



Operating and installation instructions

Video doorphone set Guardo

OR-VID-MO-1076



STOP!

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



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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. 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. 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!

11/2024



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);
- ability to save 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:	60s
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:	247 x 151.5 x 18mm
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:	-20°C ~ +50°C
INSTALLATION:	surface/flush-mounted
MATERIAL:	metal
SURFACE-MOUNTED UNIT DIMENSIONS:	100 x 200 x 55mm
FLUSH-MOUNTED UNIT DIMENSIONS:	108 x 193 x 35mm
FLUSH-MOUNTED UNIT DIMENSIONS:	90 x 176 x 30mm
SURFACE-MOUNTED UNIT NET WEIGHT:	0.52kg
FLUSH-MOUNTED UNIT NET WEIGHT:	0.66kg

4. SET CONSTRUCTION

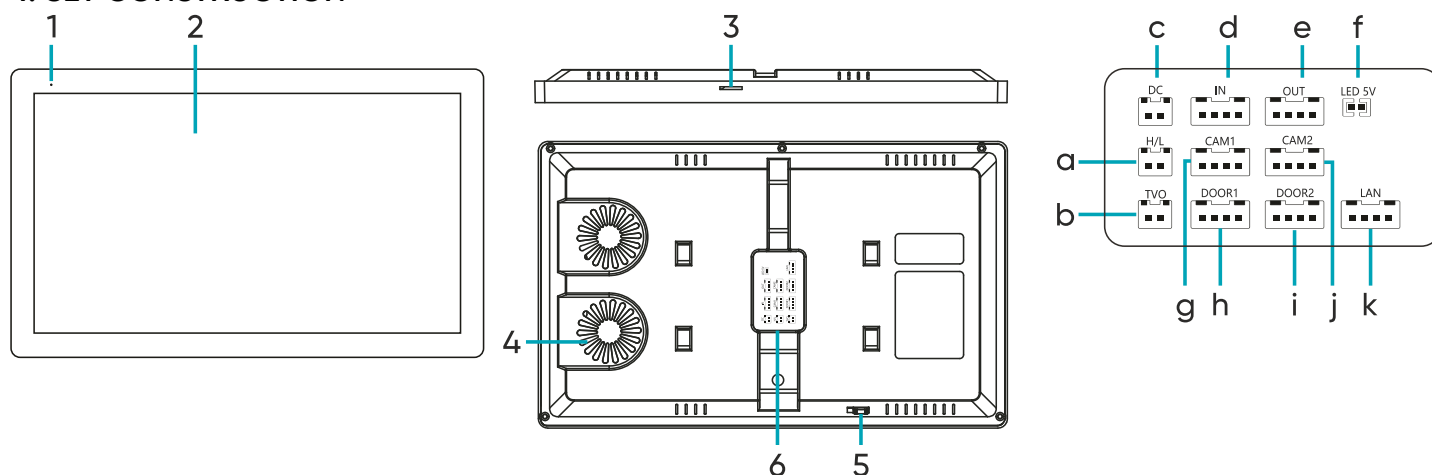
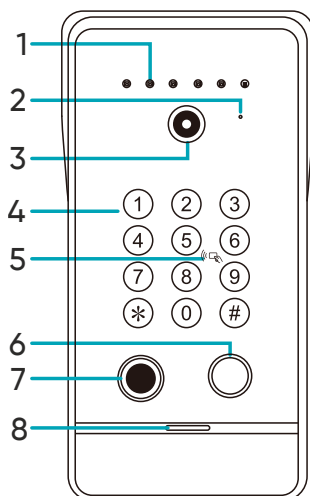


fig. 1 Construction of the monitor

MONITOR

- | | |
|-------------------------|--|
| 1. Microphone | d. Input (connect with the previous monitor) |
| 2. LCD display | e. Output (connect to the next monitor) |
| 3. SD card slot | f. Illumination jumper for call button on external panel
(connected – illumination on, disconnected – illumination off) |
| 4. Loudspeaker | g. Camera 1 |
| 5. On/off switch | h. Door 1 |
| 6. Connection terminals | i. Door 2 |
| a. Gate relay output | j. Camera 2 |
| b. Video output | k. LAN port |
| c. 12V DC input | |

OR-VID-MO-1076KV/S
surface-mounted outdoor unit



OR-VID-MO-1076KV/F
flush-mounted outdoor unit

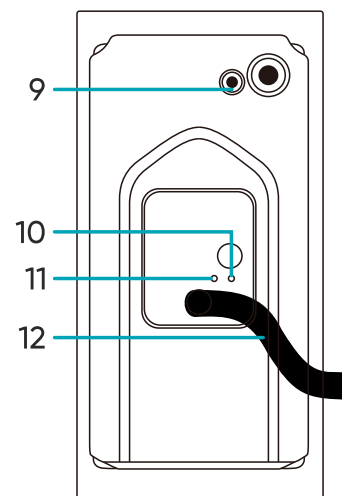
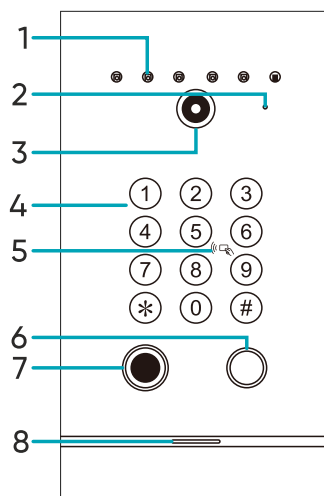


fig. 2 Construction of the outdoor unit

OUTDOOR UNIT

- | | |
|------------------------|---|
| 1. Camera illumination | 7. Fingerprint reader |
| 2. Microphone | 8. Loudspeaker |
| 3. Camera lens | 9. Camera mode change button: 1080P-720P-CVBS |
| 4. Numeric keypad | 10. Door opening time adjustment (1-10sec.) |
| 5. RFID reader field | 11. Volume adjustment |
| 6. Call button | 12. Connection cable |

