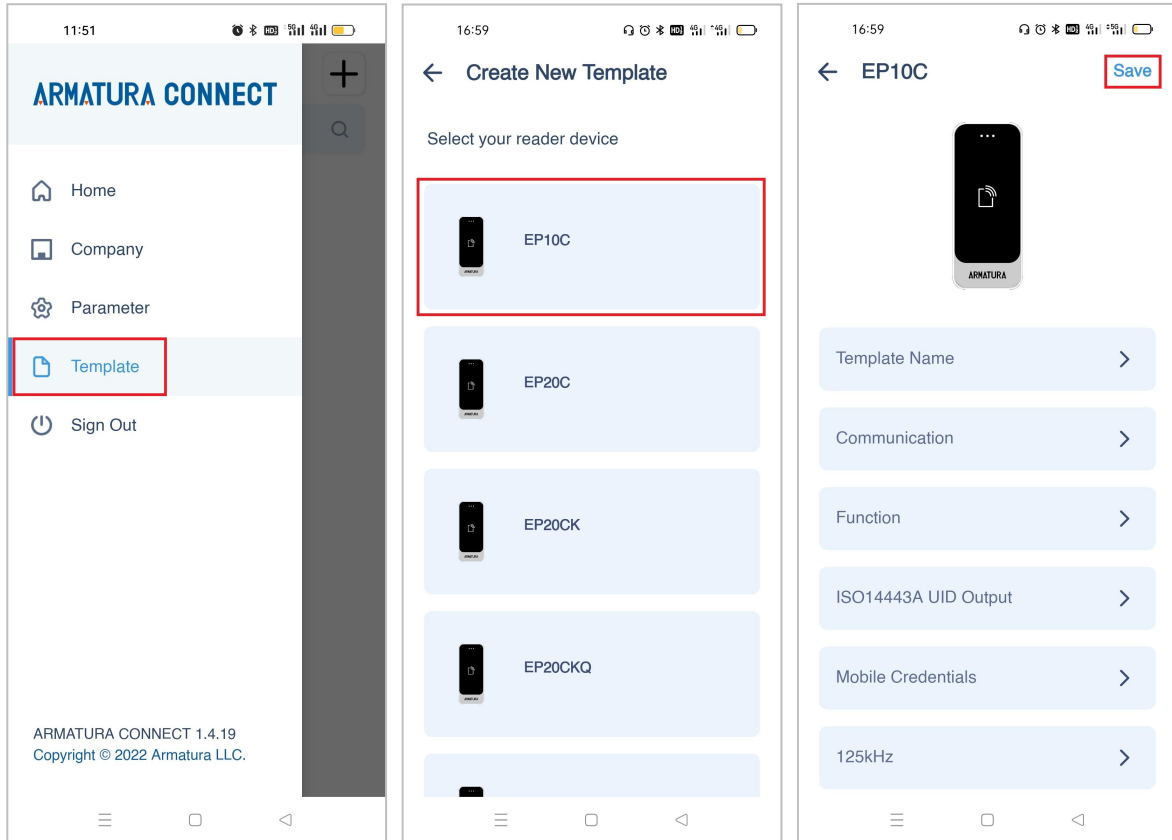
Click **Device Reboot** to reboot the reader. Click **OK** to confirm.

## 2.4.3 Template Settings


When a template is created it can be applied to multiple readers that require the same configuration.

### 2.4.3.1 Create a New Template

1. Click  > **Template** to enter the template setting screen.
2. Click  to add a new template. Select the reader type you want to set up in the product list.
3. After setting the parameters, click **Save** to save and exit to the previous menu.




