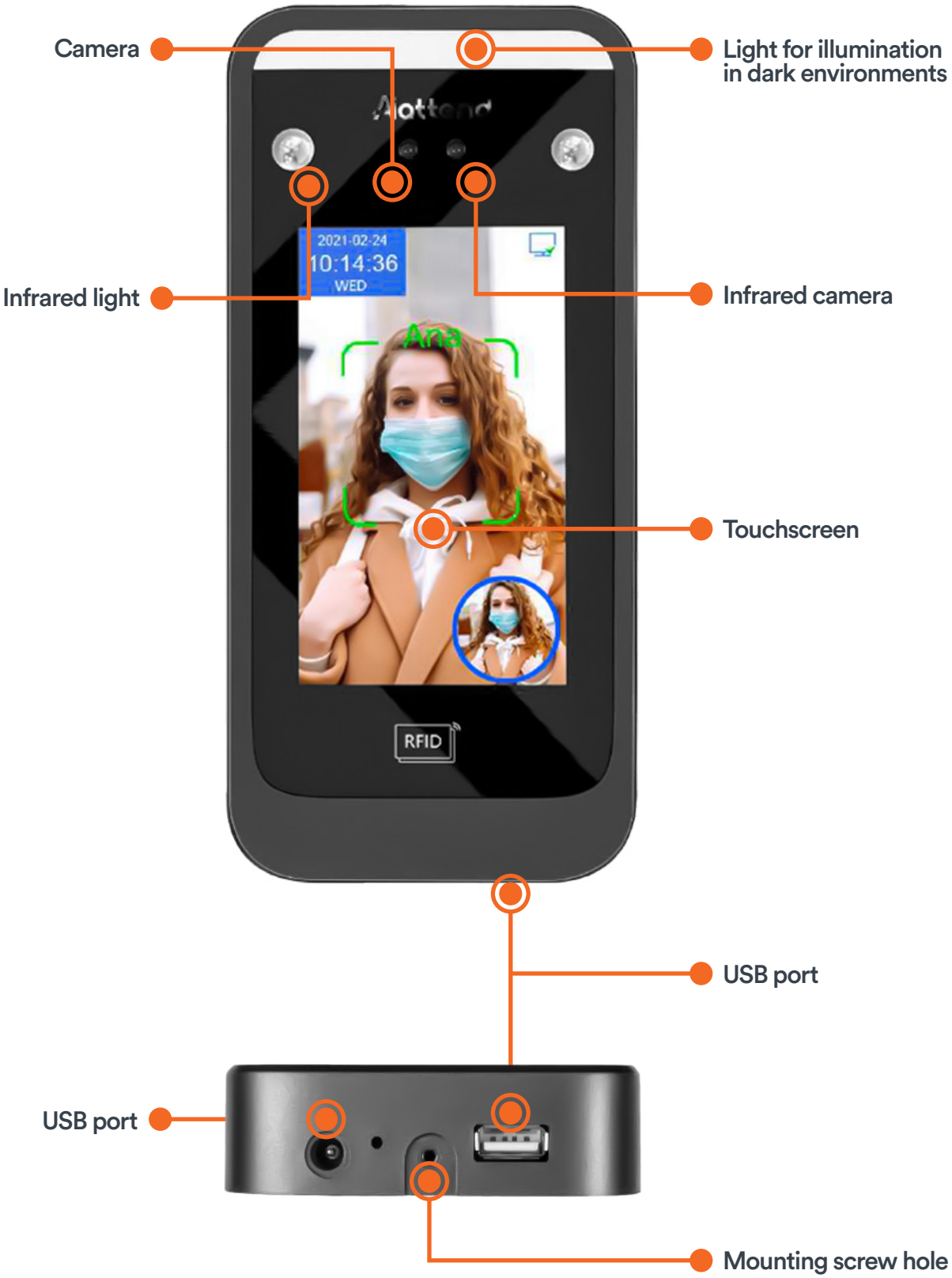
IBEX
ACCESS CONTROL

USER MANUAL
FACIAL DEVICE

Index

Product Overview

Facial Device



Thank you for choosing IBEX! Our products adopt the latest biometric solutions. Our performance indicators are at industry-leading levels, fully meeting the most demanding efficiency requirements.

