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# SL-10MHD

10" video intercom



User manual

**SLINEX**

## Attention!



As a result of continuous upgrades and functionality improvements, technical characteristics of the device can be changed without any preliminary declaration. This manual can contain some inaccuracy or misprint. The owner reserves the right to make corrections to the information described in the user manual and device package. The last revision of this manual is available on [www.slinex.com](http://www.slinex.com)

## Safety instructions

Read and keep that manual.

The device installation process should be carried out by the qualified specialists.

Use the device from -10 °C to +55 °C, always keep it within that temperature range.

Installation surface should be free from vibration and impact influence.

Keep this device far from open sources of heat, such as radiators, heaters, and ovens.

The device can be installed near other electronic equipment in case if the temperature of the environment does not exceed previously mentioned range.

The device should be protected from the direct influence of the natural phenomena, such as direct sunlight, rain or snow.

Don't use aggressive or abradant detergent for the device surface cleaning.

Use soft wet cloth or tissue to remove strong dirt.

Don't overpower outlets. It can cause fire or electric shock.

## Nature protection



Don't throw away the device with other industrial or nutritive trash if you see that symbol. Some regions have separation and recycling systems for the electronic equipment. Connect with local authorities to receive information about recycling of electronic equipment for your region.

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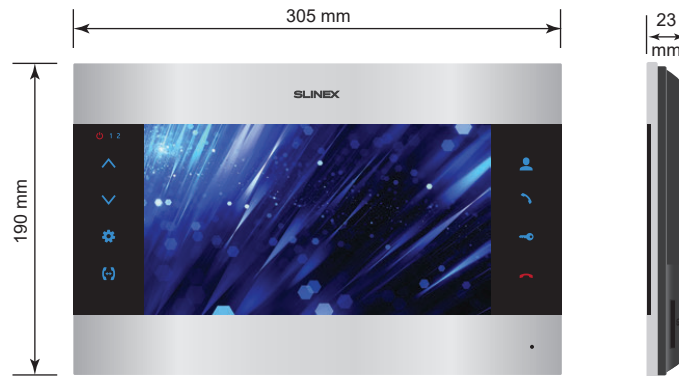
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## 1. Package

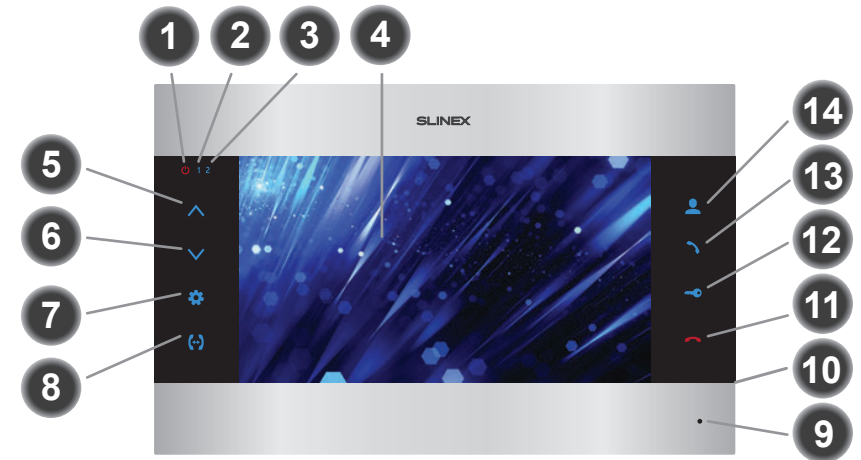
SL-10MHD indoor monitor – 1 pc.  
 Wall mounting bracket – 1 pc.  
 Connection terminals – 1 pkg.  
 Mounting screws and anchors – 1 pkg.  
 User manual – 1 pc.

## 2. Specification



SCREEN 10", color IPS	STANDBY MODE POWER CONSUMPTION 3.5 W
RESOLUTION 1024×600 px.	WORKING MODE POWER CONSUMPTION 8 W
VIDEO SYSTEM PAL / NTSC / AHD, TVI, CVI (720p,1080p)	POWER SUPPLY Built-in power supply, ~100–240 V
AUDIO TYPE Half duplex	MOUNTING TYPE Surface mount
CALL DURATION 120 seconds	DIMENSIONS 305×190×23 mm (12.01×7.48×0.91")
MEMORY MicroSD card, up to 64 Gb Internal memory, up to 100 snapshots	WORKING TEMPERATURE -10 ... +55 °C (+14...+131 °F)

