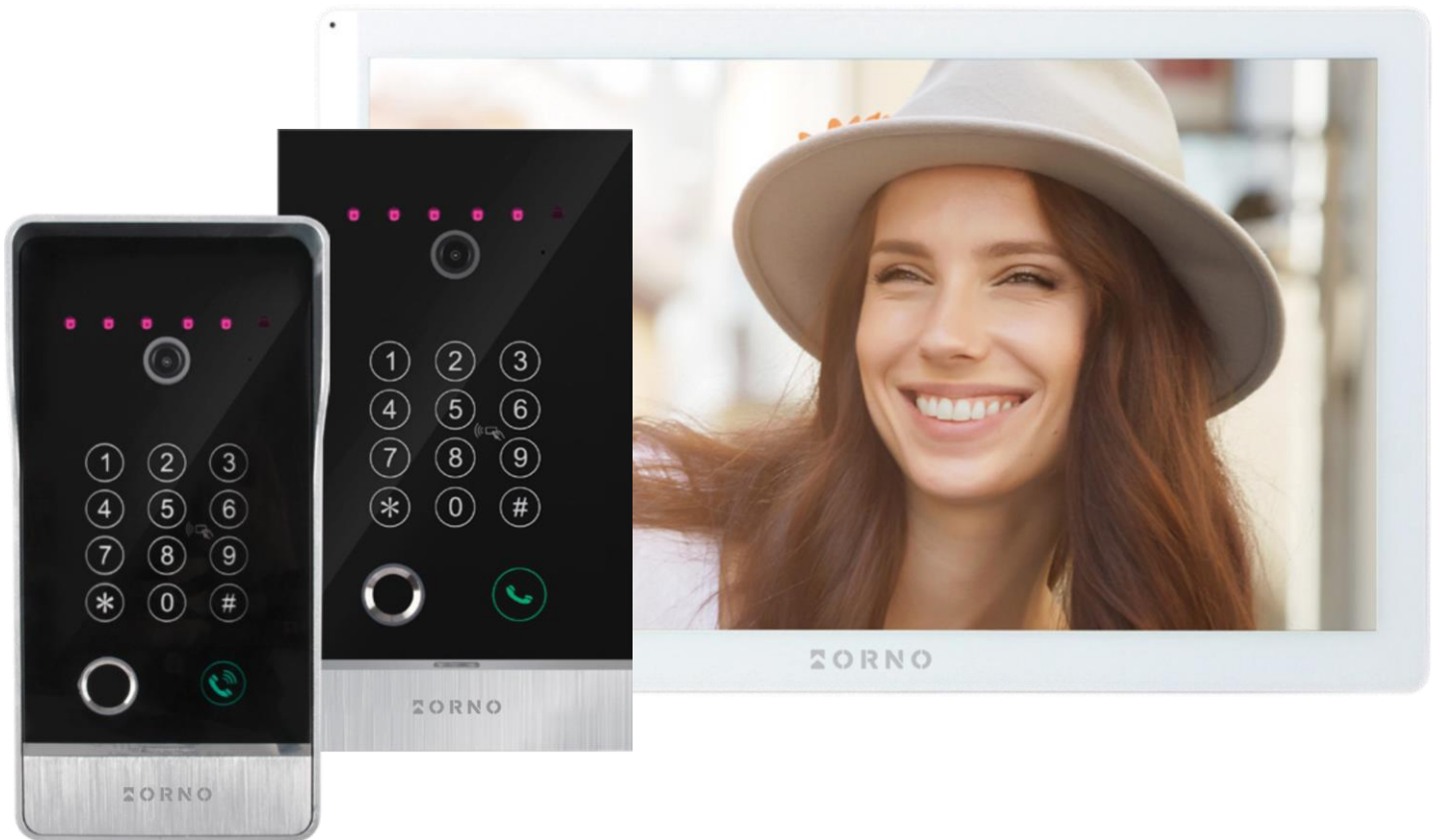




# Operating and installation instructions

## Video doorphone set Guardo

OR-VID-MO-1076



**CE STOP!**

Be sure to read the instruction manual before installation!  
Damage resulting from incorrect connection  
**ARE NOT SUBJECT TO REPAIR UNDER WARRANTY!**



## TABLE OF CONTENTS

<b>1. SAFETY INSTRUCTIONS</b> .....	<b>2</b>
<b>2. CHARACTERISTICS OF THE SET</b> .....	<b>3</b>
<b>3. TECHNICAL DATA</b> .....	<b>3</b>
<b>4. SET CONSTRUCTION</b> .....	<b>4</b>
<b>5. INSTALLATION</b> .....	<b>5</b>
MONITOR INSTALLATION .....	5
OUTDOOR UNIT WITH CAMERA INSTALLATION .....	6
<b>6. WIRING DIAGRAMS</b> .....	<b>7</b>
<b>7. KEYPAD PROGRAMMING</b> .....	<b>11</b>
<b>8. FACTORY SETTINGS</b> .....	<b>12</b>
<b>9. INSTALLING APPLICATIONS</b> .....	<b>13</b>
AP MODE .....	13
WIFI CONNECTION .....	14
EZ MODE .....	16
<b>10. APPLICATION</b> .....	<b>17</b>
<b>11. MENU</b> .....	<b>18</b>
<b>12. DESKTOP</b> .....	<b>19</b>
<b>13. SETTINGS</b> .....	<b>20</b>
<b>14. DEVICES</b> .....	<b>20</b>
<b>15. RING</b> .....	<b>21</b>
<b>16. RECORDS</b> .....	<b>21</b>
<b>17. CLEANING AND MAINTENANCE</b> .....	<b>21</b>
<b>18. TROUBLESHOOTING</b> .....	<b>22</b>

### 1. SAFETY INSTRUCTIONS

Before using the device, read this Service Manual and keep it for future use. The manufacturer is not responsible for any damage that can result from improper device installation or operation. Any repair or modification carried out by yourselves results in loss of guarantee. Installation and commissioning of the equipment by the customer are possible if the installer has basic knowledge of electrical systems and the use of proper tools. In view of the fact that the technical data are subject to continuous modifications, the manufacturer reserves a right to make changes to the product characteristics and to introduce different constructional solutions without deterioration of the product parameters or functional quality. Additional information about ORNO products is available at [www.orno.pl](http://www.orno.pl). Orno-Logistic Sp. z o.o. holds no responsibility for the results of non-compliance with the provisions of the present Manual Orno Logistic Sp. z o.o. reserves the right to make changes to the Manual - the latest version of the Manual can be downloaded from [www.orno.pl](http://www.orno.pl) Any translation/ interpretation rights and copyright in relation to this Manual are reserved.

1. Do not use the device contrary to its dedication.
2. Disconnect the power supply before performing any activities.
3. Do not immerse the product in water or other liquids.
4. Do not operate the device with damaged housing.
5. Do not break the seals or open the device and do not repair it yourself.
6. The product is not a toy. Keep away from children.
7. Connect only as indicated in the wiring diagrams.



Each household is a user of electrical and electronic equipment, and hence a potential producer of hazardous waste for humans and the environment, due to the presence of hazardous substances, mixtures and components in the equipment. On the other hand, used equipment is valuable material from which we can recover raw materials such as copper, tin, glass, iron and others. The WEEE sign placed on the equipment, packaging or documents attached to it indicates the need for selective collection of waste electrical and electronic equipment. Products so marked, under penalty of fine, cannot be thrown into ordinary garbage along with other waste. The marking means at the same time that the equipment was placed on the market after August 13, 2005.

It is the responsibility of the user to hand the used equipment to a designated collection point for proper processing. Used equipment can also be handed over to the seller, if one buys a new product in an amount not greater than the new purchased equipment of the same type. Information on the available collection system of waste electrical equipment can be found in the information desk of the store and in the municipal office or district office. Proper handling of used equipment prevents negative consequences for the environment and human health!



## 2. CHARACTERISTICS OF THE SET

Videodoorphone is designed for installation in 1-family buildings.

### Functions:

- talking to a person at the entrance and observing at the same time;
- direct control of an electric door strike;
- 3 access methods: using proximity cards and key tags, by reading a pre-entered fingerprint or by entering a PIN code on the illuminated keypad;
- possibility of gate control;
- stepless adjustment of monitor parameters (image brightness, colour saturation, volume);
- infrared LED lighting enables night vision.

### Main features:

- large 10" LCD color monitor;
- 3 ring tones to choose from with 10-step volume control and the option to set your own sound stored on a microSD card;
- touchscreen;
- outdoor unit with Full HD wide-angle camera;
- possibility to control the device from your smartphone (free app);
- the possibility to record photos, sounds and videos on a microSD card and play them back on the monitor or in the Tuya app;
- 4-wire installation;
- set can be expanded to include two outdoor units, two CCTV cameras and six monitors;
- an electric door strike (12V DC max. 300mA) that does not require an additional power supply.

## 3. TECHNICAL DATA

TYPE OF THE DEVICE:	single family
INSTALLATION METHOD:	4-wire
COMMUNICATION SYSTEM:	wireless – monitor and WiFi router, wired – monitor and outdoor unit
WLAN FREQUENCY:	2.4GHz (802.11b/g/n)
MAXIMUM TRANSMITTING POWER:	<100mW EIRP

### MONITOR

SCREEN SIZE:	10"
RESOLUTION:	1024x600x3RGB
STANDARD:	PAL/NTSC
FUNCTIONS:	call, monitoring, door and gate control, monitor and volume control, mute mode, intercom, digital frame
NUMBER OF MELODIES:	3
VOLUME CONTROL:	yes
CALL TIME:	120s
MONITORING TIME:	40s
POWER SUPPLY:	12-15V DC
POWER CONSUMPTION:	standby <300mA; work <800Ma
ELECTRICAL STRIKE CONTROL:	yes (12V DC max. 300mA – powered from monitor)
GATE CONTROL:	yes, dry contact
WORKING TEMPERATURE:	0°C ~ +50°C
INSTALLATION:	surface-mounted
MATERIAL:	ABS
DIMENSIONS:	247x151.5x18mm
NET WEIGHT:	0.58kg



## OUTDOOR UNIT

SENSOR TYPE:	CMOS
RESOLUTION:	1080P FHD
VIEWING ANGLE (VERTICAL/HORIZONTAL):	54° / 107°
NIGHT LIGHTING:	IR
NUMBER OF DIODES:	5
NIGHT VISION RANGE:	1m
RFID READER:	RFID-tags/cards 13,56 MHz (max. 200 users)
MAXIMUM TRANSMITTING POWER:	<10mW ERP
CODE LOCK:	yes, backlit buttons
FINGERPRINT READER:	yes
MOTION SENSOR:	yes
INGRESS PROTECTION:	IP65
POWER SUPPLY:	12V DC from monitor
POWER CONSUMPTION:	standby <60mA, work <200mA
WORKING TEMPERATURE:	-40°C ~ +50°C
INSTALLATION:	surface/flush-mounted
MATERIAL:	metal
SURFACE-MOUNTED UNIT DIMENSIONS:	100x200x55mm
FLUSH-MOUNTED UNIT DIMENSIONS:	108x193x35mm
FLUSH-MOUNTED UNIT DIMENSIONS:	90x176x30mm
SURFACE-MOUNTED UNIT NET WEIGHT:	0.52kg
FLUSH-MOUNTED UNIT NET WEIGHT:	0.66kg