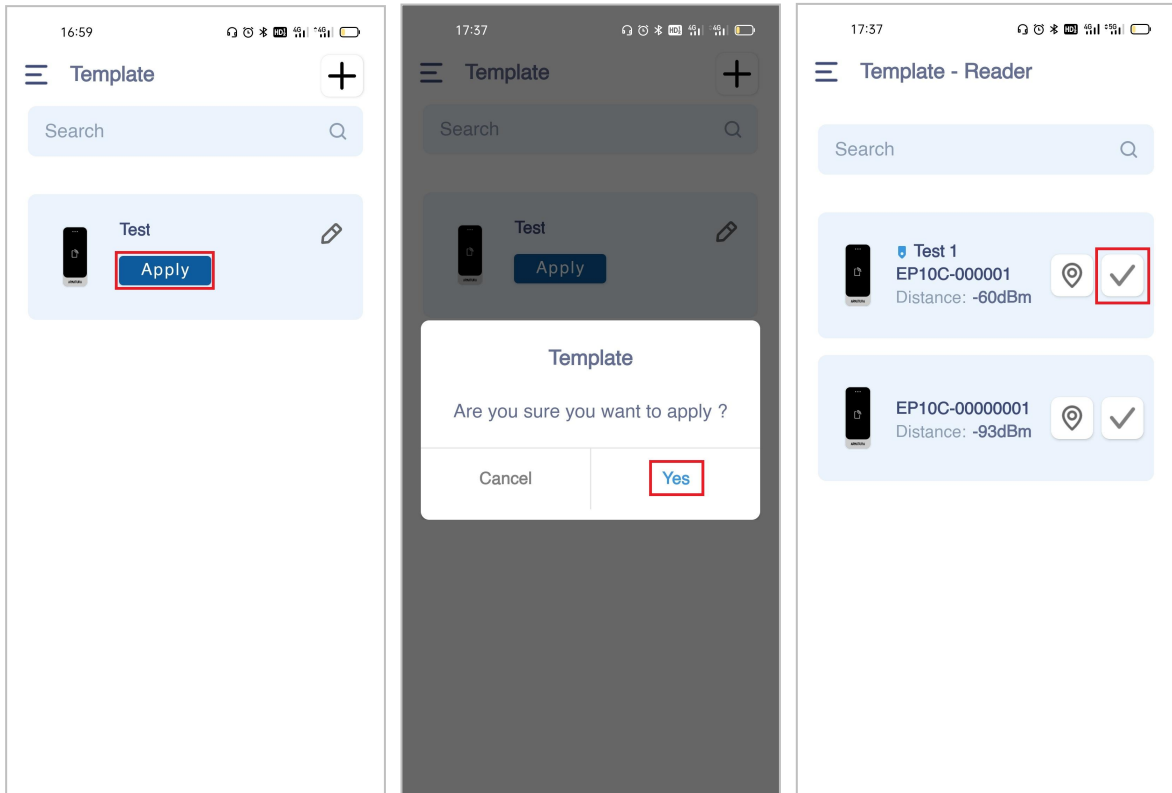
### 2.4.3.2 Edit Template

After setting the template, you can select the template and click  to edit it. The method of editing a template is the same as that of adding a new one, and will not be repeated here. **Note that added templates cannot be deleted.**

### 2.4.3.3 Apply The Template To The Reader

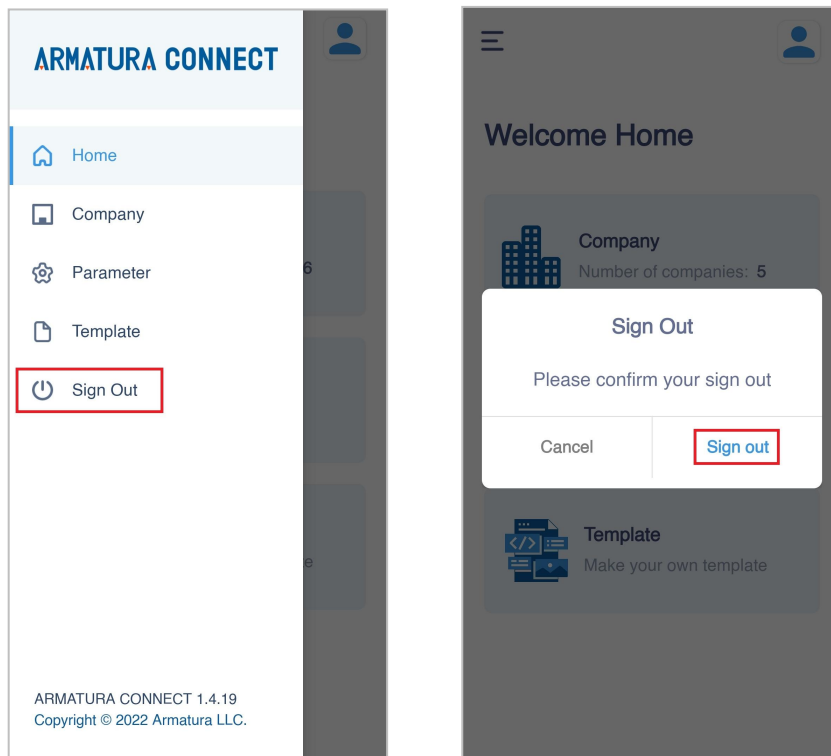
When you need to set multiple readers that require the same configuration, you can apply the set template to these readers at one time.

1. Select the template in the template list and click  to apply the template.
2. Click **Yes** in the pop-up window to confirm the application.
3. In the list of active readers, select the reader that needs to be configured.



### 2.4.4 Sign Out

Click  > **Sign Out** to sign out of the current account.