## 3. Description



- 1 Power LED. Active when the power is on
- 2 First door panel LED. Active when the first door panel is on
- 3 Second door panel LED. Active when the second door panel is on
- 4 Display
- 5 «Up» button – increase talking volume, system settings menu cursor movement, parameter increase inside settings menu, record snapshot
- 6 «Down» button – decrease talking volume, system settings menu cursor movement, parameter decrease inside settings menu, record video.
- 7 «Settings» button:
  - press this button in standby mode to enter system settings menu;
  - press this button on parameter inside system settings menu to change its value. Then press it again to confirm the changes;
- 8 «Intercom» button – call another monitor or incoming call redirection
- 9 Microphone
- 10 SD card slot (on the side of the monitor)
- 11 «Hang Up» button – stop conversation with the visitor / current system settings menu exit
- 12 «Unlock» button – door unlocking
- 13 «Answer» button – incoming call answer and start talking with the visitor
- 14 «Monitor» button – door panel or camera image monitoring

## 4. Installation

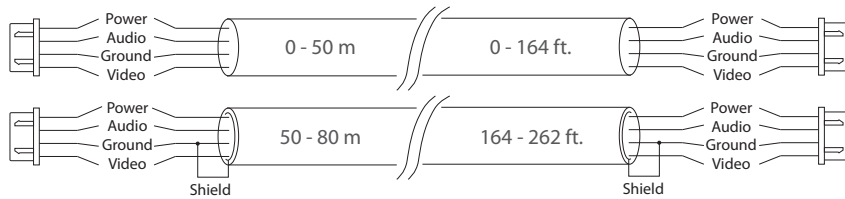
### 4.1. Cable requirements

Disconnect all power cables before device installation.

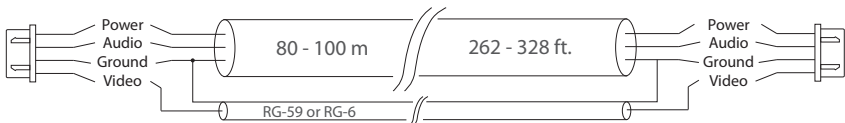
This device can be connected with such cable types depends on the distance between door monitor and door panel:

a) Use 4-wire cable with such parameters:

- distance up to 25 meters (82 ft.) use a cable with 0,22 mm<sup>2</sup> square of one wire (AWG 24);
- distance 25 to 50 (82-164 ft.) meters use a cable with 0,41 mm<sup>2</sup> square of one wire (AWG 21);
- distance 50 to 100 meters (164-328 ft.) use a cable with 0,75 mm<sup>2</sup> square of one wire (AWG 18).

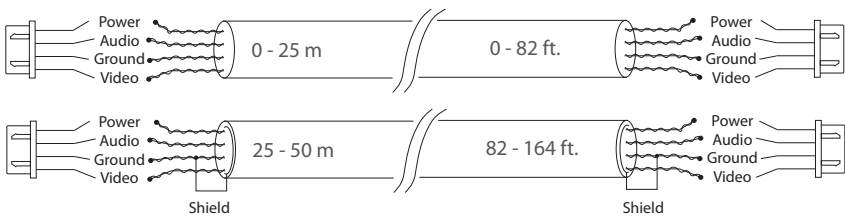


b) If the distance between door monitor and door panel is between 80 and 100 meters (262-328 ft.) then use a 3-wire cable with 0,75 mm<sup>2</sup> (AWG 18) square of one wire and RG-59 or RG-6 coaxial cable for the video signal.



c) Shielded or non-shielded twisted pair (not recommended):

- distance up to 25 meters (82 ft.) non-shielded twisted pair can be used;



### 4.2. Schematic diagrams

Diagram 1. SL-10MHD outdoor panels, cameras and locks connection.