Due to continuous product updates, all features and parameters are subject to the actual product and may change without prior notice. The image description in this document may not match the actual product. Refer to the actual product.

Usage Environment

Avoid installing the device in locations with strong light exposure. Intense light may affect facial recognition and result in verification failure.

The operating temperature of the device is from 0°C to 45°C. Avoid prolonged outdoor use, as it may affect the device's normal operation. If outdoor use is necessary, it is recommended to use shading and heat dissipation protection during summer, and thermal insulation during winter.

Installation Precautions

Wall Mount Installation

1. The recommended installation height is at least 130 cm from the lowest point of the device to the floor (measure the height as needed).
2. Unscrew the bracket from the back of the device and attach it to the wall to serve as a template to determine the ideal position. Mark it.
3. Drill holes according to the marks.
4. Secure the bracket to the wall.
5. Mount the device to the bracket and connect the power supply. If necessary, use the spacer (included) to allow space for wiring.
6. Install the device onto the rear panel.
7. Tighten the screw at the bottom of the device.

Before installation, make sure the device's power supply system is turned off. Installation and wiring operations may damage the device if the power cable is connected.

In situations where static electricity is intense, connect the ground wire first and then the other wires. This may protect the device from damage caused by static electricity.

If you are not using some of the terminals, please do not expose the wires connected to unused ports. This can cause a short circuit and damage the equipment. Likewise, use different colored cables to connect the ports in order to distinguish the different connections.

Please connect all other cables before connecting the power cable, and test the power supply last. If the device does not function normally after being powered on, turn off the power and check both the device and all cables.

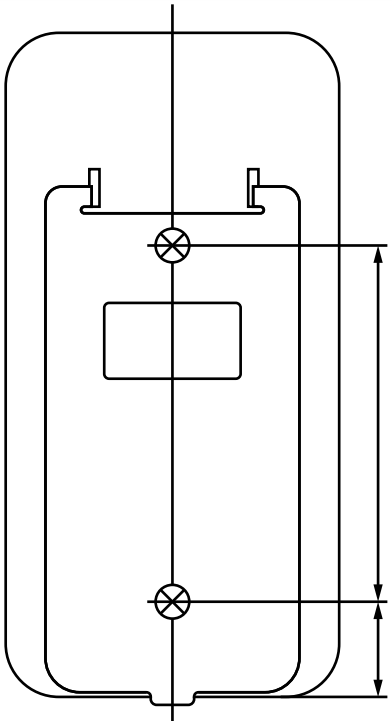
If the distance between the power source and the device is long, it is strictly prohibited to use a network cable or any special wire in place of the power cable.

If electrical installation is done incorrectly, the device's circuit and motherboard may burn out, causing malfunction. This situation is not covered under warranty.

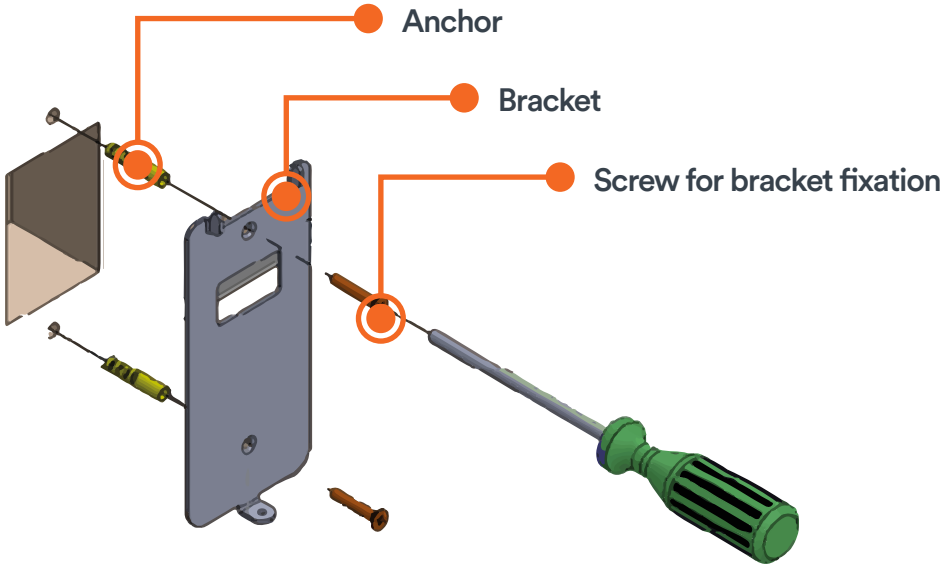
WARNING:

- Do not install the product with the power supply connected.
- When using a power adapter, a 12V/2A model is recommended.
- Avoid installing the device exposed to direct sunlight or in a humid location.

