# User Manual

## 2.4-inch Visible Light Product

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English

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# Safety Measures

The below instructions intend to ensure that the user can use the product correctly to avoid danger or property loss. The following precautions are to keep users safe and prevent any damage. Please read carefully before installation.

⚠ Noncompliance with instructions could lead to product damage or physical injury (may even cause death).

1. **Read, follow, and retain instructions** - All safety and operational instructions must be properly read and followed before bringing the device into service.
2. **Do not ignore warnings** - Adhere to all warnings on the unit and in the operating instructions.
3. **Accessories** - Use only manufacturer-recommended or product-sold accessories. Please do not use any other components other than manufacturer suggested materials.
4. **Precautions for the installation** - Do not place this device on an unstable stand or frame. It may fall and cause serious injury to persons and damage to the device.
5. **Service** - Do not try to service this unit yourself. Opening or removing covers may expose you to hazardous voltages or other hazards.
6. **Damage requiring service** - Disconnect the system from the Mains AC or DC power source and refer service personnel under the following conditions:
   - When cord or connection control is affected,
   - When the liquid spilled or an item dropped into the system,
   - If exposed to water or due to inclement weather (rain, snow, and more),
   - And if the system is not operating normally, under operating instructions.

   Just change controls defined in operating instructions. Improper adjustment of the controls may result in damage and involve a qualified technician to return the device to normal operation.

   And do not connect multiple devices to one power adapter as adapter overload can cause over-heat or fire hazard.
7. **Replacement parts** - When replacement parts are needed, service technicians must only use replacement parts provided by the supplier. Unauthorized substitutes can result in a burn, shock, or other hazards.
8. **Safety check** - On completion of service or repair work on the unit, ask the service technician to perform safety checks to ensure proper operation of the device.
9. **Power sources** - Operate the system only from the label's power source form. If the sort of power supply to use is unclear, call your dealer.
10. **Lightning** - Can install external lightning conductors to protect against electrical storms. It stops power-ups from destroying the system.

    Recommended installing the devices in areas with limited access.

## Electrical Safety

- Before connecting an external cable to the device, complete grounding properly, and set up surge protection; otherwise, static electricity will damage the mainboard.
- Make sure that the power has been disconnected before you wire, install, or dismantle the device.
- Ensure that the signal connected to the device is a weak-current (switch) signal; otherwise, components of the device will get damaged.
- Ensure that the standard voltage applicable in your country or region is applied. If you are not sure about the endorsed standard voltage, please consult your local electric power company. Power mismatch may cause a short circuit or device damage.
- In the case of power supply damage, return the device to the professional technical personnel or your dealer for handling.
- To avoid interference, keep the device far from high electromagnetic radiation devices, such as generators (including electric generators), radios, televisions, (especially CRT) monitors, or speakers.

## Operation Safety

- If smoke, odour, or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service centre.
- Transportation and other unpredictable causes may damage the device's hardware. Check whether the device has any intense damage before installation.
- If the device has major defects that you cannot solve, contact your dealer as soon as possible.
- Dust, moisture, and abrupt temperature changes can affect the device's service life. You are advised not to keep the device under such conditions.
- Do not keep the device in a place that vibrates. Handle the device with care. Do not place heavy objects on top of the device.
- Do not apply rosin, alcohol, benzene, pesticides, and other volatile substances that may damage the device enclosure. Clean the device accessories with a piece of soft cloth or a small amount of cleaning agent.
- If you have any technical questions regarding usage, contact certified or experienced technical personnel.

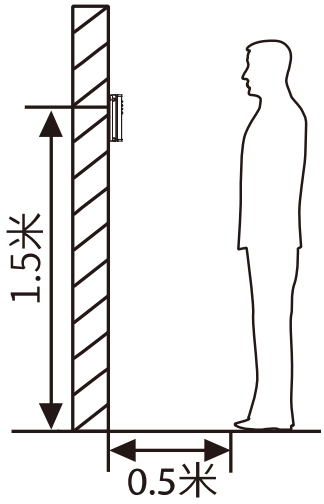
**Note**

- Make sure whether the positive polarity and negative polarity of the DC 12V power supply is connected correctly. A reverse connection may damage the device. It is not advisable to connect the AC 24V power supply to the DC 12V input port.
- Make sure to connect the wires following the positive polarity and negative polarity shown on the device's nameplate.
- The warranty service does not cover accidental damage, damage caused by mis-operation, and damage due to independent installation or repair of the product by the user.

# 1 Instruction for Use

## 1.1 Standing Position, Facial Expression and Standing Posture

- **The recommended distance**



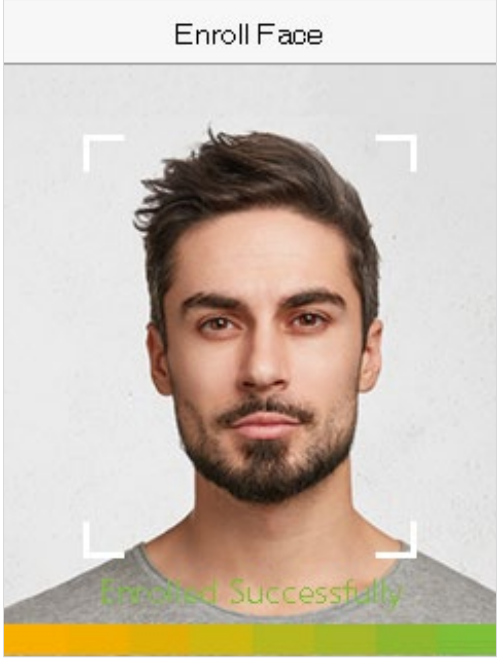

It is recommended to have a 0.5m space between the device and the customer whose height is 1.55m to 1.85m. Users may slightly move forwards and backward to improve the quality of facial images captured.

- **Facial Expression and Standing Posture**

**Note:** During enrolment and verification, please maintain natural facial expression and standing posture.

## 1.2 Face Registration

Try to keep the face in the centre of the screen during registration. Please face the camera and stay still during face registration. The screen looks like the image below:




**Correct face registration and authentication method**

- **Cautions for registering a face**
  - When registering a face, maintain a 40cm to 80cm space between the device and the face.
  - Be careful not to change the facial expression. (smiling face, drawn face, wink, etc.)
  - If you do not follow the instructions on the screen, the face registration may take longer or may fail.
  - Do not cover your eyes or eyebrows.
  - Do not wear hats, masks, sunglasses, or eyeglasses.
  - Be careful not to display two faces on the screen. It may create confusion and the registration may fail.
  - A user wearing glasses should register their face both with and without glasses.

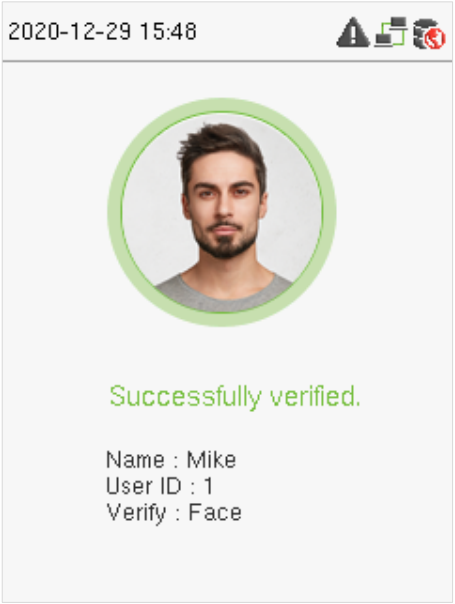
- **Cautions for authenticating a face**
  - Ensure that the face appears inside the guideline displayed on the screen of the device.
  - For a person wearing glasses, try authenticating your face with glasses if glasses were used while registering, or else authenticate without glasses if glasses were not used while registration. Otherwise, the recognition may fail or can be difficult. Also, if a different pair of glasses is used than the one used during registration, authentication can also fail. In such a case, the previously worn glasses can be used for authentication.
  - If a part of the face is covered by a hat, a mask, an eye patch, or sunglasses, the authentication may fail. Do not cover the face and allow the device to recognize the eyebrows and other features of the face.

# 1.3 Verification Mode

## 1.3.1 Facial Verification

- **1:N Facial Verification**

It compares the current acquired facial images with all the face data registered in the device. The following is the pop-up prompt box of comparison result.

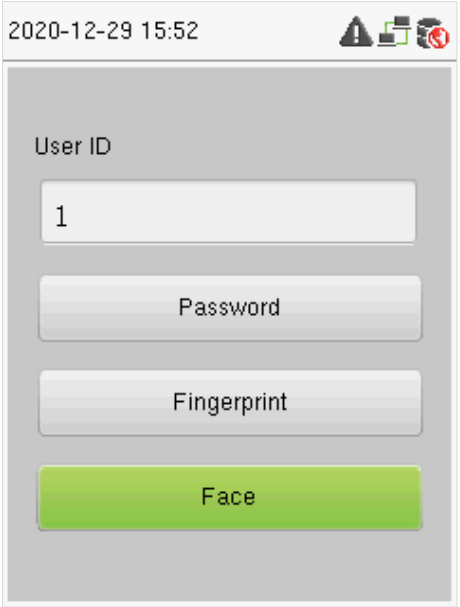



- **1:1 Facial Verification**

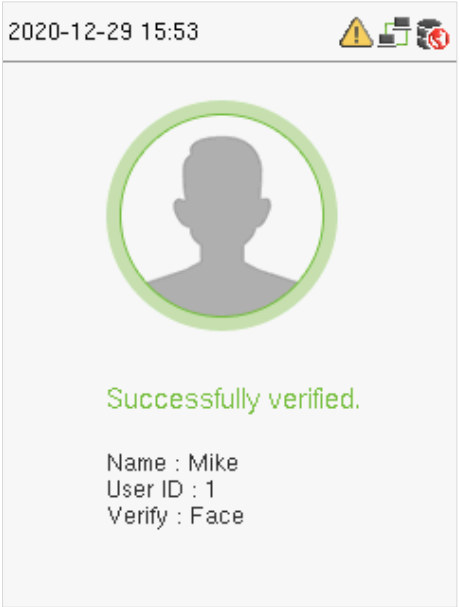
It compares the face captured by the camera with the facial template related to the entered user ID.

For 1:1 facial verification, enter the User ID on the main interface and enter the 1:1 facial verification mode. Enter the user ID and click [**M/OK**].

If an employee has registered a password in addition to face, the following screen will appear. Select the face icon to enter face verification mode.



After successful verification, the following display screen appears.




If the verification fails, it prompts “Please adjust your position!”.

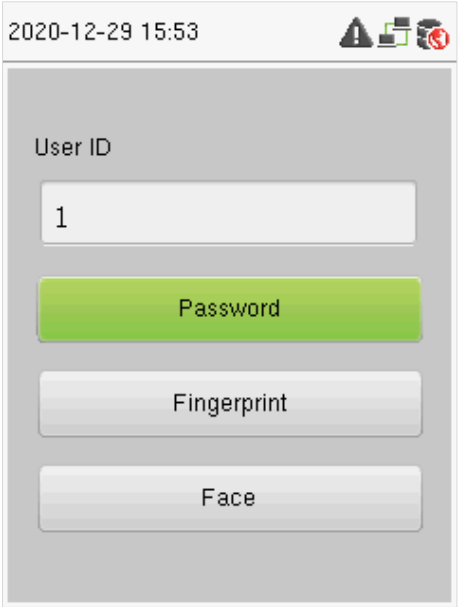
### 1.3.2 Password Verification

It compares the entered password with the registered User ID and password.

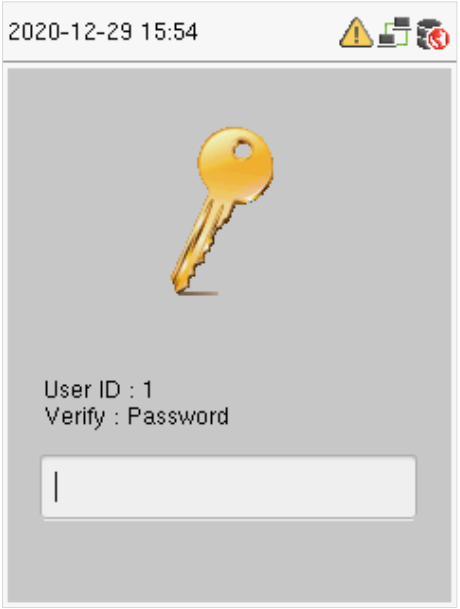
Enter the User ID on the main screen to enter the 1:1 password verification mode.

1. Enter the user ID and press [**M/OK**].

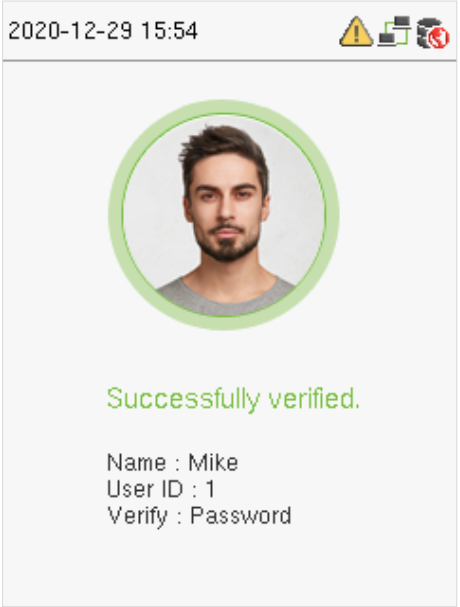
If an employee has registered fingerprint and face in addition to password, the following screen will appear. Select the Password icon to enter password verification mode.



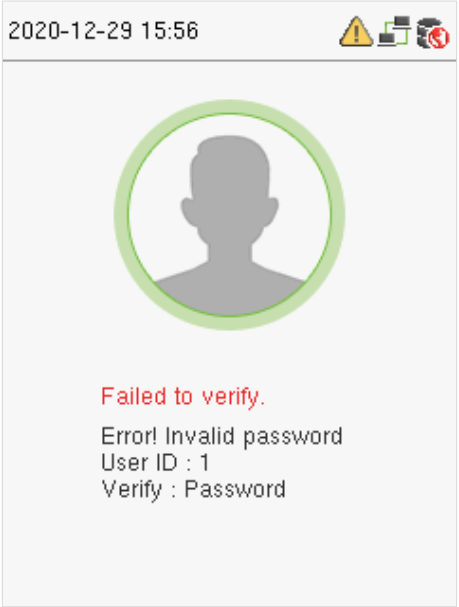
2. Input the password and press [**M/OK**].




The following screen displays on successful and failed verification respectively.



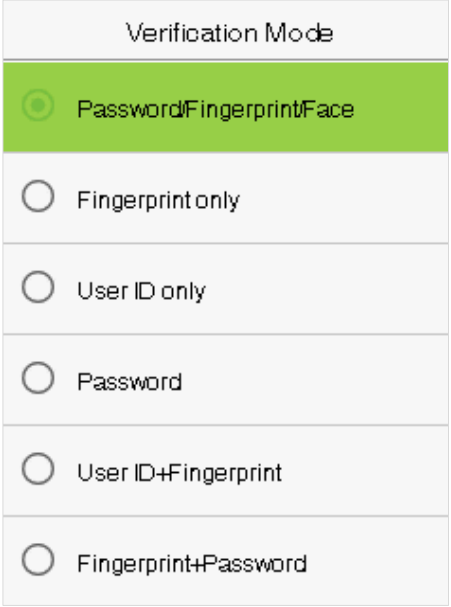

**On successful verification**

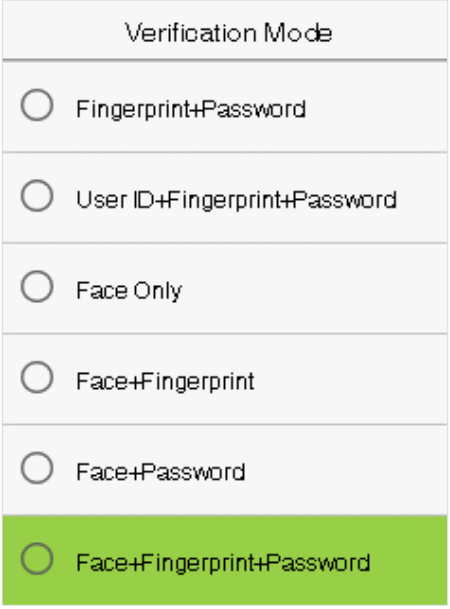



**On failed verification**

### 1.3.3 Combined Verification

For enhanced security, this device offers the option of using multiple forms of verification methods, as shown in the picture below.