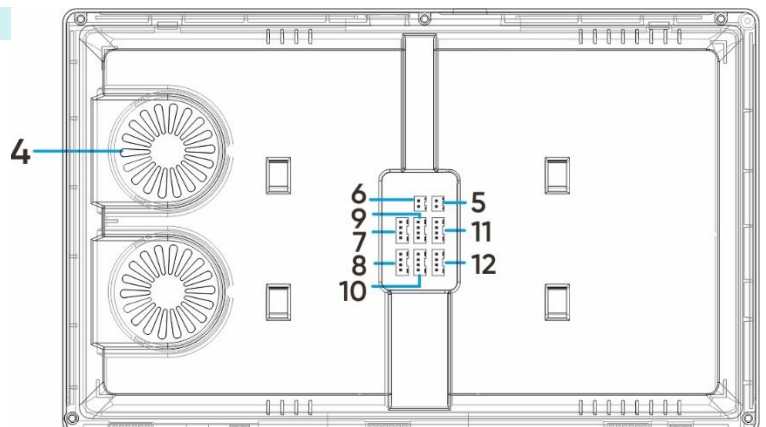
## 4. SET CONSTRUCTION



fig. 1 Construction of the monitor

## MONITOR

1. Microphone
2. LCD display
3. SD card slot
4. Loudspeaker
5. Power supply
6. Gate
7. Door 1
8. Door 2
9. Camera 1
10. Camera 2
11. Input from previous monitor
12. Output to another monitor





## OUTDOOR UNIT

- 13. Camera illumination
- 14. Camera lens
- 15. Numeric keypad
- 16. Fingerprint reader
- 17. RFID reader field
- 18. Call button
- 19. External power supply (option) 12-15V DC
- 20. Call volume adjustment
- 21. Exit button
- 22. Monitor connection
- 23. Camera mode change button: 1080P-720P-CVBS
- 24. Settings button
- 26. Door opening time adjustment (1-10sec.)
- 27. Output for electric door strike (power supply from monitor max. 300mA)
- 28. Relay output for electric door strike NC-COM-COM-NO (external power supply required)

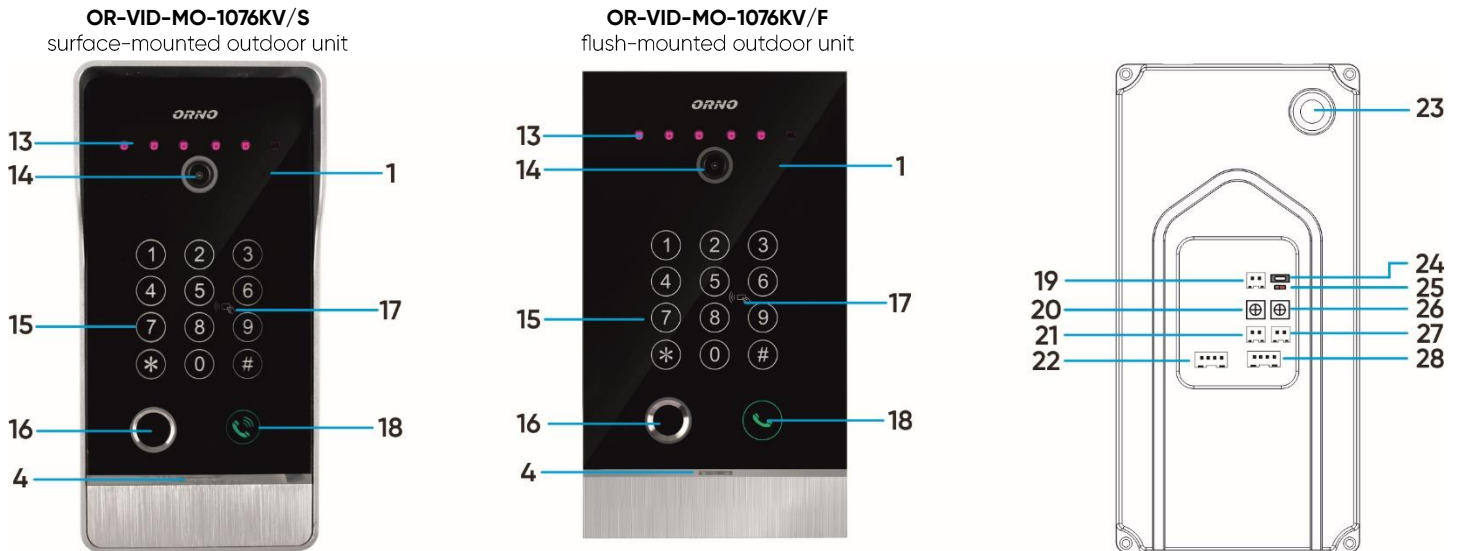


fig. 2 Construction of the outdoor unit with camera

## 5. INSTALLATION

### MONITOR INSTALLATION

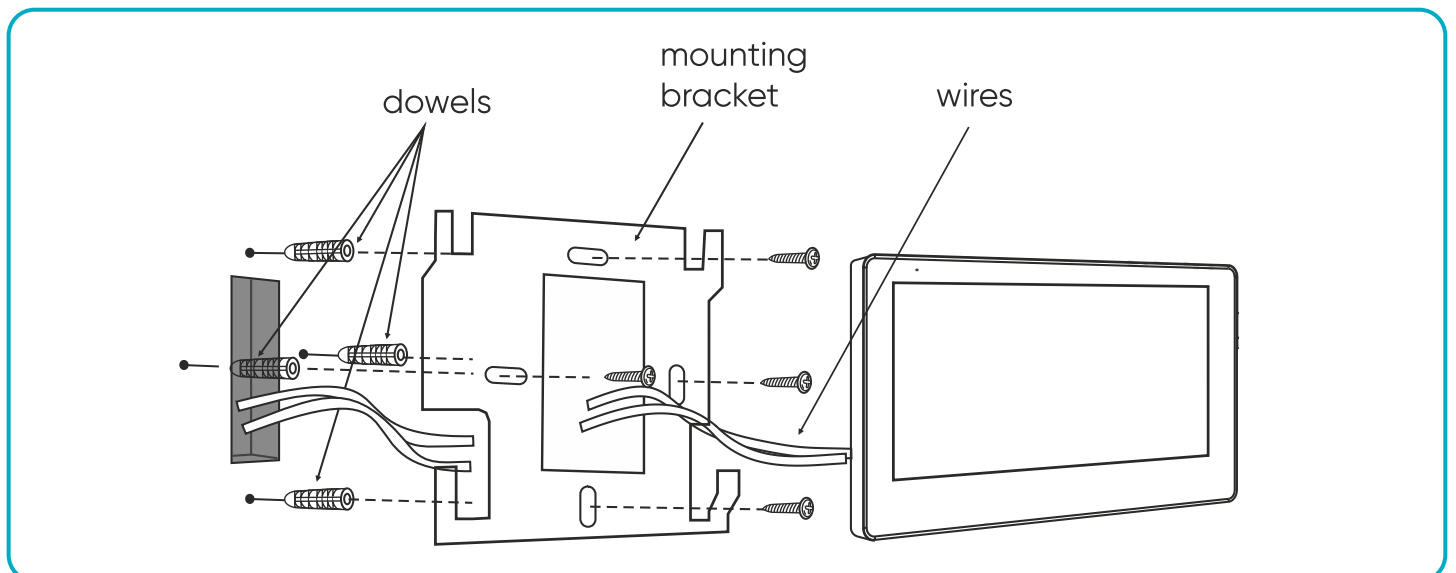


fig. 3 Monitor installation

1. Drill holes in the wall and insert silicone dowels into them.
2. Screw the monitor mounting bracket to the wall with screws.
3. Connect the wires to the monitor and hang it on the mounting bracket.
4. Connect the power supply to the 230V AC outlet.



## OUTDOOR UNIT WITH CAMERA INSTALLATION

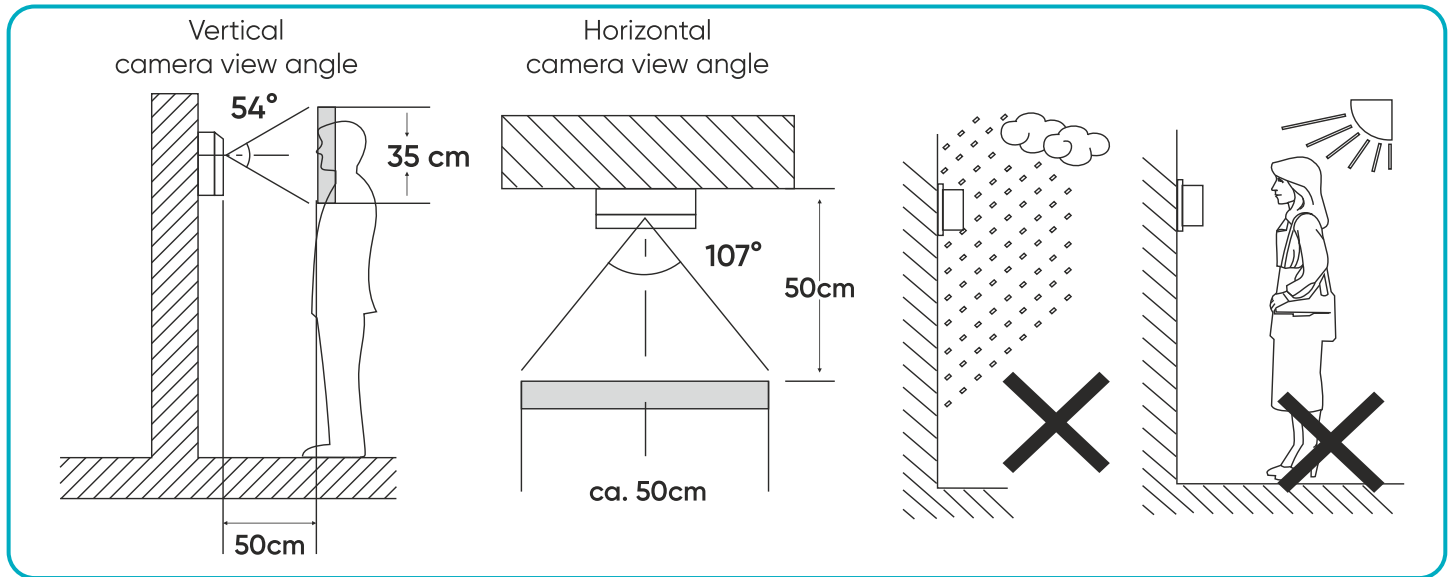


fig.4 Outdoor unit placement

Recommended installation height of the outdoor unit is 140-170cm.

