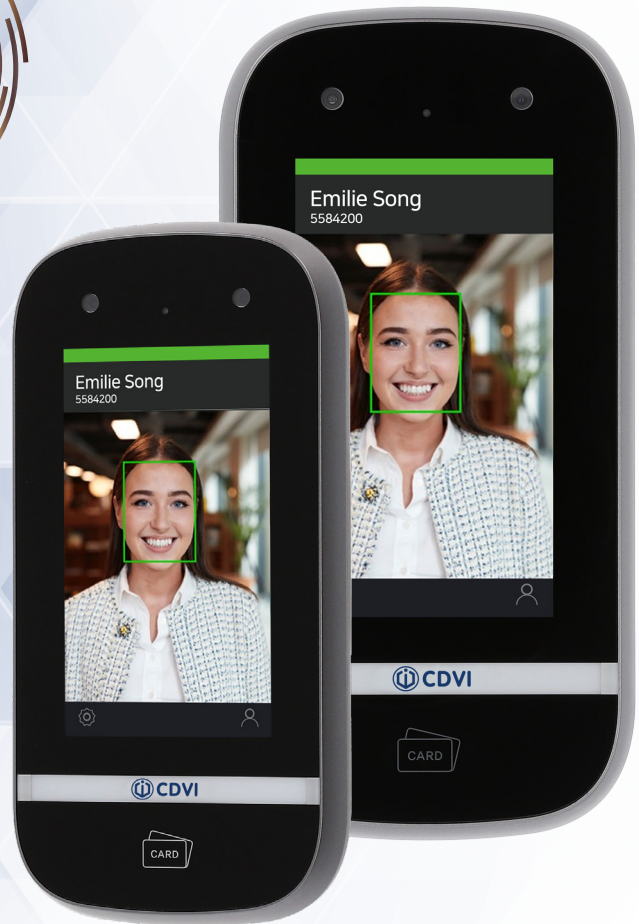




CDVI

Security to Access

ievo



IFACE™

ievo iface™ Facial Recognition Terminal



EN

1] CONTENTS

| Title | Page |
|--------------------------------------|-------------|
| 2] INTRODUCTION | 3 |
| About this Manual | 3 |
| Conventions | 3 |
| 3] PACKAGE CONTENTS | 3 |
| 4] PRODUCT PRESENTATION | 4 |
| Technical Specifications | 4 |
| Parts and Functions | 5 |
| Accessories | 5 |
| Terminals | 6 |
| Touch Screen | 7 |
| 5] INSTALLATION | 7 |
| Installation Requirements | 7-9 |
| Installation Procedure | 10 |
| 6] WIRING | 11 |
| Power Connection | 11 |
| Network Connection | 12 |
| Relay Connection | 12-15 |
| 7] ENROLLMENT | 15 |
| 8] AUTHENTICATION | 16 |
| 9] ADVANCED SETTINGS - OSD MENU LIST | 17 |
| User | 17 |
| Device | 17 |
| Communication | 18 |
| Display | 19 |
| Authentication | 19 |
| Log | 19 |

2] INTRODUCTION






About this Manual

iface™ is an advanced face recognition terminal that provides highly accurate face recognition in an embedded system. This manual contains the descriptions and operational instructions for iface™ device. It is intended and written for system administrators who are in charge of overall operation including installation and management. We recommend you familiarise yourself with this manual in order to make use of the product correctly and effectively.









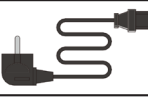




- The figures and screenshots in this guide are given for illustration purposes only and may differ from the actual product.
- Due to continuous technological improvements, the guide may not contain the most up-to-date information. For further information not covered in this guide, please contact CDVI Technical at technical@cdvi.co.uk.

Conventions

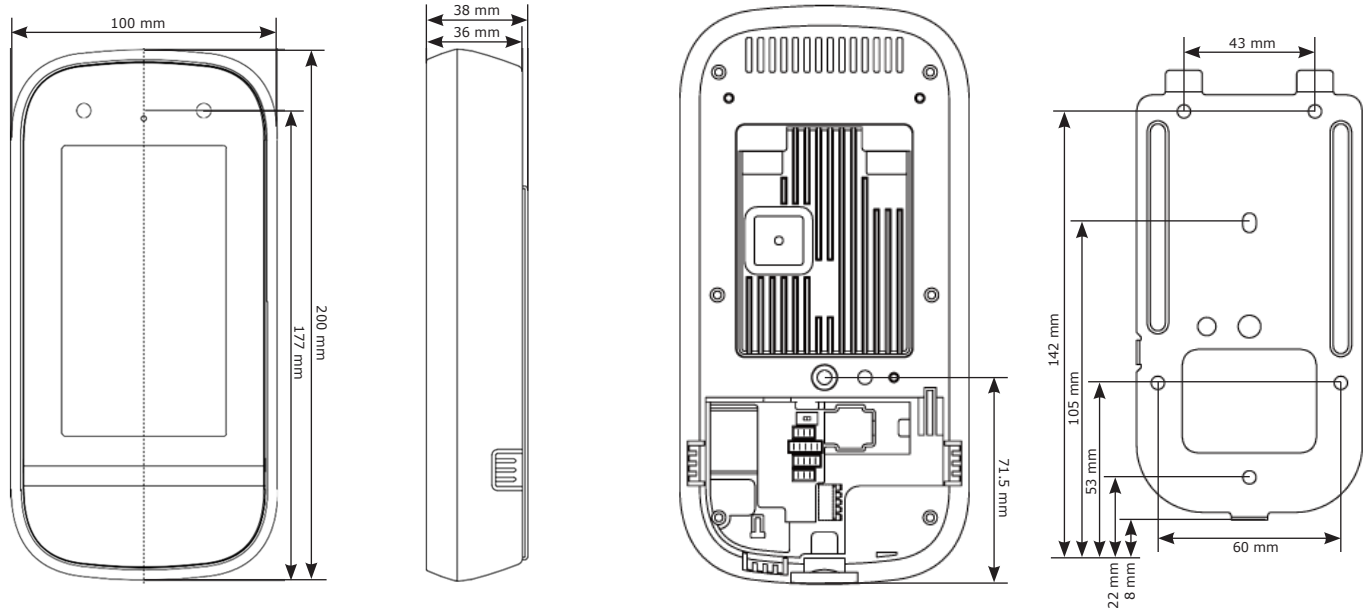
| Symbol | Name | Description |
|---|-----------|---|
|  | WARNING | Indicates information that should be followed with the utmost care. Failure to comply with a warning could cause severe damage to the equipment or injury to personnel. |
|  | CAUTION | Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results. |
|  | IMPORTANT | Emphasises essential information required for user success. |
|  | NOTE | Provides important supplemental information that might enhance users' understanding or alternative steps to accomplish their goals. |
|  | TIP | Provides optional information to help users be more successful in their tasks |

3] PACKAGE CONTENTS

| | | | | | | |
|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| Main unit | Mounting plate | Power cable | Relay cable | GPI cable | Wiegand cable | RS-485 cable |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|  |  |  |  | | | |
| AC adapter (optional) | Power cord (optional) | Diode | Manual | | | |
| 1 | 1 | 1 | 1 | | | |