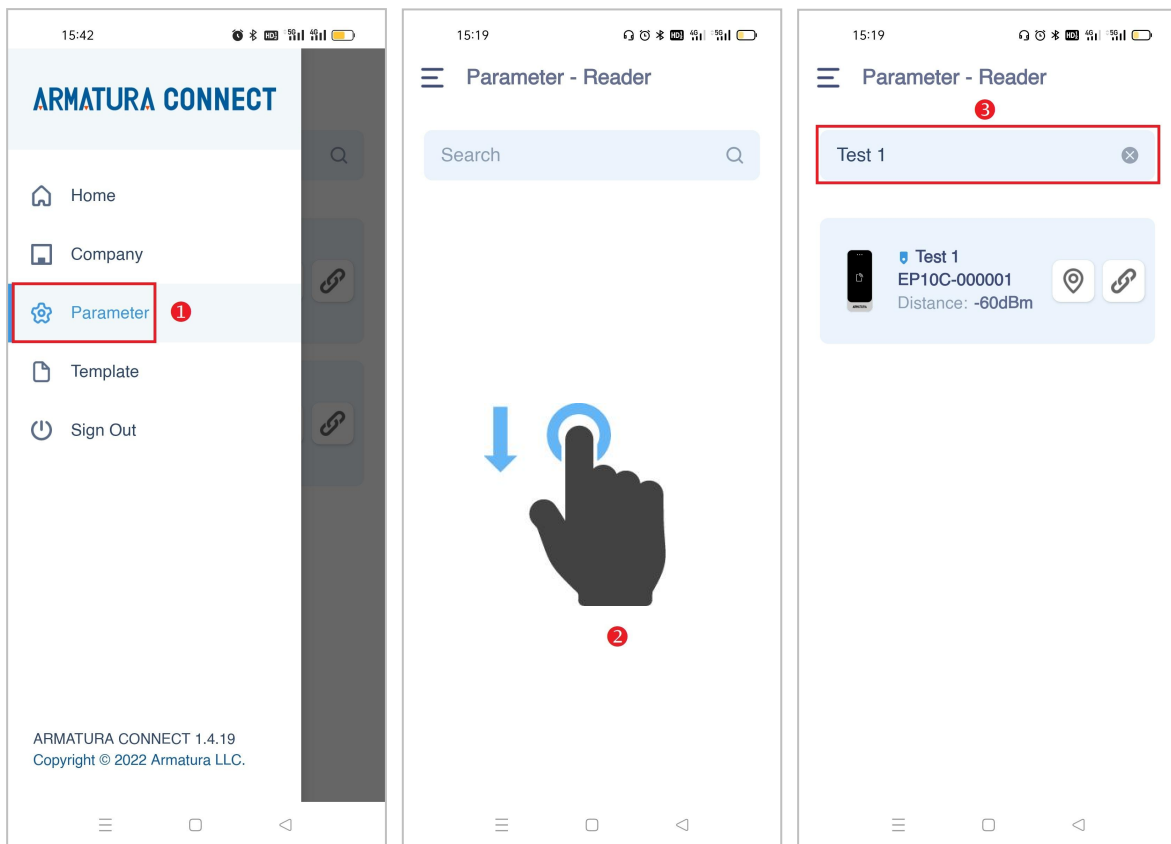
# 3 Basic App Functionality

This section provides steps and procedures for basic application functionality.

## 3.1 Search The Reader



Please turn on the Bluetooth function of the mobile device before operating.

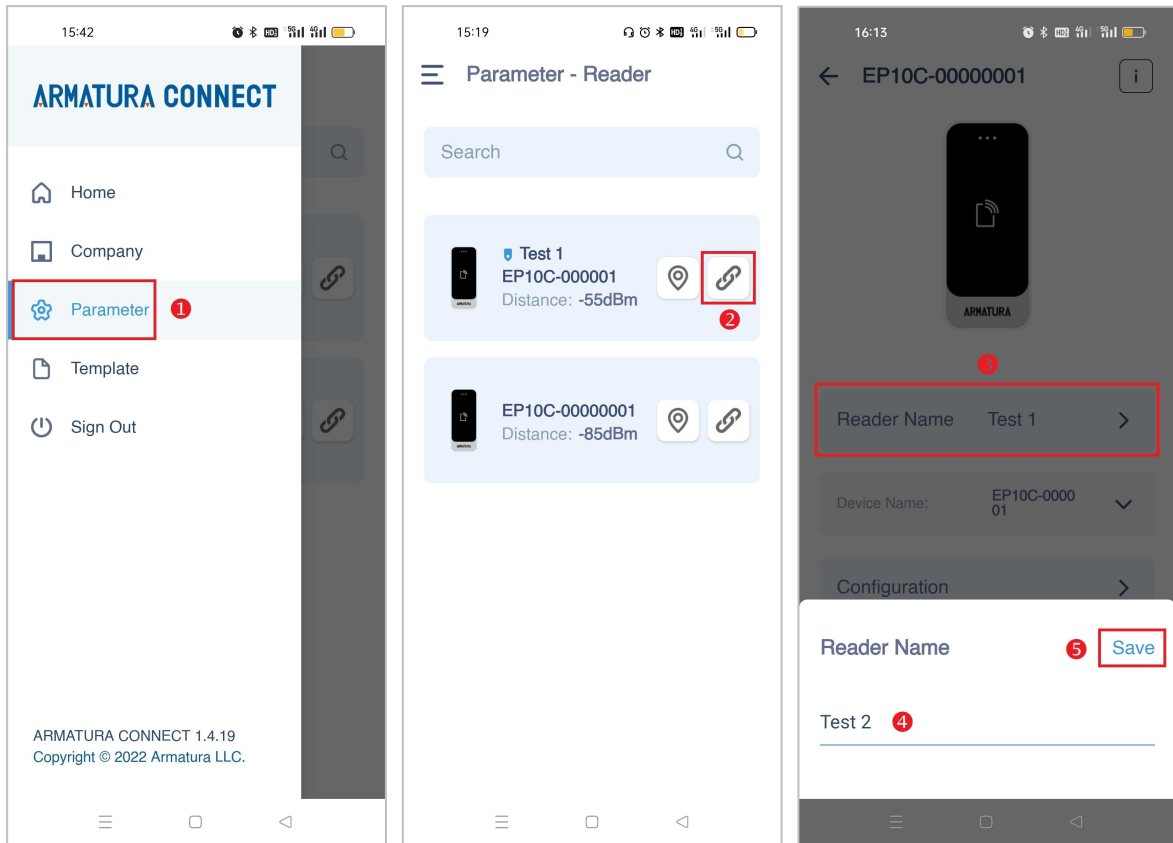
1. Click  > **Parameter** to enter the **Parameter - Reader** setting screen.
2. If the readers are not displayed, swipe down to refresh the screen. All found readers will be displayed in the list.
3. Or enter the reader name and click  to search for a specific reader.