The correct location of the outdoor unit determines the comfort of working with the device. It is recommended to test the device before making mounting holes. Do not place the outdoor unit and monitor in the same room as feedback may occur.

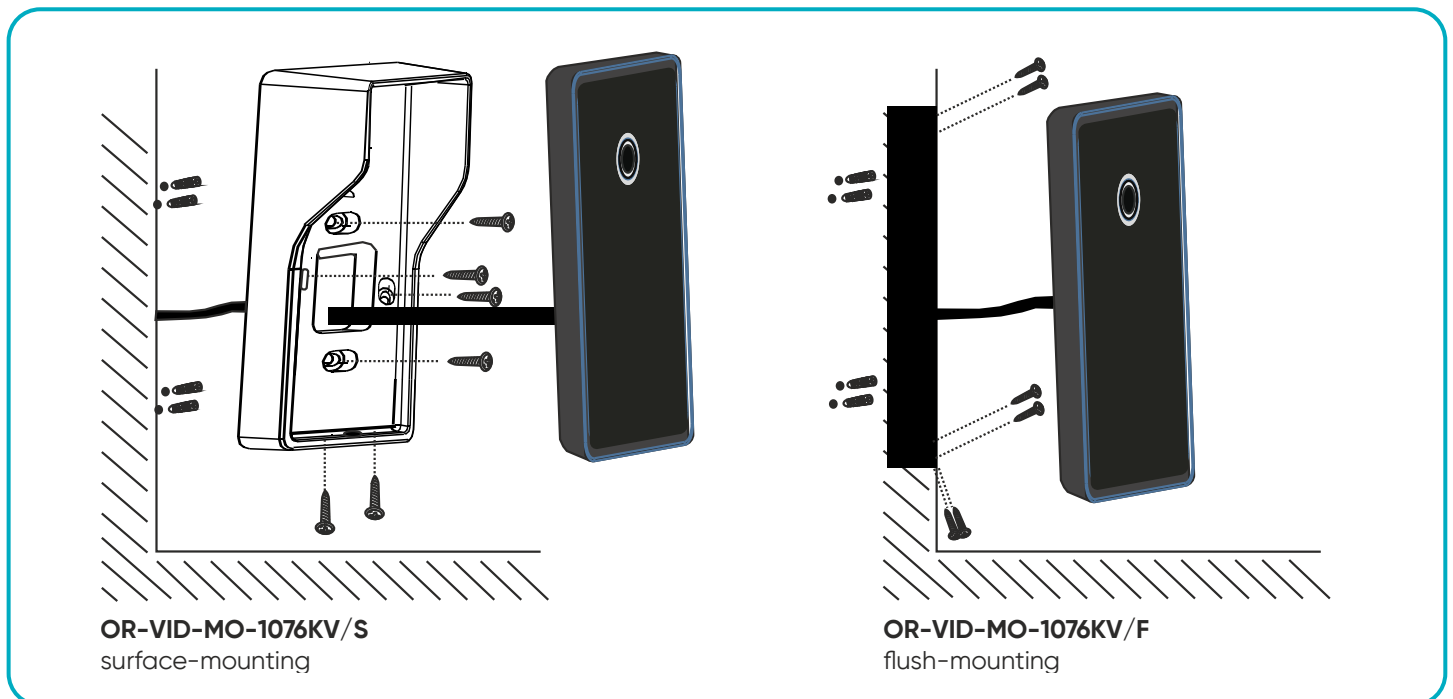


fig. 5 Outdoor unit with camera installation

1. Drill holes in the wall and insert the silicone dowels.
2. Connect the wires according to the attached diagram.
3. Screw the camera to the mounting box with screws.



## 6. WIRING DIAGRAMS

Before drilling the installation holes, it is recommended to carry out a functional test of the device. To do this, connect the device for a test according to the wiring diagram. The first person holding the camera should use the button to call the second person who is at the monitor. This person should then carefully inspect the camera's field of view in order to correct the module's position if necessary.

Once the measurements have been taken accurately, proceed with the mounting holes after switching off the power supply.