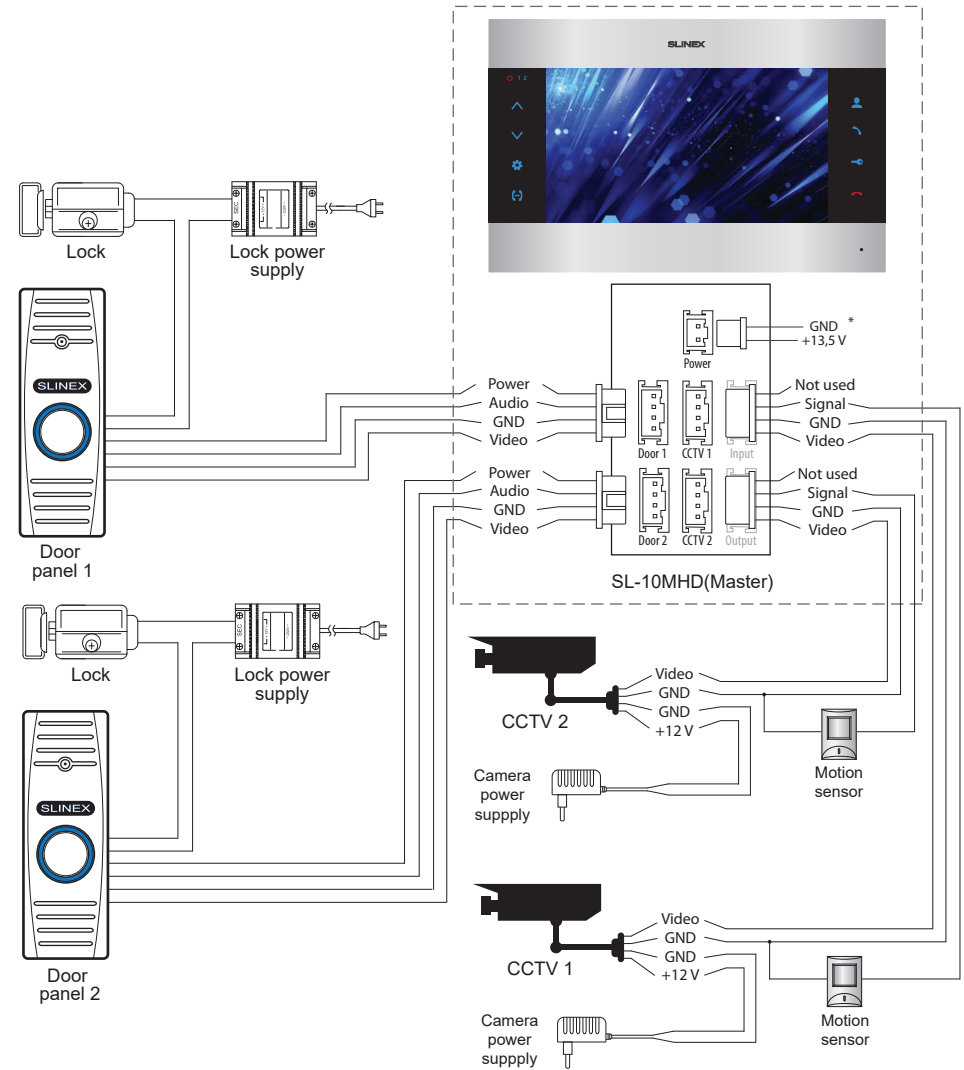
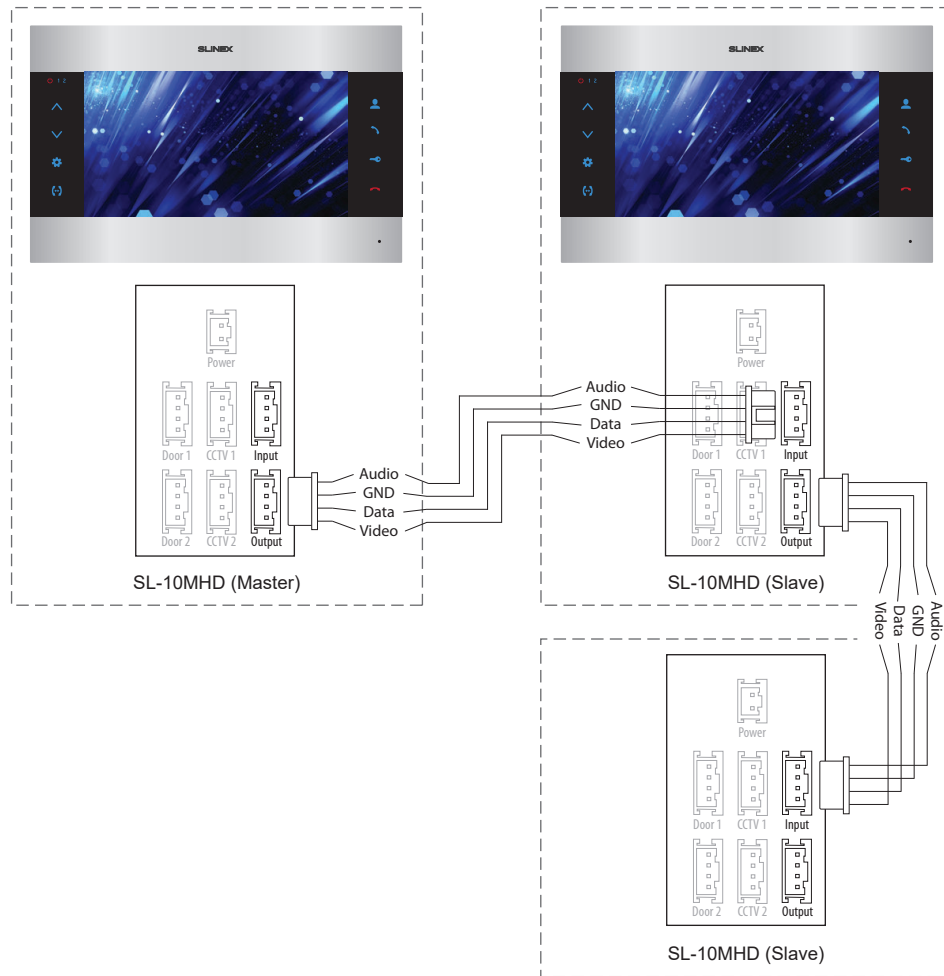