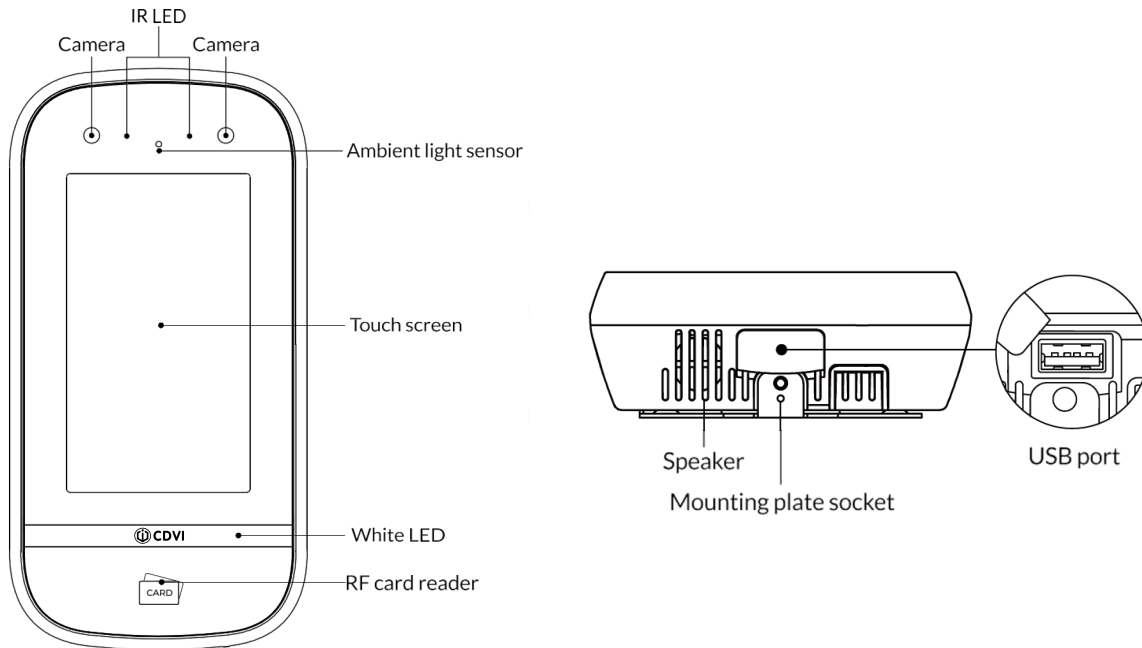
4] PRODUCT PRESENTATION

Technical Specifications



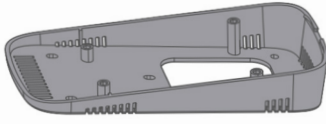
| Feature | Description |
|---------------------|--|
| CPU | ARM Cortex A53 OctaCore (8 core) operating at 1.4GHz |
| Memory | 2GB RAM, 8GB Flash |
| Number of cameras | Two |
| Display | 5" LCD with touch |
| IR LED | YES, for low ambient light levels and supplementary face detection support |
| White LED | YES, for adjunct lighting of face |
| Ethernet | Standard 10/100 BaseT and GigE |
| Dimensions | 100 x 200 x 36 mm |
| Weight | 450 g (1 pound) |
| Capture range | 40 cm to 200 cm |
| User's height range | 145 cm to 210 cm (with system installed at 135 cm) |
| Enrollment speed | About 5 seconds |
| Recognition speed | About 1 second total in 1:N mode with 20,000 subjects in local database |
| Enrollment | 20,000 users total DB size (max 20,000 users in 1:N mode) |
| Fake face detection | YES |
| Audio | YES (Speaker only) |
| Input power | 15Vdc |
| RF Card reader | ISO/IEC 14443 reader for MIFARE®, DESFire® and FeliCa® cards (standard) |
| Connections | RJ45 for LAN, Wiegand IN/OUT, GPIO (3), RS485, dry contact relay, SIM Socket (optional) |
| USB | Only for host / service modes and data back up. |
| Temperature | Operating: 0°C to 45°C Non-operating: -20°C to 60°C |
| Humidity | Operating: 8% to 85% relative humidity, non-condensing Non-operating: 8% to 90% relative humidity, non-condensing |

Parts and Functions

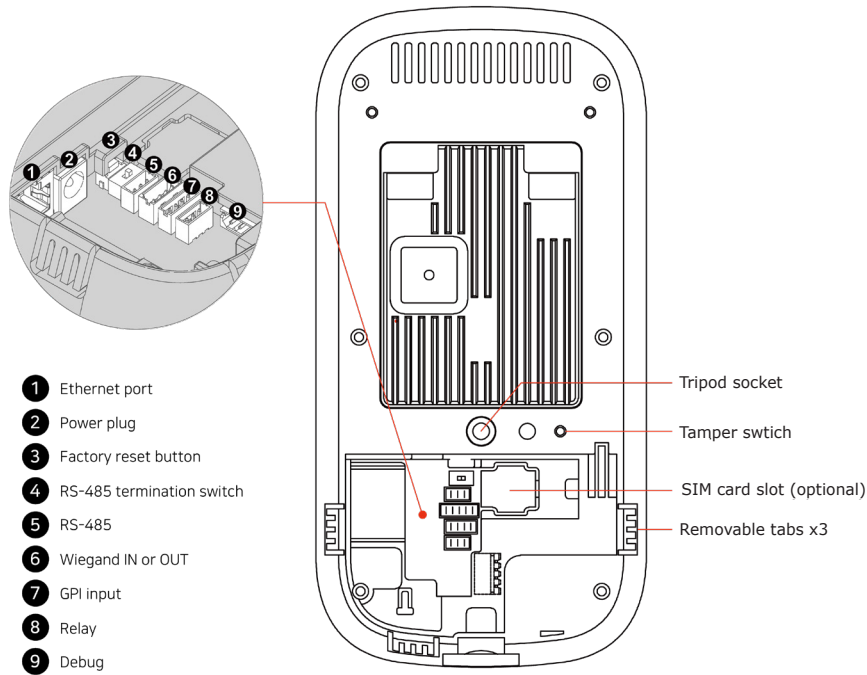


| Item | Description |
|-----------------------|--|
| Camera | Captures the face images |
| IR LED | Illuminates the face using the NIR lighting when capturing the faces |
| Touch screen | Shows preview images before capture and provides a graphical interface for enrollment and device configuration |
| White LED | Gives supplemental light in dim light |
| RF card reader | Indicates the area where RF cards can be read |
| Ambient light sensor | Detects changes of light in the surrounding environment |
| Speaker | Delivers sound from the device |
| Mounting plate socket | Attaches the unit the mounting plate |
| USB port | Connects a USB flash drive for back up and restoration of face database |