5. INSTALLATION

MONITOR INSTALLATION

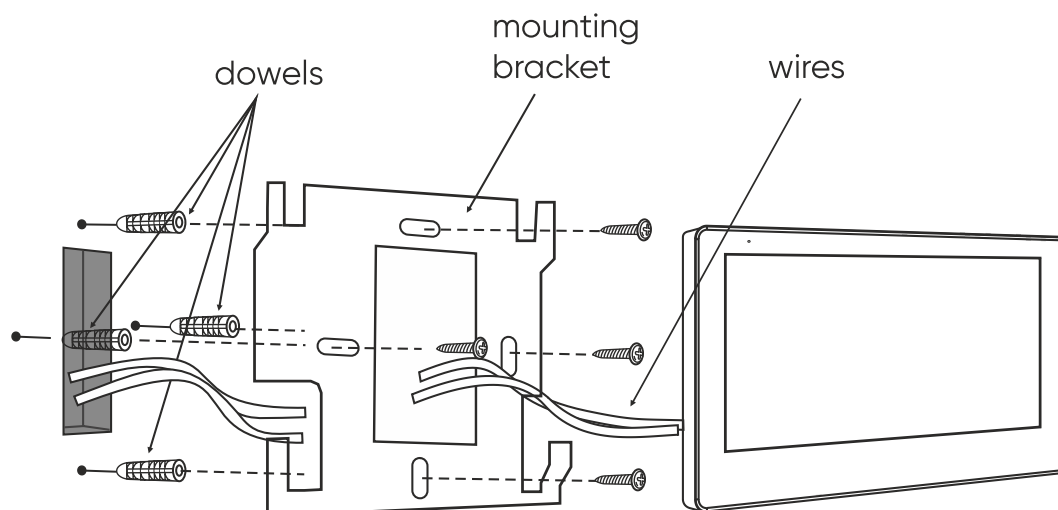


fig. 3 Monitor installation

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

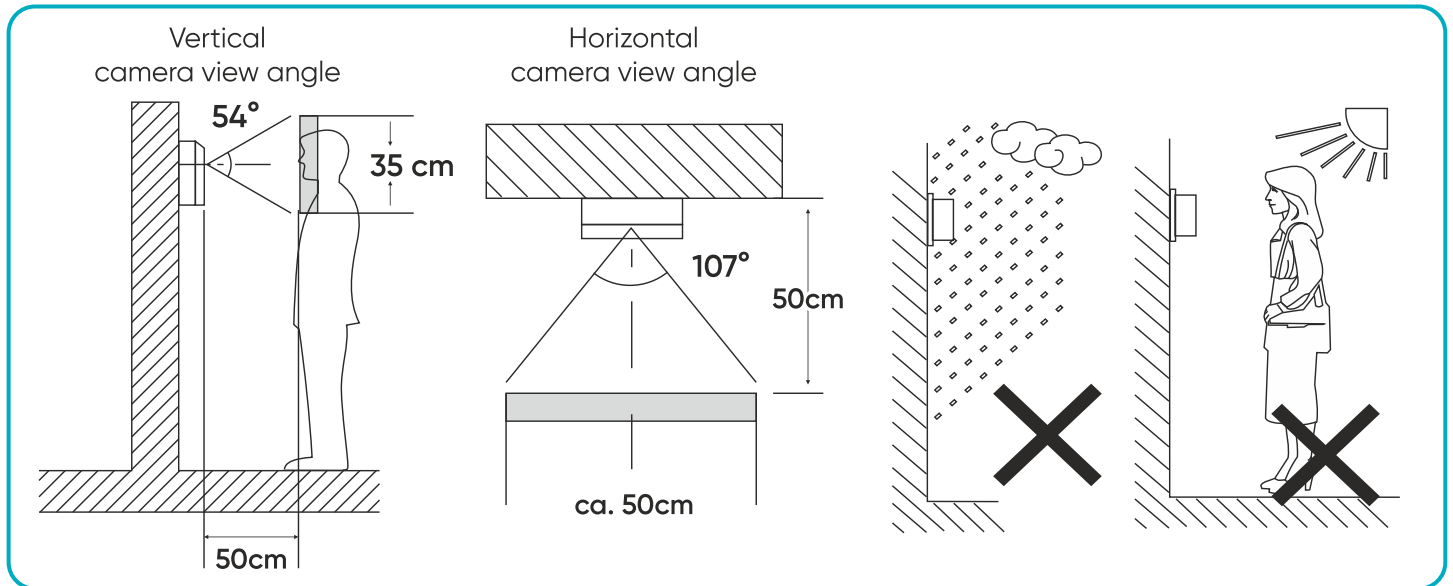


fig.4 Outdoor unit placement

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.