Diagram 2. SL-10MHD system connection.

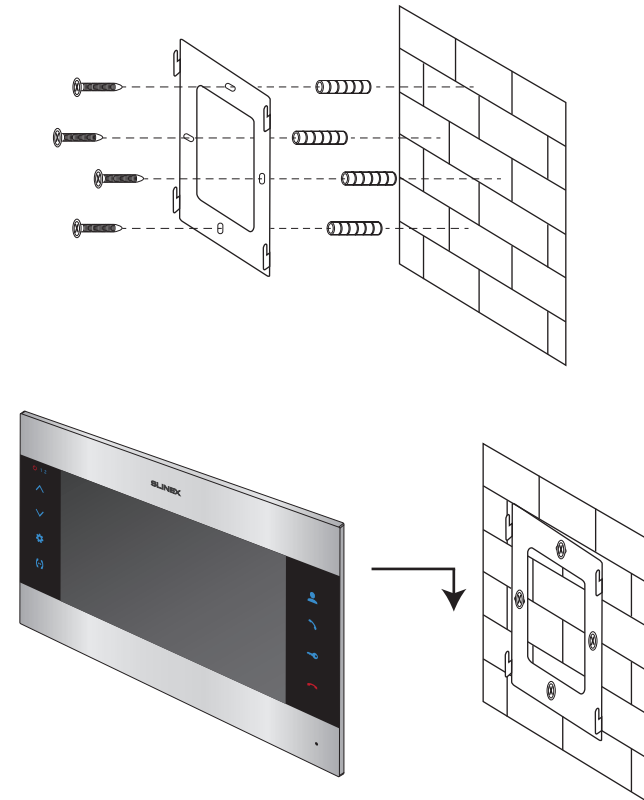


**Notes:**

- \* Use «Power» plug of the monitor to connect external power supply +13,5 V. While use external power supply please keep main power cord ~100-240 V disconnected from the outlet, otherwise it can damage monitor circuits.
- \*\* Outdoor panels, cameras, power supplies, locks and motion sensors described on the schemes are optional devices and aren't included into monitors kit.