Accessories

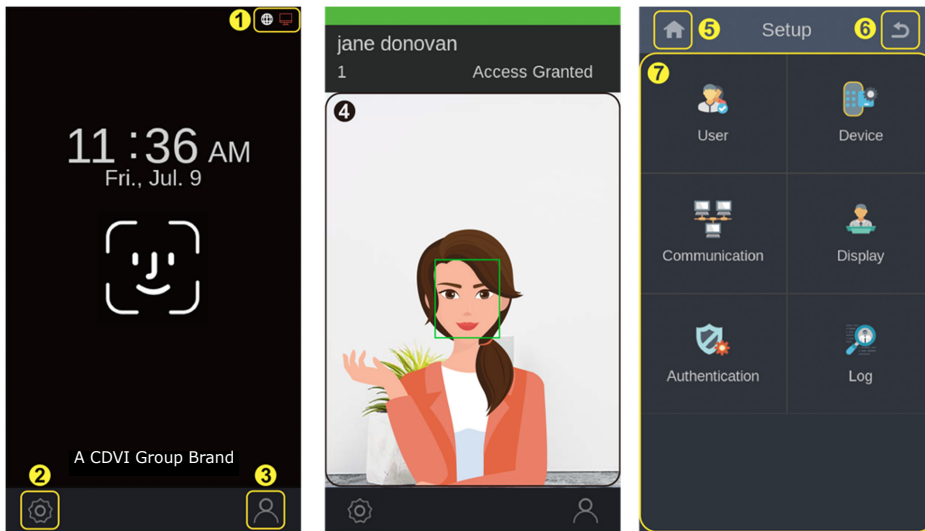
| Item | Description |
|------------------|---|
| Mounting bracket |  |
| RF card writer | Dual RF card reader/writer |
| RF card | MIFARE®, DESFire®, FeliCa® |

Terminals



| Item | Description |
|------------------------------|---|
| Tripod socket (not supplied) | Attaches a tripod (or equivalent mount) with a standard 1/4-20 UNC screw |
| Tamper switch | Starts an alarm, if configured, when a physical tampering attempt is detected (see p.18 for more information) |
| SIM card slot (optional) | Indicates area where a SIM card can be connected |
| Removable tabs | Allows for routing of power, Ethernet and other cables to go through the openings on the side of the unit, rather than the back, when tabs are removed. (e.g. useful in tabletop deployments) |
| Ethernet port | Connects an ethernet cable |
| Power plug | Connects the power cable to the unit |
| Factory reset button | Restores the device to its original manufacturer settings |
| RS-485 termination switch | Provides termination when the device is located at the physical end of RS-485 wiring |
| RS-485 | Connects the RS-485 cable |
| Wiegand input or output | Connects the Wiegand cable either as input or as output selectively |
| GPI input | Connects the GPI cable |

Touch Screen



| No. | Item | Description |
|-----|-------------------|--|
| 1 | Status indicator | Shows the status of network connection and third party application <ul style="list-style-type: none"> • White: Online • Red: Offline, not usable |
| 2 | Settings button | Enters the device setup menu screen |
| 3 | Enrollment button | Enters the device setup menu screen |
| 4 | Preview screen | Gives a preview of subject's face |
| 5 | Home button | Goes to the home screen |
| 6 | Back button | Goes back to the previous menu screen |
| 7 | Settings | Shows settings menu – User, Device, Communication, Display, Authentication, Log |

5] INSTALLATION

This chapter gives the information about the requirements and the prerequisites for installing iface™ and the installation procedures.

Installation Requirements

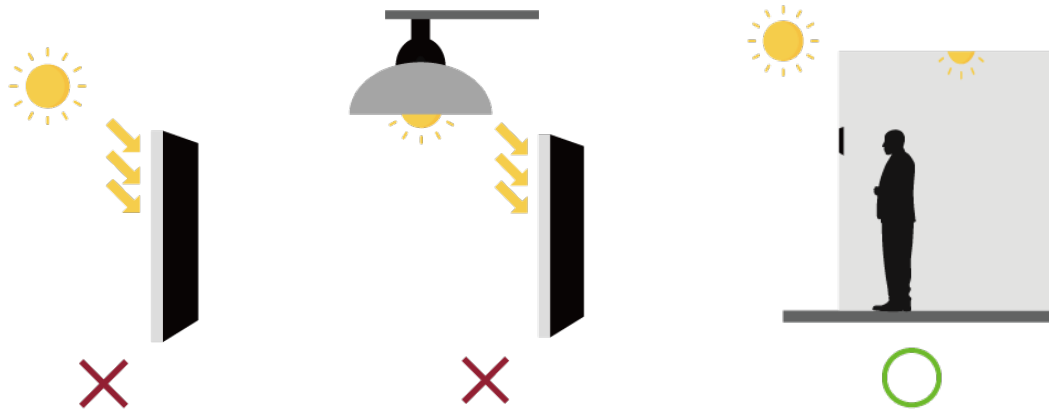
Before installation, make sure that the following requirements are met.



The iface™ is designed and intended for indoor use only. The device is not weatherproof and must not be exposed to water, ice, extreme temperatures or other adverse weather conditions.

If it is required to use the device in outdoor or extreme environments:

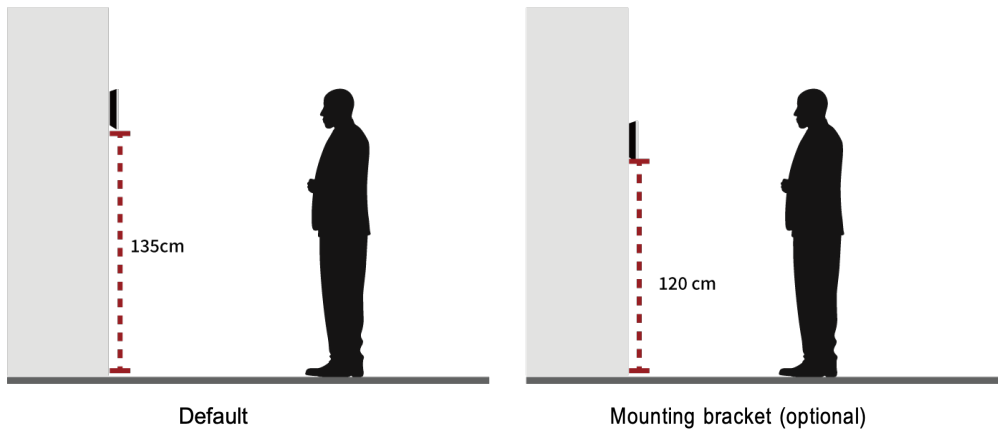
- Avoid locations that are exposed to backlighting, direct sunlight, or other strong illumination.
- Choose a location with moderate ambient light.



- Determine the height at which you install the device;



The recommended mounting height is 135 cm (53 inches) from the floor to the bottom of the device. This covers a person's height from 140 cm (55 inches) up to 190 cm (75 inches) at a distance of 55 cm (22 inches) from the device.






Cable Requirements

- Use a stable power supply adapter of 15Vdc ($\pm 5\%$) with a minimum 2A.
- Make sure that the power cable is as short as possible and that you have correct wire gauge (22 AWG or smaller in number)
- Use CAT5 or later for the ethernet cable.

| Input Voltage (V) | Wire gauge (AWG) | Power cable length (m) | |
|-------------------|------------------|------------------------|-------|
| | | Recommended | Max |
| 12 | 16 | 26.3 | 37.9 |
| | 18 | 15.9 | 23.8 |
| | 20 | 10.0 | 15.0 |
| | 22 | 6.3 | 9.4 |
| 15 | 20 | 25.0 | 37.5 |
| | 22 | 15.7 | 23.6 |
| 24 | 20 | 70.1 | 105.1 |
| | 22 | 44.0 | 66.0 |

Tool Requirements

The following tools can be necessary for installation and are not supplied by default.