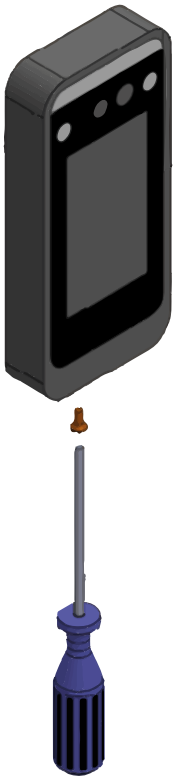
Use the bracket as a template to mark the drilling location.



Drill and insert the anchors. Then, run the cables through the rectangular opening of the bracket and screw it in.



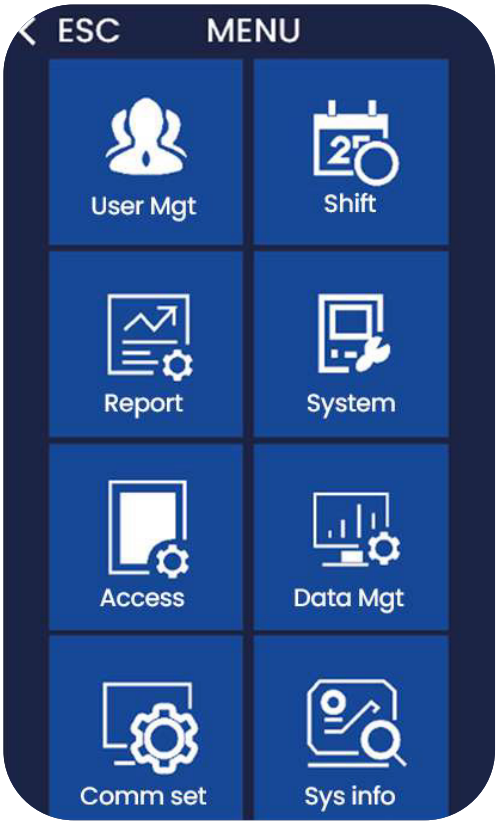
Connect the cables and attach the device to the bracket. Secure the Facial Device by screwing the bracket to the device at the bottom.



IBEX ACCESS CONTROL

Main Menu

After connecting the device to the power supply, wait a few moments for it to initialize. Touch the screen and a menu bar will appear at the bottom of the screen. Click on the gear icon in the lower left corner to access the menu. When an administrator is registered, after administrator verification, the menu can be accessed.



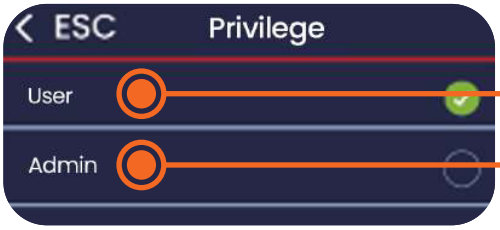
WARNING:

Registering “administrator” users restricts access to configuration menus. Only the “administrator” can access these menus.

It is recommended to register more than one “administrator” user.

On the other hand, if no “administrator” is registered, anyone will have access to the configuration menus, which will leave the device vulnerable.

See how to register an “administrator” on page 10.



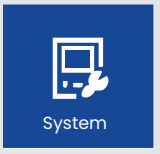
Regular user, no access to menus.