### 3.2 Change The Reader Name





The integrator can customize the reader name. This custom reader name is visible from within any other integrators ARMATURA CONNECT App.

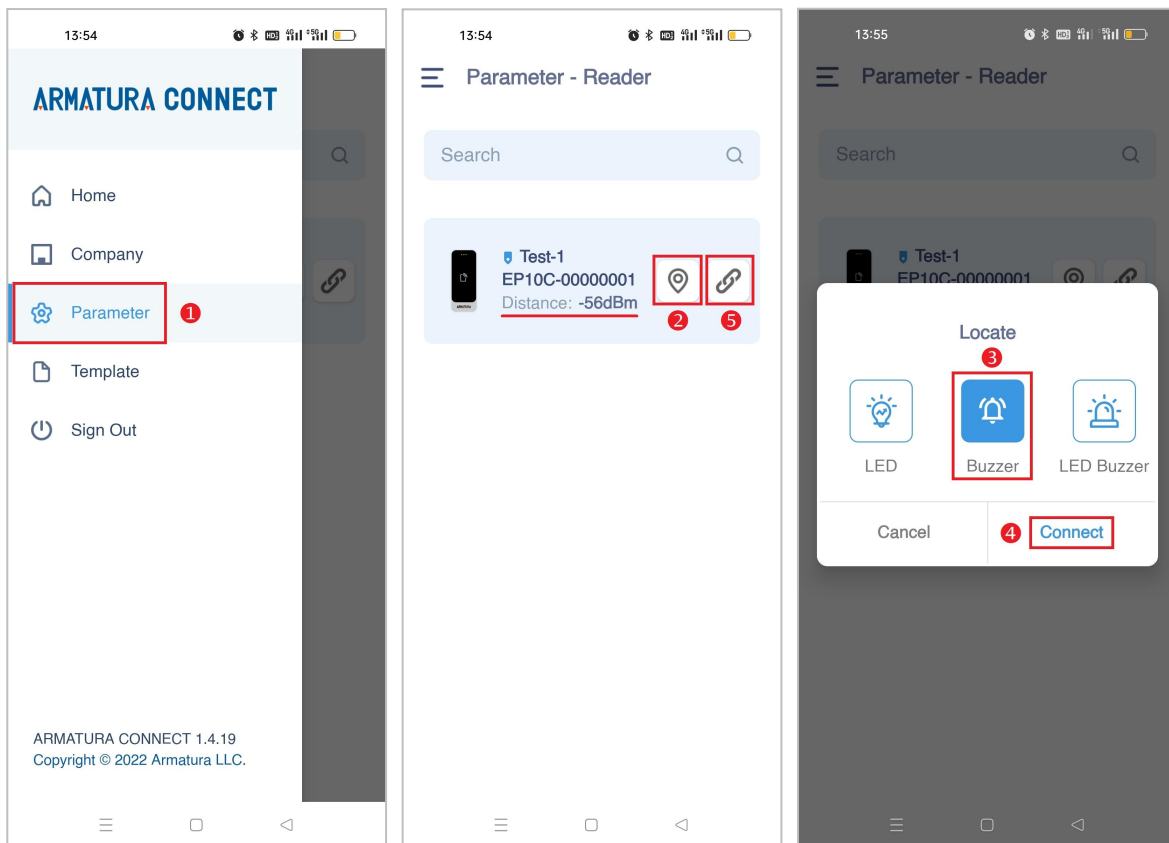
1. Click  > **Parameter** to enter the **Parameter - Reader** setting screen.
2. Click **Connect** or  to enter the reader parameter setting screen.
3. Click **Reader Name** to open the setting window.
4. Enter the reader name. And then click **Save** to save the settings and exit to the previous menu.