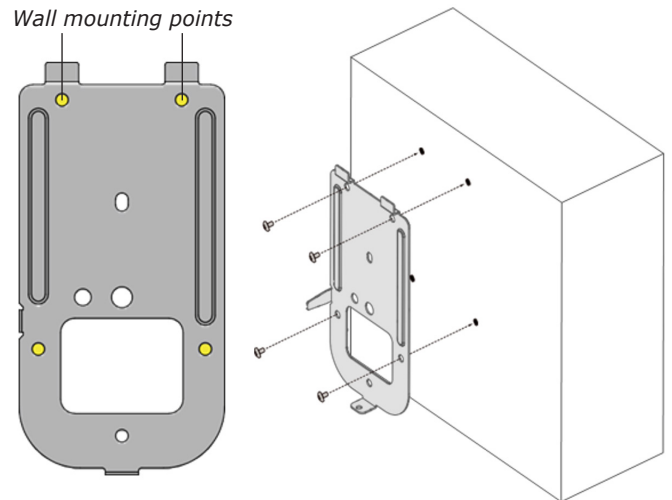
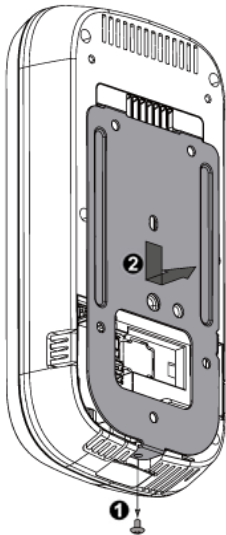
| Purpose | Name | Tool | Note |
|---------------------|----------------|---|---------------------------------------|
| General | Screw driver |  | Cross head |
| | Tape ruler |  | For measuring the installation height |
| Concrete wall mount | Cutting plier |  | |
| | Electric drill |  | With a drill bit and anchor bolts |
| | Marker |  | |
| | Hammer |  | |

Installation Procedure

Wall mount

You can install the device onto a wall directly by using the mounting plate.

1. Remove the screw that attaches iface™ to the mounting plate and disassemble the plate.
2. Put the mounting plate at the pre-determined position and attach the plate onto the wall with the screws (M4 x 8 min).



! Keep the screw because it will be used to attach them together again.

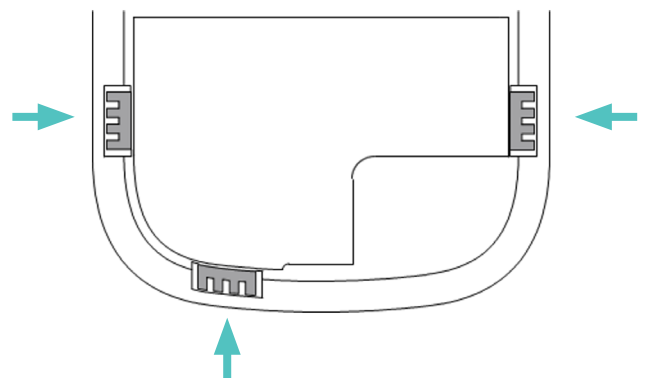
📄 For **concrete walls**, follow these steps:

1. Put marks on the wall through the plate's screw holes by using a marker.
2. Drill the marked points by using an electric drill.
3. Attach the anchor bolts to the holes by using a hammer.
4. Attach the plate to the wall with the screws.

3. Connect the power cable and peripheral cables, if necessary, to the connectors in the rear panel. (See Connecting Cables for more information)

4. **Note:** Step to be included only for conduit mounting.

Remove one or more plastic tabs to allow the wire routing and let the cables go through the openings.

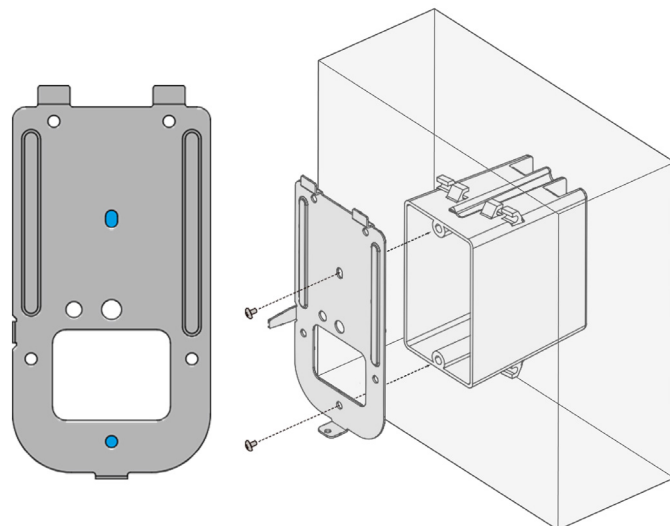
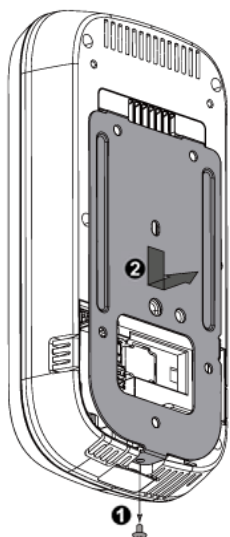


5. Put the device onto the installed plate, slide it downward, and attach it with the screw (M3 x 6)

Gang box mount

You can also install the device on a gang box (outlet box) by using the mounting plate.

1. Remove the screw that attaches iface™ to the mounting plate and disassemble the plate.
2. Put the mounting plate onto the gang box and attach it to the box with the screws (M4 x 8).



! Keep the screw because it will be used to attach them together again.

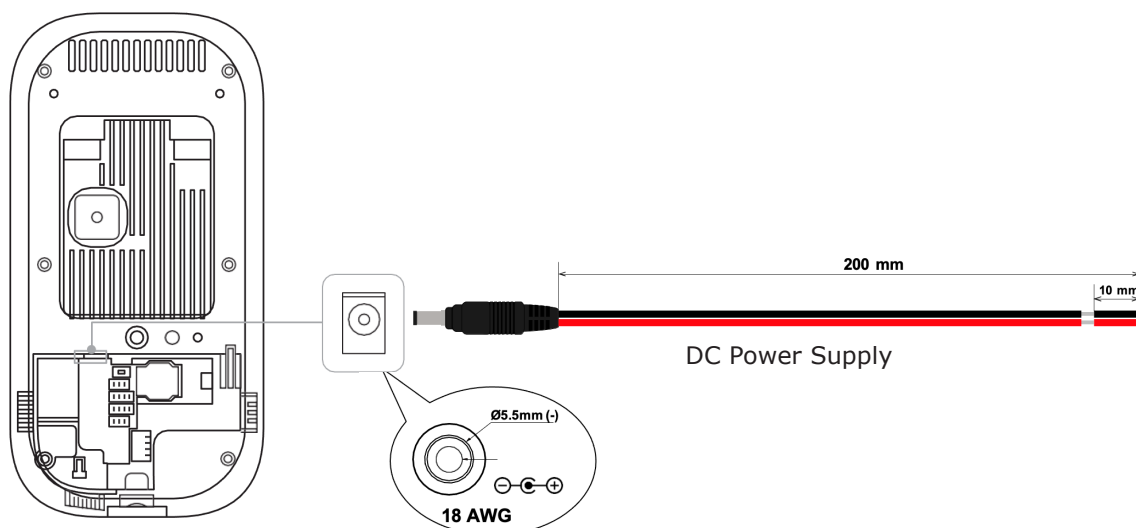
! Make sure that the outgoing cables from the gang box go through the rectangular opening in the plate.