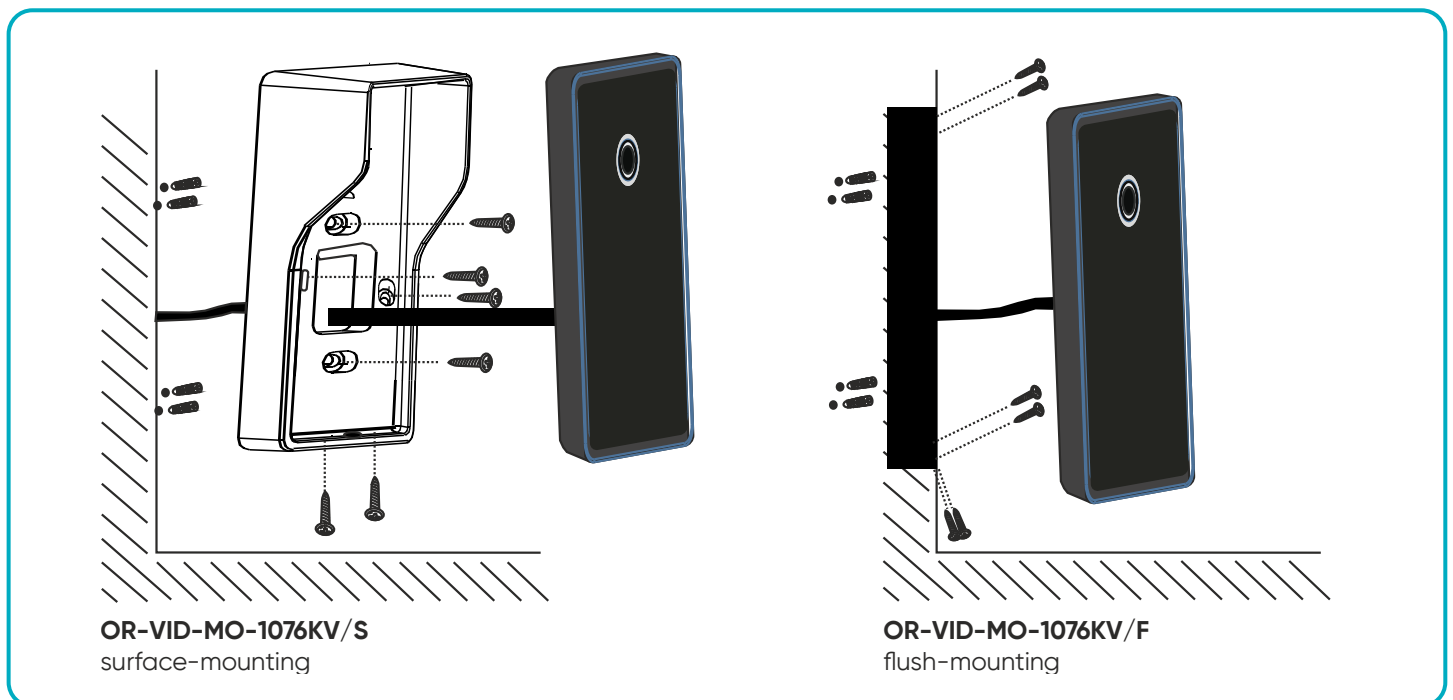


fig. 5 Outdoor unit with camera installation

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.

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.



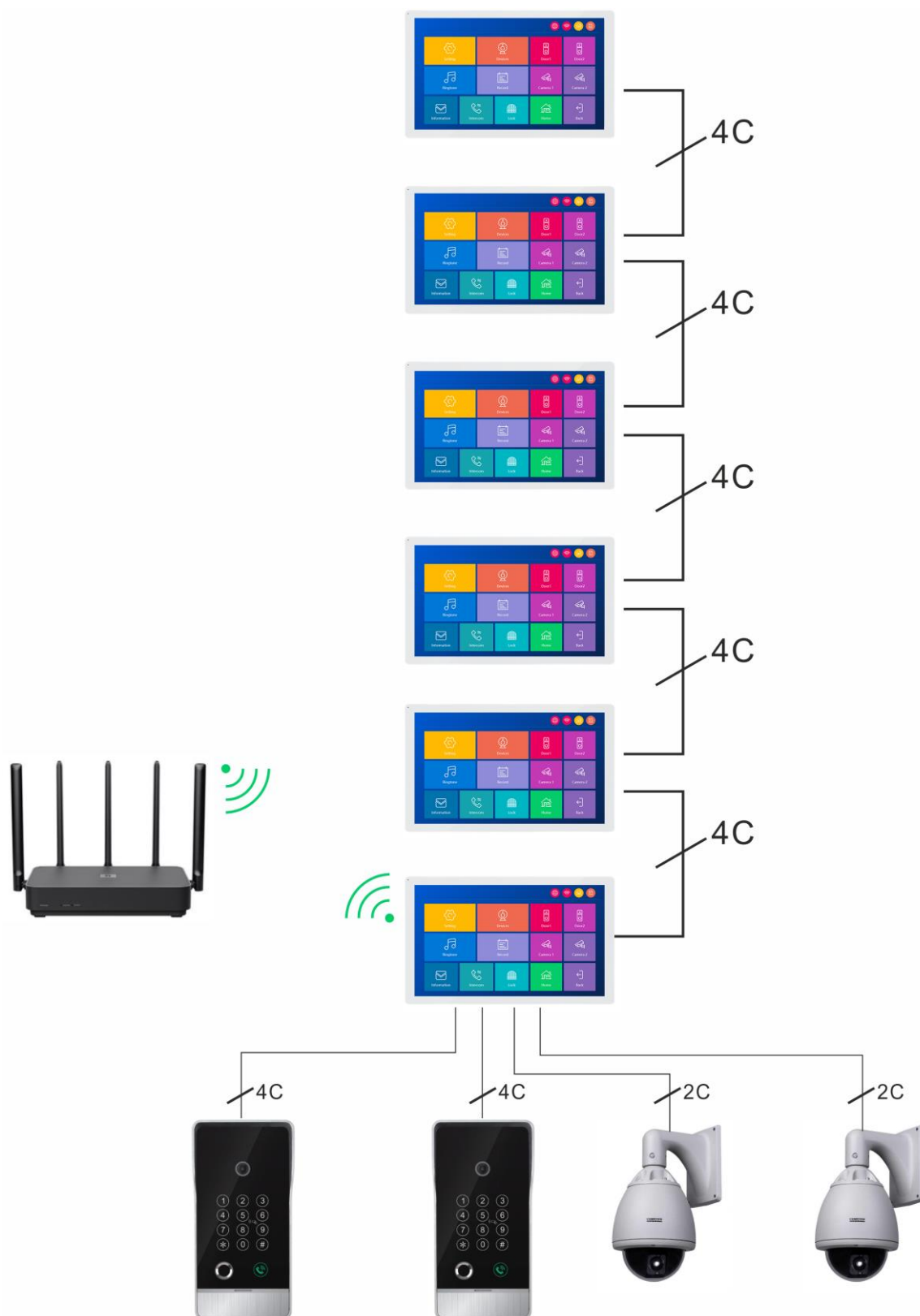


fig. 8 Wiring diagram



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.