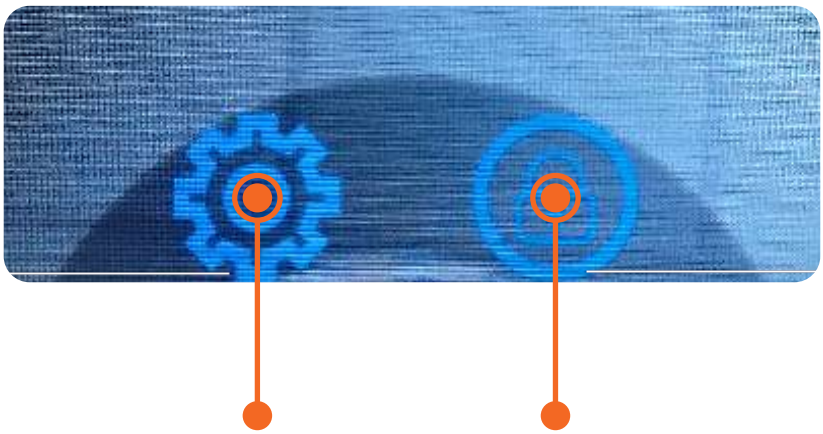
Administrator user, with access to menus.

NOTE: The “Shift” menu may be named “Rules.” The “Network” menu may be labeled as “Communication.”

NOTE: If an administrator is registered, each time the configuration menu is accessed, administrator authentication (face or password) will be required.

IBEX ACCESS CONTROL

MENU	ICON	DESCRIPTION
User Mgt		Add or locate users, create departments, set privileges (admin user), import/export users, change password or facial biometrics.
Access		Access control settings (only when the device is used for this purpose).
Comm set (Communication)		Network, server, and Ethernet configuration.
System		Operational settings like language, volume, time, screen saver, firmware, standby mode, multi-face, distance, live face, etc.
Data Mgt		Download/export of logs, delete all users/logs, delete admins, database reset, restore settings.
Sys info (Information)		Allows checking of storage capacity, registered faces and passwords, admins, and access records.



IBEX ACCESS CONTROL

Add user

Touch the screen and the menu bar will appear. Click the gear icon > USER MGT > ADD USER. Administrator verification may be required. Once verified, the menu can be accessed.

ID: Each user must have a unique "ID" when registering.

Name: Enter or edit the name. Tap in ADD USER.

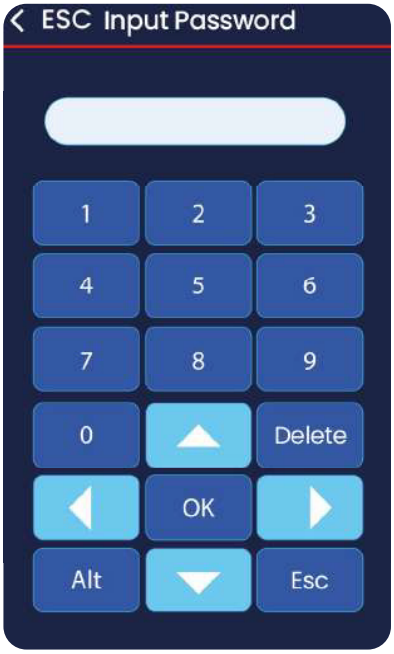
Tap in FACE: Follow the on-screen instructions for facial registration. Tap in ENROLL or CHANGE PHOTOS.

Note: Please stand directly in front of the device, face the camera, and keep your entire face visible within the frame to ensure good facial recognition performance. It is possible to change the photo before saving it.

Note: Each face can only be registered once, even if the user has a different ID. If the same face is registered again, an error message will be displayed.

Department: Users can be associated with a department. Departments must be created beforehand in the USERS MGT > DEPT-MAN menu (up to 14 departments).

Password: Only one password can be registered per ID. After clicking the icon, enter the desired password and press "OK" to confirm it. To verify the password, enter the password again, click "OK".



IBEX ACCESS CONTROL

Verify User

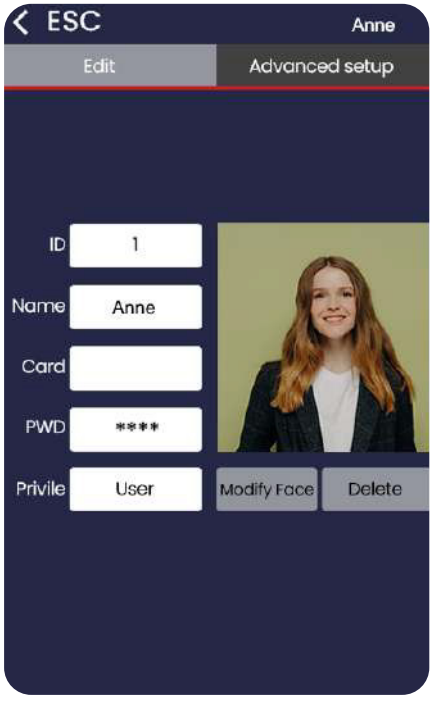
Touch the screen and the menu bar will appear. Click the gear icon > USER MGT > USER VIEW. Administrator verification may be required. Once verified, the menu can be accessed.