3. Connect the power cable and peripherals cables, if necessary, to the connectors in the rear panel. (See Connecting Cables for more information)

4. Put the device onto the installed plate, slide it downward, and assemble with the screw (M3 x 6)

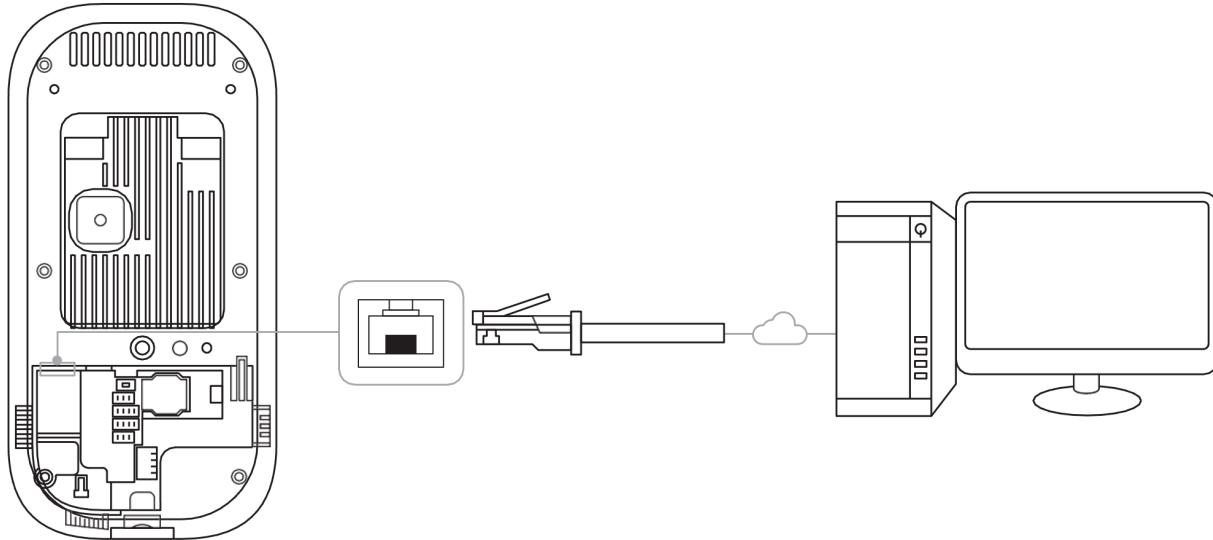
6] WIRING

Power Connection



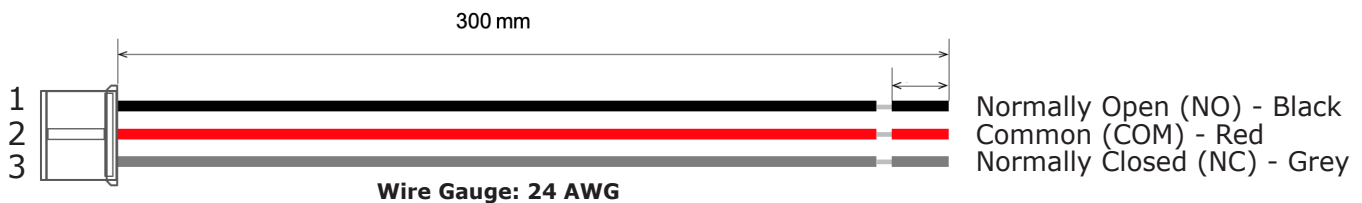
Network Connection

RJ-45 connector for 10/100/1000 Base-T Ethernet communication, minimum CAT5 cable.

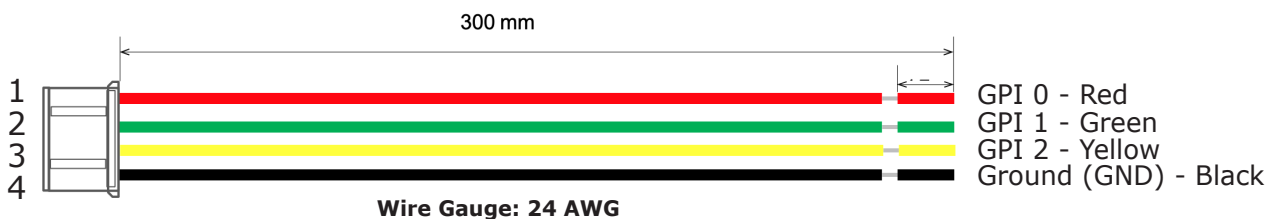


Relay Connection

Relay



GPI



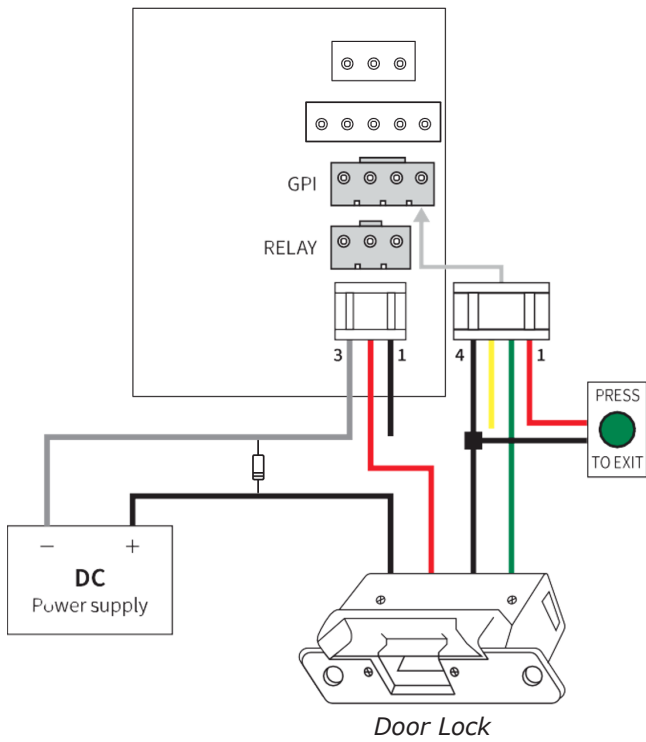
Relay Connection - Locking

There are two types of dead-bolt door lock connections and configuration supported – fail safe and fail secure.