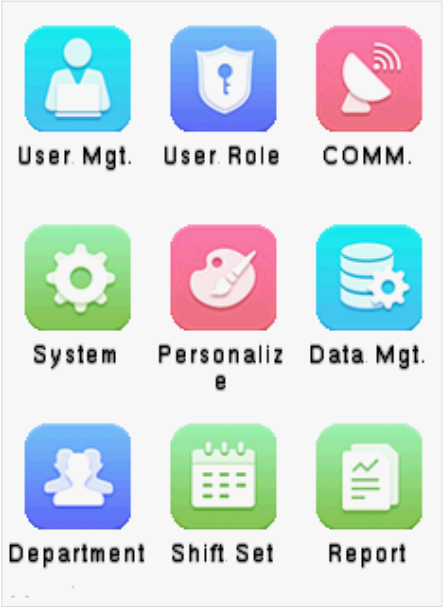

**Note:**

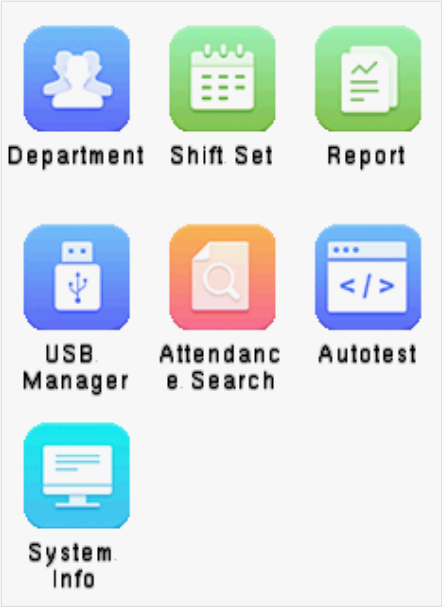
1) "/" means “or”, and "+" means “and”.

2) You must register the required verification information before using the combination verification mode, otherwise the verification may fail. For example, if a user uses Face Registration but the verification mode is Face + Password, then the user won't be able to pass verification.

# 2 Main Menu

Click [**M/OK**] on the initial interface to enter the main menu, as shown below:



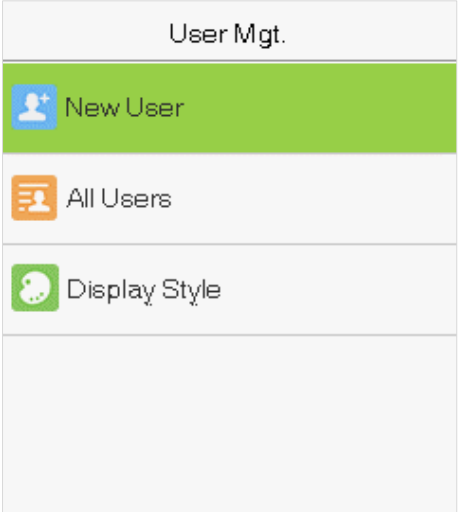

| Items | Descriptions |
|---|---|
| **User Mgt.** | To add, edit, view, and delete basic information of a user. |
| **User Role** | To set the permission scope of the custom role and enroller, that is, the rights to operate the system. |
| **COMM.** | To set the relevant parameters of Ethernet, PC connection, cloud server setting and network diagnosis. |
| **System** | To set parameters related to the system, including date & time, attendance, face, fingerprint, reset and USB upgrade. |
| **Personalize** | To customize settings of interface display, including user interface, voice, bell schedules, punch state options and shortcut key mappings. |
| **Data Mgt.** | To delete all relevant data in the device. |
| **Department** | Establish the organizational structure of the department, including functions like adding, editing, or deleting the department, and scheduling the department, etc. |
| **Shift set** | Set attendance rules and the number of shifts to be used, and schedule employees.<br>The device supports up to 24 shifts. |
| **Report** | Use USB flash drive to download the attendance statistics form to check on the computer or download the attendance settings form to set shifts on the computer, assign shifts to employees and then upload the attendance settings form. At this time, the device will give priority to the use of the schedule of the settings form. |

| | |
|---|---|
| **Access Control** | To set the parameters of the lock and the relevant access control device. |
| **USB Manager** | To transfer data such as user data and attendance logs from the USB disk to the supporting software or other devices. |
| **Attendance Search** | Query the specified access record, check attendance photos, and blacklist photos. |
| **Autotest** | To automatically test whether each module functions properly, including the screen, audio, camera, and real-time clock. |
| **System Info** | To view data capacity, device, and firmware information of the current device. |

# 3 User Management

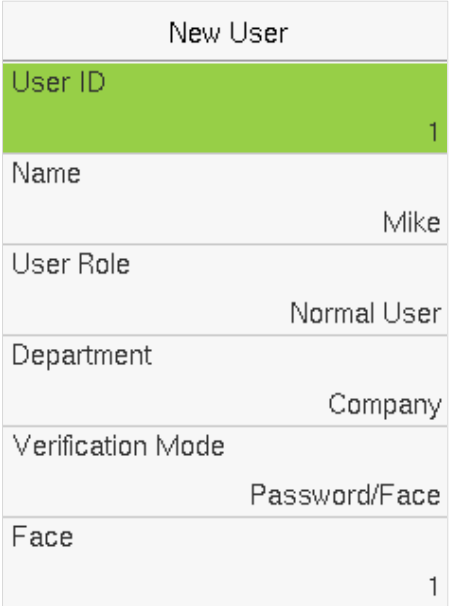
## 3.1 Adding Users

Select **User Mgt.** on the main menu and select **New User**.




- **Register a User ID and Name**

Enter the User ID and Name by selecting the respective options.



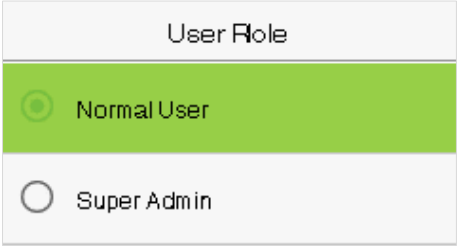

**Notes:**

- A username can contain a maximum of 17 characters.
- The user ID may contain 1-9 digits by default.
- You can modify your ID only during the initial registration and can't be modified later.
- The User ID cannot be duplicated. If there is a voice prompt about duplicate User ID, then you need to choose another User ID that should be unique.

### Setting the User Role

There are two types of user accounts: **Normal Users** and **Super Admin**. If there is already a registered administrator, the normal users have no rights to manage the system and may only access authentication verifications. The administrator owns all management privileges. If a custom role is set, you can also select **custom role** permissions for the user.

Select **User Role** to set Normal User or Super Admin.



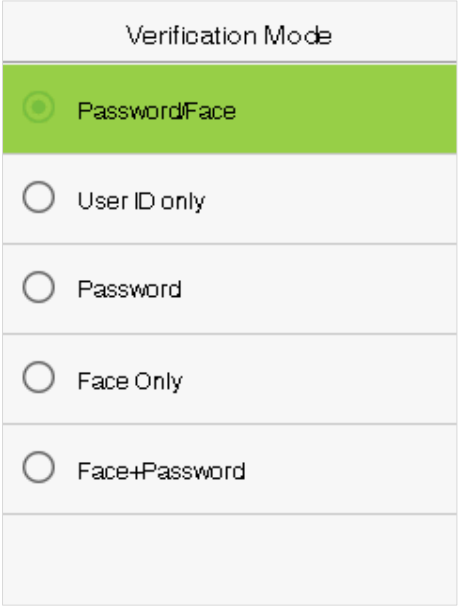

**Note:** If the selected user role is the Super Admin, the user must pass the identity authentication to access the main menu. The authentication is based on the authentication method(s) that the super administrator has registered.

### Setting the Verification Mode

The verification mode available in the device are:

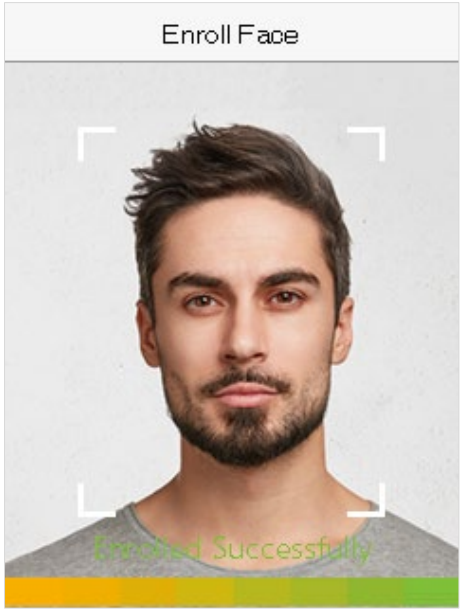
- Password/ Face
- User ID only
- Password
- Face only
- Face + Password

Select the required **Verification Mode** to set individual verification mode for the user. Select **M/OK** to save and return to the New User interface.



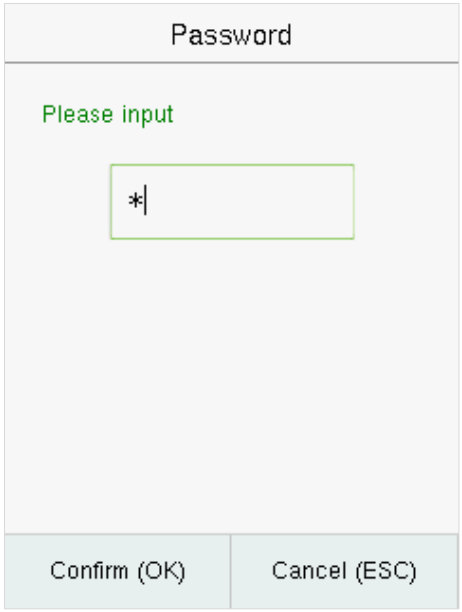
- **Register Face**

Select **Face** on the Verification mode to enter the face registration page. Users need to face the camera such that their whole face is visible on the device's screen and all the important features of the face are visible. Then stay still for a while during face registration. The registration interface is as follows:




- **Register password**

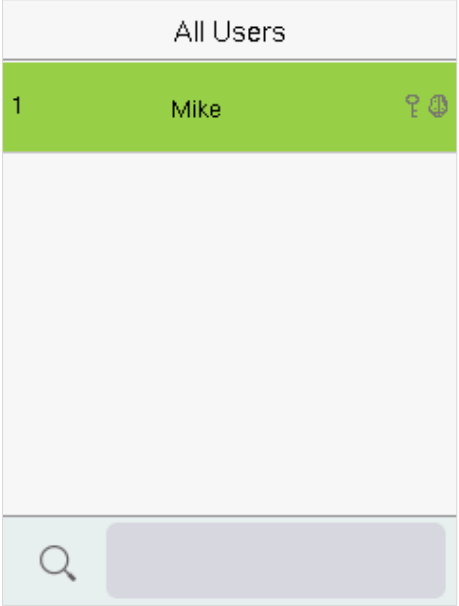
Select **Password** on the Verification mode page to enter the password registration page. Enter a password and re-enter it. Select **M/OK**. If the two entered passwords are the same, the system will return to the New User interface.




**Note:** The password may contain one to eight digits by default.

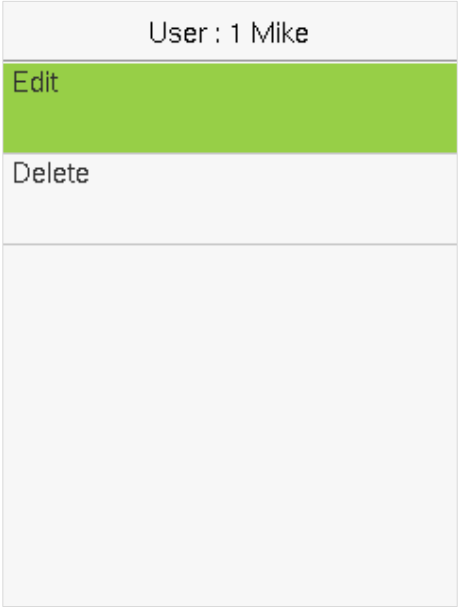
## 3.2 Search for Users

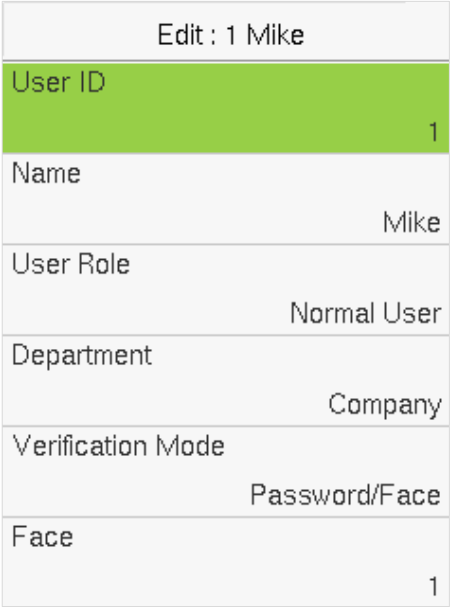
Select the **All Users** option in the **User Mgt.** Then enter the retrieval keyword in the search bar of the user list (keyword may be an ID, surname, or full name). The system will search for the users related to the entered information.




## 3.3 Edit Users

Choose a user from the list and select **Edit** to enter the edit user interface:

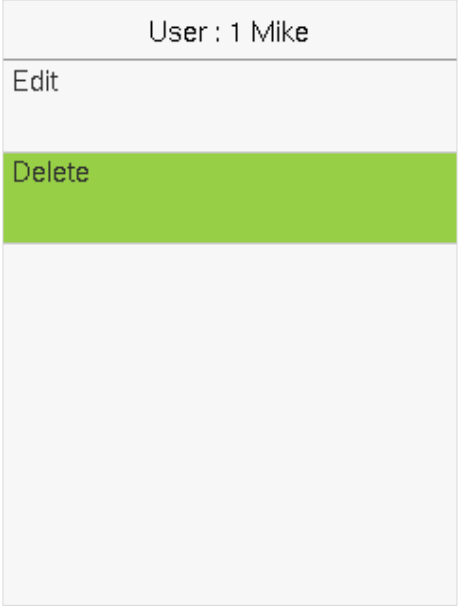


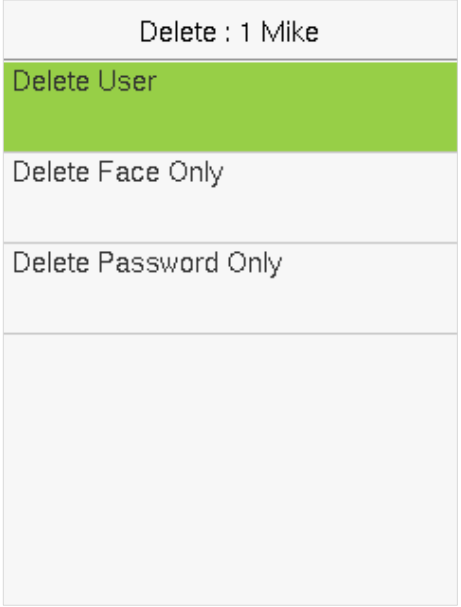




**Note:** The operation of editing a user is the same as that of adding a user, except that the user ID cannot be modified when editing a user's detail.

## 3.4 Deleting Users

Choose a user from the list and select **Delete** to enter its interface. Select the user information to be deleted and click **M/OK**.




**Note:**

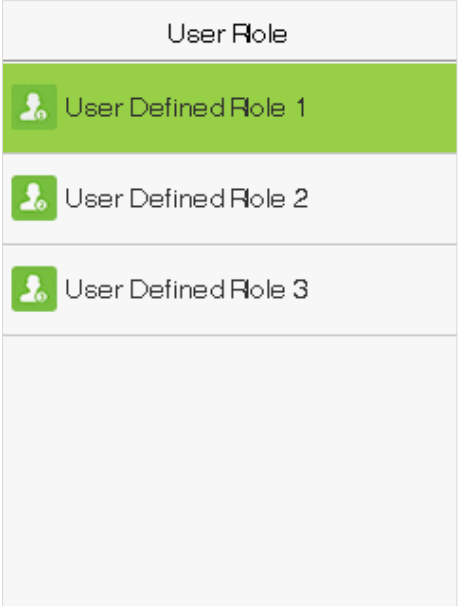
If you select **Delete User**, all information of the user will be deleted. Only face data is removed if **Delete Face Only** is selected. And only the password is removed if **Delete Password Only** is selected.

# 4 User Role

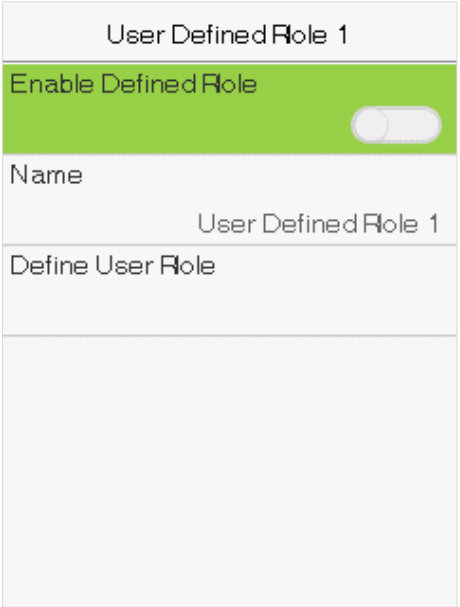
If you need to assign any specific permissions to certain users, you may edit the "User Defined Role" under the **User Role** menu.