You can quickly find a user using the "Find" or "Find Name" buttons at the top of the screen. You can also scroll through the user list. The "Find" option requires the user's ID.

Within this menu, you can edit user information. A dot in front of the name indicates which authentication method is registered for each user.

Administrator

Find the user you want to promote to administrator. Select them. The last field will be “Privilege.” Click it, then select “Administrator.”



Communication

Configure the communication options such as: Ethernet, Wi-Fi (if available on the device), and server. Access the settings menu > COMM SET > NETWORK (or Ethernet).

DCHP	If disabled, fields will be available for manual entry. If enabled, filling is automatic.	Configure according to your local network.
IP	Each device must have its own unique IP.	With DHCP disabled, configure a value manually.
MASK	TCP/IP network mask where the device is installed.	Configure a value.
GATEWAY	TCP/IP network gateway.	Configure a value.
DNS SERVER IP	IP address of the DNS server. One option is to use Google's DNS.	Use the value: 008.008.000.080
MAC ADDRESS	Device MAC address. Factory defined.	Cannot be changed.

System Menu

Time Option	Time format, date, adjustment, daylight saving configuration.	Configure as desired.
Language	Set the language for menus and voice prompts.	Configure as desired.
Voice	Adjusts the volume of voice messages and system sounds.	Values range from 0 to 10, where 0 is “mute” and 10 is the highest.
Play Name Voice	Enables the function to speak the user’s name upon authentication.	Enable so the device says the user’s name after authentication.
Multiple Faces	Enables authentication of multiple users simultaneously (up to 5).	Not available.
Screen Idle	Sets standby mode. The device will display time or images as a screensaver.	Device enters screensaver after set idle time (in minutes). Reactivates when a face is detected.
Sleep Mode	Sets the time of inactivity before screen turns off.	Screen turns off after set idle time (in minutes). Reactivates when a face is detected.
Screen Saver Wakeup	Determines how the device exits standby mode and turns back on.	‘Face’ makes the device wake up upon detecting a face. ‘Touch’ requires screen tap.
Identify Distance	Configures the facial recognition distance.	Range: 0.5m to 1.5m with “live detection” ON; 0.5m to 2.5m with it OFF.
Bio-assay	Enables detection of real faces only.	If disabled, the device may authenticate photos or digital images.

Advanced Settings

Access the settings menu > SYSTEM > ADVANCED SETUP.

MAX. ADMIN.	Sets the maximum number of administrator users.	Set a value from 1 to 10.
DEVICE VERIFY MODE	Sets the authentication modes allowed by the device. Default is “face/password.”	• C + FA – card and face • Face + Pwd – face and password • FA+(C/P) – face and card or password • Face Only • C + P – card and password • Card Only • Pin Only
QR CODE	Enables the “QR CODE CARDS” option to allow authentication via QR Code.	Generate a QR Code and register it as a card to enable authentication.
1:N Identification*	Adjusts the facial matching sensitivity. Higher value = more secure (but slower).	Set a value from 1 to 99. Recommended: 52. See note below*.
Live threshold	Adjusts sensitivity for live face detection. Higher value = better protection.	Values range from 1 to 10. A value of 5 already offers good security.
Wear mask	Enables/disables mask detection.	“Must” forces the user to wear a mask for authentication.
Mask Threshold	Sets detection accuracy for masks.	Values from 1 to 99. A value of 50 already provides good security.
Fill Light**	Controls the top LED for low-light scenarios.	Select “always on”, “always off” or “automatic”.

IBEX ACCESS CONTROL

NOTE*: Facial recognition compares the presented face to the registered ones. “1” is the presented face; “N” refers to all registered faces.

NOTE:** The "Constant Fill-Light Period" setting (available right after "Fill Light") allows you to set a time range when the auxiliary light will remain on.