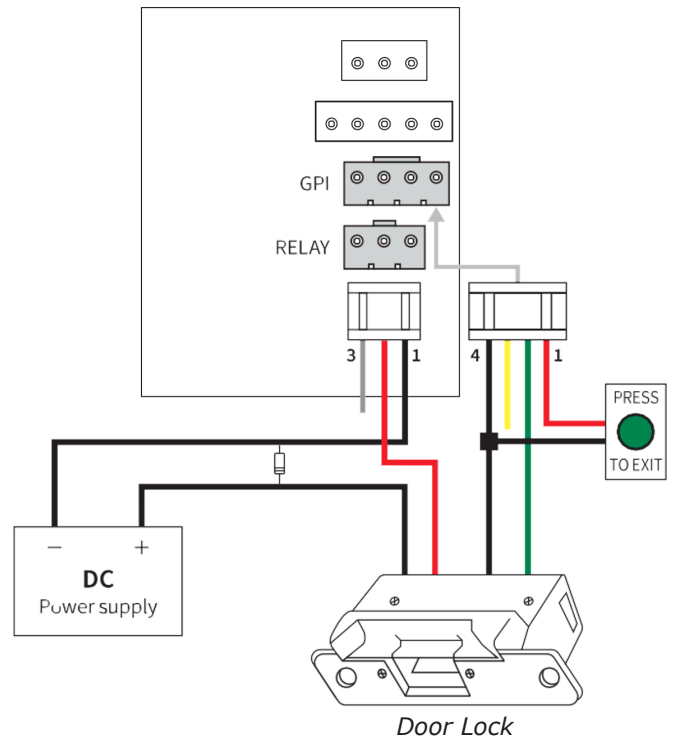


- Use different power supplies for the iface™ and the door lock.
- Install the diode at both ends of the circuit (as shown in the figure below), close to the door lock to protect the relay contact from the reverse current that occurs when the door lock works.
- Make sure that the diode direction is correct.

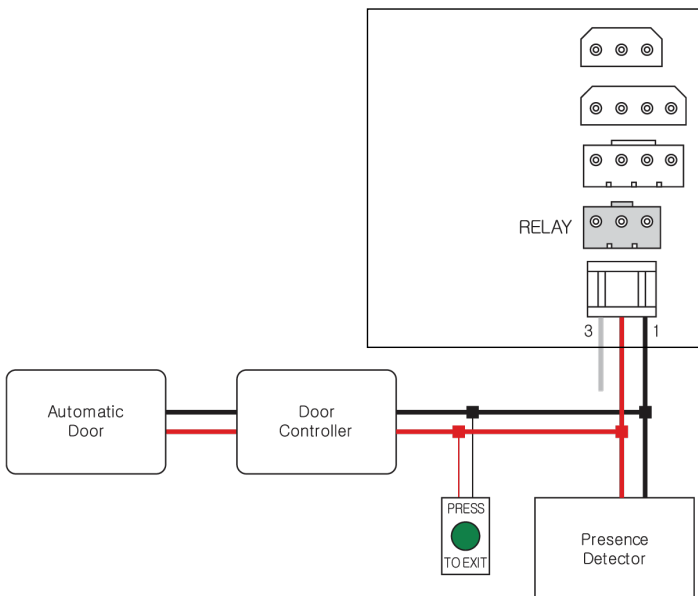
Fail Safe Configuration



Fail Secure Configuration



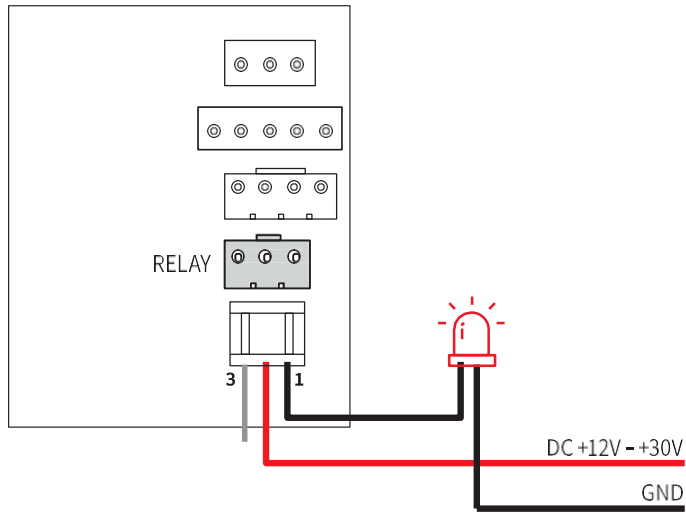
Relay Connection - Automatic Door



| | Pin | Output Function |
|-------|-----|----------------------|
| RELAY | 1 | Normally Open (NO) |
| | 2 | Common (COM) |
| | 3 | Normally Closed (NC) |
| GPI | 1 | GPI 0 |
| | 2 | GPI 1 |
| | 3 | GPI 2 |
| | 4 | Ground (GND) |

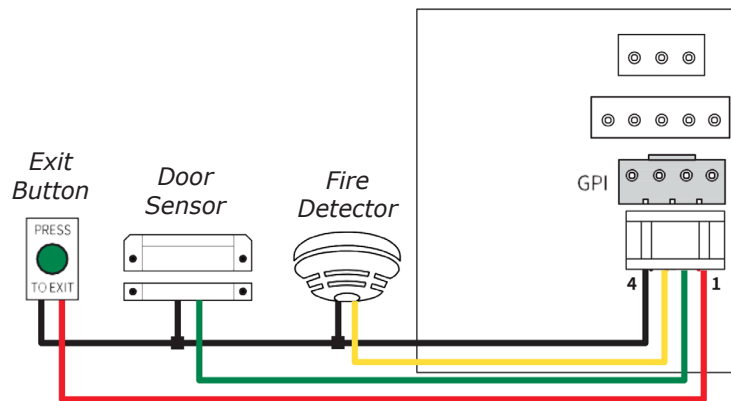
Relay Connection - Alarm light

Internal relay interface with nominal switching capacity of 1A, 30Vdc or 0.3A, 120Vac, resistive load.



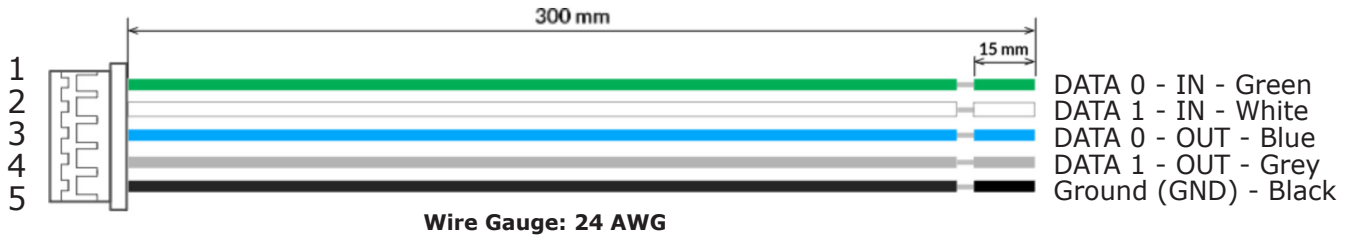
| | Pin | Output Function |
|-------|-----|----------------------|
| RELAY | 1 | Normally Open (NO) |
| | 2 | Common (COM) |
| | 3 | Normally Closed (NC) |