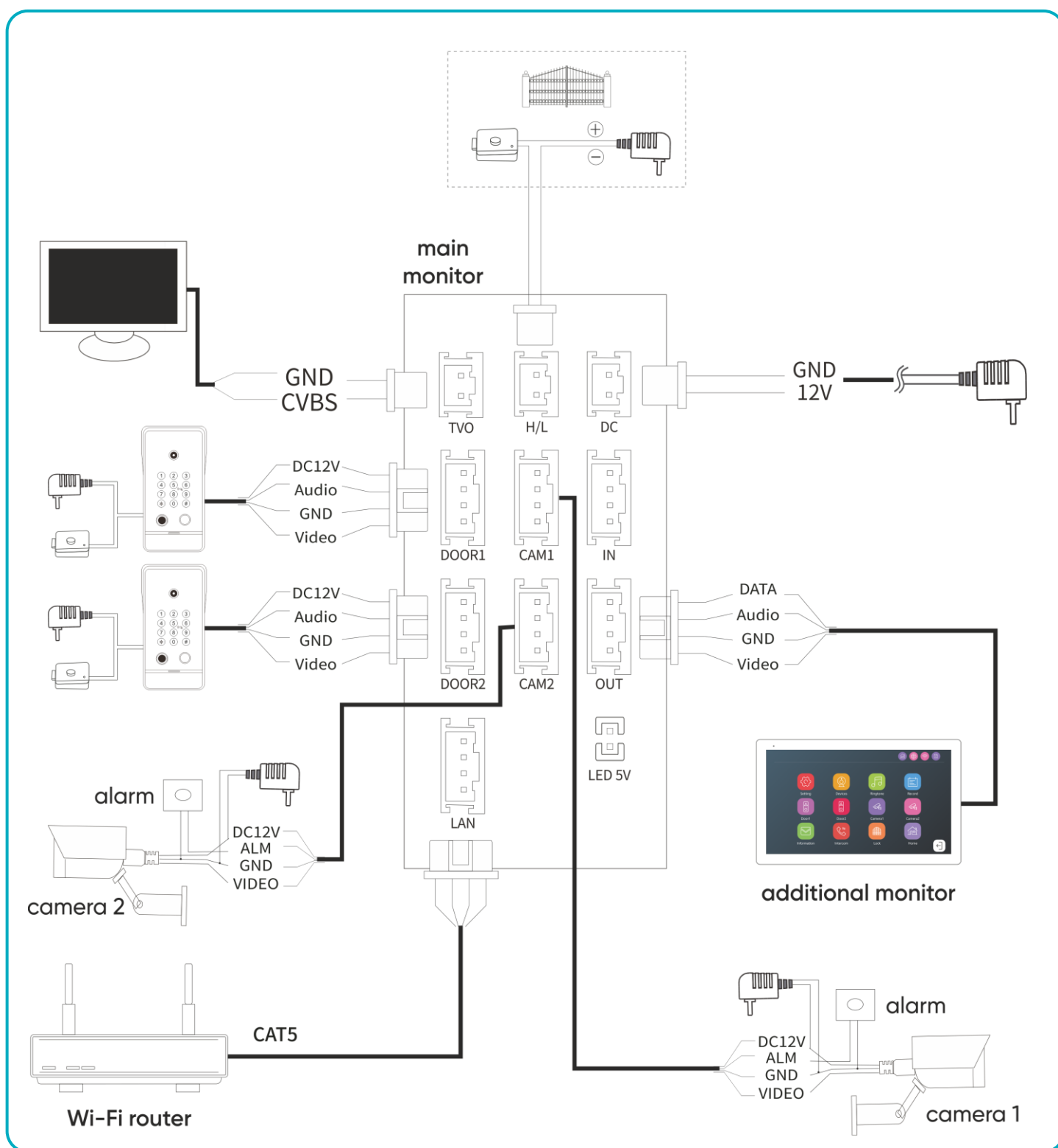


fig. 9 Wiring diagram

! 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.