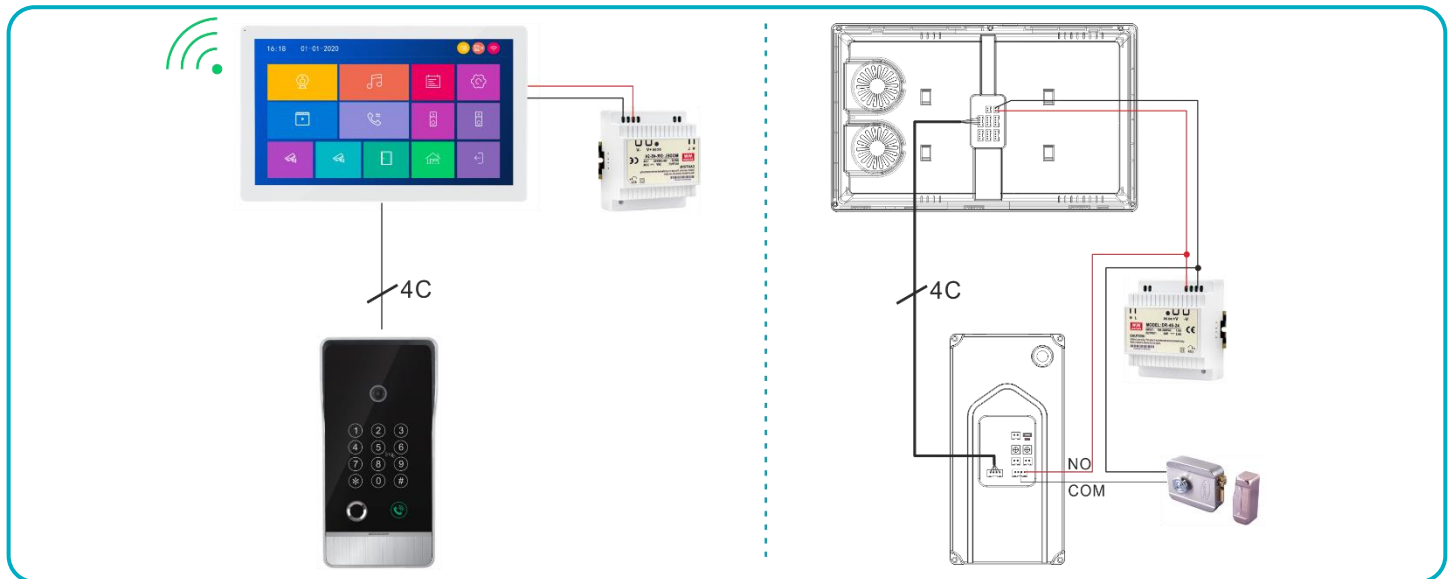


fig. 6 Wiring diagram

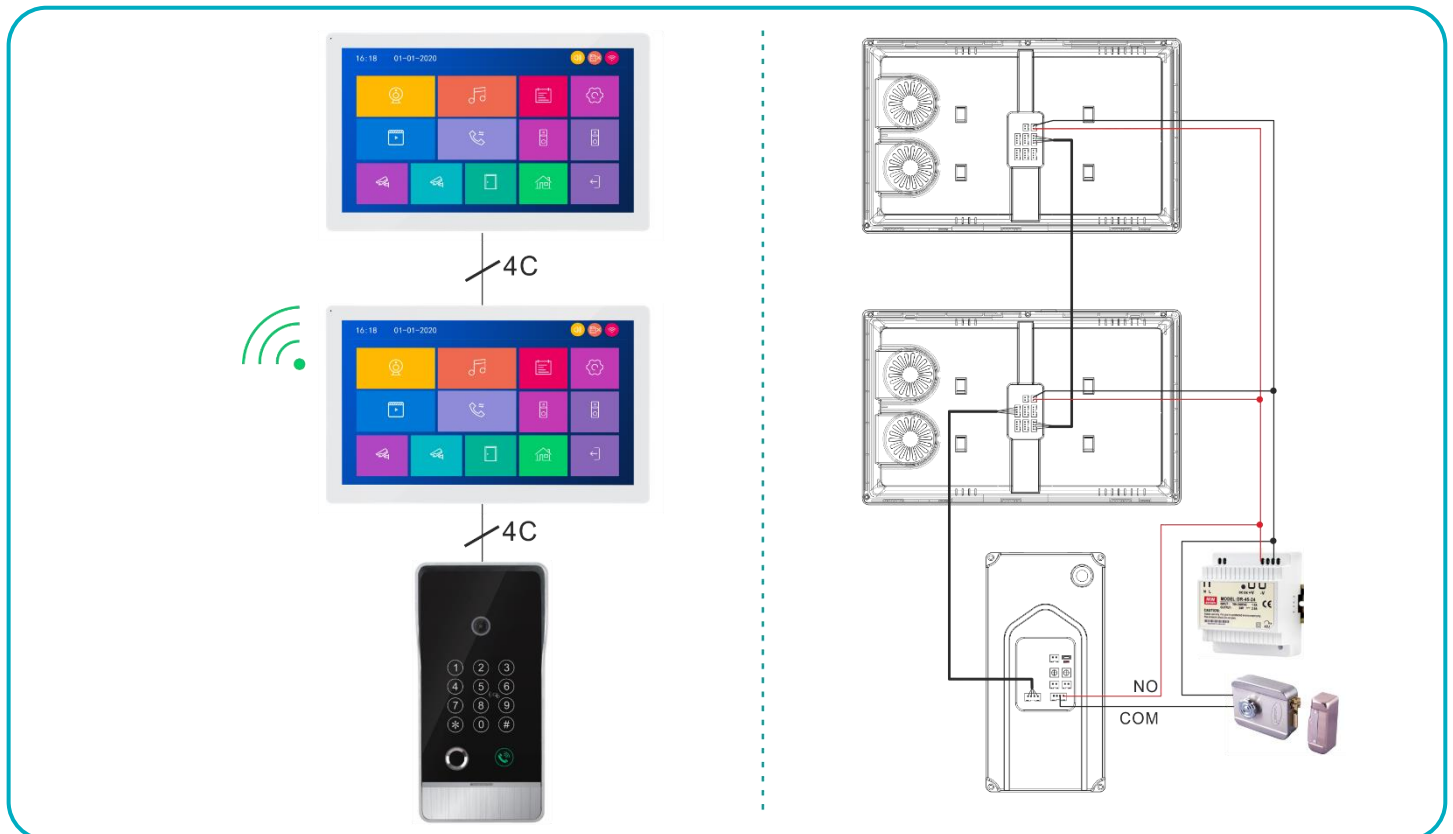


fig. 7 Wiring diagram

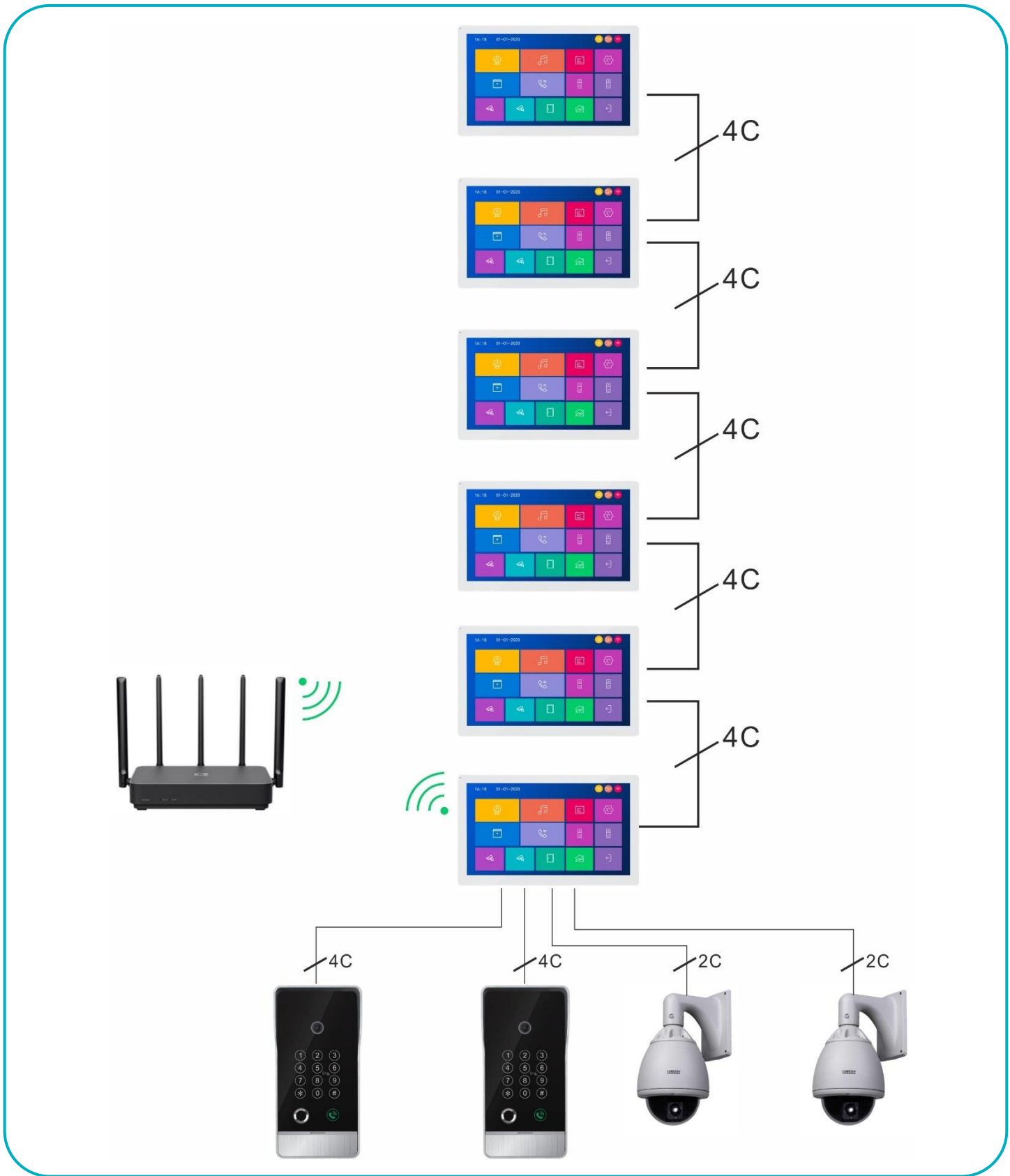


fig. 8 Wiring diagram

**!** It is forbidden to make connections to live equipment!  
Failure to adhere to this recommendation may result in permanent damage to the device and loss of health.



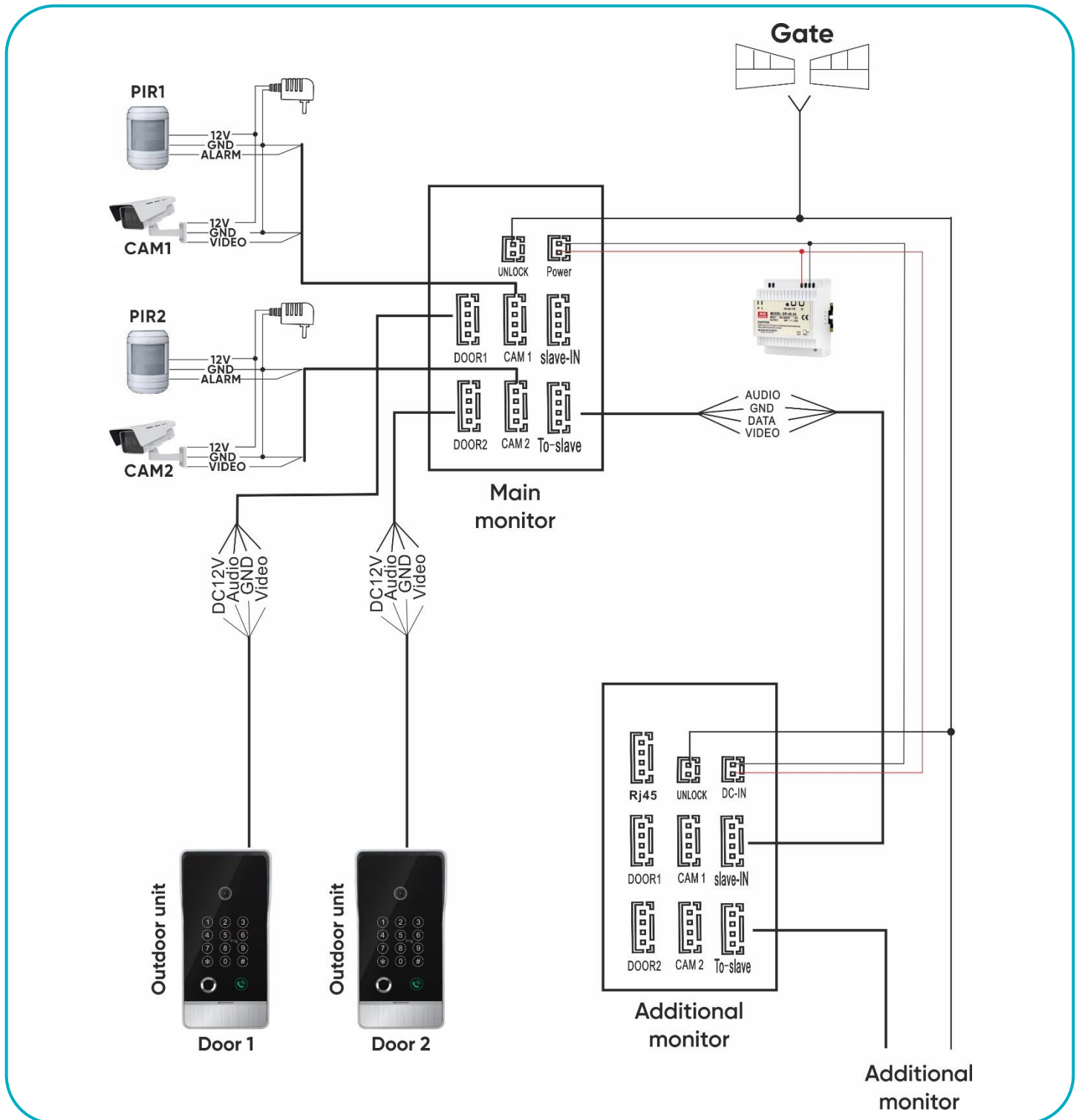


fig. 9 Wiring diagram

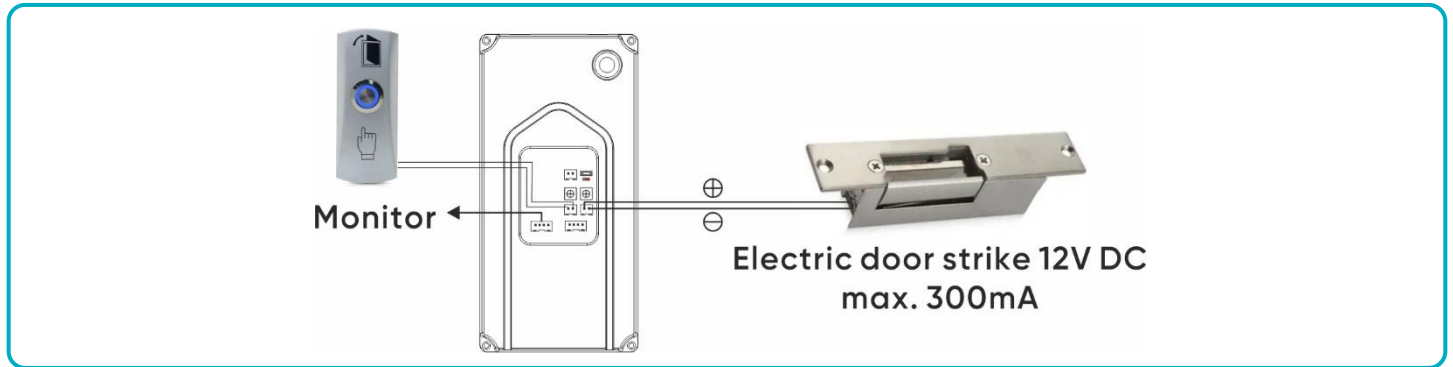
! The set does not include an electric door strike and automatic gate control unit!

The video doorphone cables should not be routed in one cable with the cables of other installations such as bell, alarm, etc. Any power and telecommunication cables emitting strong magnetic fields (e.g. loudspeaker columns, TV set) in direct contact with the cables connecting the outdoor unit to the monitor may adversely affect the operation of the set.