You may set the permission scope of the custom role (up to 3 roles) and enroller, that is, the permission scope of the operation menu.

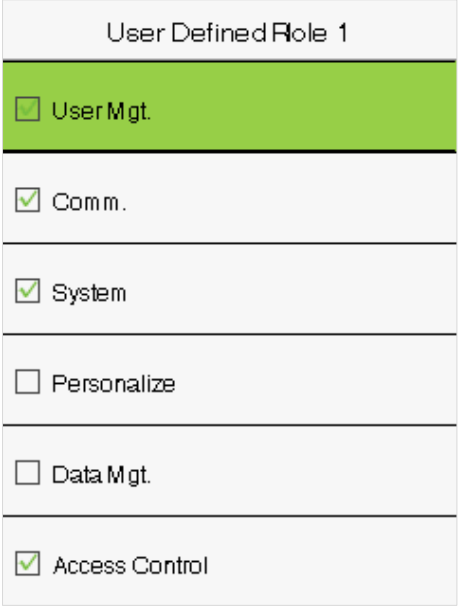
Select **User Role** on the main menu interface.



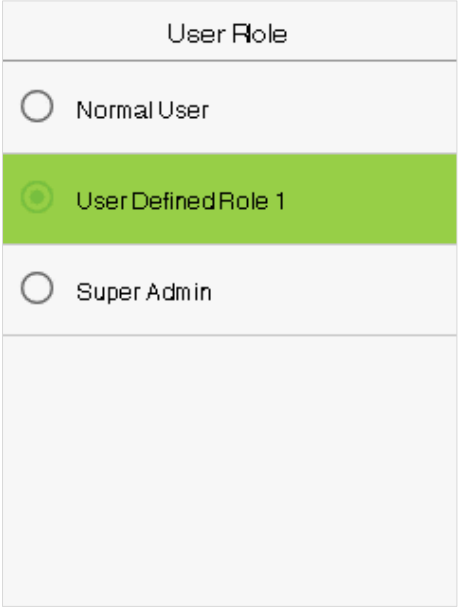

1. Select an item to set a defined role. Select the **Enable Defined Role** option to enable this defined role. Select **Name** and enter the name of the role.



2. Select **Define User Role** to assign the privileges to the role. Click **ESC** to save and return after the privilege assignment is complete.



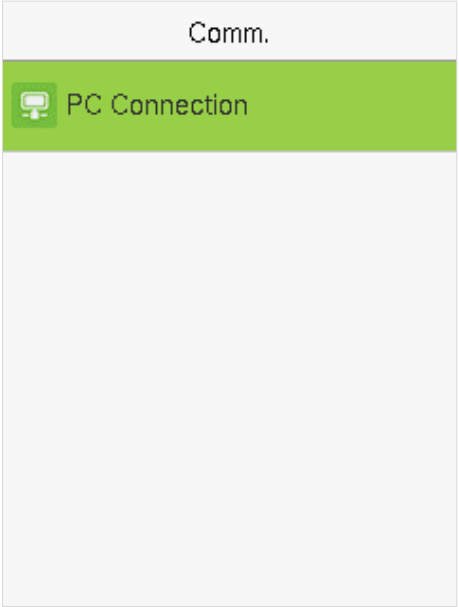

**Note:** You need to select the features in sub-menus. If the device has a role enabled, you may assign the roles you set to users by selecting **User Mgt. > New User > User Role.**




If no super administrator is registered, the device will prompt "**Please register super administrator user first!**" after selecting the enable bar.

# 5 Communication Settings

Select **COMM.** on the main menu to get into communication settings and set parameters of the PC connection.

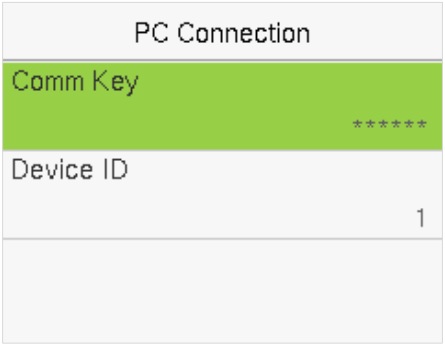



## 5.1 PC Connection

To improve the security of data, please set a Comm Key for communication between the device and the PC.

The connection password needs to be entered before the device can be connected to the PC software if a Comm Key is set.

Select **PC Connection** on the Comm. Settings interface to set **Comm Key**.

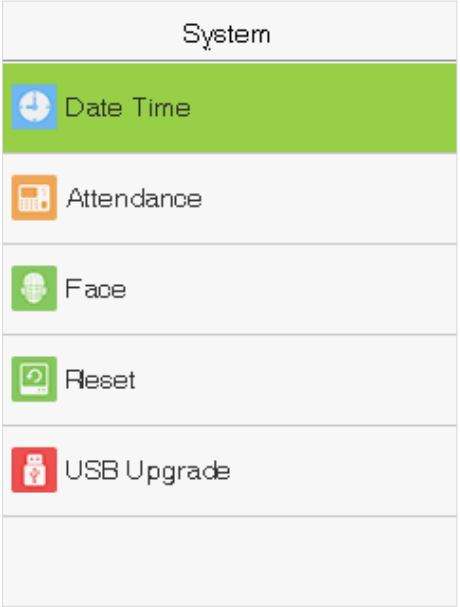



| Item | Descriptions |
|---|---|
| **Comm Key** | The default password is 0, which can be changed later. The Comm Key may contain1-6 digits. |
| **Device ID** | It is the identification number of the device, which ranges between 1 and 254. If the communication method is RS232/RS485, you need to input this device ID in the software communication interface. |

# 6 System Settings

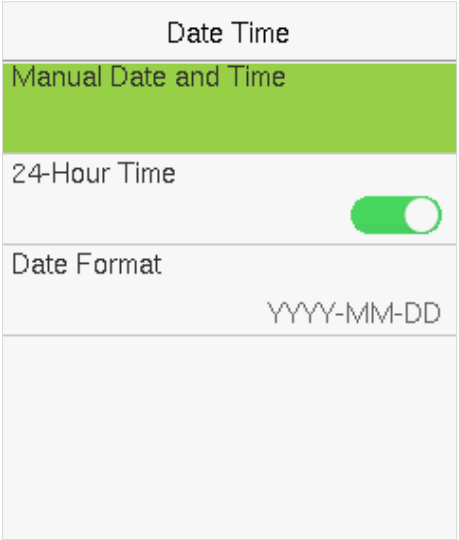
It helps to set related system parameters to optimize the performance and usability of the device.

Select **System** on the main menu interface.




## 6.1 Date and Time

Select **Date Time** on the System interface.




| Item | Descriptions |
|---|---|
| **Manual Date and Time** | Can set date and time manually and click [**M/OK**] to save. |
| **24-Hour Time** | The device displays 24-Hour time format, when enabled. |
| **Date Format** | Select the date format. |

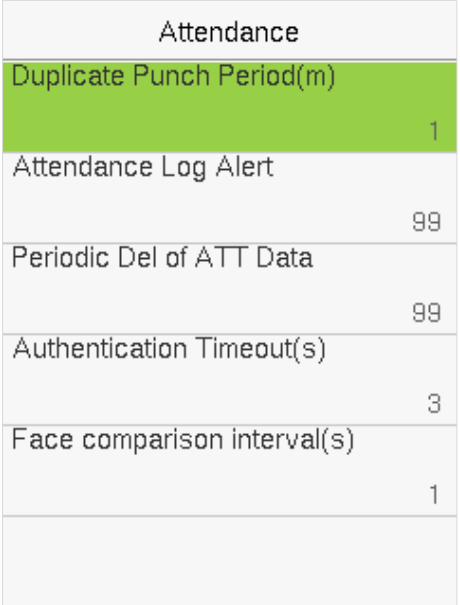
**Note:**

When restoring the factory settings, the time (24-hour) and the date format (YYYY-MM-DD) can be restored to default, but the device date and time cannot be restored.

For example, the user sets the time of the device (18:35 on March 15, 2019) to 18:30 on January 1, 2020. After restoring the factory settings, the time of the device will remain 18:30 on January 1, 2020.

## 6.2 Attendance Setting

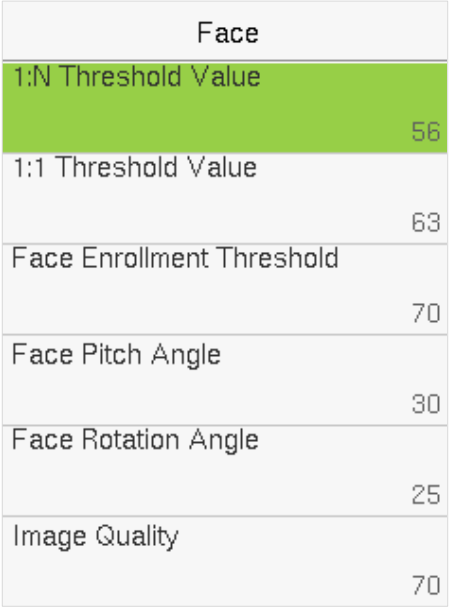
Select **Attendance** on the System interface to alter the attendance rules as required.




| Item | Description |
|---|---|
| **Duplicate Punch Period (m)** | Within a set time (unit: minutes), the duplicated attendance logs will not be reserved (value ranges from 1 to 999999 minutes). |
| **Attendance Log Alert** | When the remaining storage is smaller than the set value, the device will automatically alert users to the remaining storage information. It can be disabled or set to a value ranged from 1 to 9999. |
| **Periodic Del of ATT Data** | The number of attendance logs allowed to be deleted at once when the maximum storage is attained. It can be disabled or set to a value ranged from 1 to 999. |
| **Authentication Timeout(s)** | The time interval for which the "**Successful Verification**" message displays.<br>Valid value: 1~9 seconds. |
| **Face comparison Interval(s)** | To set the time interval for facial template matching as required.<br>Valid value: 0~9 seconds. |

## 6.3 Face Parameters

Select **Face** option on the System interface.




| FRR | FAR | Recommended matching thresholds | |
|---|---|---|---|
| | | **1:N** | **1:1** |
| High | Low | 85 | 80 |
| Medium | Medium | 82 | 75 |
| Low | High | 80 | 70 |

| Item | Description |
|---|---|
| **1:N Threshold Value** | Under 1:N verification mode, the verification will only be successful when the similarity between the acquired facial image and all registered facial templates is greater than the set value.<br>The valid value ranges from 0 to 100. The higher the thresholds, the lower the misjudgement rate and higher the rejection rate, and vice versa. The default value of 75 is recommended. |
| **1:1 Threshold Value** | Under 1:1 verification mode, the verification will only be successful when the similarity between the acquired facial image and the facial templates enrolled in the device is greater than the set value.<br>The valid value ranges from 0 to 100. The higher the thresholds, the lower the misjudgement rate and higher the rejection rate, and vice versa. The default value of 63 is recommended. |
| **Face Enrollment Threshold** | During face enrolment, 1:N comparison is used to determine whether the user has already registered before.<br>When the similarity between the acquired facial image and all registered facial templates is greater than the set threshold, it indicates that the face has already been registered. |
| **Face Pitch Angle** | It is the pitch (top to bottom and vice-versa) angle tolerance of a face for facial registration and comparison.<br>If a face's pitch angle exceeds the set value, it will be filtered by the algorithm, i.e., ignored by the terminal and no registration or comparison interface will be triggered. |

| | |
|---|---|
| **Face Rotation Angle** | It is the rotation angle tolerance of a face for facial template registration and comparison.<br>If a face's rotation angle exceeds this set value, it will be filtered by the algorithm, i.e., ignored by the terminal and, no registration and comparison interface will be triggered. |
| **Image Quality** | It sets the image quality for facial registration and comparison. The higher the value, the clearer the image required. |
| **Minimum Face Size** | It is required for facial registration and comparison. If an object's size is smaller than this set value, it will be filtered and not recognized as a face.<br>This value can be understood as the face comparison distance. The farther the person is, the smaller the face will be, and the smaller the face pixel will be obtained by the algorithm. Therefore, adjusting this parameter can adjust the furthest comparison distance of faces. When the value is 0, the face comparison distance is not limited. |
| **LED Light Trigger Value** | It controls the turning on and off of the LED light. The larger the value, the more frequently the LED light will be turning on. |
| **Motion Detection Sensitivity** | It is the measurement of the amount of change in a camera's field of view that qualifies as potential motion detection that wakes up the terminal from standby to the comparison interface. The larger the value, the more sensitive the system would be, i.e., if a higher value is set, the comparison interface is much easily and frequently triggered. |
| **Live Detection** | It detects a spoof attempt by determining whether the source of a biometric sample is a live human being or a fake representation using visible light images. |
| **Live Detection Threshold** | It helps to judge whether the visible image comes from an alive body. The larger the value, the better the visible light anti-spoofing performance. |
| **Anti-spoofing using NIR** | It uses near-infrared spectra imaging to identify and prevent fake photos and videos attack. |
| **WDR** | Wide Dynamic Range (WDR) balances light and extends image visibility for surveillance videos under high contrast lighting scenes and improves object identification under bright and dark environments. |
| **Anti-flicker Mode** | It is used when WDR is not on. It helps reduce flicker when the device's screen flashes at the same frequency as the light. |
| **Face Algorithm** | Facial algorithm related information and pause facial template update. |

**Note:**

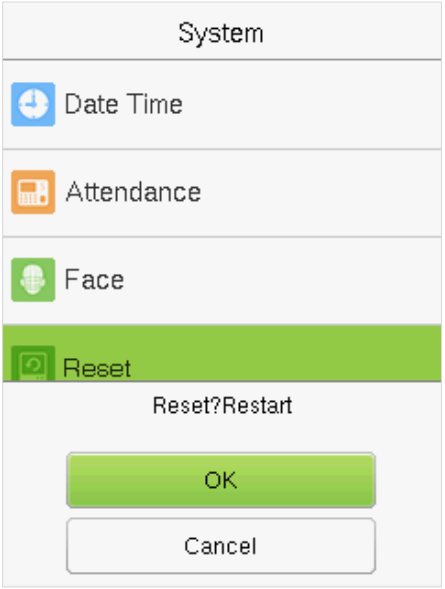
Improper adjustment of the exposure and quality parameters may severely affect the performance of the device. Please adjust the exposure parameter only under the guidance of the after-sales service personnel of our company.

## 6.4 Factory Reset

Restore the device settings to their factory state, such as communication settings, system settings, etc.

(Do not clear registered user data).

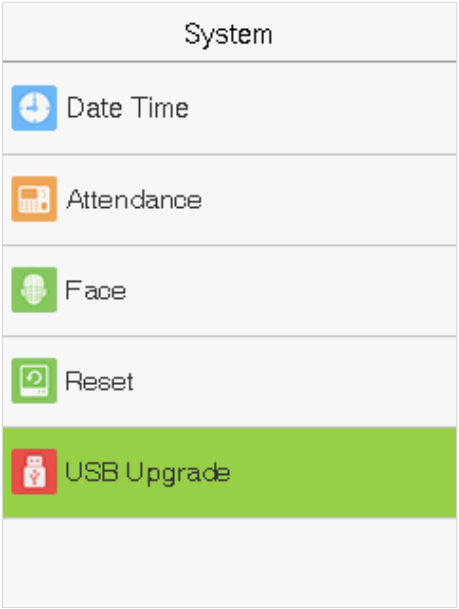
Select the **Reset** option on the System interface. Select **OK** to reset.




## 6.5 USB Upgrade

Insert the U disk with upgrade file into the device's USB port, and in the initial interface, press **[M/OK]** > **System** > **USB Upgrade** to complete firmware upgrade operation.

Select **USB Upgrade** option on the System interface.

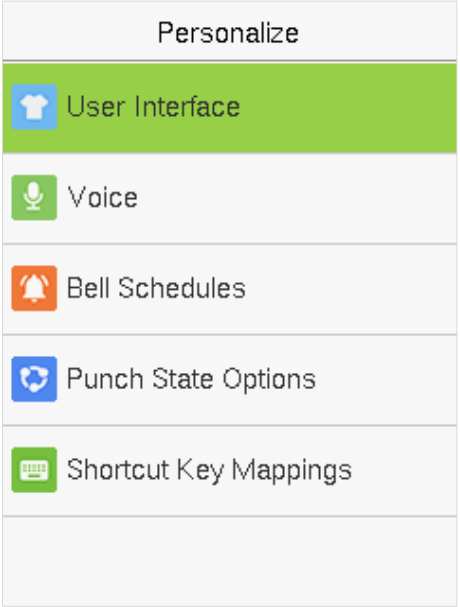



**Note:** If an upgrade file is needed, please contact our technical support. Deny firmware upgrade under normal circumstances.