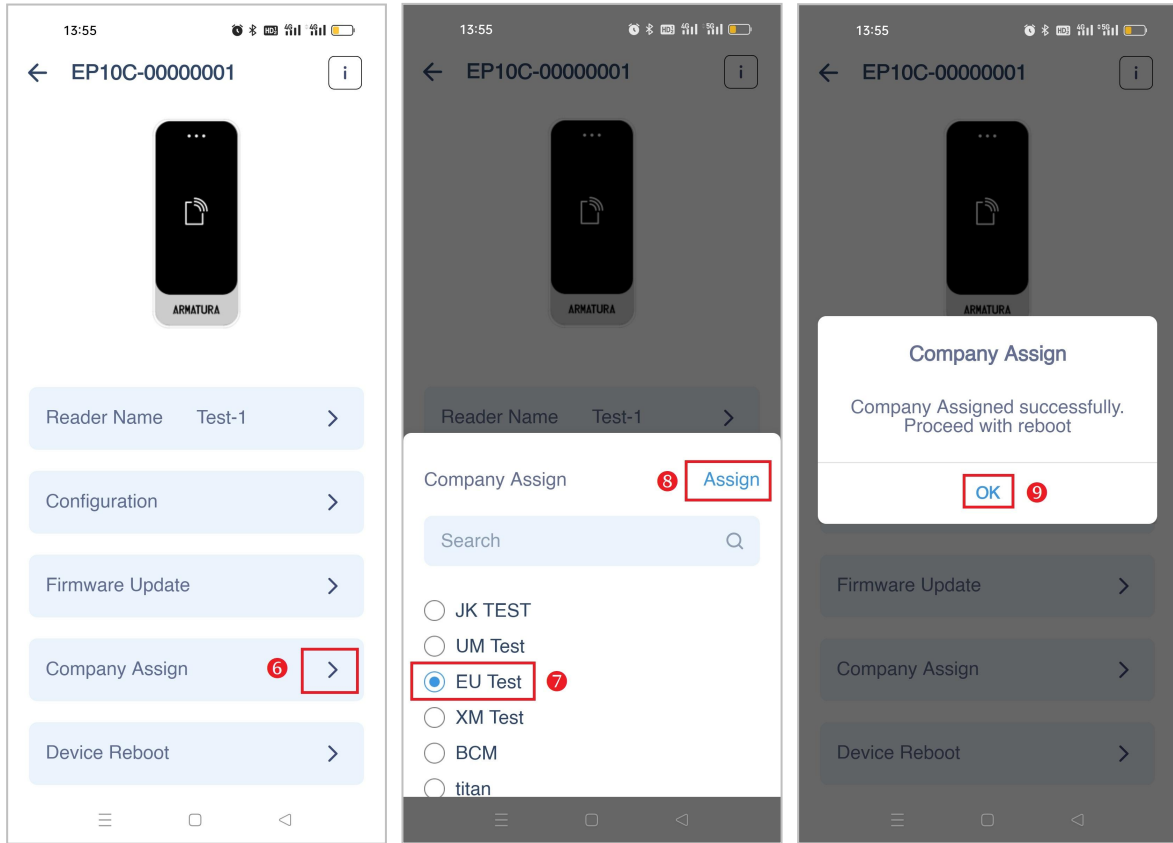


### 3.3 Assign The Reader To A Company



Please turn on the Bluetooth function of the mobile device before operating.

1. Click  > **Parameter** to enter the **Parameter - Reader** setting screen.
2. If the readers are not displayed, swipe down to refresh the screen. All searched readers will be displayed in the list.
3. Place your mobile device close to the reader, then find the closest reader in the list and click  in the pop-up window. Click  in the pop-up window, and confirm your current reader according to the reader prompt.
4. Click **Connect** or  to enter the reader parameter setting screen.
5. Click **Company Assign** and the Assignment window will pop up. Select the company and click **Assign** to assign the reader to the selected company.
6. Click **OK** when prompted that the assignment is successful.
7. After completing the above steps, please wait for the reader to reboot. **Note:** After each configuration of the reader parameters, the reader will reboot.