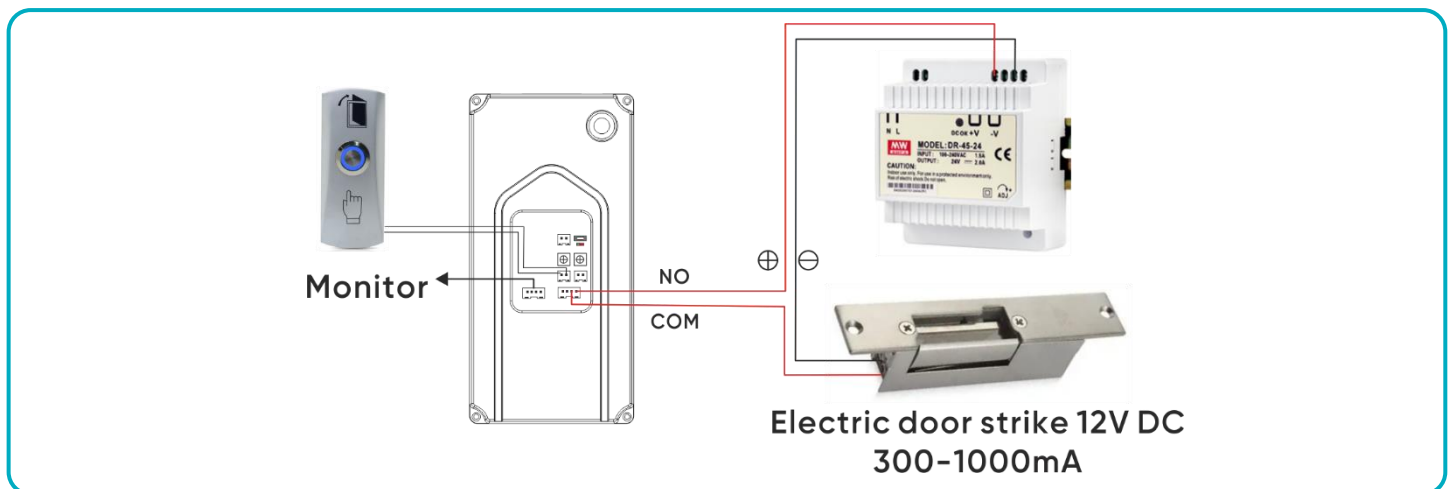
**If the user has other connection cables than the recommended ones, it is allowed to use them, however, it is necessary to make a test connection of the set in order to check its correct functioning.**



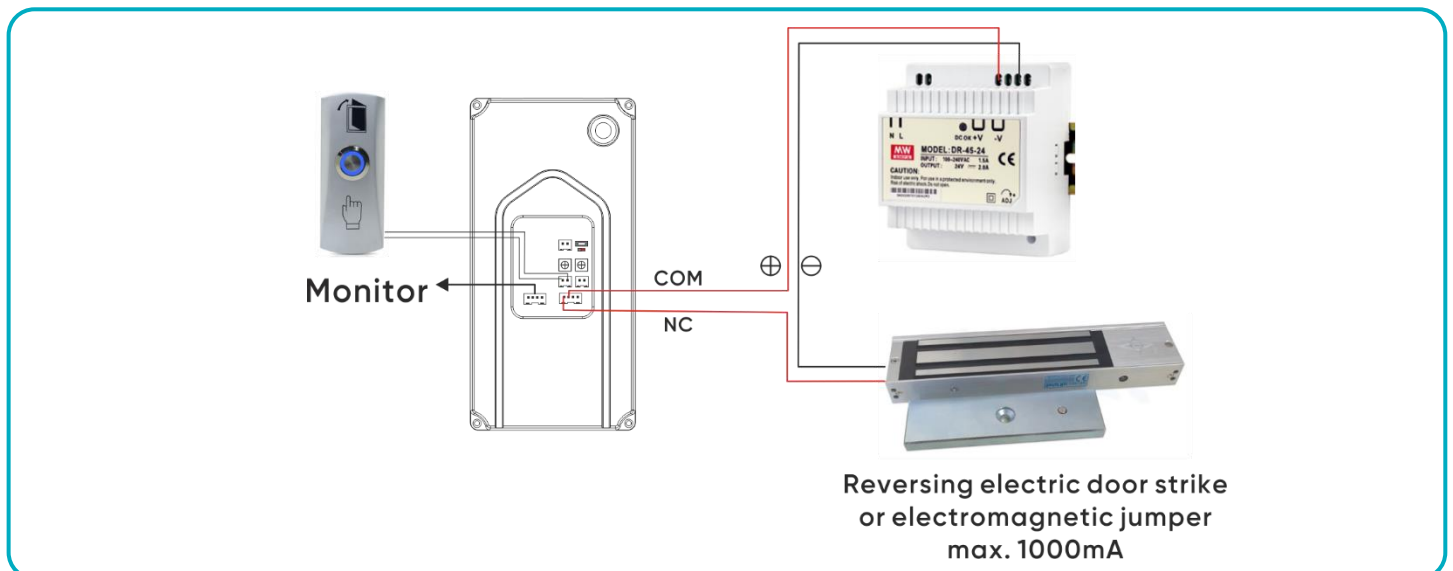
1. The distance between the outdoor unit and the monitor does not exceed 20 metres and a low-current electric door strike is used.



2. The distance between the outdoor unit and the monitor exceeds 20 metres.



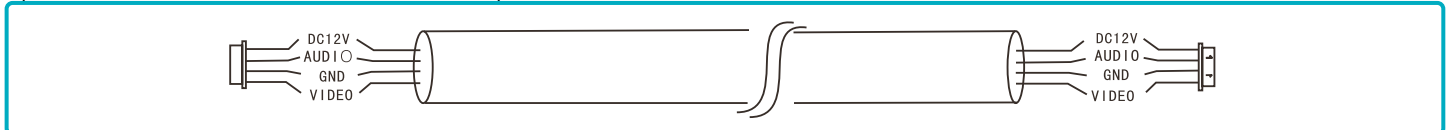
3. Connection of a reversible electric door strike or electromagnetic jumper.



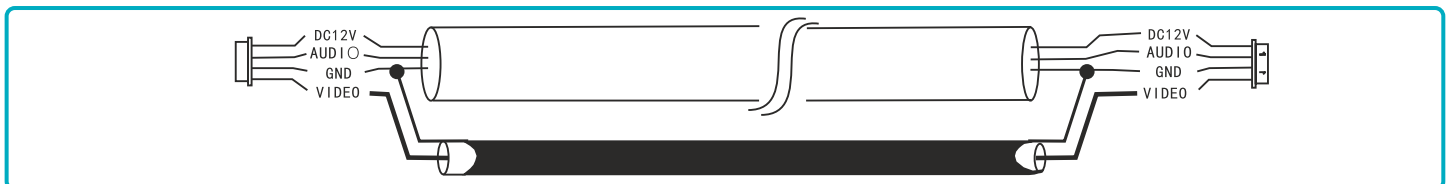


The type of cable and its connection is shown below. (The correct operation of the device largely depends on the type of cable used). When designing the electrical installation, it is important to consider the appropriate cross-section of the wires:

- 1. Connection diagram for standard cable  
up to 30m recommended cable XzTKMX pw 4x0.5mm  
up to 60m recommended cable XzTKMX pw 4x0.8mm



- 2. Connection diagram for standard unshielded cable + coaxial cable for video (75Ohm-3), for distances >60m.



## 7. KEYPAD PROGRAMMING

### OPERATION

Administrator password: used to enter programming mode, factory default 123456.  
ID No.: sequential number from 000 to 199.

### ENTER PROGRAMMING MODE

Enter the administrator password and confirm using the button # (beeps 2 times and keypad backlight flashes).

### EXIT PROGRAMMING MODE

Press the button \* \* (the keypad backlight will stop flashing) or take no action for 30 seconds.

### OPENING BY PIN CODE

Enter the PIN code and confirm with #.

### CHANGING THE ADMINISTRATOR PASSWORD

**(old administrator password) # 0 # (new, 6-digit administrator password) #**

e.g. new password 234567: 123456 # 0 # 234567 # \* \*

### ADDING A PIN CODE

**(administrator password) # 1 # (ID no.) # (new, 6-digit pin code) #**

e.g. user 1, PIN code 223344: 123456 # 1 # 000 # 223344 # \* \*

### ADDING A PROXIMITY TAG/CARD

**(administrator password) # 3 # (ID no.) # (read the tag/card) #**

e.g. user 2: 123456 # 3 # 001 # read the tag/card # \* \*

### ADDING A FINGERPRINT

**(administrator password) # 5 # (ID no.) # (scan the fingerprint, long diiii signal heard) #**

e.g. user 3: 123456 # 5 # 002 # place and hold your finger on the reader until you hear the diiii tone \* \*

### DELETING THE PIN/PROXIMITY CARD/FINGERPRINT USER

**(administrator password) # 2 or 4 or 6 # (ID no.) #**

2- delete PIN, 4- delete card, 6- delete fingerprint

To delete all PIN codes/user cards/fingerprints:

**(administrator password) # 2 or 4 or 6 # 99 #**

2- delete all PIN codes, 4- delete all cards, 6- delete all fingerprints

To restore the factory settings, press and hold the settings button on the back of the panel for approximately 3 seconds and then press the same button 3 times.

### BACKLIGHT SETTINGS

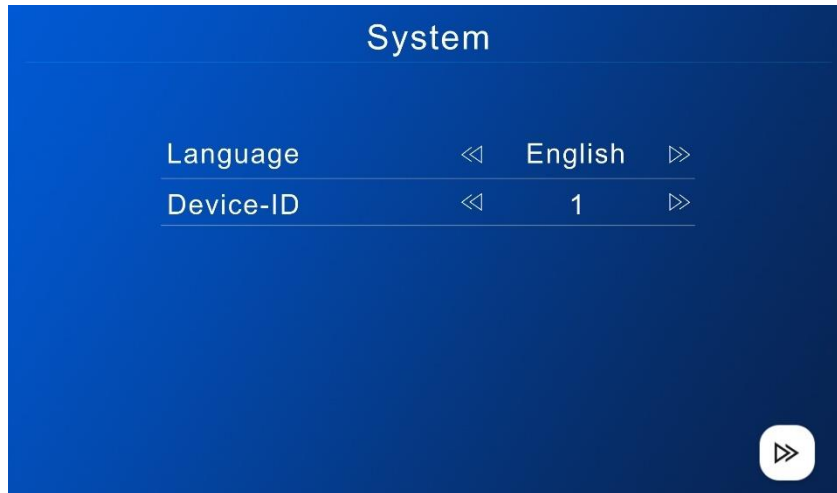
**(administrator password) # 7 # 00 or 01 or 02 #**

00- no backlight, 01- backlight all the time, 02- no backlight in standby mode, backlight during operation (factory setting)