# 7 Personalize Settings

You may customize interface settings under this option.

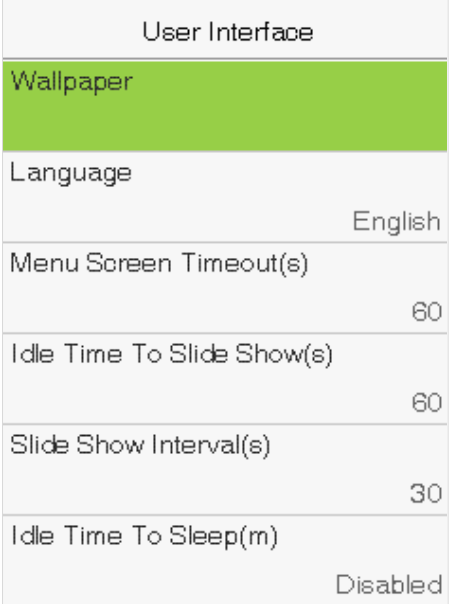
Select **Personalize** option on the main menu interface.




## 7.1 Interface Settings

You can customize the display style of the main interface.

Select **User Interface** option on the Personalize interface.

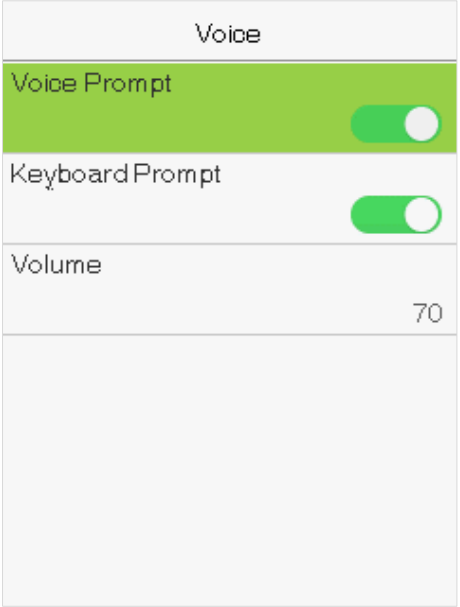



| Item | Description |
|---|---|
| **Wallpaper** | To select the main screen wallpaper according to your personal preference. |
| **Language** | To select the language of the device. |

| | |
|---|---|
| **Menu Screen Timeout (s)** | When there is no operation on the device, and the time exceeds the set value, then the device will automatically go back to the initial interface. You can disable the function or set the value between 60 and 99999 seconds. |
| **Idle Time To Slide Show (s)** | When there is no operation on the device, and the time exceeds the set value, a slide show starts to play. It can be disabled, or you may set the value between 3 and 999 seconds. |
| **Slide Show Interval (s)** | It refers to the time interval for switching slide show pictures. The function can be disabled, or you may set the interval between 3 and 999 seconds. |
| **Idle Time to Sleep (m)** | If sleep mode is activated when there is no operation, the device enters standby mode. Press any key or finger to resume normal working mode. You can disable this function or set a value within 1-999 minutes. |
| **Main Screen Style** | To select the main screen style according to your personal preference. |

## 7.2 Voice Settings

Select **Voice** on the Personalize interface.

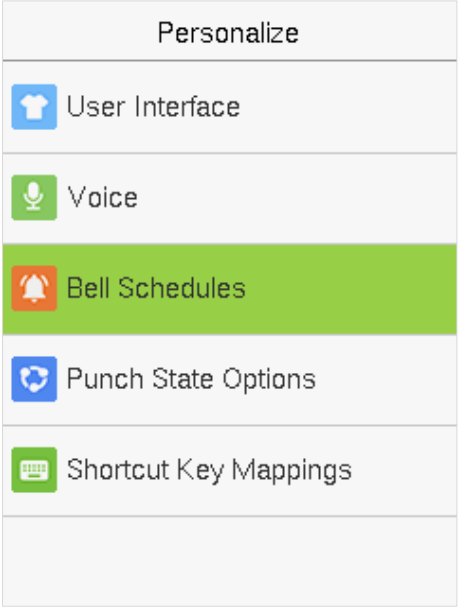



| Item | Description |
|---|---|
| **Voice Prompt** | Select whether to enable voice prompts during operating, press **[M/OK]** to enable it. |
| **Touch Prompt** | Select whether to enable keyboard voice while pressing keyboard, press **[M/OK]** to enable it. |
| **Volume** | Adjust the volume of device. Press ▶ key to increase the volume, press ◀ key to decrease the volume. |

## 7.3 Bell Schedules Settings

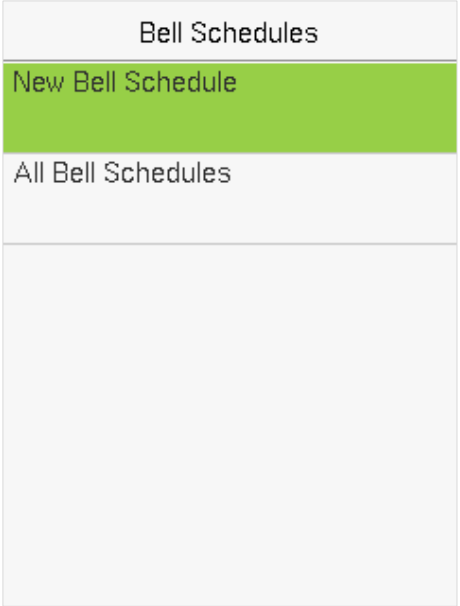
Many companies choose to use the bell to signify on-duty and off-duty time. When reaching the scheduled time for the bell, the device plays the selected ringtone automatically until the ringing duration passes.

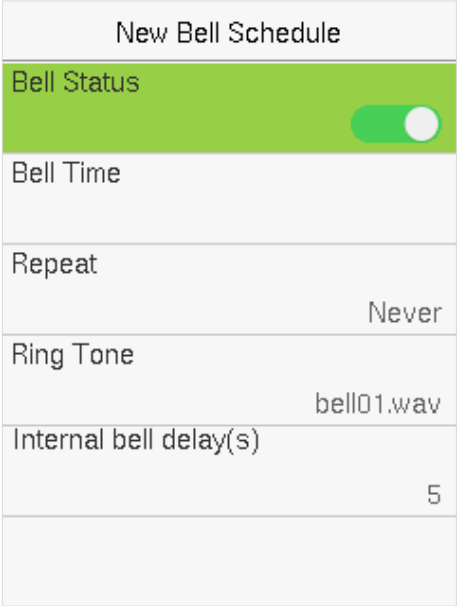
Select **Bell Schedules** option on the Personalize interface.




- **Add a Bell**

Select **New Bell Schedules** option on the **Bell Schedules** interface. Press **[M/OK]** Bell Status to enable the bell status.

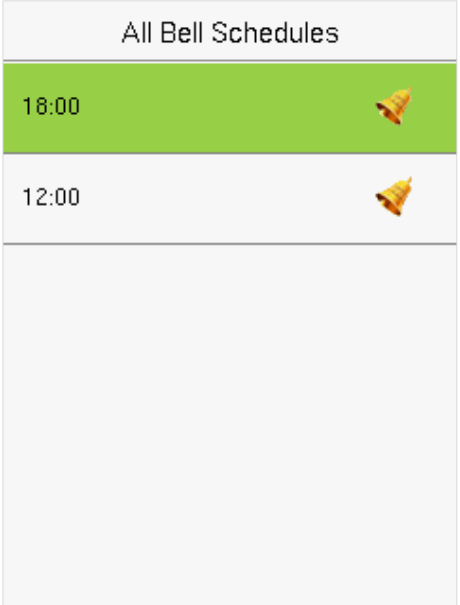


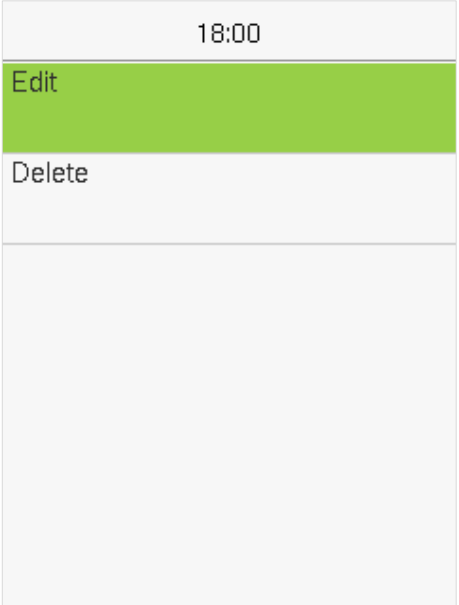




1. You can manually set the date and time and press [**M/OK**] to save.
2. Set repeat, select a ring tone, and select the internal bell delay.

- **Edit Bell**

On the **All Bell Schedules** interface, select the bell item to be edited.

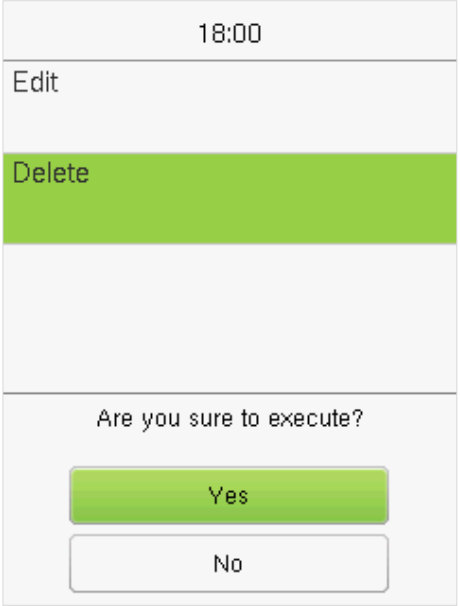


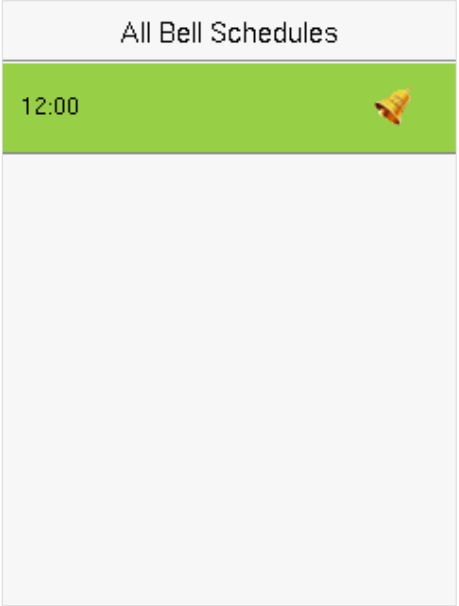




Select **Edit** to edit the bell schedule time. The editing method is the same as that of a new bell.

- **Delete a Bell**

On the **All Bell Schedules** interface, select a bell item to be deleted.

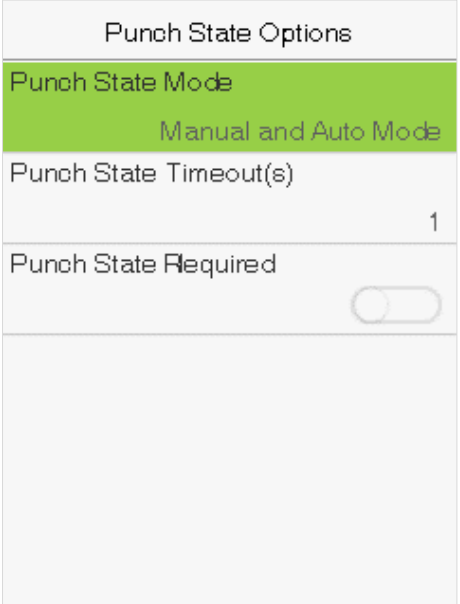



Select **Delete** and select [**Yes**] to delete the bell schedule.

## 7.4 Punch States Options

Select **Punch State Options** on the Personalize interface.

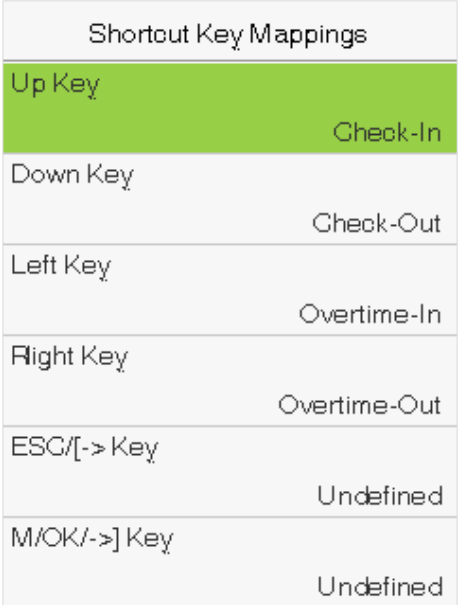


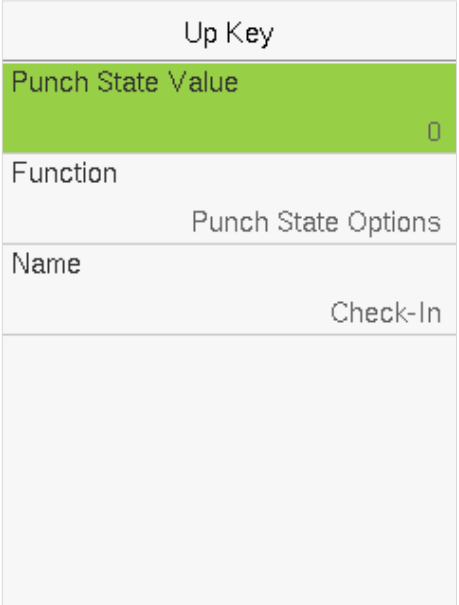

| Item | Description |
|---|---|
| **Punch State Mode** | Select a punch state mode under this menu option. The options are:<br>**Off:** Select this to keep the punch state key function disabled. The punch state key set under the **Shortcut Key Mappings** menu becomes invalid.<br>**Manual Mode:** Select to switch the punch state key manually, and the punch state key disappears after **Punch State Timeout**.<br>**Auto Mode:** To make this mode work correctly, the switching time of the punch state key needs to be set in the **Shortcut Key Mappings**. After that, the punch state is automatically fetched by the device according to the switching time in the **Shortcut Key Mapping**.<br>**Manal and Auto Mode:** In this mode, the main interface displays the auto-switching punch state key, meanwhile supports manual switching of the punch state key. After the timeout, the manual switching punch state key becomes an auto-switching punch state key.<br>**Manual Fixed Mode:** In this mode, the punch state key remains unchanged until it is switched manually next time.<br>**Fixed Mode:** It only displays the fixed punch state key, and it cannot be switched. |
| **Punch State Timeout(s)** | It is the time for which the punch state displays. The value ranges from 5~999 seconds. |
| **Punch State Required** | Select whether an attendance state needs to be selected after verification.<br>**ON**: Attendance state needs to be selected after verification.<br>**OFF**: Attendance state need not requires to be selected after verification. |

## 7.5 Shortcut Keys Mappings

Shortcut keys can be defined as punch state keys or menu function key. When the device is on the main interface, pressing the set shortcut key will display the attendance state or enter the menu operation interface.

Select the **Shortcut Key Mappings** option on the Personalize interface.




**To set Auto-Switching Time:**

Choose any shortcut key and select **Punch State Options** in **Function** to set the auto-switching time.

**Auto Switch:** A different time interval is set for different Punch State options. When a set time reaches, the device switches its attendance state automatically.

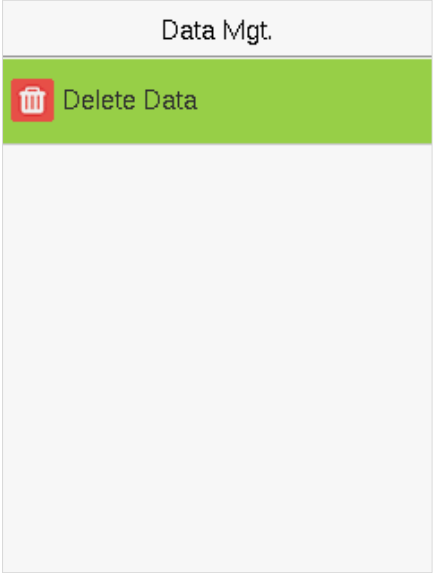
**Note:**

When the shortcut key is set to **Punch State Key**, but **OFF** mode is selected in the **Punch State Mode** (**Personalize** > **Punch State Options** > **Punch State Mode** > Select **OFF**), then the shortcut key will not be enabled.