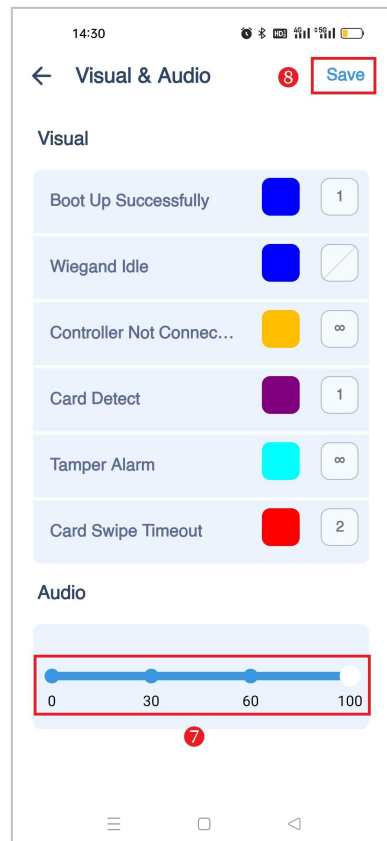
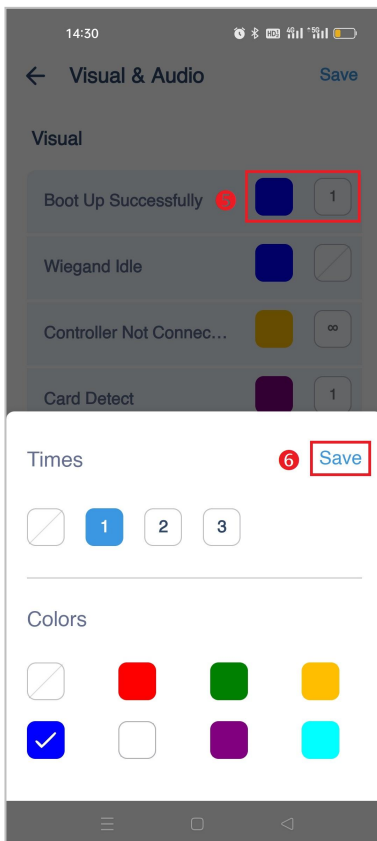
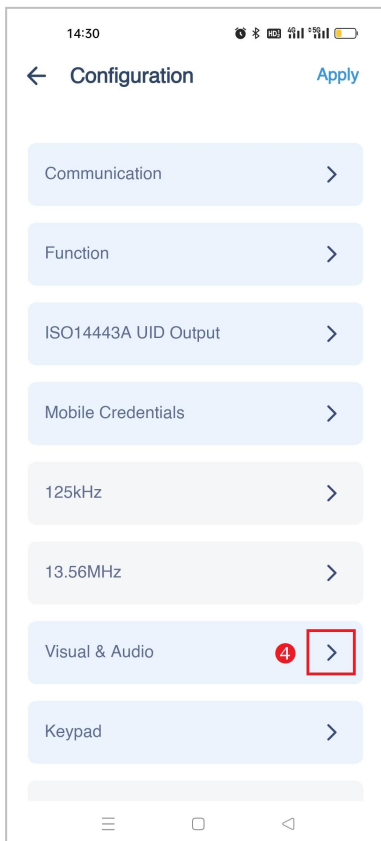
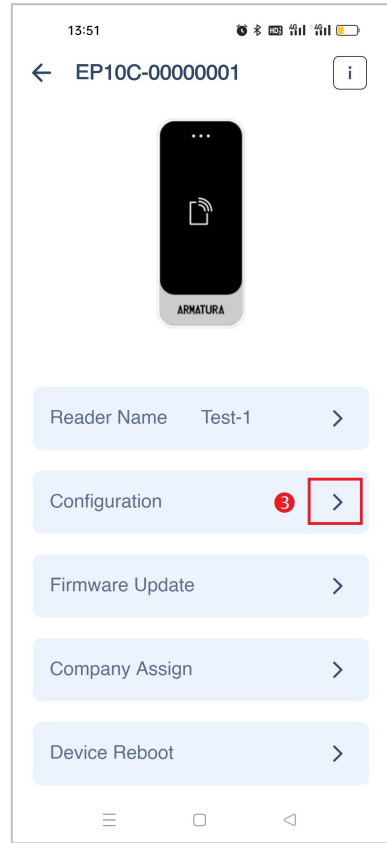
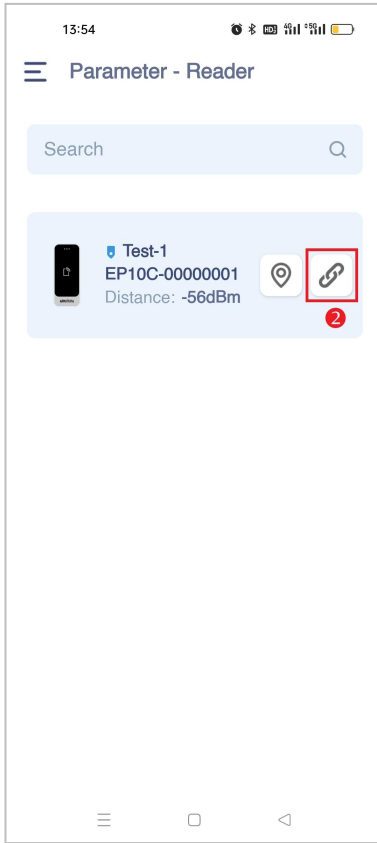
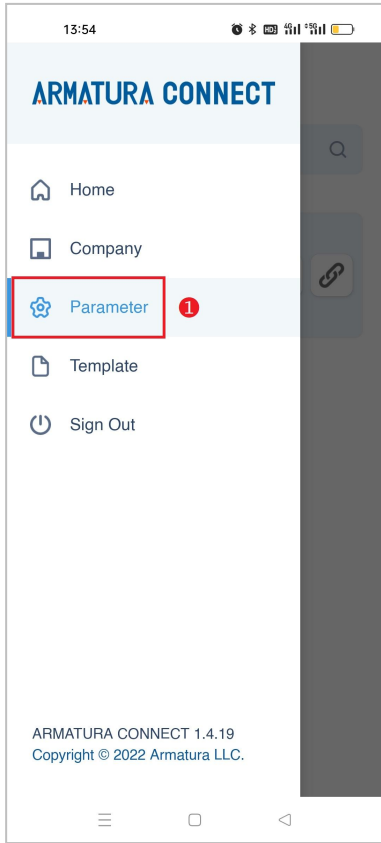




### 3.4 Audio & Visual Settings

1. Click  > **Parameter** to enter the **Parameter - Reader** setting screen.
2. Click **Connect** or  to enter the reader parameter setting screen.
3. Click **Configuration** > **Visual & Audio** to enter the setting screen.
4. Select the option to be set in the visual list. Select a time and a color and click **Save**. There are a total of 7 colors to choose from, and each option is best set to a different color for easy identification.
5. Adjust the reader's volume in the audio bar; valid values are: 0, 30, 60, and 100.
6. Click **Save** to save the settings and exit to the previous menu.

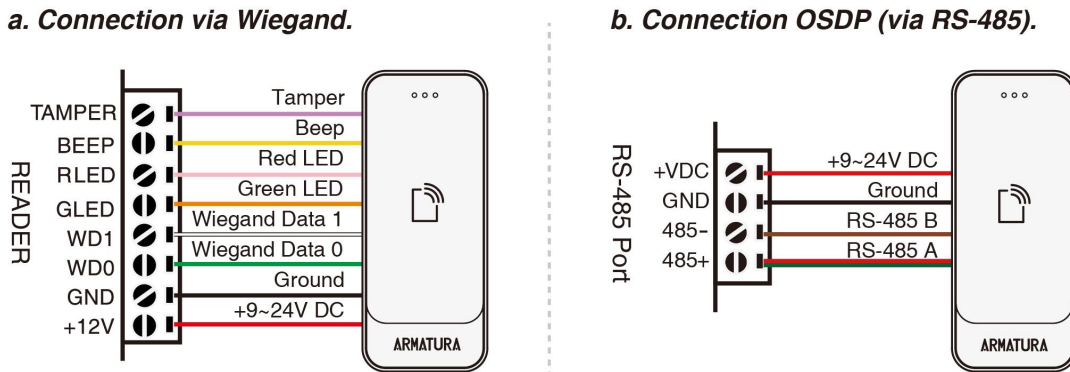




### 3.5 Communication Settings

The supported EP Series readers are connected to the controller through OSDP (via RS-485) or Wiegand.