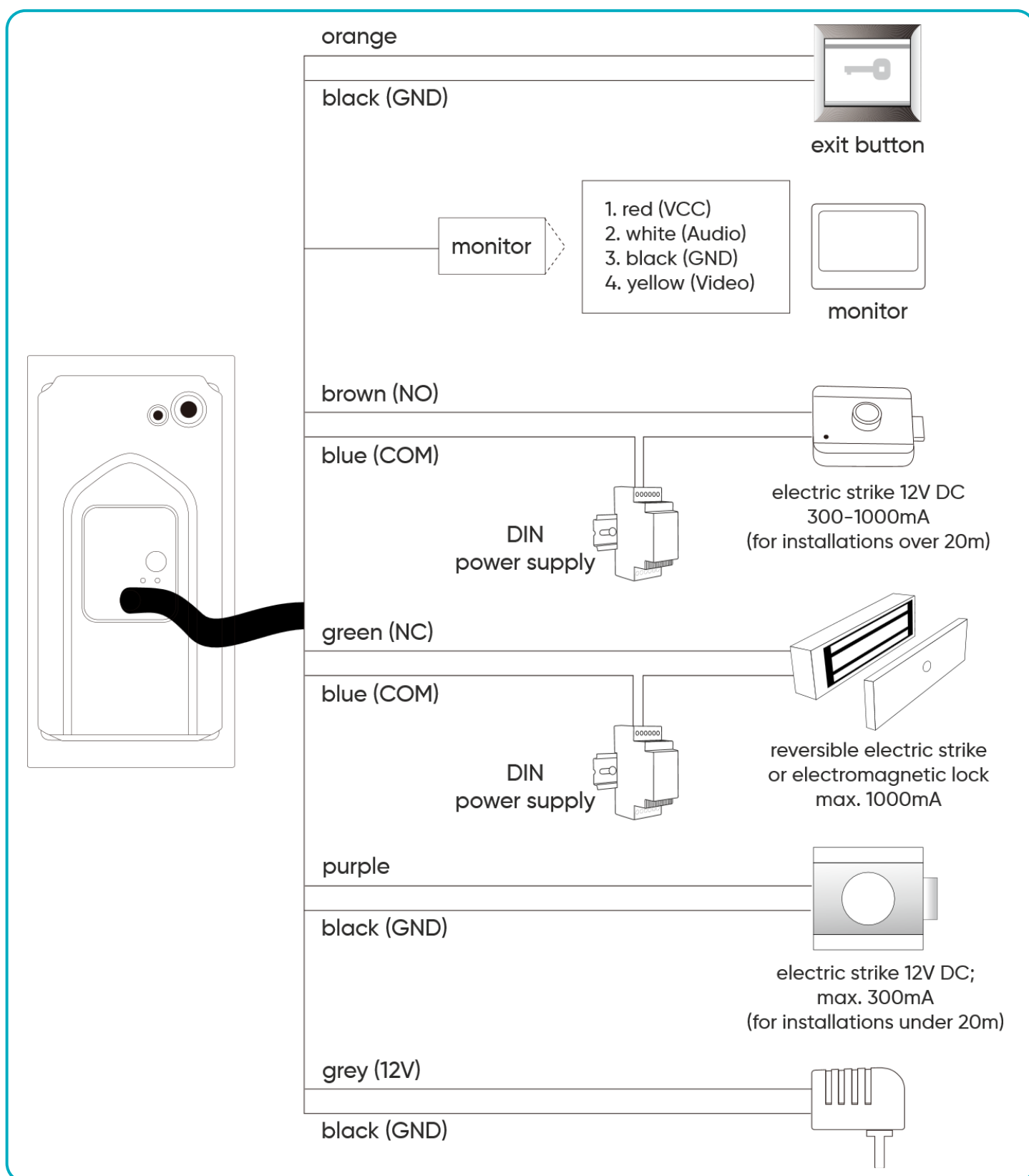


fig. 10 Wiring diagram

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:

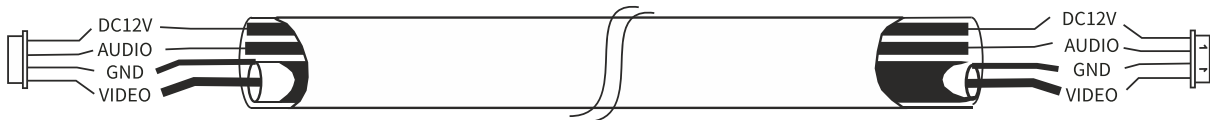
1. Connection diagram for standard cable
up to 30m recommended cable XzTKMX pw 4x0.5mm
up to 50m recommended cable XzTKMX pw 4x0.8mm



2. Connection diagram for distances >50m.
Standard cable + coaxial cable for video signal (75Ohm-3). The shield should be connected to GND.



Standard cable with integrated coaxial cable for video signal ($2 \times 0.5\text{mm}^2 + 75-3$). The shield should be connected to GND.





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 # * *

If the given ID number is already in use, you will hear two short beeps. Please repeat the process using a different ID number. It is possible to add multiple PIN codes. To do this, after adding the first PIN code and hearing a single long beep confirming the operation, enter the next PIN codes. These will be assigned to subsequent ID numbers.

e.g. 3 PIN codes: 223344 (ID 000), 334455 (ID 001), 445566 (ID 002): 123456 # 1 # 000 # 223344 # 334455 # 445566 # * *

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 # * *

If a card or tag is already stored in the device memory, you will hear two short beeps.

It is possible to add multiple proximity cards or tags. To do this, after adding the first card or tag and hearing a single long beep confirming the operation, hold each additional card or tag up to the reader in succession. They will be assigned to subsequent ID numbers.

e.g. 3 new tags: 123456 # 3 # 001 # odczyt 1 breloka # odczyt 2 breloka # odczyt 3 breloka # * *

ADDING A FINGERPRINT

(administrator password) # 5 # (ID no.) # (scan the fingerprint) #

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

If the given ID number is already in use, you will hear two short beeps. Please repeat the process using a different ID number. It is possible to add multiple fingerprints. To do this, after adding the first fingerprint and hearing a single long beep confirming the operation, scan the subsequent fingerprints. They will be assigned to subsequent ID numbers.

e.g. 3 fingerprints: 123456 # 5 # 002 # place and hold 1st finger on the reader (diii tone) # place and hold 2nd finger on the reader (diii tone) # place and hold 3rd finger on the reader (diii 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

After removing the selected access, pressing the # button again will remove the access assigned to the next ID number.

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

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. 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.



App connection status indicator.



Network connection status indicator.



Call register.



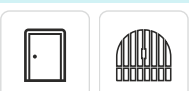
Message register.



Motion detection register.



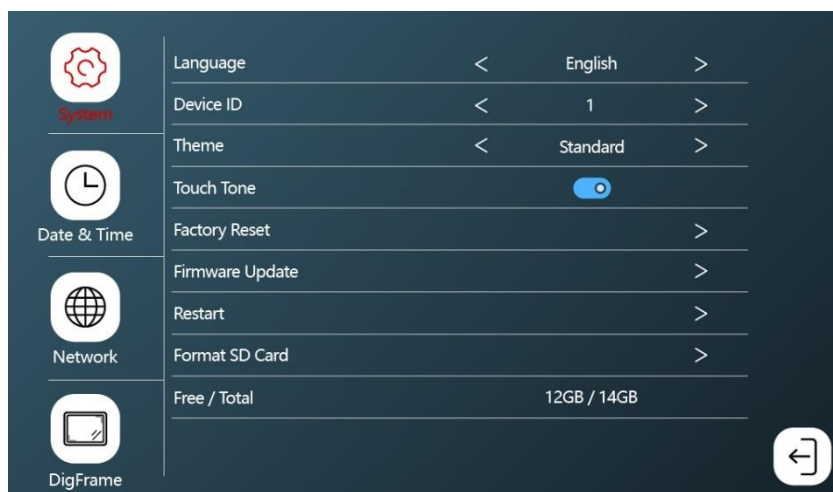
Alarm register.