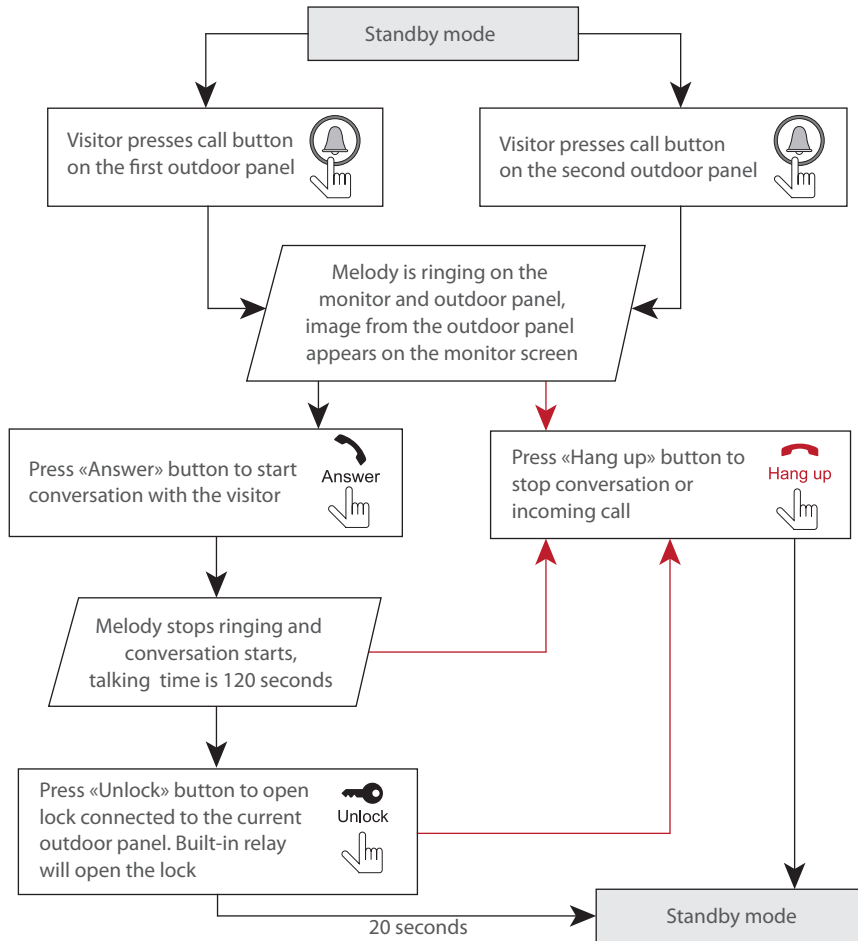
### 4.3. Unit mount


- 1) Take the surface mount bracket from the kit and situate it 150-160 cm from the floor line.
- 2) Mark and drill four holes in the wall.
- 3) Take four nuts from the kit and hammer them into the drilled holes.
- 4) Fix surface mount bracket on the wall by four screws from the kit.
- 5) Connect all communication wires and fix the monitor on the surface mount bracket.