Data Mgt

In this menu, you can download logs, delete logs, clear enrolls, clear database, clear managers, clear inactive users, and reset to default settings.

Clear Database

Deletes all users and information from the device. After the cleanup, the device will restart automatically.

Init Menu

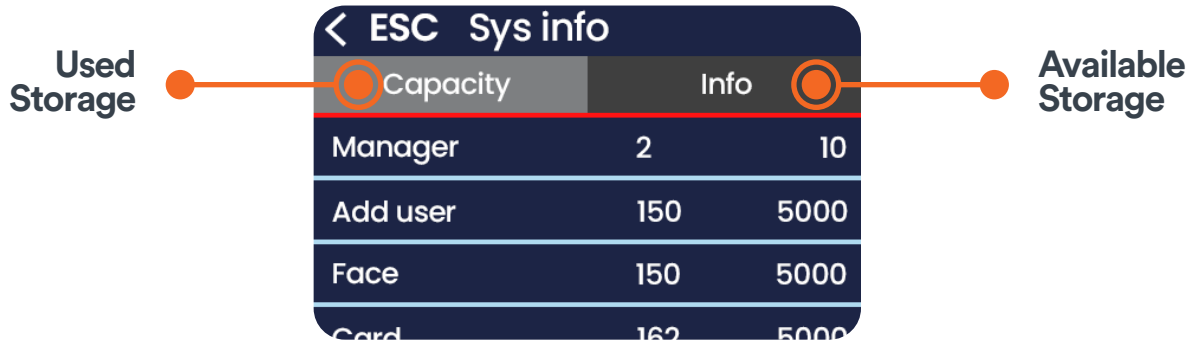
Restores factory settings. Restart the device after the procedure.

Clean Manager

Converts all “administrator” users into “regular” users, making the configuration menus accessible to any user.

Sys Info

This menu allows checking remaining storage and device data. Access via: settings menu > SYS INFO.



"Info" Tab

Access the settings menu > SYS INFO. Next to the "capacity" tab is the "info" tab. Here you can add (and edit) the company name and check the following information:

- Device ID
- Device IP
- Serial number
- Firmware date

It's also possible to check for updates via the network (when connected to the internet).

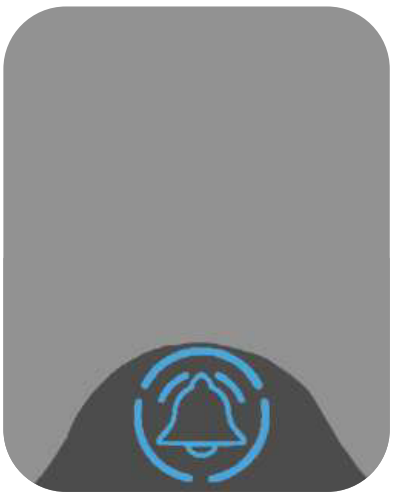
Facial Recognition

When registering a face, make sure it is correctly positioned within the frame. The frame will turn red if something is wrong with the positioning. If everything is correct, it will turn green and the registration will be completed.

When performing an authentication, the frame will turn green and confirm the record. A red frame means a face was detected, but it is not registered. The use of accessories (glasses, cap, beard, etc.) does not prevent recognition, but they may affect it.

Screen Buzzer

There is a bell icon permanently displayed on the screen. When touched, it emits a sound. Its function is to manually trigger the external siren (when installed). The external siren is used in workplaces to alert employees that it is time to clock in.



To hide the bell icon from the screen:

- Go to SHIFT > BELL > BELL OUTPUT > BELL.

To set scheduled buzzer times:

- Go to SHIFT > BELL > BELL OUTPUT > ALARM.

Then, configure the times:

- Go to SHIFT > BELL > BELL TIME
- You can set up to 8 alarms
- Tap the time (default is 00:00) and set the desired time
- Tap the square next to it to select which days it will be active
- Once selected, the square will be filled, indicating the alarm is active

Firmware Update

The update is done via USB device. Preferably, use a flash drive formatted in FAT32. Copy the firmware files to the flash drive. Do not unzip or make any changes.

Insert the flash drive into the USB port of the Facial Device. Go to the settings menu > SYSTEM > ADV. SETUP tab > FIRMWARE UPGRADE.

Wait for the procedure to complete. The device will automatically restart.