1. Before setting the parameters, make sure that the reader is connected to the controller according to the OSDP (via RS-485) or Wiegand wiring in Figure 1.



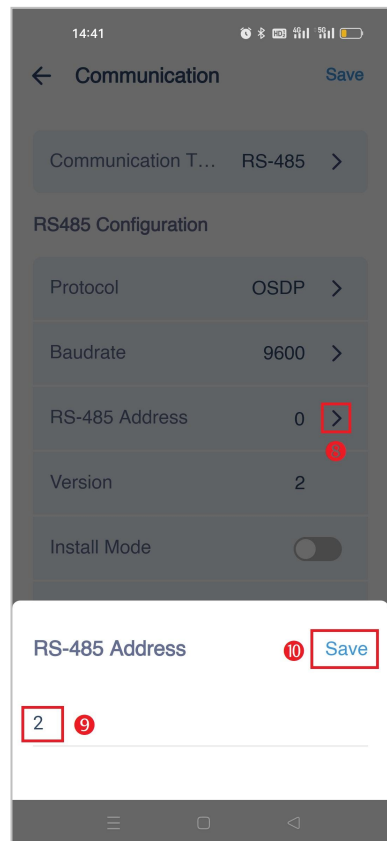
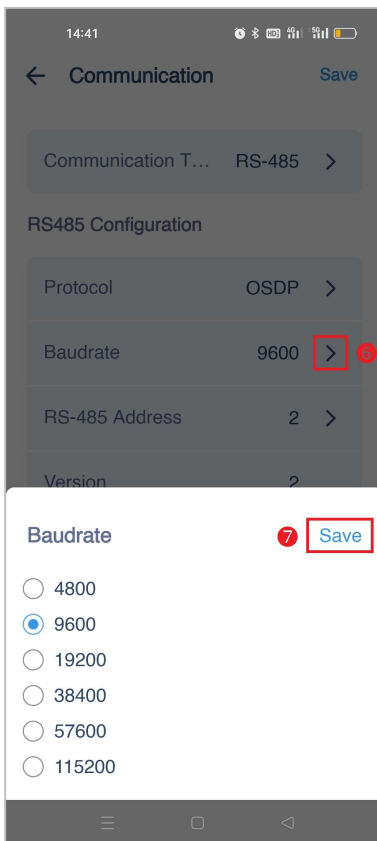
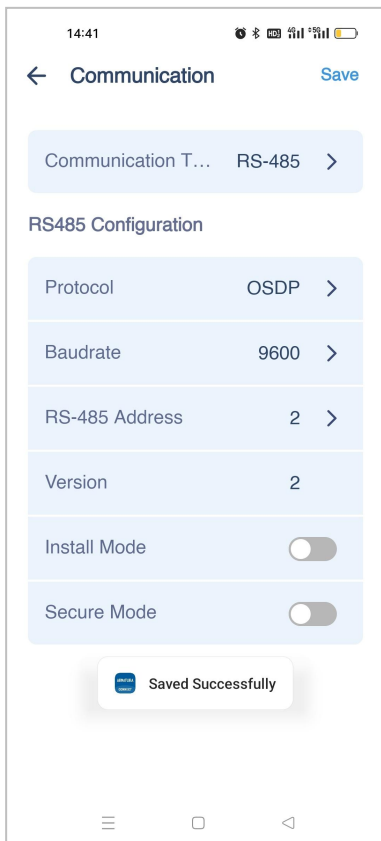
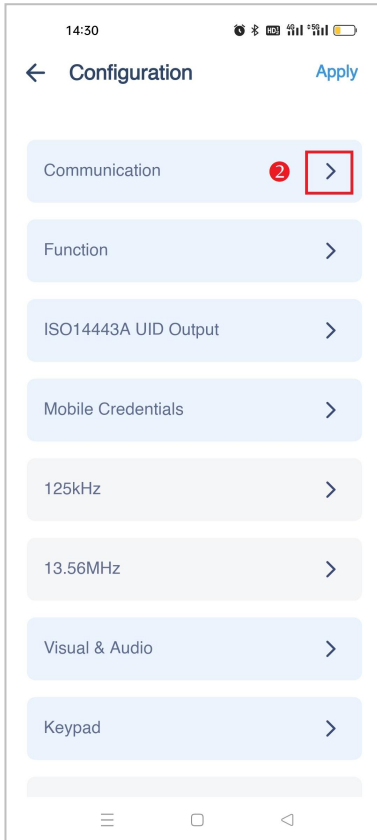
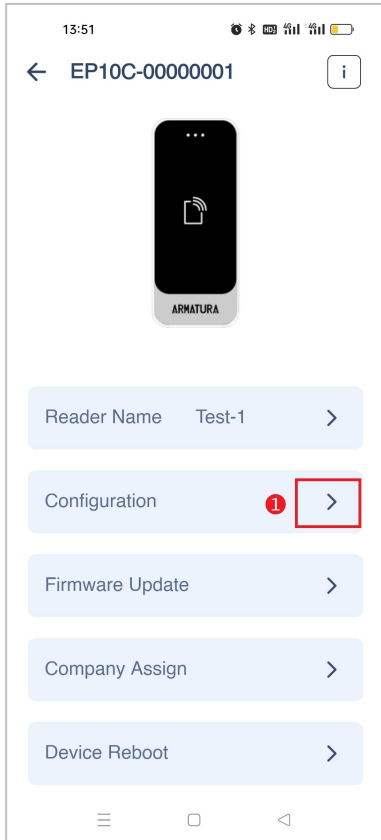
**Figure 1** Controller and reader OSDP (via RS-485) and Wiegand wiring diagram