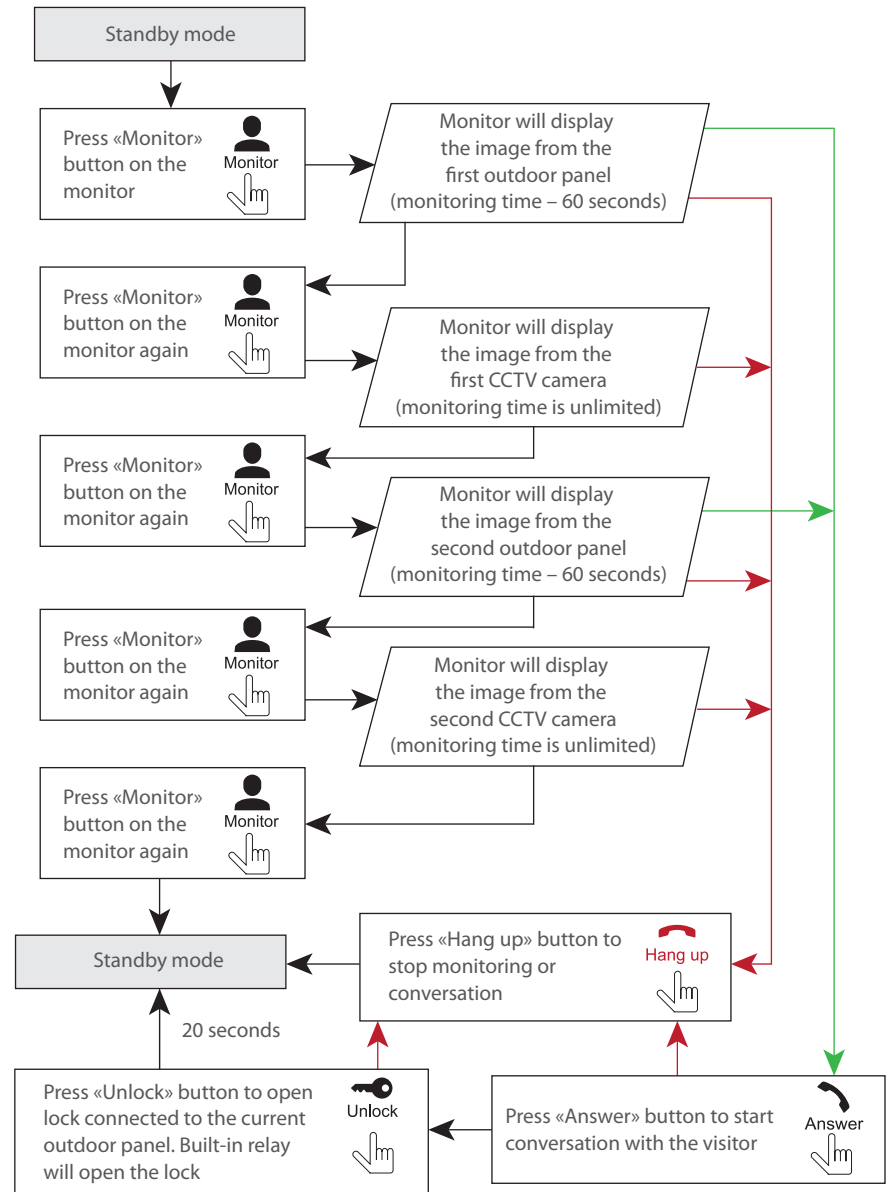
5. Operation

5.1. Incoming call



- Notes:
- 1) Monitor will be automatically switched into standby mode if the user doesn't answer incoming call during 60 seconds;
  - 2) Image and sound from the outdoor panel will be active during 20 seconds after the moment user presses  button. It let the user know if the visitor passed through the door.

5.2. Outdoor panel and camera image view

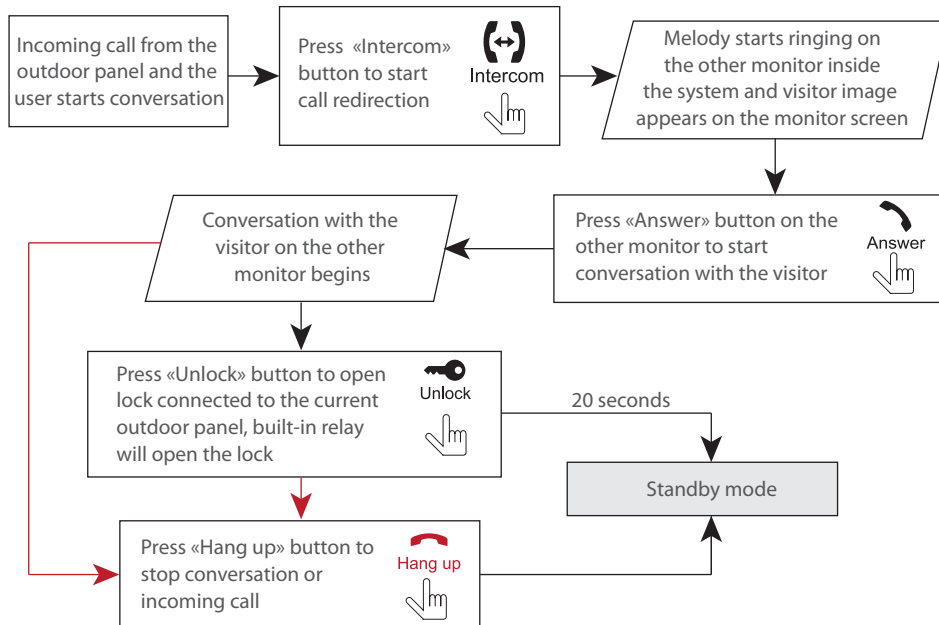


**Notes:**

- 1) If several monitors connected into one system, the user can view the image from outdoor panels and cameras on any monitor inside this system. The image will be transferred from the «Master» monitor outdoor panels and cameras to the «Slave» monitors.
- 2) If someone press call button on the outdoor panel while monitoring is active then the image from this outdoor panel appears on the monitor screen and call melody starts. Press «Answer» button to start conversation.

### 5.3. Incoming call redirection

Two monitors connected into one system are used.