Door/wicket and gate opening.



9. SETTINGS



SYSTEM SETTINGS

1. **Language:** change the language of the system to one of the available options.
2. **Device ID:** 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.
3. **Theme:** select one of the available system themes (see page 21).
4. **Touch tone:** enable or disable the key press sound during the use.
5. **Factory reset:** all configured parameters will be restored to their default settings. Please ensure that you remove the device from the Tuya app before performing this action; otherwise, the device will not be able to be added or used by other accounts.
Note: in the event of returning or sending the device for service repair, you must remove the device from the Tuya Smart app and restore it to factory settings!
6. **Firmware update:** update the system to the latest version.
7. **Restart:** restart the device.
8. **SD Card:** to fully utilize the features of the system, prepare an empty SD card ($\leq 1\text{TB}$). If using a 16GB or 36GB card, it should be formatted to FAT32. For cards ranging from 64GB to 1TB, they should be formatted to exFAT. Insert the prepared card into the SD card slot. When using the SD card, ensure that files saved on the SD card are placed in the appropriate folders (e.g., photos in the "DigitalFrame" folder or ringtones in the "Ring" folder).
Before formatting the SD card, back up all necessary files to a separate storage device. You can check the total and available space on the SD card from the monitor.

DATE AND TIME

1. **Date and time:** set automatically (after connecting to Wi-Fi and the app) or manually on the monitor.
2. **Date format:** choose the date format as either day-month-year or month-day-year.
3. **Clock style:** change the appearance of the clock (analog/digital).
4. **Screensaver:** enable or disable the screensaver (displays photos suitable for the time of day). If the function is disabled, the screen will turn off after 10 seconds of inactivity. If the function is enabled, the screen will display photos after 10 seconds of inactivity (only if the digital frame function has been disabled).

NETWORK

1. **Connection:** connect your device to the internet wirelessly via Wi-Fi (WLAN) or through a wired connection (LAN).
2. **Weather:** enable or disable online weather synchronization.

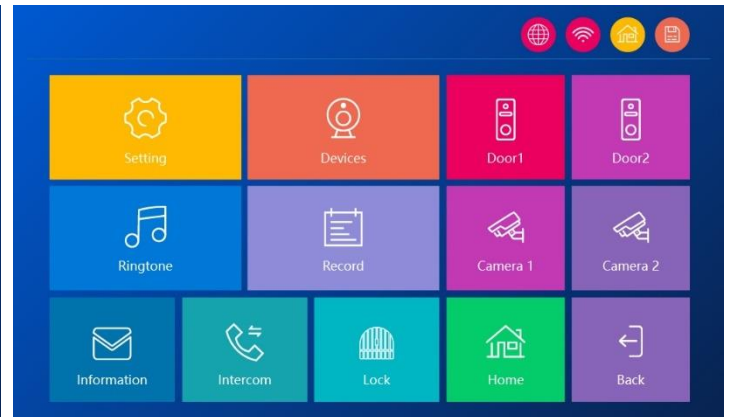
DIGITAL FRAME

1. **Digital frame:** enable or disable the digital frame feature and set the image change interval.
2. The image file must be copied into the Digital frame folder, its resolution must not be greater than 2523x1576, the file format jpg.
3. The digital photo frame function cannot be activated at the same time as the motion detection function.