2. In the reader parameter setting interface, click **Configuration > Communication** to enter the setting screen.
3. Click **Communication Type** to enter the setting screen. You can choose the appropriate communication type to carry out OSDP (via RS-485) or Wiegand connection with the controller according to your needs.
4. Click **Save** to save the settings and exit to the previous menu.

**Remark:**

**When communicating with the device through the OSDP (via RS-485) serial port, please consider the baud rate and addressing points below:**

- The baud rate at which the data is communicated with reader, there are 6 options of baud rate: 115200, 57600, 38400, 19200, 9600 (default) and 4800.
- The higher the baud rate, the faster the communication speed, but also the less reliable.
- Hence, a higher baud rate can be used when the communication distance is short; when the communication distance is long, choosing a lower baud rate would be more reliable.
- You need to set the RS-485 address, the default is 0.



# 4 Appendix

## Privacy Policy

### Notice:

To help you better use the products and services of Armatura LLC, hereinafter referred to as "we", "our", or "us", the smart service provider, we consistently collect your personal information. Since we understand the importance of your personal information, we took your privacy sincerely and we have formulated this privacy policy to protect your personal information. We have listed the privacy policies below to precisely understand the data and privacy protection measures related to our smart products and services.

**Before using our products and services, please read carefully and understand all the rules and provisions of this Privacy Policy. If you do not agree to the relevant agreement or any of its terms, you must stop using our products and services.**

### I. Collected Information

To ensure the normal product operation and help the service improvement, we will collect the information voluntarily provided by you or provided as authorized by you during registration and use or generated as a result of your use of services.

- 1. User Registration Information:** At your first registration, the feature template (**Fingerprint template/Face template/Palm template**) will be saved on the device according to the device type you have selected to verify the unique similarity between you and the User ID you have registered. You can optionally enter your Name and Code. The above information is necessary for you to use our products. If you do not provide such information, you cannot use some features of the product regularly.
- 2. Product information:** According to the product model and your granted permission when you install and use our services, the related information of the product on which our services are used will be collected when the product is connected to the software, including the Product Model, Firmware Version Number, Product Serial Number, and Product Capacity Information. **When you connect your product to the software, please carefully read the privacy policy for the specific software.**

### II. Product Security and Management

1. When you use our products for the first time, you shall set the Administrator privilege before performing specific operations. Otherwise, you will be frequently reminded to set the Administrator privilege when you enter the main menu interface. **If you still do not set the Administrator privilege after receiving the system prompt, you should be aware of the possible security risk (for example, the data may be manually modified).**

2. All the functions of displaying the biometric information are disabled in our products by default. You can choose Menu > System Settings to set whether to display the biometric information. If you enable these functions, we assume that you are aware of the personal privacy security risks specified in the privacy policy.
3. Only your user ID is displayed by default. You can set whether to display other user verification information (such as Name, Department, Photo, etc.) under the Administrator privilege. **If you choose to display such information, we assume that you are aware of the potential security risks (for example, your photo will be displayed on the device interface).**
4. The camera function is disabled in our products by default. If you want to enable this function to take pictures of yourself for attendance recording or take pictures of strangers for access control, the product will enable the prompt tone of the camera. **Once you enable this function, we assume that you are aware of the potential security risks.**
5. All the data collected by our products is encrypted using the AES 256 algorithm. All the data uploaded by the Administrator to our products are automatically encrypted using the AES 256 algorithm and stored securely. If the Administrator downloads data from our products, we assume that you need to process the data and you have known the potential security risk. In such a case, you shall take the responsibility for storing the data. You shall know that some data cannot be downloaded for sake of data security.
6. All the personal information in our products can be queried, modified, or deleted. If you no longer use our products, please clear your personal data.

### III. How we handle personal information of minors

Our products, website and services are mainly designed for adults. Without consent of parents or guardians, minors shall not create their own account. If you are a minor, it is recommended that you ask your parents or guardian to read this Policy carefully, and only use our services or information provided by us with consent of your parents or guardian.

We will only use or disclose personal information of minors collected with their parents' or guardians' consent if and to the extent that such use or disclosure is permitted by law or we have obtained their parents' or guardians' explicit consent, and such use or disclosure is for the purpose of protecting minors.

Upon noticing that we have collected personal information of minors without the prior consent from verifiable parents, we will delete such information as soon as possible.

### IV. Others

You can visit [www.armatura.us](http://www.armatura.us) to learn more about how we collect, use, and securely store your personal information. To keep pace with the rapid development of technology, adjustment of business operations, and to cope with customer needs, we will constantly deliberate and optimize our privacy protection measures and policies. Welcome to visit our official website at any time to learn our latest privacy policy.

# ARMATURA

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