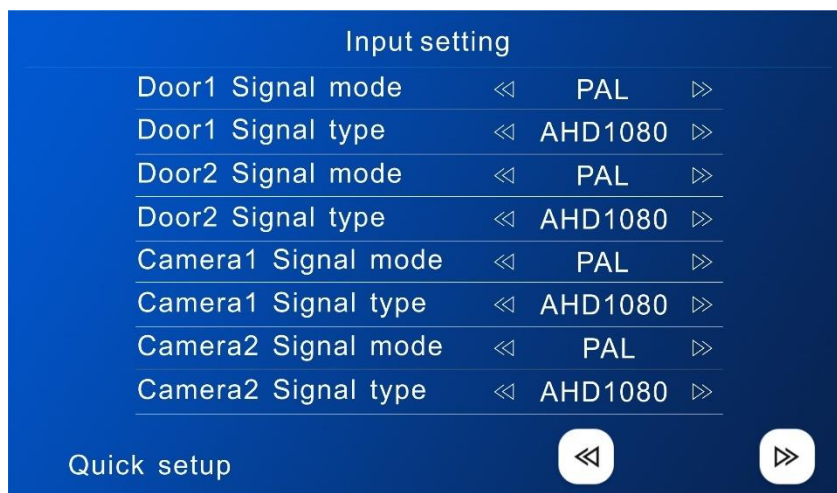


## 8. FACTORY SETTINGS

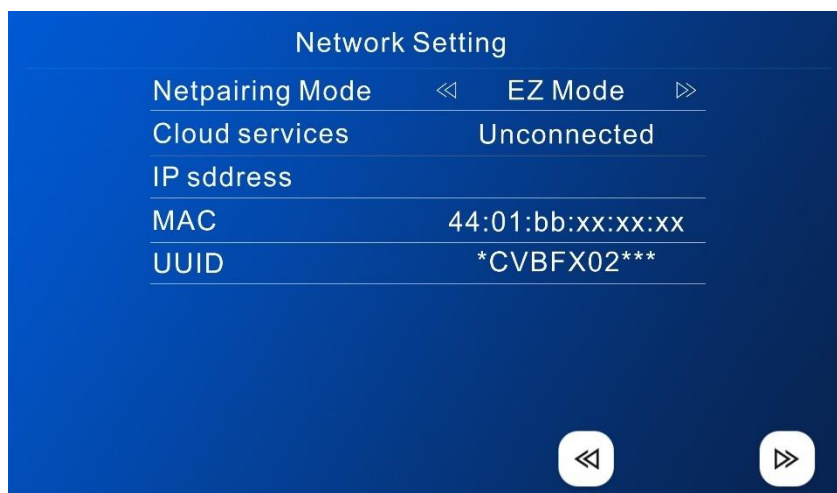
### CHOICE OF LANGUAGE AND DEVICE ID



**Important:** Assigning a device ID is an important part of the configuration in the system. For the whole set to function correctly, the device address configuration must be correct. If a particular monitor is connected to outdoor panel 1, the device address must be set to 1, while additional monitors must be set sequentially to 2/3/4/5/6.



**Important:** The input video signal must be correctly specified, otherwise the camera image will not be displayed correctly. If the resolution and format of the input signal cannot be accurately determined, the auto-detection function can be used.

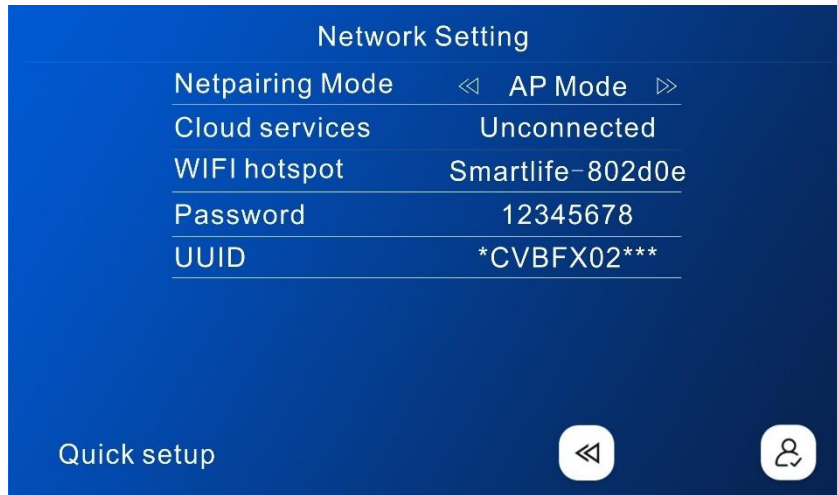




## 9. INSTALLING APPLICATIONS

### AP MODE

To quickly configure the device, go to Settings> Network> Network Pairing Mode, select AP MODE and press return to restart the device. The Network Settings menu will display your WiFi network name and password.

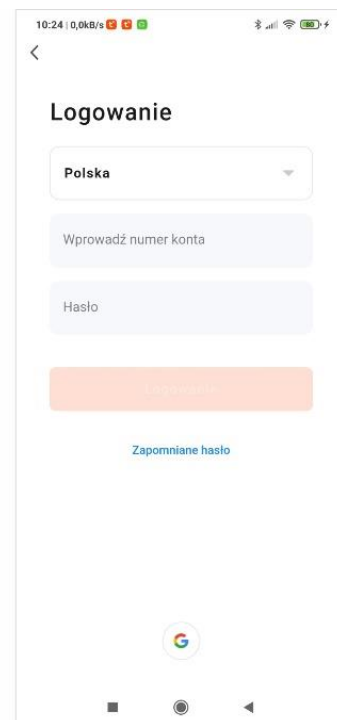
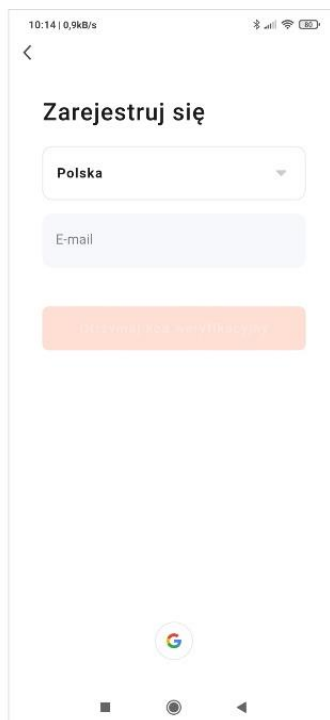


1. Open the App Store (iOS) or Google Play (Android) on your phone. Search for the app "Tuya Smart" and install it or scan the QR code below:



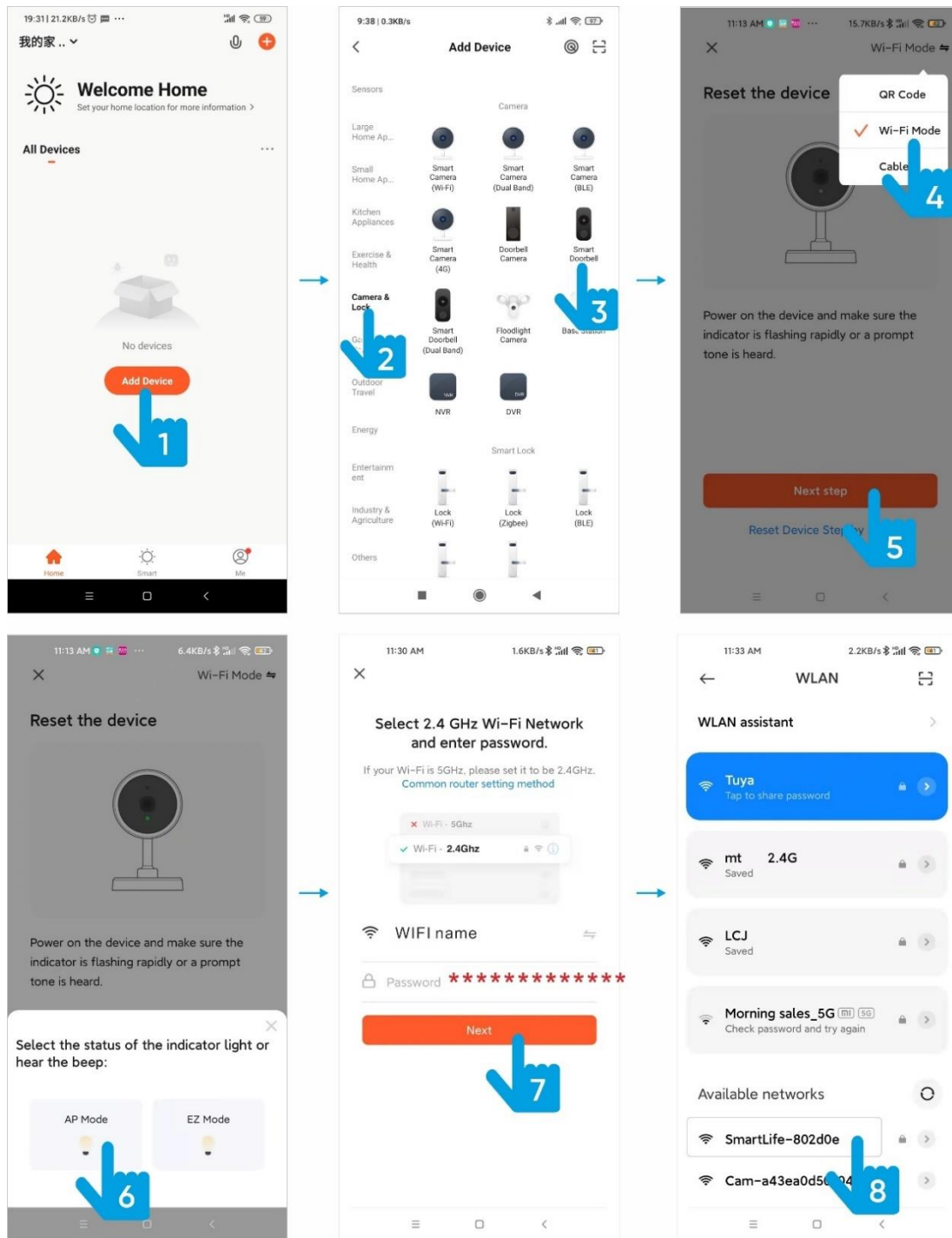
Tuya Smart

2. If you do not already have an account in the app, click Register, you will be redirected to the next page. The system will automatically identify the country/region you are from or you can manually select it yourself. Enter your e-mail address, check your agreement with the privacy policy and click on Receive verification code. Enter the code you received, then enter your password and click Finished.