# 8 Data Management

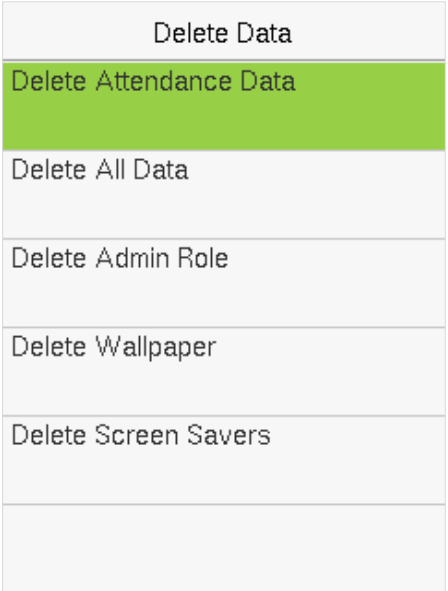
It helps to delete the relevant data in the device.

Select **Data Mgt.** option on the main menu interface.



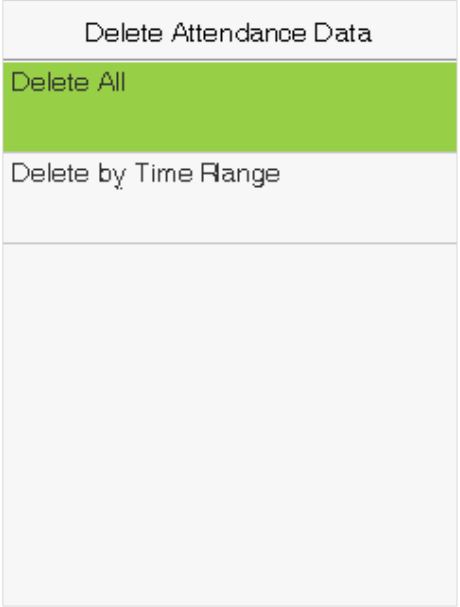

## 8.1 Delete Data

Select **Delete Data** option on the **Data Mgt.** interface.



| Item | Description |
|---|---|
| **Delete Attendance Data** | To delete all attendance data in the device. |
| **Delete All Data** | To delete information and access records of all registered users. |
| **Delete Admin Role** | To remove administrator privileges. |
| **Delete Wallpaper** | To delete all wallpapers in the device. |
| **Delete Screen Savers** | To delete the screen savers in the device. |

**Note:** When deleting the access records, attendance photos, or blacklisted photos, you may select Delete All or Delete by Time Range. Selecting Delete by Time Range, you need to set a specific time range to delete all data with the period.



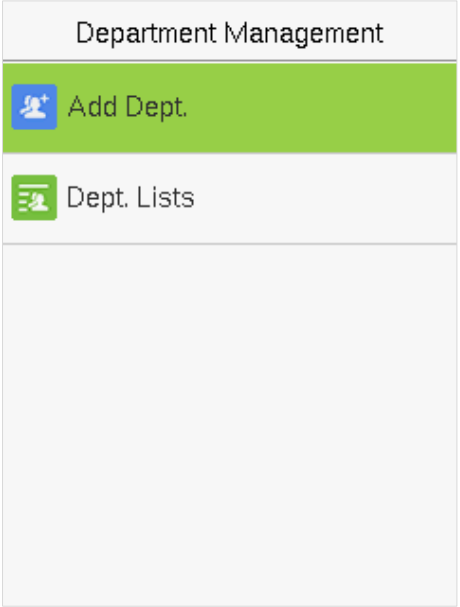

Select Delete by Time Range

Set the time range and select **Confirm(OK).**

# 9 Department Management

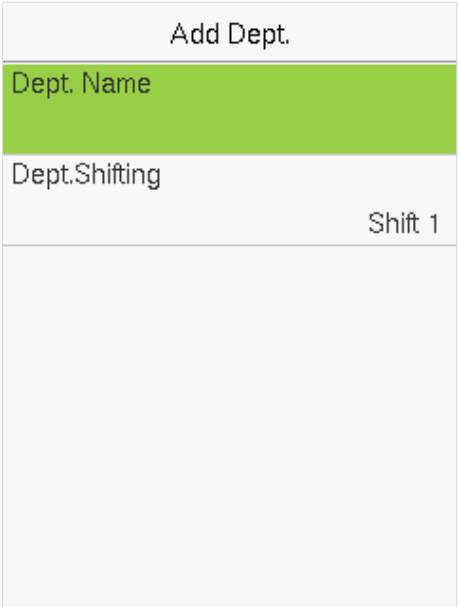
Establishing an organizational structure of the company and arranging departments shift is necessary to view the department information of the device. In this menu option, you can add, edit, or remove a department.

Select **Department** on the main menu interface.

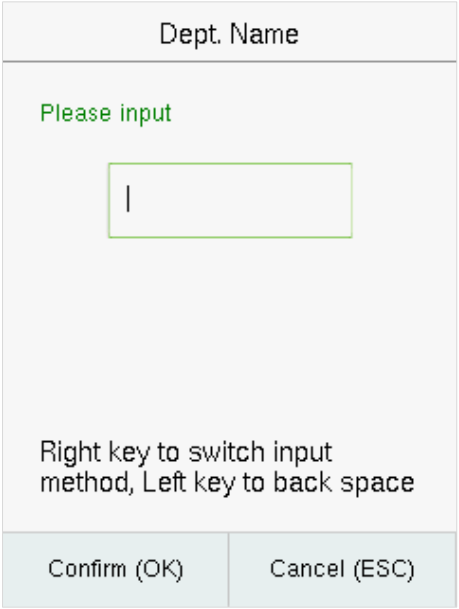



## 9.1 Add a Department

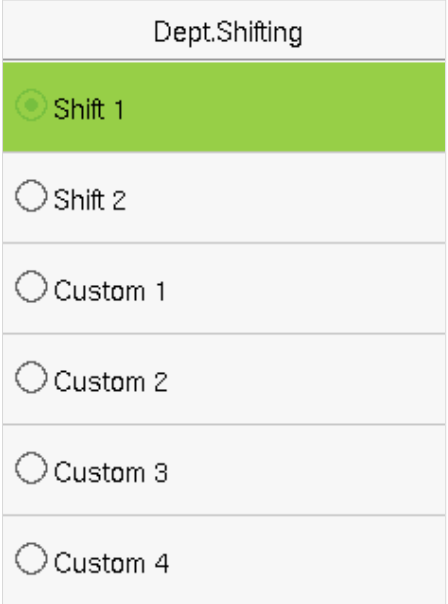
1. Select **Add Dept.** and press [**M/OK**] to enter.



2. Select **Dept. Name** and enter the department name using the T9 input method.




3. Select the **Dept. Shifting** of the department.

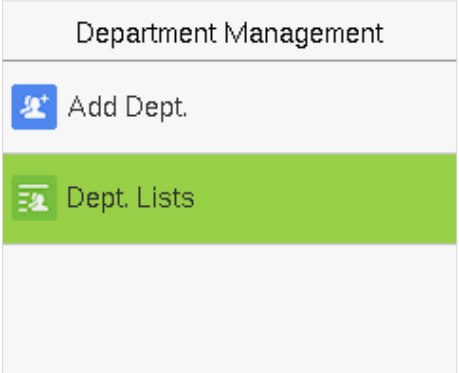



**Note:**

1. The equipment will automatically assign numbers to departments, starting from 1 and so on.
2. **Dept. Shift:** Select the shift attendance used by all users of the department. Shifts can be set in **Shift set** > **Shifts setting**, with a maximum of 24 shifts set by default. Refer to Shift Set section.

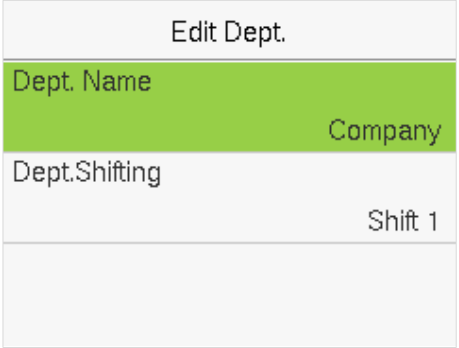
## 9.2 Edit a Department

There are 8 departments in the device by default. You can edit the department name and department shift, but you cannot delete them. In addition to the 8 default departments, additional departments can be edited and deleted.




1. Select **Dept. Lists** and press [**M/OK**] to enter.

2. Select a department to edit and press [**M/OK**] to enter.

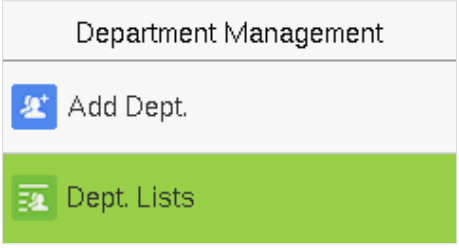



3. Modify **Dept. Name** and **Dept. Shifting** and press [**M/OK**] to save.

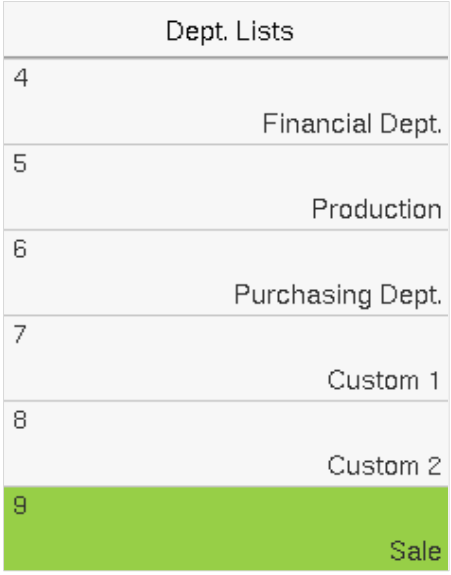
   The editing of the department is the same as of **Add Dept**.

## 9.3 Delete a Department

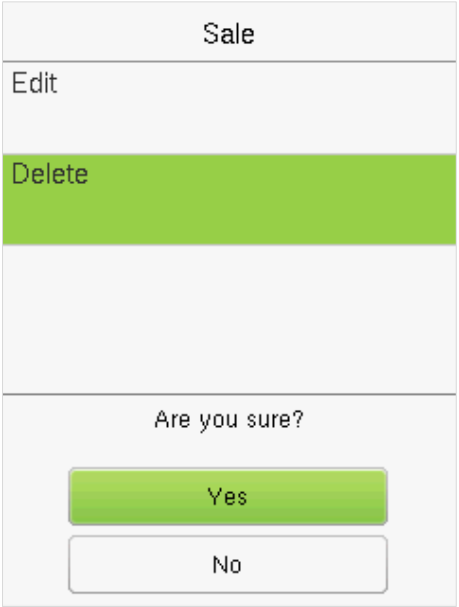
It helps to remove one or more department as required.




1. Select **Dept. Lists** and press [**M/OK**] to enter.




2. Select a department to delete and press **[M/OK]** to enter.



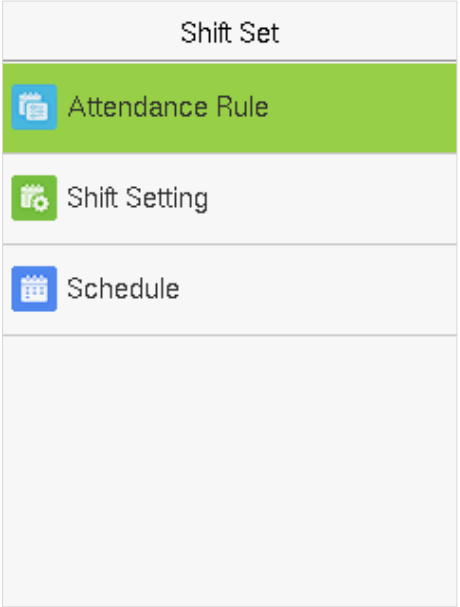

3. Select **Delete** and press **[M/OK]**.

**Note:** Only departments other than the 8 default departments in the device can be deleted.

# 10 Shift Set

Set attendance rules, number of shifts to be used, and schedule employees.

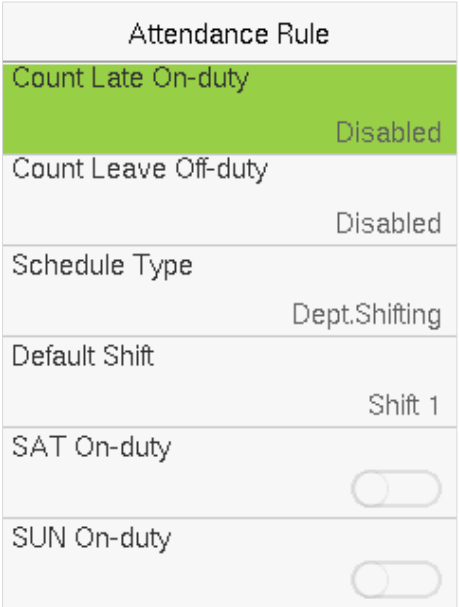
Select **Shift Set** option on the main menu interface.




## 10.1 Attendance Rule

All attendance statistics are conducted according to the attendance rules. Therefore, the staff attendance rules need to be set first, including late, early leave calculation method, and scheduling type. Once the attendance rules are set, it is not recommended to modify them frequently as it may affect the result of attendance calculation and may cause chaos in the scheduling if it is modified in the middle of the month.

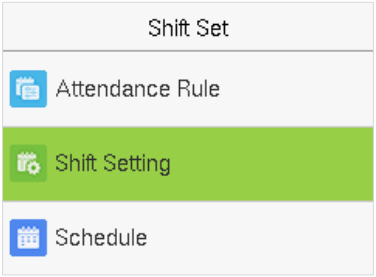
Select **Attendance Rule** on the Shift Set interface.



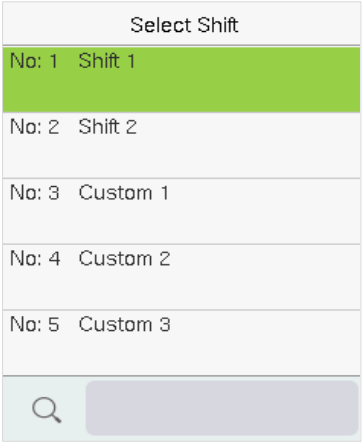
| Item | Descriptions |
|---|---|
| **Count Late On-duty** | Set a time after which the lateness calculation for an employee should start. If it is disabled, the lateness calculation starts with the start of working hours. |
| **Count Leave Off-duty** | Set a time before which the early leave calculation for an employee should start. If disabled, it is calculated with respect to the end of the working hours. |
| **Schedule Type** | The device supports both department and individual-based scheduling.<br>If a company uses one timetable, then only one department needs to be set and department-based scheduling is recommended.<br>If the departments have their respective timetables, department-based scheduling is recommended.<br>If employees may take different shifts, individual-based scheduling is recommended. |
| **Default Shift** | When individual-based scheduling is used, the default shift applies to all the non-scheduled employees. |
| **SAT On-duty** | Enable whether to work normally on Saturdays. |
| **SUN On-duty** | Enable whether to work normally on Sundays. |

## 10.2 Shift Setting

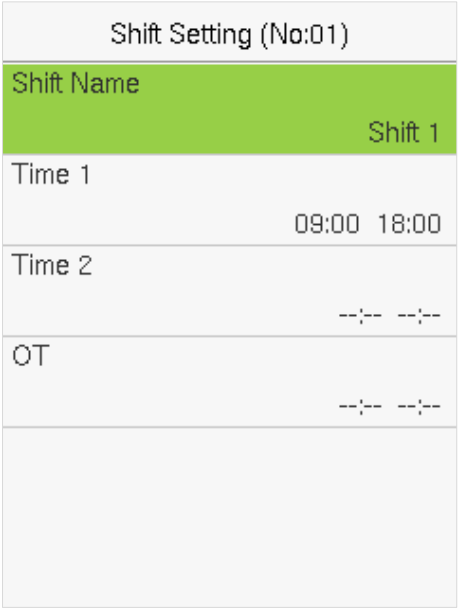
Select **Shift Setting** on the Shift set interface.




Select a Shift on the list, and press **[M/OK]**.




Use the T9 input method to enter "Shift Name" and set the required start and end times.

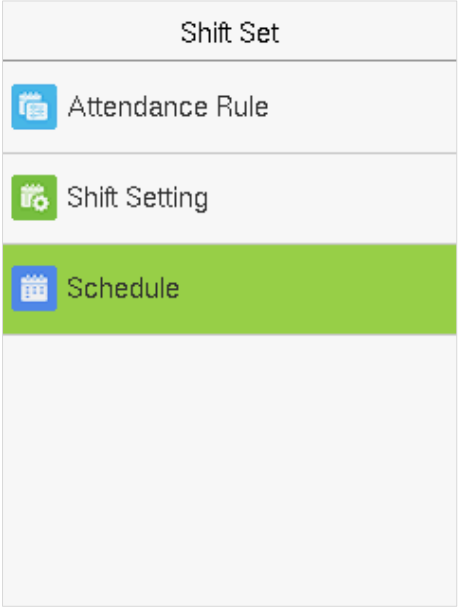



**Note:** The device supports a maximum of 24 shifts including two default shifts (Shift 1 and Shift 2). All the shifts are editable, and a single shift includes three-time ranges at most.