GPI Connection

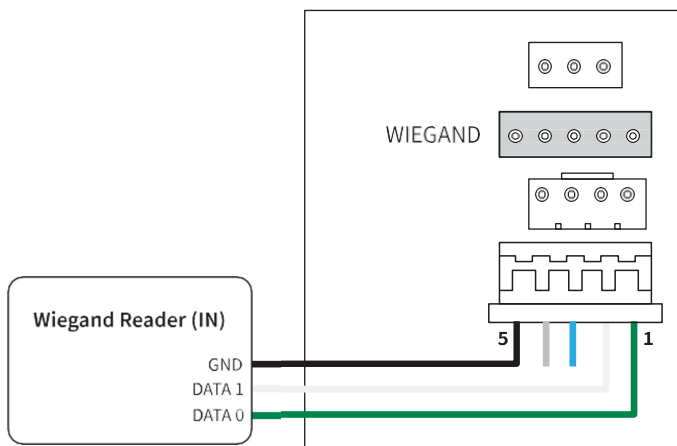


| | Pin | Output Function |
|-----|-----|-----------------|
| GPI | 1 | GPI 0 |
| | 2 | GPI 1 |
| | 3 | GPI 2 |
| | 4 | Ground (GND) |

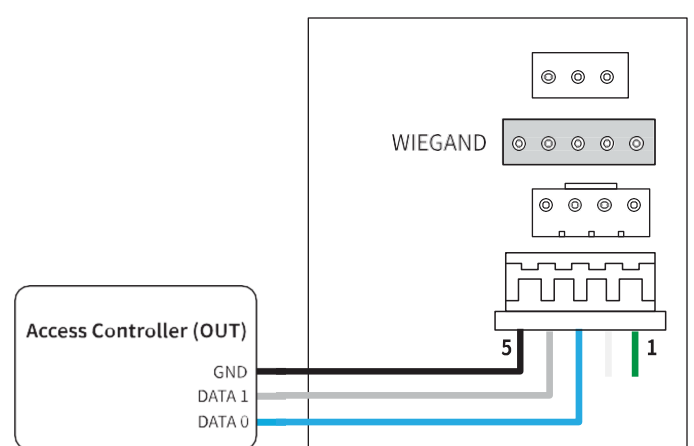
Wiegand



Wiegand IN





Wiegand OUT



7] ENROLLMENT

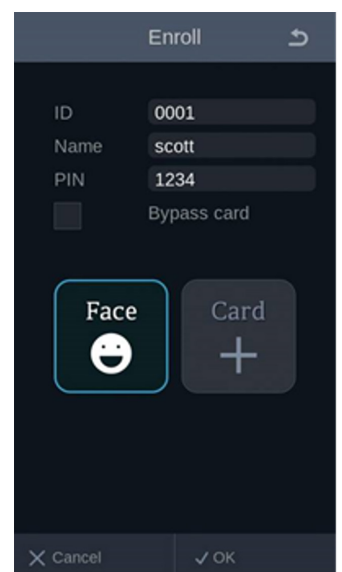


This section explains how to enroll users in **Standalone** mode only. If you are using the **isync software**, do not enroll users manually, as isync will clear manually added users! Follow the [isync manual](#) for enrolling users in the isync software.

1. Press the User button  on the main screen.
2. Press **Enroll**  at the bottom.
3. Type **ID** and **Name**.
4. Press one or more credential type buttons (Face, Card) to add to the user.
 - For **Face**, let the user stand in front of the device and complete the face capture.
 - For **Card**, put the card on the device's card reader. When the CSN (card serial number) appears on the screen, press **OK**.



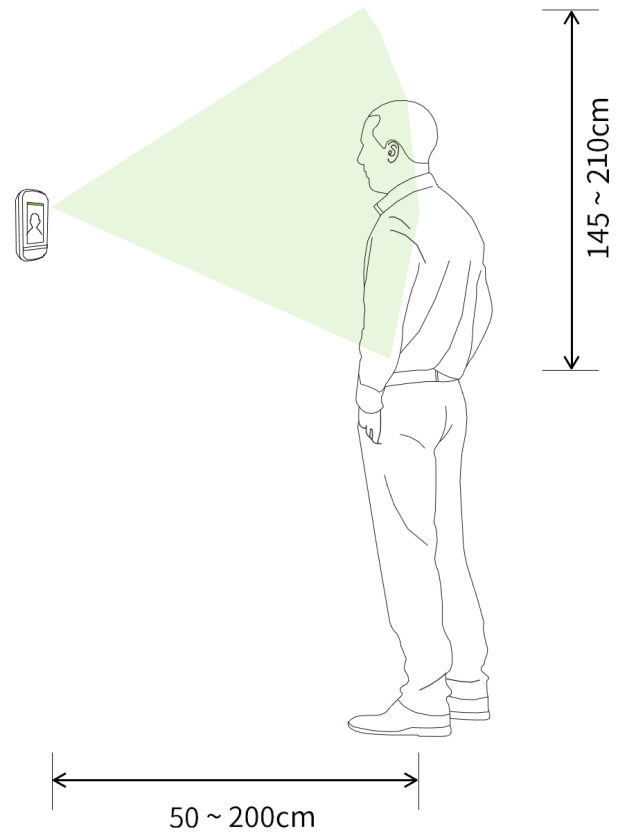
Option: Select Bypass card to allow the user to get access permission by using a registered card alone regardless of the authentication mode.



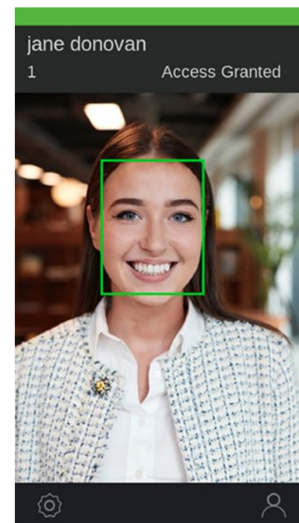
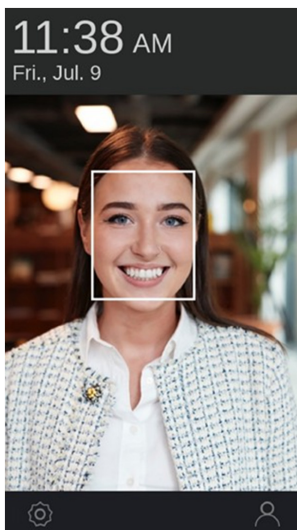
5. Press **OK** to complete the enrollment.

8] AUTHENITCATION


iface™ detects and displays the subject's face over 2.0 meters from the system on the high-resolution color display. The subject will naturally walk toward the face capture range (of 0.4 - 2m). Once the system recognises the subject, the result will be displayed immediately with an indication line over the subject's face image.