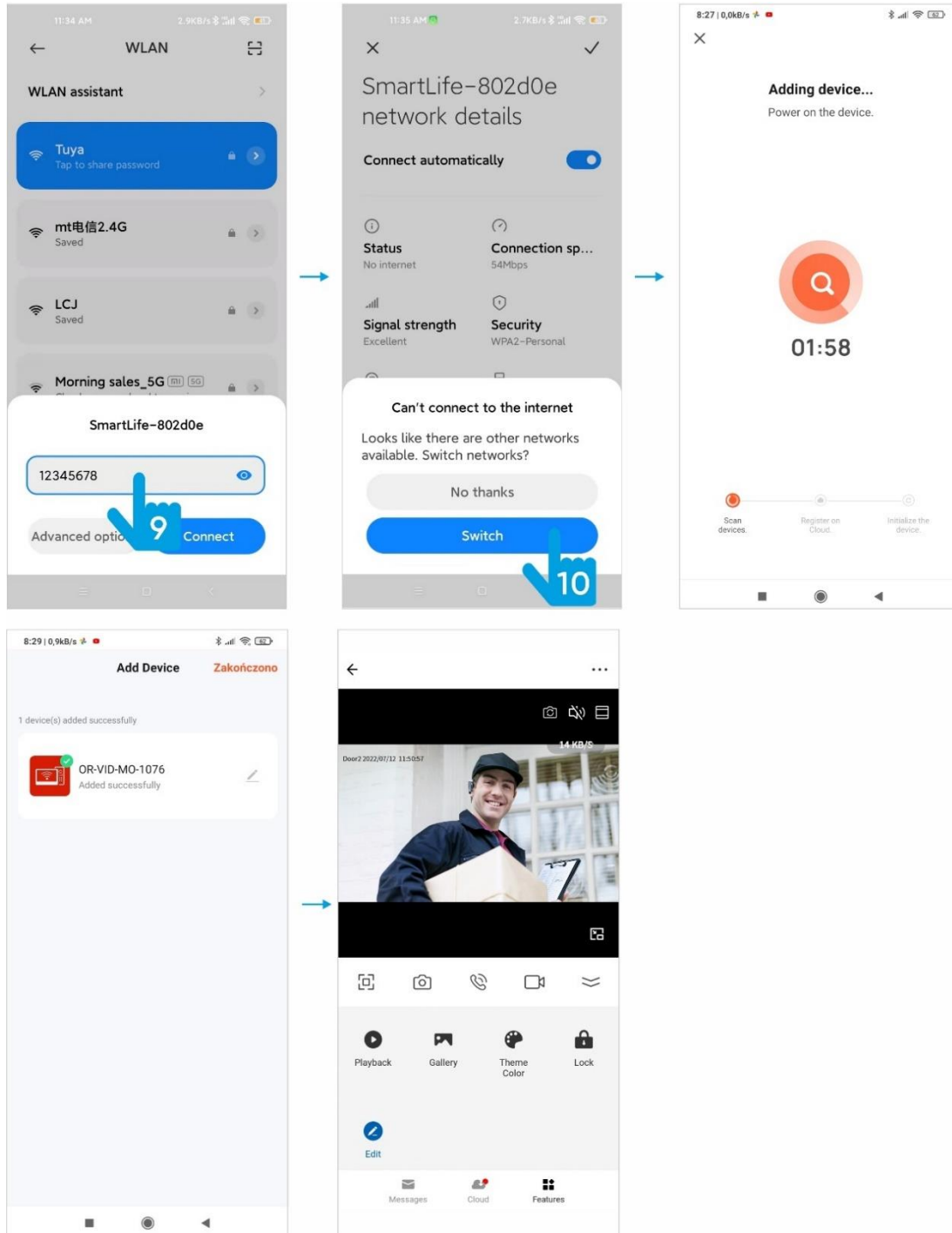




## WIFI CONNECTION



1. Log in to the app and go to the start page. Click the "+" icon in the top right corner or Add Device.
2. Select Camera and Lock.
3. Select Smart Doorbell.
4. Then select Wi-Fi Mode in the top right-hand corner.
5. Press Next step.
6. Select AP Mode.
7. Select the name of your network in the app and enter the correct password. Press the "Next" button.
8. To connect your phone to your device, click Connect Now.



9. Select SmartLife from the available networks.

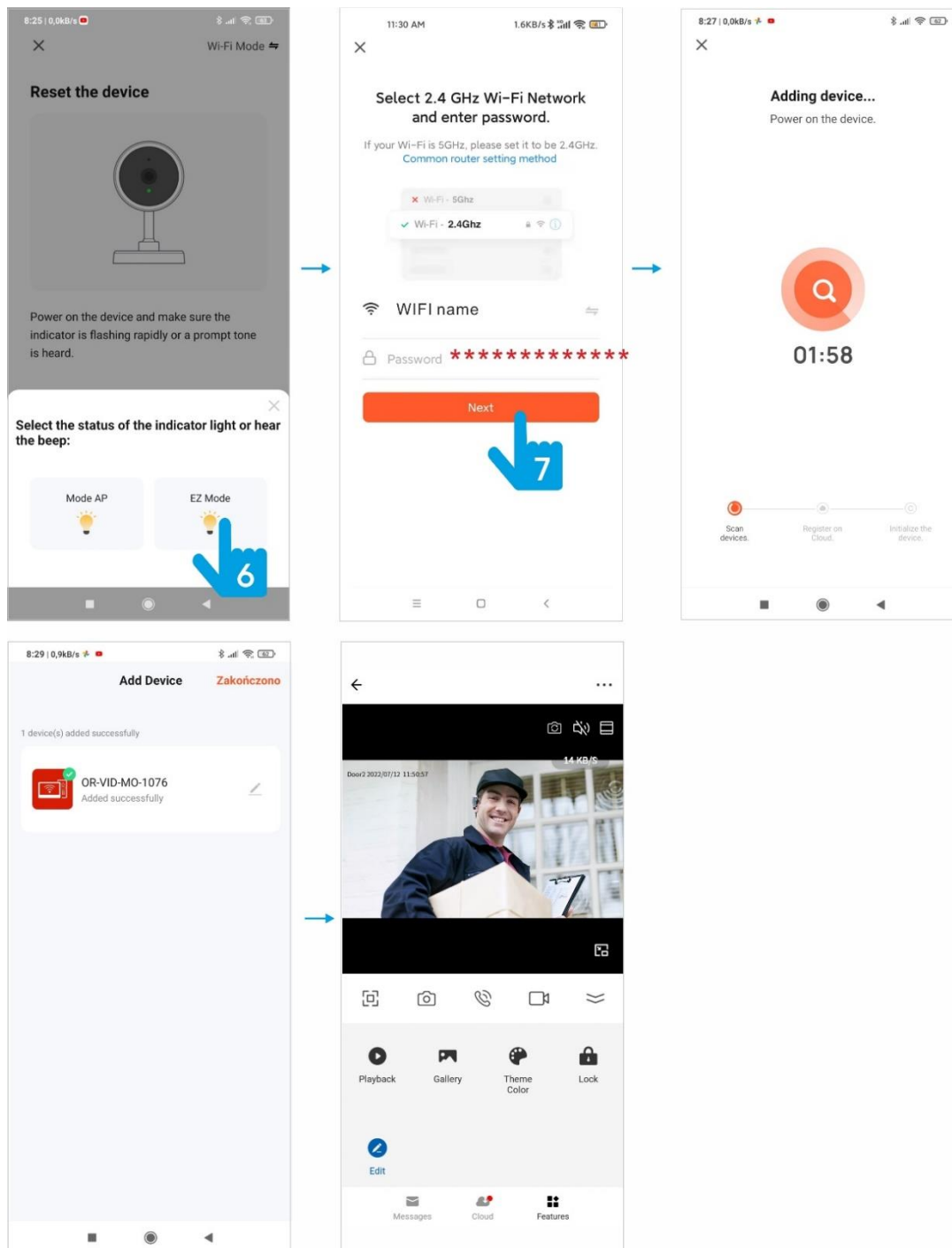
10. Enter the password 12345678 and click Connect.

11. Wait for about a minute, the app screen will display Add Device. At the end of the process the app should display the message "Added successfully", click on the button "Done" in the top right corner. The video intercom is ready for use, check the quality of the connection by starting monitoring.



## EZ MODE

To quickly configure the device, go to Settings> Network> Network pairing mode, select EZ MODE and press return to restart the device. The Network Settings menu will display your WiFi network name and password.



6. Select EZ Mode.

7. Select the name of your network in the application and enter the correct password. Press the "Next" button.

8. Wait for about a minute, the app screen will display Add Device. At the end of the process the app should display the message "Added successfully", click on the button "Done" in the top right corner. The video intercom is ready for use, check the quality of the connection by starting monitoring.

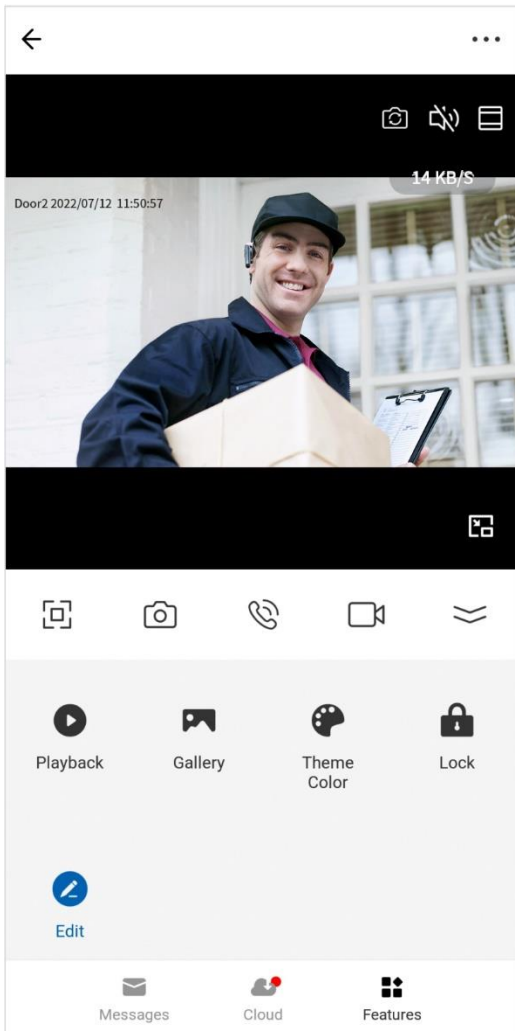
**Note:** in case the device is returned or sent for service repair, the device must be restored to factory settings and removed from the application.





## 10. APPLICATION

**Important:** to ensure the correct functioning of the application, the user is obliged to update the application in accordance with communications from the application operator.



Zoom in



Full screen



Take picture by App and save in mobile album



Talk



Take video by App and save in mobile album



Playback video stored in SD card



Check the video and photo taken by App



Light mode/dark mode



Door/gate opening



Cloud service to save calling video and motion detection video



## 11. MENU



An icon highlighted in red means that motion detection for a particular channel is enabled. Grey indicates that motion detection for a particular channel is disabled.



1: Mode: at home, normal operating status. The call on the outdoor unit will be redirected to the monitor and in the application.



2: Mode: not at home. When a call is made, a request will immediately be made to record a video message for the householder, which will be sent in the app.



3: Silent mode. A call on the outdoor panel will not trigger a ringing tone, but a notification will be sent in the app.