## 10.3 Schedule

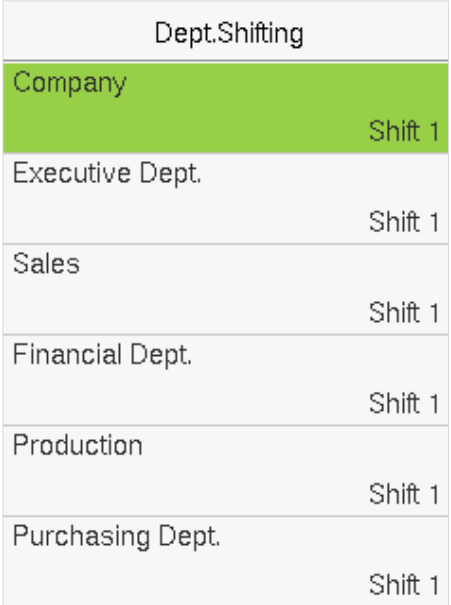
The shifts should be set based on the actual condition of a company. If no shift is set, the system makes attendance calculations based on default shifts set in attendance rules.

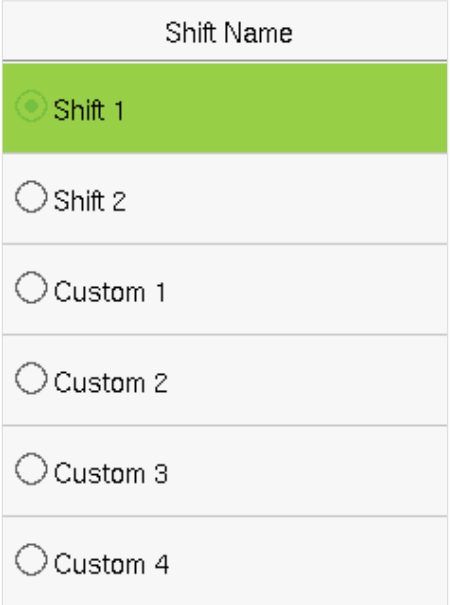
Select **Schedule** on the Shift Set interface.



- **Department-based Scheduling**

Select **Shift Set** > **Attendance Rule** > **Schedule Type** > **Dept. Shifting** to schedule shift for a department.



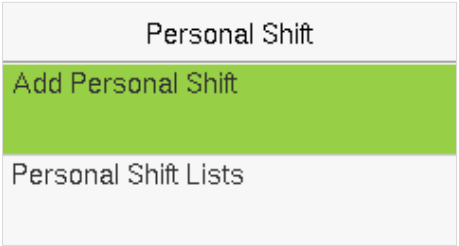

When a shift is selected for a department, it is implemented for all the members of the department.

- **Individual-based Scheduling**

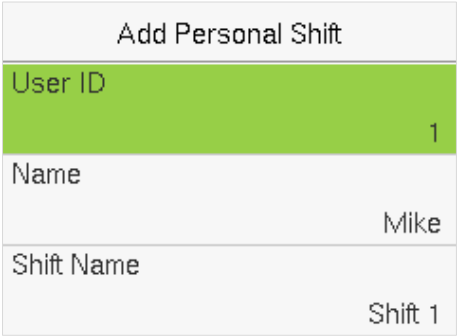
Select **Shift Set** > **Attendance Rule** > **Schedule Type** > **Personal Shift** to schedule shift for an individual.

**1. Add Schedule**

1) Press **[M/OK]** to enter Schedule interface and select **Add Personal Shift**.




2) Enter an ID. The device automatically displays the name. Select Shift Name and then press [**M/OK**].

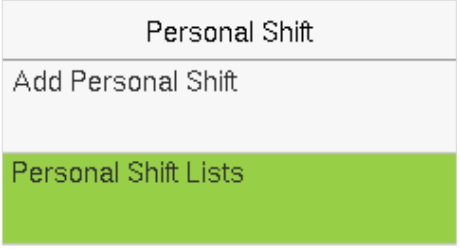



3) Press [**ESC**] to exit and save.

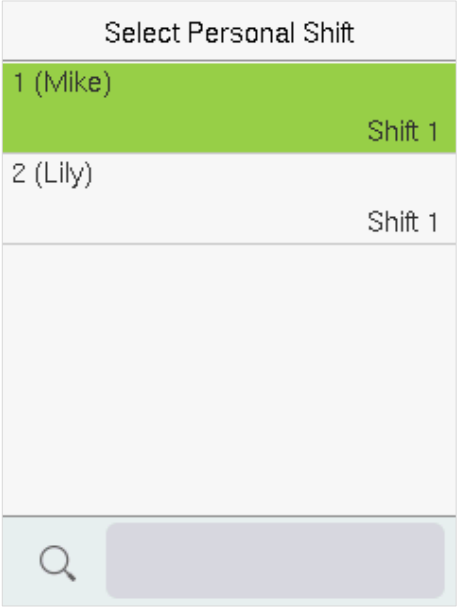
## 2. Edit Schedule

Enter the **Personal Shift Lists** for editing when the scheduling of individual employee needs to be adjusted.

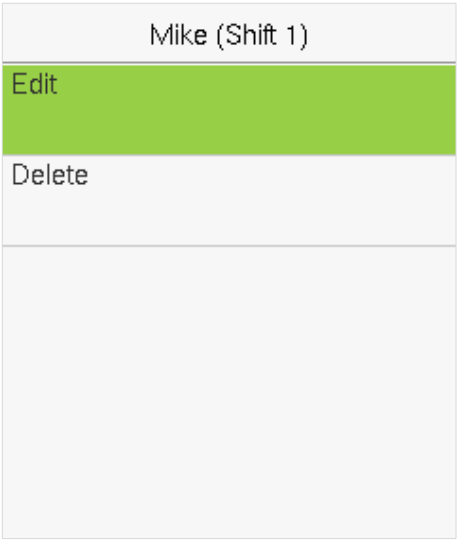
1) Select **Personal Shift Lists** on the Personal Shift interface.




2) Select a scheduled user and press **[M/OK]**.




3) Select **Edit**, press **[M/OK]** to enter and modify the "Shift Name" of the user.

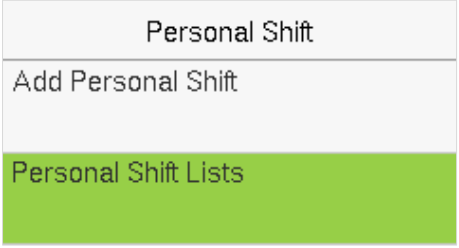



**Note:** The User ID cannot be modified. The other operations are the same as those performed to add a shift.

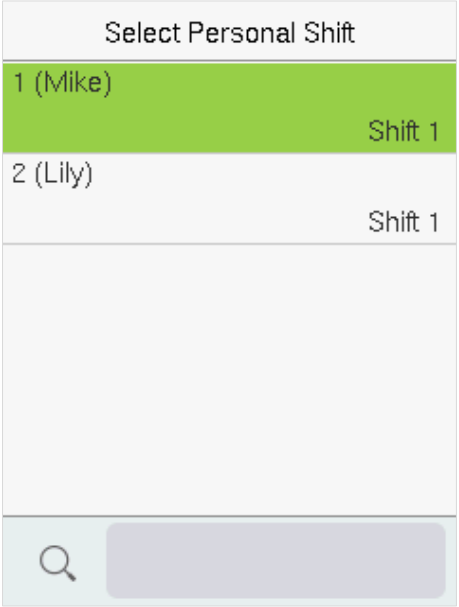
### 3. Delete a shift

Go to the **Personal Shift Lists**, to delete an employee's schedule that is no longer required.

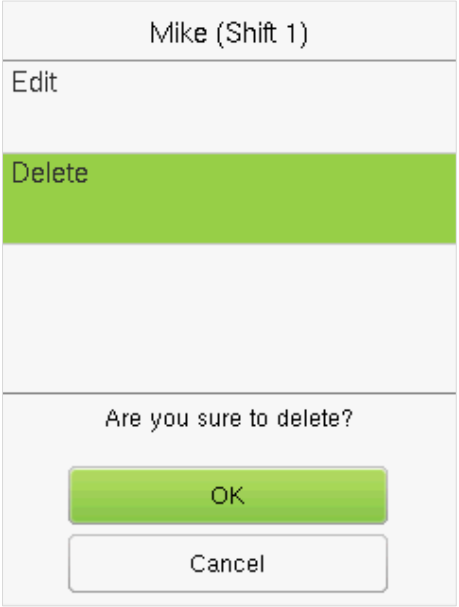
1) Select **Personal Shift Lists** on the Personal Shift interface.




2) Select a scheduled user and press **[M/OK]**.



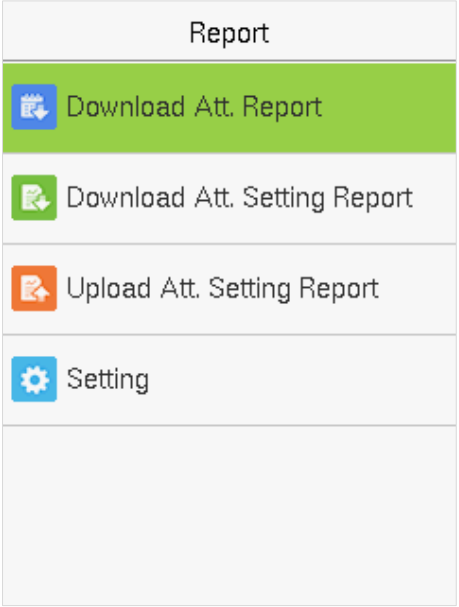

3) Select **Delete**, press [**M/OK**], and choose "**OK**" to delete the Shift successfully.



# 11 Report

This menu item allows you to download statistical reports of attendance or attendance setting reports to a USB flash drive or SD card. You can also upload attendance setting reports with defined shifts and employees' schedules. The device gives priority to the schedules in an attendance setting report.

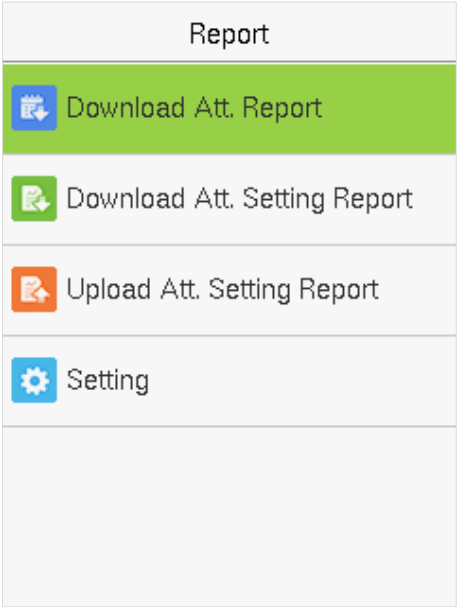
Select **Report** on the main menu interface.




**Note:** First insert the USB flash drive into the USB slot of the machine, and then enter the main menu to perform the related operations of the **Report**.

## 11.1 Download Att. Report

Select **Download Att. Report** and press **[M/OK]**.



Set the on-duty time and press **[M/OK]**.

Set the off-duty time and press **[M/OK]**.

When Data download succeeds, Press **[M/OK]** to take out the USB disk or SD card. The SSRTemplateS.xls gets stored in the USB disk or SD card. The Schedule Information, Statistical Report of Attendance, Attendance Record Report, Exception Statistic Report, and Card Report can be viewed on a PC. The following reports show the preceding information:

To make reports more understandable, a report containing two-day attendance records of four employees is provided as an example.

- **Schedule Information Report:** The report allows you to view schedule records of all employees.

**Schedule Information Report**

Stat.Date: 2020-08-01 ~ 2020-08-15 Special shifts:25-Ask for leave, 26-Out, Null-Holiday

| ID | Name | Department | 1 | 2 |
|---|---|---|---|---|
| | | | FEB | MAR |
| 1 | Joe | company | 1 | 1 |
| 2 | David | company | 1 | 1 |
| 3 | Mark | company | 1 | 1 |
| 4 | Tom | company | 1 | 1 |

- **Statistical Report of Attendance:** The report allows you to query the attendance of each person in a specified period. Salaries can be calculated directly based on this report.

**Statistical Report of Attendance**

Stat.Date: 2020-08-01~2020-08-15

| ID | Name | Department | Work hour | | Late | | Leave early | | Overtime hour | | Att. Days (Nor./Real) | Out (Day) | Absent(Day) | AFL (Day) | Additem payment | | | Deduction payment | | | Real pay | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Normal | Real | Times | Min | Times | Min | Workday | Holiday | | | | | Label | Overtime | Subsidy | Late/Leave | AFL | Cutpayment | | |
| 1 | Joe | company | 18:00 | 17:50 | 0 | 0 | 1 | 10 | 00:00 | 00:00 | 2/2 | 0 | 0 | 0 | | | | | | | | |
| 2 | David | company | 18:00 | 17:48 | 1 | 12 | 0 | 0 | 00:00 | 00:00 | 2/2 | 0 | 0 | 0 | | | | | | | | |
| 3 | Mark | company | 18:00 | 08:50 | 1 | 5 | 1 | 10 | 00:00 | 00:00 | 2/2 | 0 | 0 | 0 | | | | | | | | |
| 4 | Tom | company | 18:00 | 18:00 | 0 | 0 | 0 | 0 | 00:00 | 00:00 | 2/2 | 0 | 0 | 0 | | | | | | | | |

**Note:** The unit of Work hour and Overtime hour in the Statistical Report of Attendance is HH: MM. For example, 17:50 indicates that the on-duty time is 17 hours and 50 minutes.

- **Attendance Record Report:** The report lists the daily attendance records of all employees within a specified period.

**Attendance Record Report**

Att. Time 2020-08-01~2020-08-15 Tabulation 2019-08-15

| 1 | 2 |
|---|---|
| ID: 1 | Name: Joe Dept.: company |
| 07:26<br>12:25<br>13:31<br>17:50 | 07:54<br>12:56<br>13:51<br>18:52 |
| ID: 2 | Name: David Dept.: company |
| 07:36<br>12:26<br>13:31<br>18:31 | 09:12<br>15:50<br>15:51<br>18:52 |
| ID: 3 | Name: Mark Dept.: company |
| 07:50<br>12:30<br>17:50 | 09:05 |
| ID: 4 | Name: Jack Dept.: company |
| 07:45<br>12:50<br>18:31 | 08:11<br>17:55<br>18:06 |

- **Exception Statistic Report:** The report displays the attendance exceptions of all employees within a specified period so that the attendance department handles the exceptions and confirm them with the employees involved and their supervisors.

**Exception Statistic Report**

Stat.Date: 2020-01-01 ~ 2020-08-15

| ID | Name | Department | Date | First time zone | | Second time zone | | Late time(Min) | Leave early(Min) | Absence (Min) | Total(Min) | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | On-duty | Off-duty | On-duty | Off-duty | | | | | |
| 1 | Joe | company | 2019-08-01 | 07:26 | 17:50 | | | 0 | 10 | 0 | 10 | |
| 2 | David | company | 2019-08-02 | 09:12 | 18:52 | | | 12 | 0 | 0 | 12 | |
| 3 | Mark | company | 2019-08-01 | 07:50 | 17:50 | | | 0 | 10 | 0 | 10 | |
| 4 | Tom | company | 2019-08-02 | 09:05 | | | | 5 | 0 | 535 | 540 | |

❖ **Card Report:** The report can substitute for clock-based cards and can be sent to each employee for confirmation.