10. DESKTOP

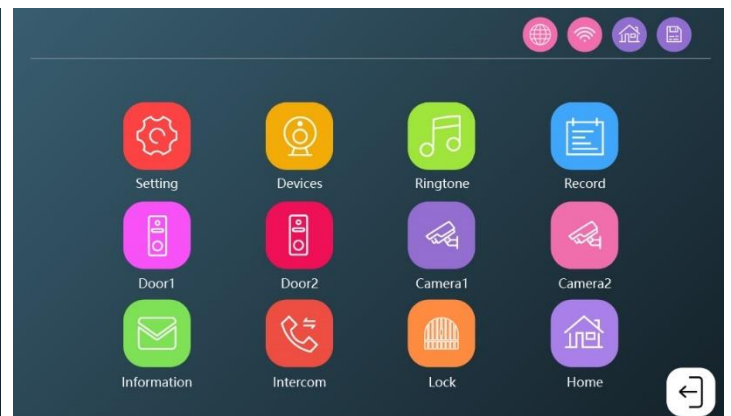
WINDOWS 10



ANDROID



STANDARD



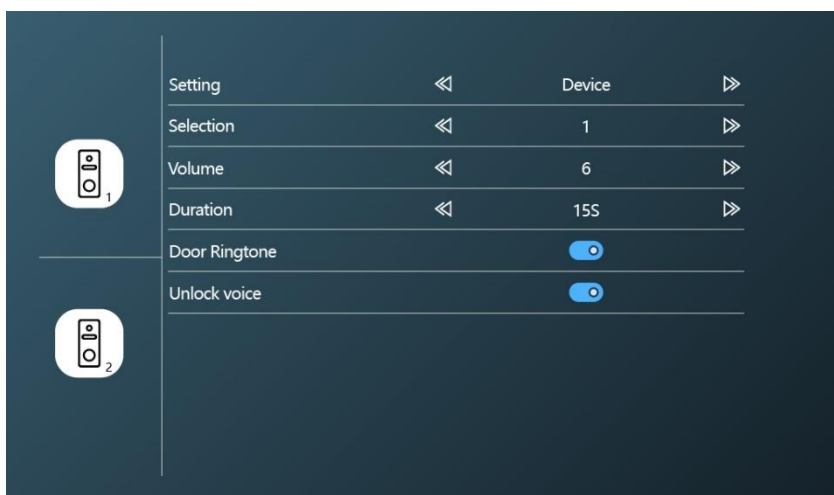


11. DEVICES



1. **Enable or disable channel:** if the channel is disabled, it will not be possible to monitor or configure its settings. It will not appear in the application. Additionally, you can change the device name (maximum of 9 characters).
2. **Video signal:** the input video signal must be correctly specified; otherwise, the camera image will not be displayed properly. If the resolution and format of the input signal cannot be accurately determined, the automatic detection feature can be used.
3. **Unlocking time:** set the opening time for the wicket for the selected outdoor unit.
4. **Recording type:** choose the format in which files will be saved (photo/video recording).
5. **Visitor message:** enable or disable the answering machine option and set the maximum length for visitor messages.
6. **Motion detection:** enable or disable the motion detection function. If this feature is enabled, notifications about detected motion will be sent to the phone connected to the set.
You can choose between detecting all types of motion or only detecting people. The system supports a maximum of 4 motion detection channels and 1 people detection channel. By clicking the box next to the motion detection option, you can also specify the area in which motion should be detected. Darkened fields are where motion will be detected, while the remaining areas will be excluded from motion detection.
The motion detection feature cannot be activated simultaneously with the digital photo frame.
7. **Screen popup:** enable or disable the function that automatically displays the camera image upon detecting motion.
8. **Alarm notifications:** enable or disable the automatic sending of notifications to the phone regarding detected motion.

12. RING



For each channel, a separate ringtone, length, and volume can be set. It is important to note that the ringtone volume cannot exceed the monitor's volume.

The voice message option allows you to enable or disable the voice announcement on the external panel when opening the door or gate (the announcement is available only in English).



13. RECORDS

Channel	Time	Type
Cam1	11:12:20	0001 jpg
Door1	09:45:39	0006 avi
Door1	09:13:45	0003 avi
Door1	09:01:06	0002 avi
Door1	08:18:48	0003 avi
Door1	07:36:24	0015 avi
Door1	01:23:02	0018 avi

In the records, you will find all recorded conversations, voice messages left by visitors, photos/videos taken during detected motion, and alarm records. Click on a file to play it directly; press and hold a file to access file options.

Note: to ensure the proper functioning of this feature, an SD card must be inserted into the monitor.

14. INFORMATION

Firmware Version	V1.3.1_Build_20241010
UUID	*5357fa2
Network Status	WLAN Connected
Tuya Server	Connected

Check the installed version of the system, the UUID number, and the status of the connections to the internet and the application.

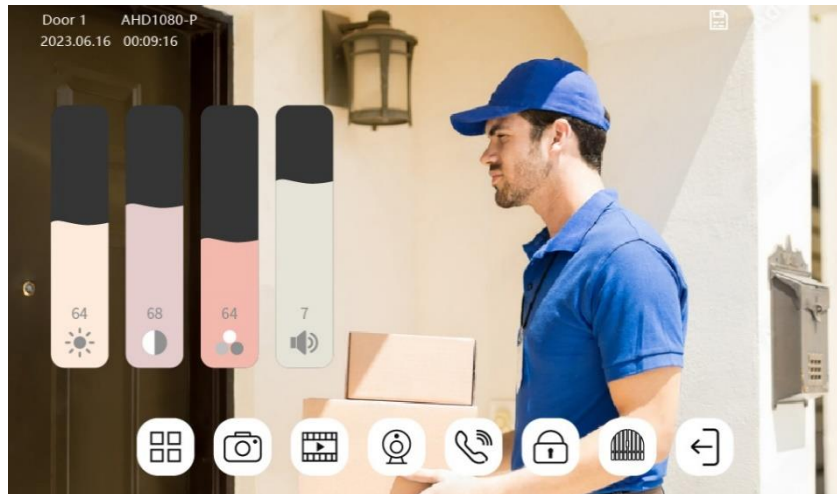
15. INTERCOM

1 2 3 4 5 6 ALL

Select the monitor you wish to connect with. Choose the appropriate number (corresponding to the monitor's ID) or select "ALL" to connect with all monitors in the set.



16. MONITORING



Monitor settings. Adjust the brightness, contrast, image saturation, and volume of the monitor.



Save the image/video displayed in the preview.



Change the monitoring channel (door 1 > door 2 > camera 1 > camera 2).



Start/end the call.



Open/close the wicket/door.



Open/close the gate.



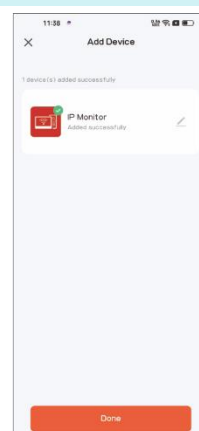
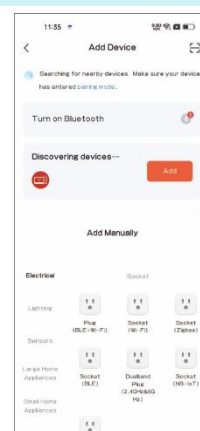
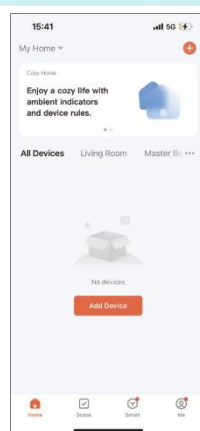
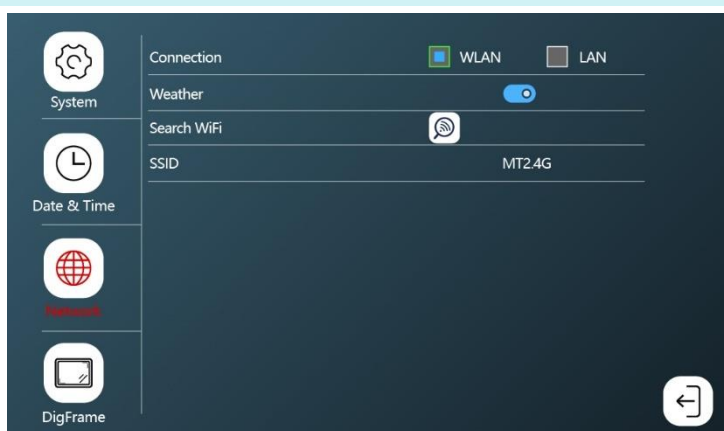
17. MOBILE APP