Network connection status indicator



Call register



Message register



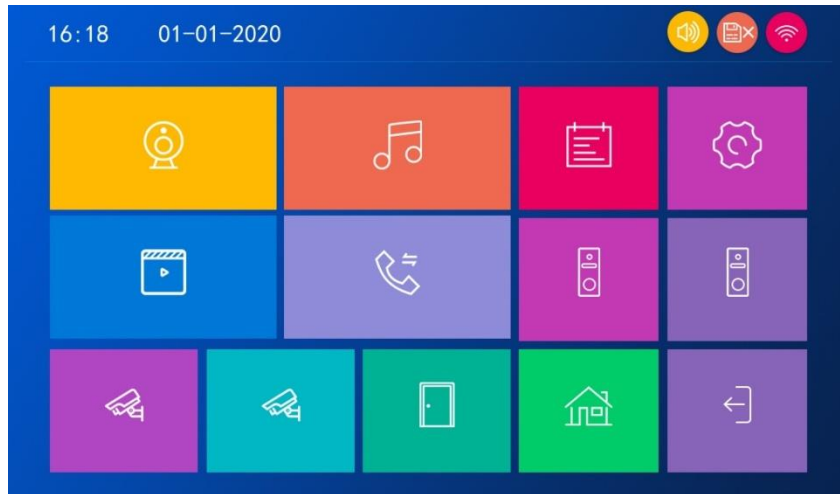
Motion detection register



Alarm register



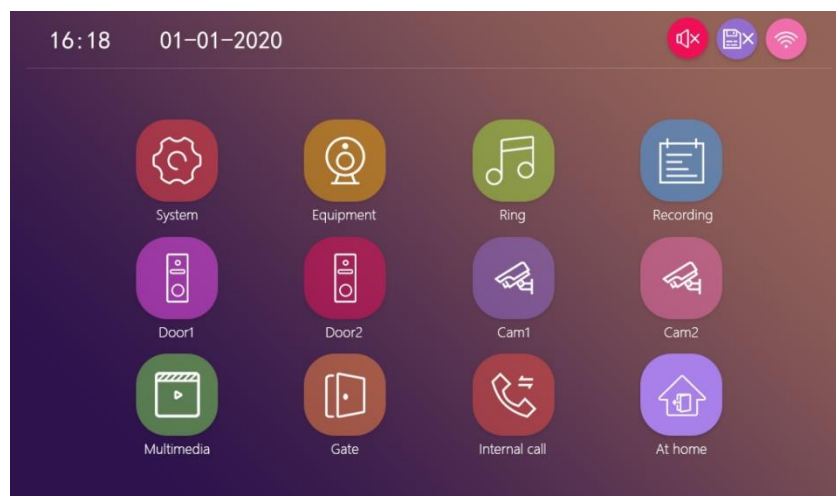
## 12. DESKTOP WINDOWS 10



## ANDROID

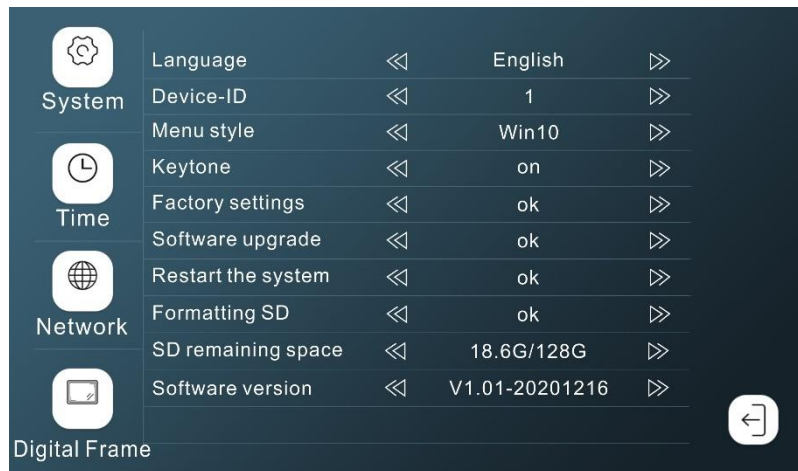


## STANDARD





## 13. SETTINGS



### SYSTEM SETTINGS

1. Formatting the SD card: Before formatting, copy the previously saved files on the SD card to the appropriate folder, note: the copied files must match the contents of the selected folder.
2. Restore factory settings: All set parameters will be restored to the default settings. Please remember to remove the device from the Tuya app as well before doing this, otherwise the device will not be able to be added and used by other accounts.

**Important:** if you return your device or send it in for service repair, you must remove it from the Tuya Smart app and restore the device to factory settings!

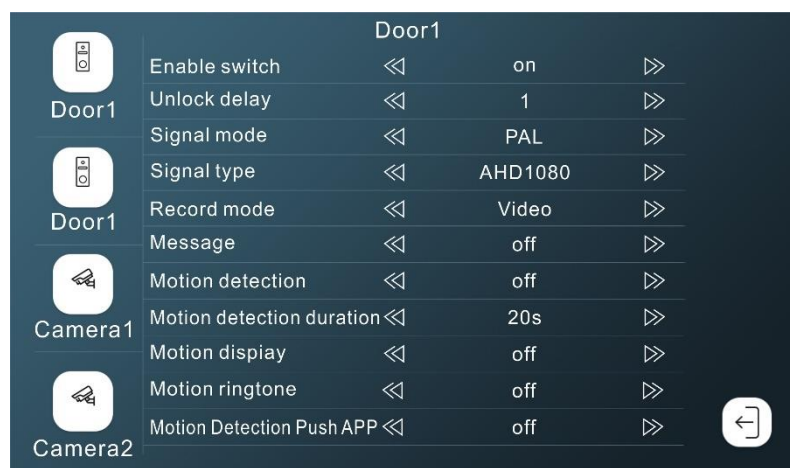
### TIME

1. Screen off: screen goes blank after 10 seconds.
2. Clock: displayed in standby mode.

### DIGITAL FRAME

1. The image file must be copied into the Digital frame folder, its resolution must not be greater than 2523x1576, the file format is jpg.
2. The digital photo frame function cannot be activated at the same time as the motion detection function.
3. Press and hold your finger on the selected file, the option "Delete" or "Delete all files" will appear. Click on the file to enable its playback in the frame.

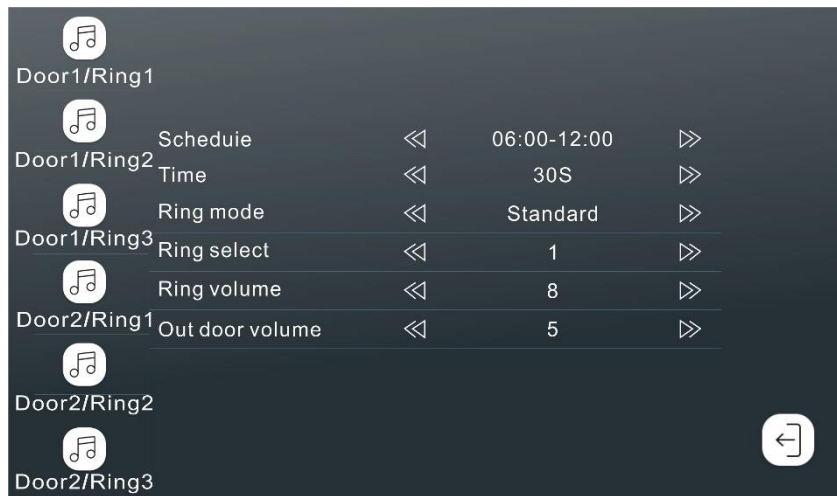
## 14. DEVICES



1. If a channel is switched off, it will not be possible to monitor and configure its settings. It will also be invisible in the application.
2. The motion detection function cannot be activated simultaneously with the digital photo frame.
3. If the 'Motion detection Push APP' function is disabled, the phone will not receive any notifications when motion is detected.

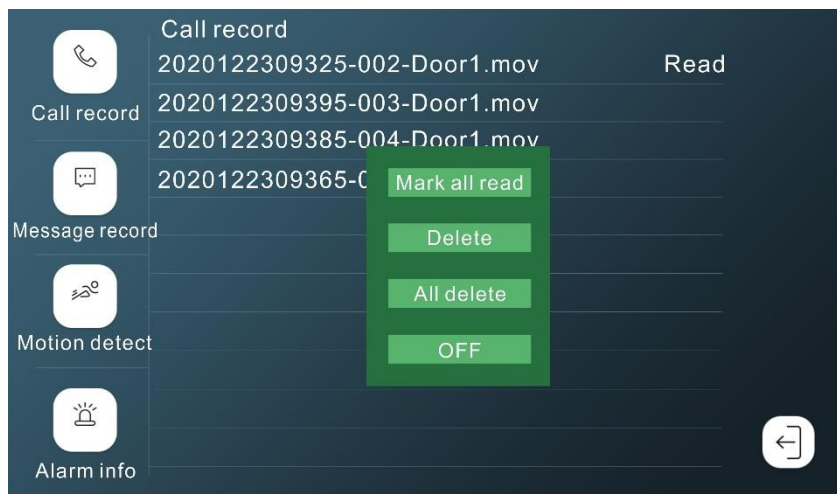


## 15. RING



1. The ringing of each channel can be set for three time slots, and different ring types and volumes can be set, but note that there must be no gaps or overlaps between the three time slots, otherwise the system will play the default parameters.
2. Please note that the volume of the ringer must not be higher than the volume of the monitor.

## 16. RECORDS



1. Click a file to play it directly, long-press a file to go to the delete/read operation.

## 17. CLEANING AND MAINTENANCE

- The monitor should not be placed in a location exposed to high temperatures, in direct sunlight or high humidity locations (e.g. bathrooms),
- The monitor should not be placed near a television set or other objects that may cause interference to the signal,
- Do not touch the device with wet hands,
- Clean the camera lens with a dry cloth. Do not use chemical cleaners,
- Do not place the camera in direct sunlight,
- Before installing the device in the chosen place, make sure that there is no signal interference,
- Avoid switching off the device during recording, data may be lost.



## 18. TROUBLESHOOTING

### 1. No audio/video, no indicator light

- a) no supply voltage,
- b) damaged or incorrectly connected connecting cable, check your installation for technical requirements page 3-4,
- c) check that the installation is not exposed to water, moisture etc.,
- d) check that the camera lens is not obstructed by an object that prevents proper view.

### 2. No video but audio is normal

- a) check that all connections are made correctly with regard to technical requirements,
- b) check that the camera lens is not obstructed by an object that prevents proper view.

### 3. No audio when calling

- a) ensure that the monitor volume is not set to the lowest setting,
- b) ensure that there are no objects in the vicinity of the device that could cause interfering with the signal,
- c) check that all connections are made correctly with regard to technical requirements.


### 4. Outdoor unit cannot call the monitor

- a) check that all connections are made correctly with regard to technical requirements.



### 5. Electric door strike not working

- a) check the independent operation of the electric door strike by connecting it to the required voltage, etc.

### 6. Cannot hear the visitor when answering a call

- a) press the button  to activate two-way intercom,
- b) check that all connections are made correctly with regard to technical requirements.

### 7. You can hear the visitor when you receive a call, but you cannot answer them

- a) press the button  to activate two-way intercom (pressing the button  on the monitor, the outdoor unit cannot hear the indoor unit),
- b) check that all connections are made correctly with regard to technical requirements.



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#### Simplified declaration of conformity

Orno-Logistic Sp. z o.o. declares that the type of radio device OR-VID-MO-1076 Video doorphone set Guardo is compliant with the Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following web address: [www.orno.pl](http://www.orno.pl)