**Card Report**

Att. Date: 2020-08-01 ~ 2020-08-15 Tabulation: 2020-08-15

| Dept. | company | | | | | Name | Joe | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | 2020-08-01 ~ 2020-08-15 | | | | | ID | 1 | | | |
| Absent(Day) | AFL (Day) | Out (Day) | On-duty | Overtime(H) | | Late | | Leave early | | |
| | | | | Workday | Holiday | (Times) | (Min) | (Times) | (Min) |
| 0 | 0 | 0 | 2 | 0.0 | 0.0 | 0 | 0 | 1 | 10 |

Att. Report

| Week Date | First time zone | | Second time zone | | Overtime | |
|---|---|---|---|---|---|---|
| | On-duty | Off-duty | On-duty | Off-duty | Check-In | Check-Out |
| 01 FEB | 07:26 | 17:50 | | | | |
| 02 MAR | 07:54 | 18:52 | | | | |

| Dept. | company | | | | | Name | David | | |
|---|---|---|---|---|---|---|---|---|---|
| Date | 2020-08-01 ~ 2020-08-15 | | | | | ID | 2 | | |
| Absent(Day) | AFL (Day) | Out (Day) | On-duty | Overtime(H) | | Late | | Leave early | |
| | | | | Workday | Holiday | (Times) | (Min) | (Times) | (Min) |
| 0 | 0 | 0 | 2 | 0.0 | 0.0 | 1 | 12 | 0 | 0 |

Att. Report

| Week Date | First time zone | | Second time zone | | Overtime | |
|---|---|---|---|---|---|---|
| | On-duty | Off-duty | On-duty | Off-duty | Check-In | Check-Out |
| 01 FEB | 07:36 | 18:31 | | | | |
| 02 MAR | 09:12 | 18:52 | | | | |

| Dept. | company | | | | | Name | Mark | | |
|---|---|---|---|---|---|---|---|---|---|
| Date | 2020-08-01 ~ 2020-08-15 | | | | | ID | 3 | | |
| Absent(Day) | AFL (Day) | Out (Day) | On-duty | Overtime(H) | | Late | | Leave early | |
| | | | | Workday | Holiday | (Times) | (Min) | (Times) | (Min) |
| 0 | 0 | 0 | 2 | 0.0 | 0.0 | 1 | 5 | 1 | 10 |

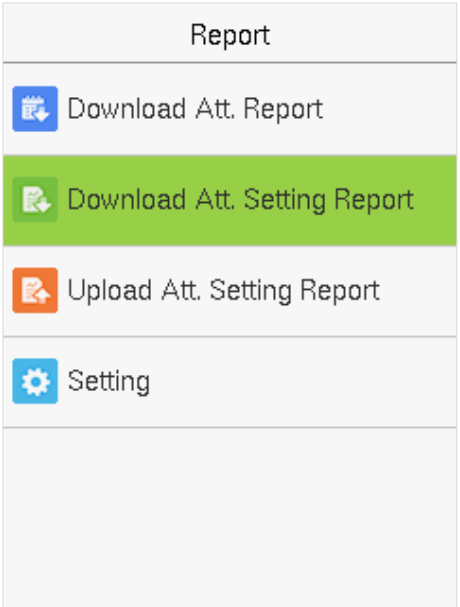
Att. Report

| Week Date | First time zone | | Second time zone | | Overtime | |
|---|---|---|---|---|---|---|
| | On-duty | Off-duty | On-duty | Off-duty | Check-In | Check-Out |
| 01 FEB | 07:50 | 17:50 | | | | |
| 02 MAR | 09:05 | | | | | |

## 11.2 Download Att. Setting Report

If shifts are complex or the shifts of a person are not fixed, it is recommended that the attendance setting report be downloaded and shifts and schedules be set for employees in the attendance setting report.

Select **Download Att. Setting Report** and press **[M/OK]**.



Open the setting "AttSettingE.xls" in the USB disk or SD card on a PC. Set the Shift in the Attendance setting report. The shifts that have been set on the attendance machine shall be displayed. (For more details, see Shift Setting. You can modify the 24 shifts and add more shifts. After modification, the shifts shall prevail on the attendance machine.

| Attendance Setting Report | | | | | | |
|---|---|---|---|---|---|---|
| | Shift | | | | | |
| Number | First time zone | | Second time zone | | Overtime | |
| | On-duty | Off-duty | On-duty | Off-duty | Check-In | Check-Out |
| 1 | 9:00 | 18:00 | | | | |
| 2 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 3 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 4 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 5 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 6 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 7 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 8 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 9 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 10 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 11 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 12 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 13 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 14 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 15 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 16 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 17 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 18 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 19 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 20 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 21 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 22 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 23 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 24 | 9:00 | 12:00 | 13:30 | 18:00 | | |

Enter the On-duty and Off-duty time in the corresponding columns, where the First time zone shall be the On-duty or Off-duty time of Time 1 of Shift Setting, and the Second time zone shall be the On-duty or Off-duty time of Time 2.

For the correct schedule time format, see "What is the correct time format used in the setting reports" in the "Self-Service Attendance Terminal FAQs."

**Set a schedule setting report**

Enter the **ID**, **Name**, and **Department** respectively on the left of the **Schedule Setting Report**. Set shifts for employees on the right of the **Schedule Setting Report**, where shifts 1–24 are shifts to set the **Attendance Setting Report.** Shift 25 is for leave and Shift 26 is for out.

**Schedule Setting Report**

Special shifts:25-Ask for leave, 26-Out, Null-Holiday

| Schedule date | | | | 2020-8-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ID | Name | Department | Card number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| | | | | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT |
| 1 | Joe | company | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | David | company | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Mark | company | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Jack | company | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

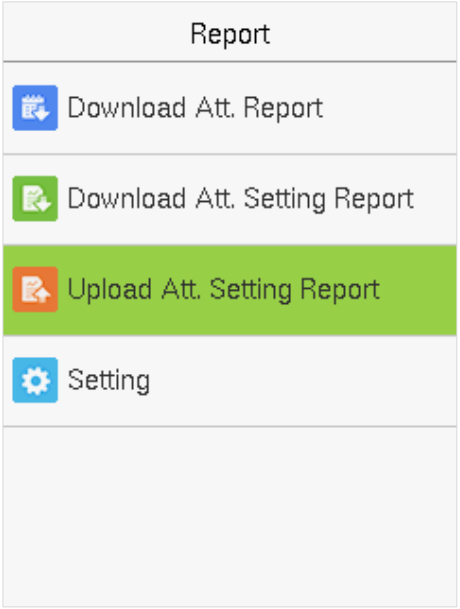
**Notes:**

1. The shifts of only 31 days can be arranged in one schedule setting report. For example, if the scheduling date is 2020-1-1, the schedule setting report contains the schedules of 31 days after 2020-1-1, that is, scheduled from 2020-1-1 to 2020-1-31. If the scheduling date is 2020-1-6, the schedule setting report contains the schedules of 31 days after 2020-1-6, that is, scheduled from 2020-1-6 to 2020-2-5.
2. If no schedule setting report is set, all employees use Report 1 by default from Monday to Friday.

## 11.3 Upload Att. Setting Report

After setting the attendance setting table, save the “Setting Report.xls” to the USB flash drive and reinsert the USB flash drive into the USB slot of the device.

Select **Upload Att. Setting Report** on the Report interface and press **[M/OK]**.



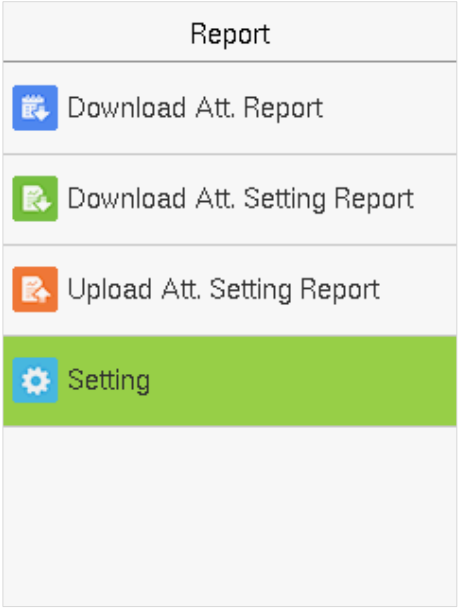
After uploading, remove the USB disk or SD card. At this time, the employee information, shift, and department in the setting report can be viewed respectively by the Management User, Shift Number, and Department available in the device. Or the above information and scheduling information can be seen in the standard download report.

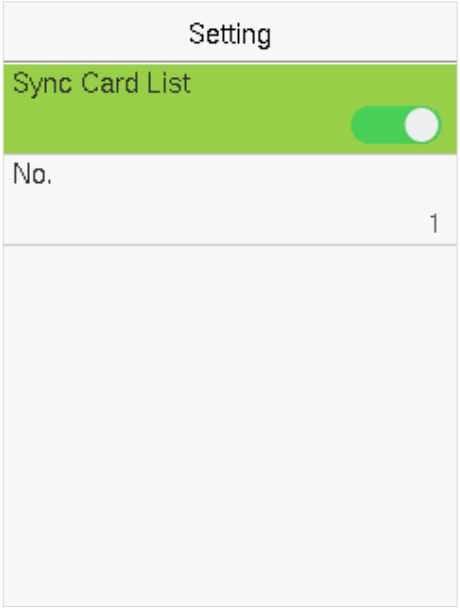
**Note:** If the schedule time format is incorrect, Re-upload the attendance setting report after modification.

## 11.4 Setting

Set whether to synchronize the card report and distinguish the device ID when downloading the attendance report.

Select **Setting** on the Report interface and press **[M/OK]**.



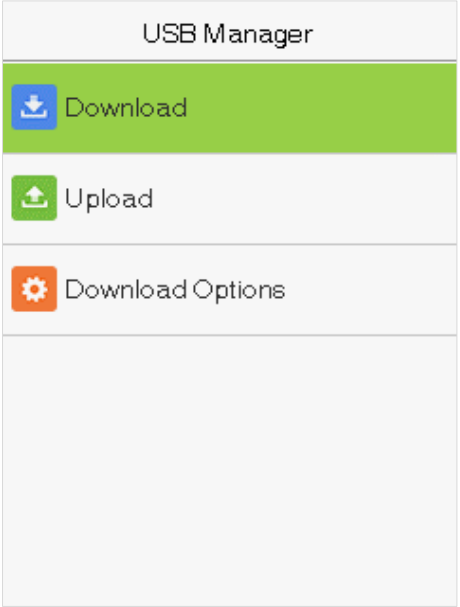



# 12 USB Manager

Upload or download data between the device and the corresponding software using a USB disk.

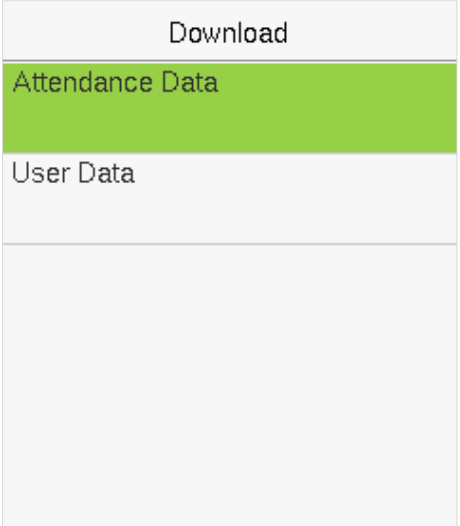
Before uploading/downloading data from/to the USB disk, insert the USB disk into the USB slot first.

Select **USB Manager** on the main menu interface.




## 12.1 USB Download

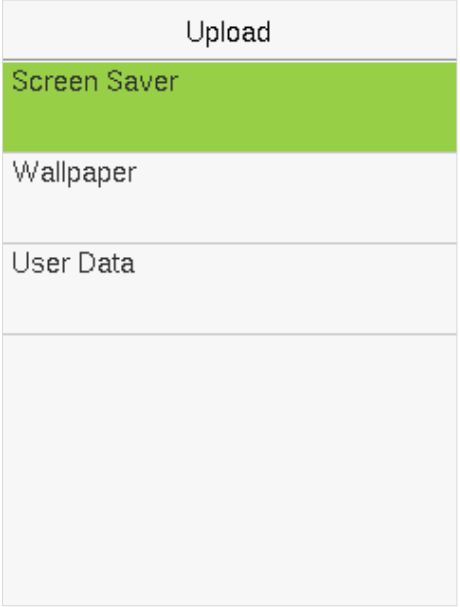
Select **Download** on the USB Manager interface.




| Item | Description |
|---|---|
| **Attendance Data** | Import all the attendance data from the device to a USB disk. |
| **User Data** | Import all the user information, fingerprints, and facial images from the device to a USB disk. |

## 12.2 USB Upload

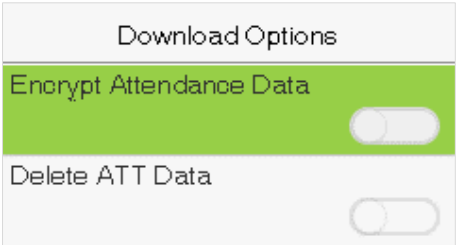
Select **Upload** on the USB Manager interface.




| Item | Description |
|---|---|
| **Screen Saver** | To upload all screen savers from USB disk into the device. You can choose **[Upload selected picture]** or **[Upload all pictures]**. The images display as screensaver on the device's main interface after upload. |
| **Wallpaper** | To upload all wallpapers from USB disk into the device. You can choose **[Upload selected picture]** or **[Upload all pictures]**. The images display as wallpaper after upload. |
| **User Data** | Upload the message stored in a USB disk to the terminal. |

## 12.3 Download Options

Select **Download Options** on the USB Manager interface.




Click **[M/OK]** to enable or disable the **[Encrypt Attendance Data]** and **[Delete ATT Data]** options.

**Remarks:** With Encrypt Attendance data-enabled, the data downloads with encryption for better security. The encrypted attendance data can only be imported in the software of Access 3.5.

Delete ATT Data deletes all the attendance data.

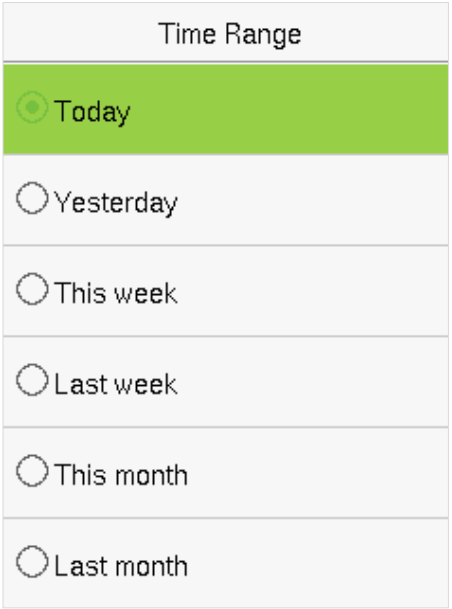
# 13 Attendance Search

When the identity of a user is verified, the record is saved on the device. This function enables users to check their access records.

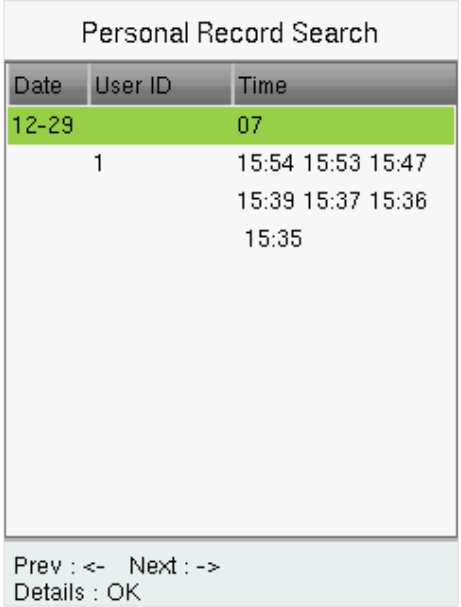
Select **Attendance Search** on the main menu interface and input the User ID. The interface is shown below.

1) Enter the user ID to be searched and select **OK**. If you want to search for records of all users, select **OK** without entering any user ID.

2) Select the time range for the records you want to search.




3) The record search succeeds. Select the record in green to view its details.

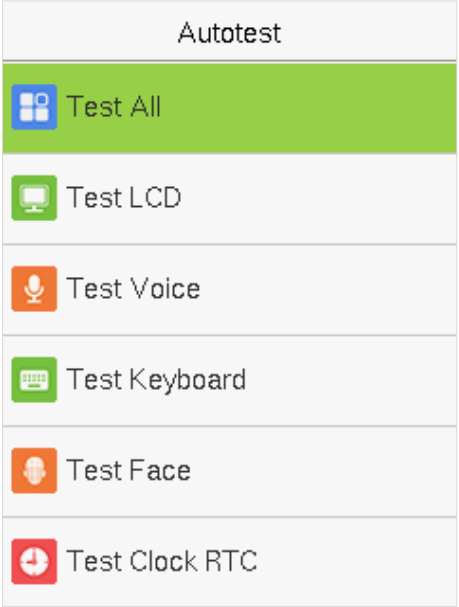



4) The below figure shows the details of the selected record.

# 14 Autotest

The auto test enables the system to automatically test whether the functions of various modules are working normally, including the LCD, voice, sensor, keyboard, and clock tests.

Select **Autotest** option on the main menu interface.