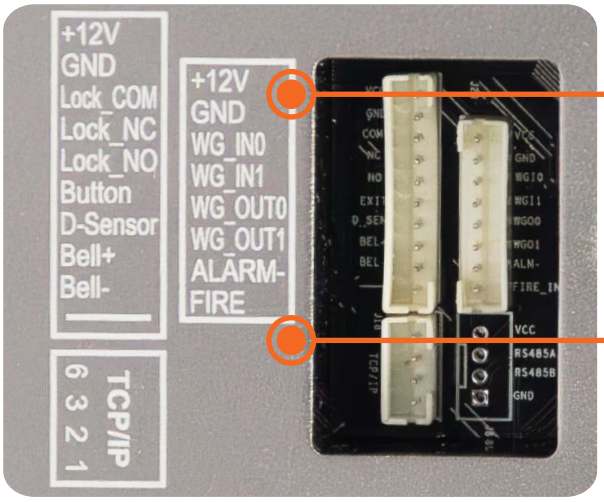
Image Upload via Software

Instead of registering a user's face directly on the device, it is possible to upload a digital image to the device via software.

For the process to work correctly, follow these recommendations:

- The photo must follow the same standards as one taken directly on the device: good quality, proper lighting, clear focus, and frontal facial position. It is recommended not to wear accessories in the photo. There should only be one face in the image.
- The format must be JPG.
- The file size must be under 150 KB.
- The image resolution must be at least 320×240 pixels and at most 1280×800 pixels. A 640×480 image already ensures good quality.

Facial Device (Rear Panel)



8-way bus

- Siren
- Wiegand
- Access control
- Power supply

Bus for TCP/IP cable (network cable input)

IBEX ACCESS CONTROL

Specifications

Display
- 4.3 inches;
- HD (272×480 pixels);
- Capacitive touchscreen.

Keyboard
- Touch-sensitive.

Operating System
- LINUX 3.10.

CPU/NPU
- 1.2G Dual-Core ARM Cortex-A7, 600G (0.6T).

RAM
- 256MB DDR3.

ROM
- 4GB eMMC Flash.

Binocular Camera
- 200W WDR color camera;
- 200W infrared camera.

Record Capacity
- 500,000 logs.

Facial Enrollment
- **Local:** register via device or import via USB;
- **Software:** import photo via PC or capture via camera/device.

Verification
- Dynamic facial recognition;
- Password or ID/IC card.

Face Capacity
- 5,000.

Card Capacity
- **5,000 cards** – standard ID card, optional IC card.

Password Capacity
- 5.000.

Facial Recognition Accuracy
- 99,70%.

Recognition Speed
- ≤0.2s;

Recognition Distance
- 0.5 – 2.5 meters (0.5 – 1.5 meters with live detection enabled).

Anti-Spoofing
- Dual camera with anti-spoofing system, prevents photo/video authentication.

Recognition Principle
- Facial algorithm technology based on multitask convolutional neural network, enables detection, tracking, and dynamic facial recognition.

WDR
- Wide dynamic range for reliable recognition under strong, weak, or backlight conditions.

USB
- 1× USB 2.0 – supports USB flash drive for data import/export.

Power Supply
- DC12V interface × 1.

Audio Interface:
- Reserved for external speaker use.

Network Communication:
- TCP/IP; supports LAN C/S communication, Wi-Fi.

Environmental Adaptability
- Operating temperature: -15°C ~ +45°C;
- Storage: -40°C ~ +65°C;
- Operating humidity: 20% ~ 90%;
- Storage humidity: 20% ~ 90%;
- Dark environment: automatic soft LED light;
- Ambient light adaptability: 0 ~ 50,000 Lux.

IBEX ACCESS CONTROL

Supported Languages
- English, Spanish, Arabic, Thai, Persian, Portuguese, French, Italian, Japanese, Korean, etc.

Display and Buzzer
- Supports name display, system voice, and built-in buzzer.

Automatic Fill Light
- Infrared and white light automatically activated in dark environments.

Operating Current
- **Standby:** 310mA;
- **In use:** 520mA.

QR Code Reader
- Supported.

Operating Voltage
- DC12V.

Installation
- **Standard:** wall, desktop;
- **Optional:** turnstile or pedestal mount.