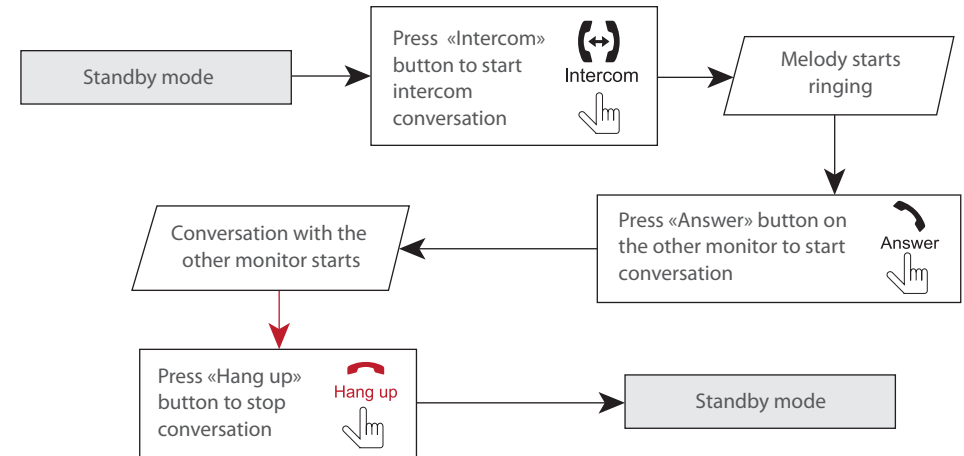


**Note:**

If incoming call is successfully redirected to the other monitor and other user answers the call then current monitor enters standby mode.

### 5.4. Intercom

Two monitors connected into one system are used.



**Note:**

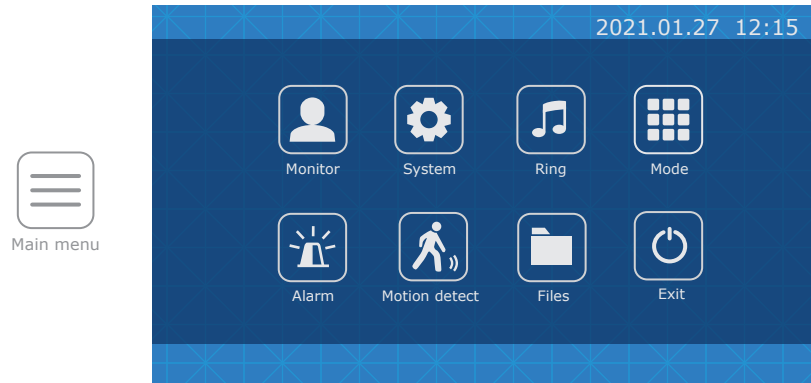
If somebody presses call button on the door panel while intercom is active then the image from this outdoor panel appears on the monitor screen and call melody starts. Press «Answer» button to start conversation with the visitor.

## 6. Monitor settings

### 6.1. Main menu

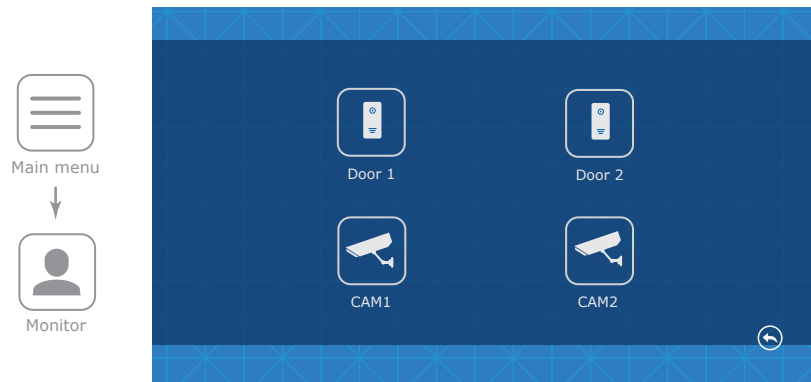
Press button in standby mode to enter main menu monitor settings. Use or buttons to move through the settings. Press button again to enter current setting sub menu. Then press or button to change current parameter and approve the setting by pressing button.

Press «Return» button on the screen or press button on the keyboard to exit from the current settings menu.



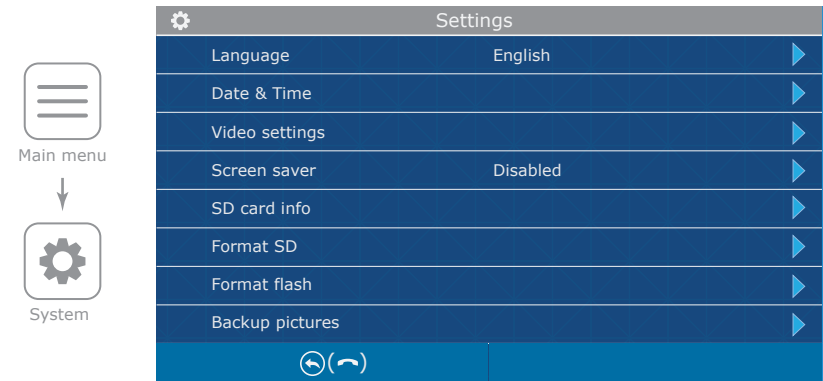
Following video sources are available in the «Monitor» menu:

- Door 1** – view the image from the first outdoor panel;
- Door 2** – view the image from the second outdoor panel;
- CAM1** – view the image from the first camera;
- CAM2** – view the image from the second camera.