DOWNLOAD AND INSTALLATION



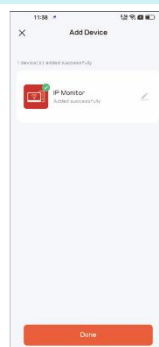
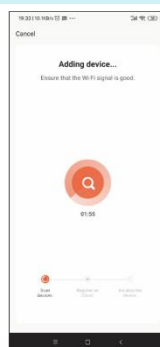
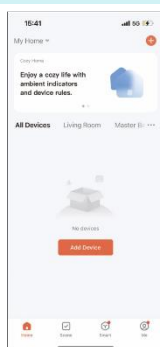
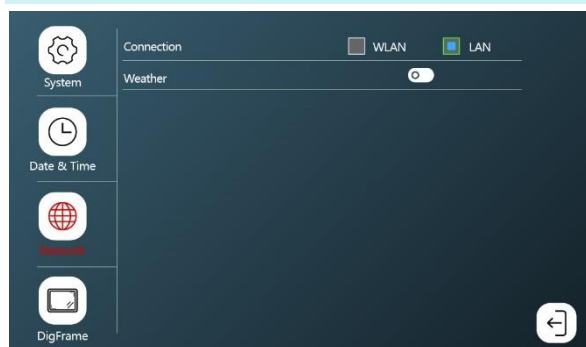
1. Open the App Store (iOS) or Google Play (Android) on your phone. Search for the "Tuya Smart" app and install it, or scan the QR code on the left.
2. If you do not already have an account in the app, click on *Sign Up*. You will be redirected to the next page. The system will automatically identify the country/region you are from, or you can manually select it. Enter your email address, agree to the privacy policy, and click *Get Verification Code*. Enter the received code, then provide a password and click *Done*.

PAIRING THE DEVICE WITH YOUR PHONE – WLAN



1. Connect the system to your Wi-Fi network. To do this, go to Settings > Network, and then select the WLAN connection. Search for your Wi-Fi network and log in by entering the password. **Note:** ensure that your phone is connected to the same Wi-Fi network.
2. Open the Tuya Smart app and click on *Add Device*. The app will automatically search for new devices. Once the set is detected, click *Add*, and after pairing is complete, click *Done*.

PAIRING THE DEVICE WITH YOUR PHONE – LAN



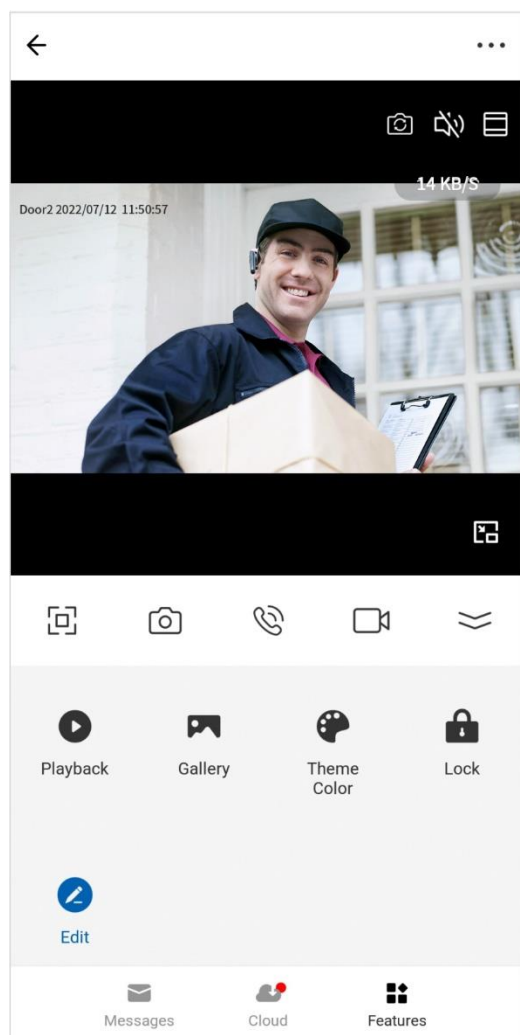
1. Connect the monitor to the internet using a CAT5 cable. Then, go to Settings > Network and select the LAN connection. **Note:** ensure that your phone is connected to the Wi-Fi network from the same router to which the set is connected.
2. Open the Tuya Smart app and click on *Add Device*. From the list of devices, select *Camera & Lock* > *Smart Doorbell*, and then change the connection mode to *Cable*. Start the pairing process and wait for the operation to complete. Once pairing is finished, click *Done*.

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.



18. APP USAGE

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.



Channel change (door 1 > door 2 > camera 1 > camera 2).



Mute.



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.

From the app, you can easily control the entire set. Conveniently adjust the settings of the video doorphone, enjoy the intercom function, and open or close entrances. You can create a family group and invite your loved ones to join (a group with higher permissions) or share the device (a group with lower permissions) to facilitate the use of the system.



19. 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.

20. 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,
- 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