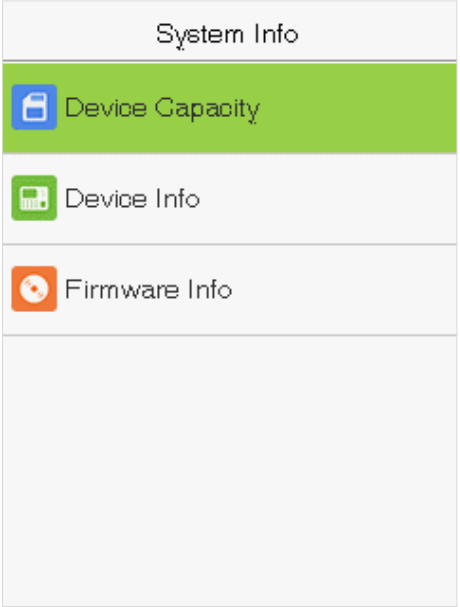



| Item | Description |
|---|---|
| **Test All** | To automatically test whether the LCD, audio, camera and RTC are working normally. |
| **Test LCD** | To automatically test the display of the LCD screen by displaying all the color bands including pure white and pure black to check whether the screen displays the colors accurately. |
| **Test Voice** | To automatically test whether the audio files stored in the device are complete and the voice quality is good. |
| **Test Keyboard** | The terminal tests whether every key on the keyboard works normally. Press any key on the **[Keyboard Test]** interface to check whether the pressed key matches the key displayed on the screen. The keys are displayed as dark grey before and turn blue after pressed. Press **[ESC]** to exit the test. |
| **Test Face** | To test if the camera functions properly it checks the photos taken and determines if they are clear enough. |
| **Test Clock RTC** | To test the RTC. The device checks whether the clock works normally and accurately with a stopwatch. Touch the screen to start counting and press it again to stop counting. |

# 15 System Information

With the system information option, you can view the storage status, the version, and firmware information of the device.

Select **System Info** on the main menu interface.




| Item | Description |
|---|---|
| **Device Capacity** | Displays the current device's user storage, password, fingerprint and face storage, administrators, and attendance records. |
| **Device Info** | Displays the device's name, serial number, MAC address, face algorithm version information, fingerprint algorithm version information, platform information, and MCU version. |
| **Firmware Info** | Displays the firmware version and other version information of the device. |

# Appendix

## Appendix 1 - Self-Service Attendance Terminal FAQs

**1. Does self-service attendance terminal support scheduling based on every other day?**

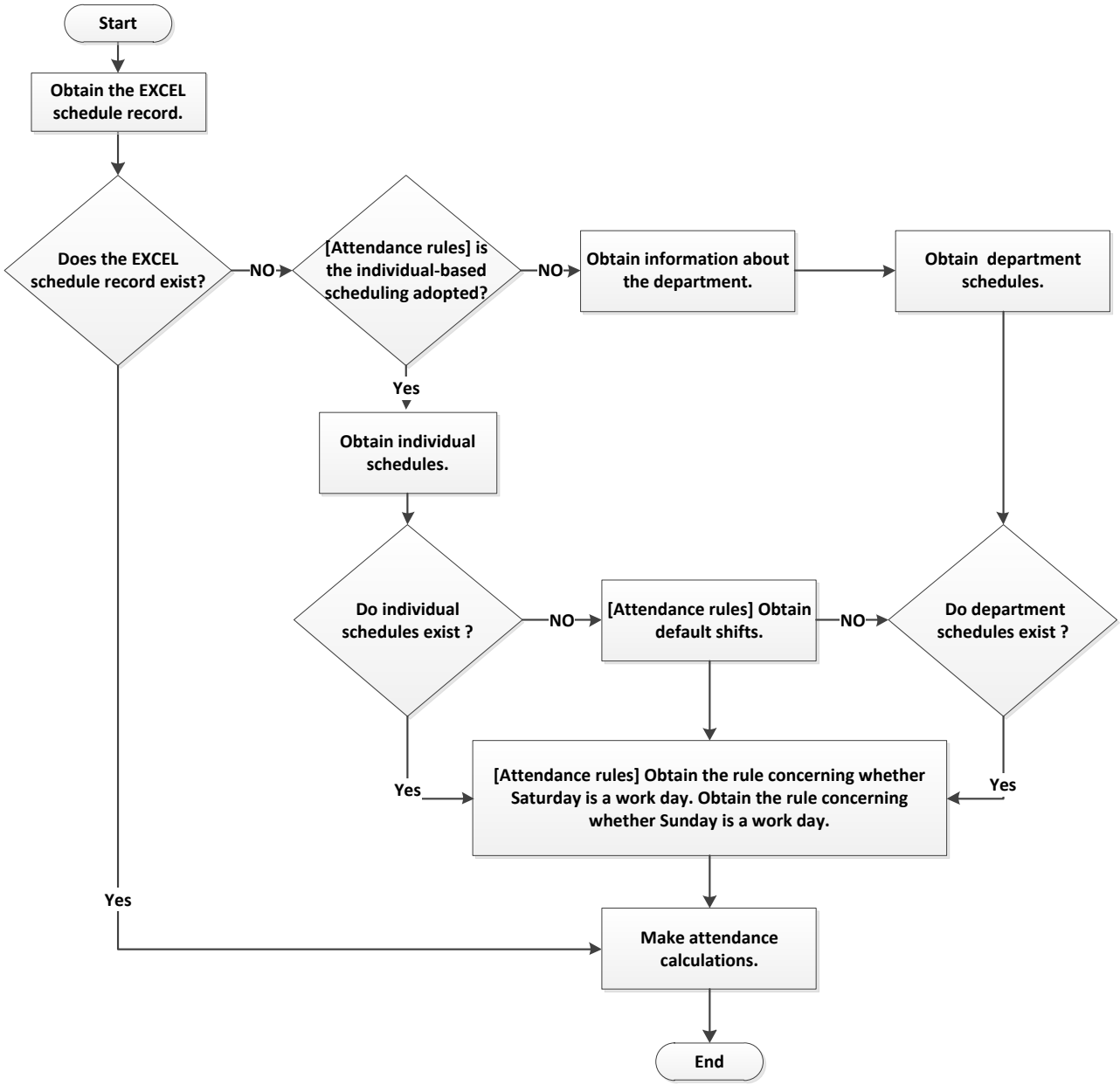
**A:** No.

**2. Can the setting records downloaded from the device be edited on WPS software?**

**A:** Yes. Setting records are supported in Microsoft Office 2003, Microsoft Office 2007, and WPS Office 2012 Personal.

**3. What is the attendance calculation flow adopted by the self-service attendance terminal?**

**A:** SSR attendance calculation flow.



**4. How to calculate special overtime hours?**

The following cases are deemed special overtime:

a) When an EXCEL schedule record exists and attendance reports are used for attendance calculation, there are check-in and check-out records though there is no schedule (or rest is arranged) for the current date.

b) When no EXCEL schedule record is available, there are check-in and check-out records though Saturday and Sunday are non-working days.

Overtime hours refer to the duration counted from the first check-in time to the last check-out time on the current day.

**5. How to arrange schedules using the attendance setting report?**

Step 1: Insert a USB flash drive into the USB port or SD card into the SD port of the device and download the Attendance Setting Report.xls to the USB flash drive or SD card.

Step 2: Open the Attendance Setting Report.xls on a computer.

Step 3: Set shifts in the Attendance Setting Report.xls as required.

**Attendance Setting Report**

| Shift | | | | | | |
|---|---|---|---|---|---|---|
| Number | First time zone | | Second time zone | | Overtime | |
| | On-duty | Off-duty | On-duty | Off-duty | Check-In | Check-Out |
| 1 | 9:00 | 18:00 | | | | |
| 2 | 9:00 | 12:00 | 13:30 | 18:00 | | |
| 3 | 9:00 | 12:00 | 13:00 | 18:00 | | |
| 4 | 9:00 | 12:00 | 14:00 | 18:00 | | |

Data enclosed by a red rectangle is new shifts (shift 3 and shift 4). To add a shift, enter a time directly, in the range of 00:00 to 24:00.

Step 4: Arrange schedules for employees.

Date

**Schedule Setting Report**

Special shifts:25-Ask for leave, 26-Out, Null-Holiday

Schedule date 2012-1-1

| ID | Name | Department | Card number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SUN | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE |
| 1 | Joe | company | | | | | 1 | 1 | 1 | | | 2 | 2 | 2 | 2 | 2 | | | 25 | 1 | 1 | 1 | 1 | | | 3 | 3 | 3 | 3 | 3 | | | 3 | 3 |
| 3 | David | company | | | | | 2 | 2 | 2 | | | 1 | 1 | 1 | 1 | 1 | | | 2 | 3 | 3 | 25 | 3 | | | 4 | 4 | 4 | 26 | 4 | | | 4 | 4 |
| 3 | Mark | company | | | | | 3 | 3 | 3 | | | 2 | 2 | 2 | 2 | 2 | | | 2 | 2 | 2 | 2 | 2 | | | 4 | 4 | 4 | 26 | 4 | | | 3 | 3 |
| 4 | Jack | company | | | | | 25 | 2 | 4 | | | 3 | 3 | 3 | 3 | 3 | | | 1 | 1 | 2 | 2 | 2 | | | 4 | 4 | 4 | 4 | | | | 1 | 1 |

Holiday Shifts Leave On business

**Note:** Dates must be set correctly. For example, if the scheduling date is 2012-1-1, the schedule setting report contains the schedules of 31 days after 2012-1-1, that is, the schedule from 2012-1-1 to 2012-1-31. If the scheduling date is 2012-1-6, the schedule setting report contains schedules of 31 days after 2012-1-6, that is, the schedule from 2012-1-6 to 2012-2-5.

Step 5: Insert a USB flash drive into the USB port or SD card into the SD port of the device and upload the *Attendance Setting Report.xls* to the device. Then, the schedules in the *Attendance Setting Report* can be used.

**6. What is the correct time format used in the setting reports?**

**A.** The correct time format is shown in the following table.

| Shift No. | First Time Range | | Second Time Range | | Overtime Range | |
|---|---|---|---|---|---|---|
| | On-duty | Off-duty | On-duty | Off-duty | Check-in | Check-out |
| 1 | 09:00 | 18:00 | | | | |
| 2 | 09:00 | 12:00 | 13:30 | 18:00 | | |
| 3 | 9:5 | 18:00 | | | | |

**B.** Incorrect time formats are as follows:

a) A time value is beyond the time range, such as 24:00.

b) A time value contains Chinese characters, for example, 9:00, which differs from 9:00.

c) A time value is preceded by a space. As shown in the following table, there is a space in front of 09:00 in shift 1.

| Shift No. | First Time Range | | Second Time Range | | Overtime Range | |
|---|---|---|---|---|---|---|
| | On-duty | Off-duty | On-duty | Off-duty | Check-in | Check-out |
| 1 | 09:00 | 18:00 | | | | |
| 2 | 09:00 | 12:00 | 13:30 | 18:00 | | |
| 3 | 9:5 | 18:00 | | | | |

d) A time value contains special characters, for example, _9:00 and 09:-1.

The device performs a validity check and error tolerance for other formats.

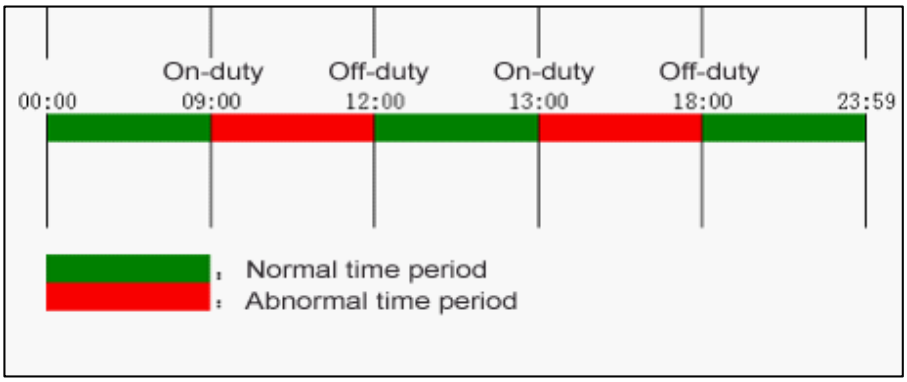
**7. How does the self-service attendance terminal collect the correct attendance time based on the preset shift time?**

**A:** The device collects attendance time based on the following principles:

a) Adopt the earliest time for normal attendance and the nearest time for abnormal attendance.

b) Adopt the normal attendance time if the normal attendance time and abnormal attendance time coexist.

c) Adopt a median in the attendance time range.



**B:** The following uses four examples to describe the preceding principles.

**Example 1: Normal attendance**

| | | | | | | |
|---|---|---|---|---|---|---|
| Attendance Time Range | 09:00 — 12:00 | | 13:00 — 18:00 | | | |
| Attendance time of #1 employee | 8:30, 8:35, 11:55,12:01, 12:50, 18:02,19:00 | | | | | |
| Statistical result based on attendance rules | 8:30 | 12:01 | 12:50 | 18:02 | | |

**Description:** The attendance time 8:30 and 8:35 are earlier than the on-duty time 9:00 and they are within the normal attendance time range. Therefore, 8:30 is adopted for the on-duty time 9:00 based on the principle of adopting the earliest time for normal attendance. 18:02 and 19:00 are later than the off-duty time 18:00, and therefore, 18:02 is adopted based on the same principle.

**Example 2: Late arrival**

| | | | | | | |
|---|---|---|---|---|---|---|
| Attendance Time Range | 09:00 — 12:00 | | 13:00 — 18:00 | | | |
| Attendance time of #1 employee | 9:01, 9:04, 12:01, 12:50, 18:00 | | | | | |
| Statistical result based on attendance rules | 9:01 | 12:01 | 12:50 | 18:00 | | |

**Description:** Employer 1 checks in for work at 9:01 and 9:04 and he/she is late based on the preset on-duty time. Based on the principle of adopting the nearest time for abnormal attendance, the correct check-in time is 9:01 rather than 9:04 because of 9:01 is nearer 9:00.

**Example 3: Early leave**

| | | | | | | |
|---|---|---|---|---|---|---|
| Attendance Time Range | 09:00 — 12:00 | | 13:00 — 18:00 | | | |
| Attendance time of #1 employee | 8:50, 11:40,11:55, 12:50, 18:01 | | | | | |
| Statistical result based on attendance rules | 8:50 | 11:55 | 12:50 | 18:01 | | |

**Description:** The attendance time 12:50 is adopted based on the principle of adopting a median in the attendance time range. For the attendance time range from 9:00 to 12:00, the normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, 12:00 + (13:00 - 12:00)/2). Therefore, the calculated time of attendance is shown in the preceding table.

**Example 4: Absence**

**Case 1:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Attendance Time Range | 09:00 — 12:00 | | 13:00 — 18:00 | | | |
| Attendance time of #1 employee | 8:50, 12:50, 18:01 | | | | | |
| Statistical result based on attendance rules | 8:50 | | 12:50 | 18:01 | | |

**Description:** The attendance time 12:50 is adopted based on the principle of adopting a median in the attendance time range. For the attendance time range from 9:00 to 12:00, the normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, 12:00 + (13:00 - 12:00)/2). Therefore, the check-out time is blank. The normal check-in time range for the on-duty time from 13:00 is from 12:30 to 13:00. The calculated time of attendance is shown in the preceding table.

**Case 2:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Attendance Time Range | 09:00 — 12:00 | | 13:00 — 18:00 | | | | |
| Attendance time of #1 employee | 8:50, 11:55, 12:20, 18:01 | | | | | | |
| Statistical result based on attendance rules | 8:50 | 12:20 | | 18:01 | | | |

**Description:** The time 12:20 is adopted based on the principle of adopting a median in the attendance time range. The normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, 12:00 + (13:00 - 12:00)/2). Therefore, the check-out time of the employee is 12:20. The normal check-in time range for the on-duty time from 13:00 is from 12:30 to 13:00. Therefore, the check-in time of the employee is blank. The calculated time of attendance is shown in the preceding table.

# Appendix 2 - T9 Input Method

T9 is a smart, quick, and efficient input method. The device support T9 English and symbol input. There are 3 or 4 English letters on numeric keys (2~9). For example, A, B, C are on numeric key **2**. Press the corresponding key once, and the program will generate effective spelling. By using T9 input, Names, User Roles, Work Codes, SMS content, and several symbols can be entered.

Press **[M/OK]** to auto open T9 Input when entering text or characters is required. Press ► key to switch Input methods, and press **[ESC]** to quit.

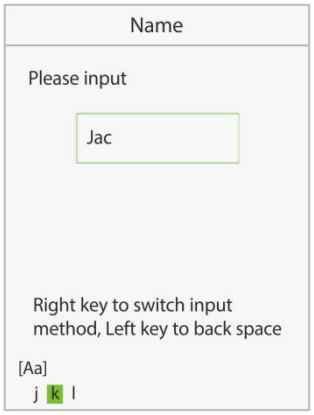
Take Input name as an example:

Press ► key to switch input methods: Mixed Case, Upper Case, Lower Case, Number, and Symbols.

Press ► key to select mixed case [Aa], press numeric key 5 once to get letter **J**.

Press numeric key 2 once to get a letter **a**.

Again, press numeric key 2 three times to get letter **c**.




Press numeric key 5 twice to get the letter **k**.

> When entering, wait for a while between two letters. That is, input the next letter when the prior letter has been displayed on the screen.