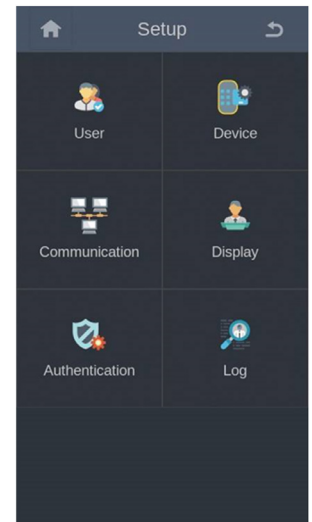
1. Position yourself in front of device, while looking at screen. A white box appears around the face when your face is detected.
2. Authentication result is displayed at the top of the screen depending on whether or not your face is successfully recognised.



9] ADVANCED SETTINGS - OSD MENU LIST

To enter the advanced setting menus of the iface™, press the Gear button  on the main screen. The following options will be displayed:

1. User
2. Device
3. Communication
4. Display
5. Authentication
6. Log




1. User

| Sub-menu | Description |
|----------|--|
| Enroll | Starts user enrollment |
| Delete | Deletes users |
| Modify | Edits user information by pressing a registered user |
| Search | Finds users by ID |

2. Device

| Sub-menu | Options | Description |
|------------|------------------|---|
| Bio | Fake face | Selects the fake face detect option |
| | Face image log | Selects whether to show face image on event log |
| Date/ Time | Time settings | Configures device date and time |
| Door | Relay | Selects whether to use relay |
| | Open duration | Configures time duration for door open relay |
| | Use exit | Selects a GPI port number connected to exit door button: Not used, GPI Port 1, GPI Port 2, GPI Port 3 |
| | Exit type | Selects contact state of the GPI port that exit door button uses: NC, NO |
| | Use alarm | Selects a GPI port number connected to the alarm sensor: Not used, GPI Port 1, GPI Port 2, GPI Port 3 |
| | Alarm type | Selects contact state of the GPI port that the alarm sensor uses: NC, NO |
| | Use sensor | Selects a GPI port number connected to the sensor: Not used, GPI Port 1, GPI Port 2, GPI Port 3 |
| | Sensor type | Selects contact state of the GPI port that the sensor uses: NC, NO |
| | Held on duration | Types the acceptable door held open period |

| Sub-menu | Options | Description |
|-------------|------------------|---|
| Tamper | Modes | Selects a tamper protection mode: Not used, Beep mode, Secure mode  Standalone mode: If you select Secure mode, all the data and settings are deleted permanently in the device when physical tampering is detected / attempted. isync software: The software will repopulate the device after data deletion for all previously registered users. |
| Device info | Device name | Configures the device name |
| | Model | Shows the model name |
| | FW version | Shows the device firmware version |
| | APP version | Shows the application version |
| | MAC | Shows the MAC address |
| | S/N | Shows the serial number |
| | IOMicom version | Shows the IO Micom revision number |
| | H/W version | Shows the hardware revision number |
| | RF Micom version | Shows the RF Micom revision number |
| | Algo version | Shows the algorithm revision number |
| Database | User import | Imports the user database from connected USB drive |
| | User export | Exports the user database to connected USB drive |
| | Debug export | Exports the debug data to connected USB drive |
| LED Signal | | Configures LED signal through EF-IO (Under development) |
| Reset | Device reboot | Restarts device |
| | Factory reset | Resets all configuration settings and deletes all user data |
| | Reset all config | Sets all configuration settings to default |
| | Reset all users | Deletes all user data |


3. Communication

| Sub-menu | Options | Description |
|----------|-------------|--|
| TCP/IP | User DHCP | Selects whether to use DHCP |
| | IP | Shows the device's IP address |
| | Subnet | Shows the subnet mask |
| | Gateway | Shows the gateway address |
| | DNS 1 | Shows the DNS #1 |
| | DNS 2 | Shows the DNS #2 |
| Server | User server | Selects whether to use server |
| | Server IP | Types the server's IP address |
| | Port | Types the server's port number |
| | Commute Uri | Type server URI to receive T&A event logs from device |
| | Sync Uri | Type server URI to receive T&A event logs backed up by |

4. Display

| Sub-menu | Description |
|--------------|---|
| Language | Selects a display language |
| Time display | Selects time notation between 12-hour and 24-hour clock format: 12 hours, 24 hours |
| Menu timeout | Select timeout for auto exit from menu display after leaving it untouched |
| Screensaver | Selects whether to use screensaver |

5. Authentication

| Sub-menu | Options | Description |
|----------------|-----------------|--|
| Auth mode | Mode | Selects a authentication mode: Face only, Face or card, Face and PIN, Card and face, Card and PIN |
| | Bypass | Allows unregistered users to access |
| | Touch start | Starts recognition by touching the screen |
| | Recog threshold | Adjusts matching threshold in recognition mode (permitted value range: 90 to 100)  Increasing the value increases FRR (false rejection rate) whereas decreasing the value increases FAR (false acceptance rate). |
| | Recog distance | Selects the distance from where face detection starts |
| TA | Use T&A | Selects whether to use T&A functions (for future developments, dependant on your access control system) |
| Admin password | Use admin pw | Selects whether to use admin password |
| | Password | Types admin password |
| Card | Use CSN | Selects CSN order on card reading: MSB, LSB |
| | CSN order | Selects CSN order on card reading: MSB, LSB |
| Wiegand | Output type | Selects Wiegand output type: Wiegand, Card, ID |

6. Log

| Sub-menu | Options | Description |
|-------------|-------------|-------------------------------|
| Log info | Total used | Selects whether to use DHCP |
| | Total count | Shows the device's IP address |
| Logo delete | Delete log | Deletes all the logs |



CDVI Group

FRANCE (Headquarters)
Phone: +33 (0) 1 48 91 01 02
.....

CDVI FRANCE + EXPORT

+33 (0) 1 48 91 01 02
www.cdvi.com

CDVI AMERICAS [CANADA - USA]

+1 (450) 682 7945
www.cdvi.ca

CDVI BENELUX [BELGIUM - NETHERLANDS - LUXEMBOURG]

+32 (0) 56 73 93 00
www.cdviBenelux.com

CDVI GERMANY

+49 (0) 175 2932 901
www.cdvi.de

CDVI TAIWAN

+886 (0) 42471 2188
www.cdviChina.cn

CDVI SUISSE

+41 (0) 21 882 18 41
www.cdvi.ch

CDVI CHINA

+86 (0) 10 84606132/82
www.cdviChina.cn

CDVI IBÉRICA [SPAIN - PORTUGAL]

+34 (0) 935 390 966
www.cdviIberica.com

CDVI ITALIA

+39 (0) 321 90 573
www.cdvi.it

CDVI MAROC

+212 (0) 5 22 48 09 40
www.cdvi.ma

CDVI SWEDEN [SWEDEN - DENMARK - NORWAY - FINLAND]

+46 (0) 31 760 19 30
www.cdvi.se

CDVI UK [UNITED KINGDOM - IRELAND]

+44 (0) 1628 531300
www.cdvi.co.uk

CDVI POLSKA

+48 (0) 12 659 23 44
www.cdvi.com.pl

All the information contained within this document (pictures, drawings, features, specifications and dimensions) could be perceptibly different and can be changed without prior notice. - Jan 2022