## 6.2. System settings

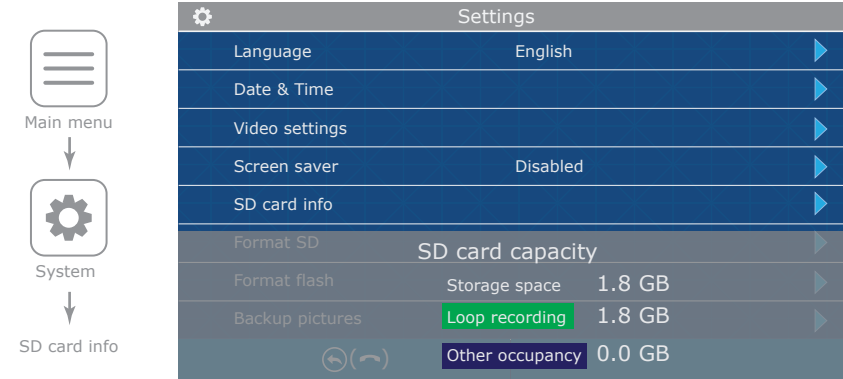
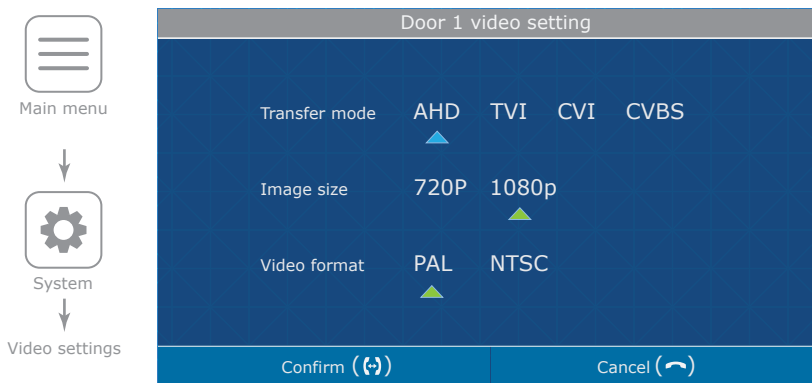
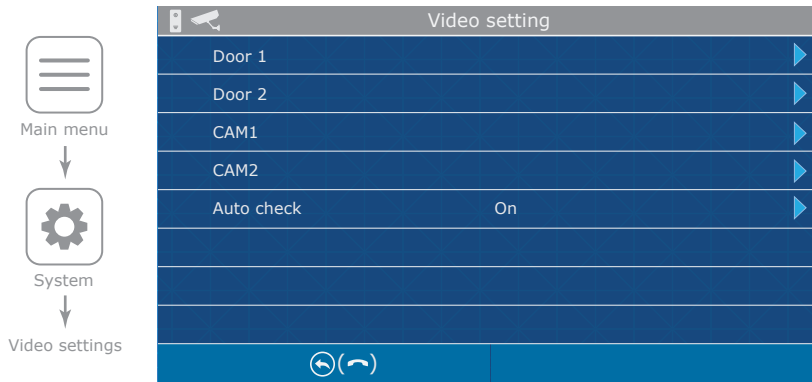
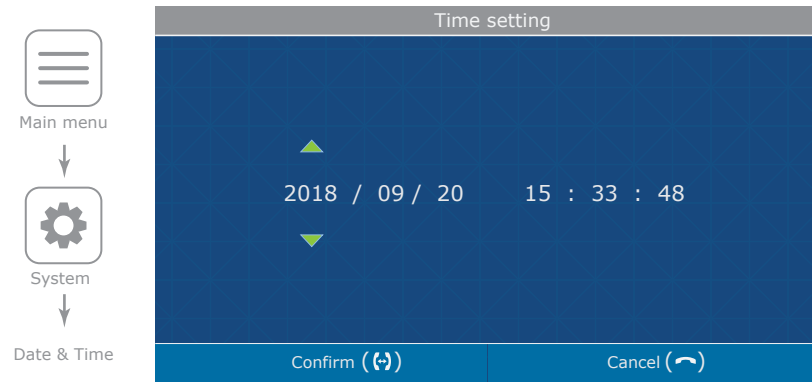
Press «System» icon in the main menu to enter system settings of the monitor:



Following parameters are available in the «System» menu:

- Language** – language of the settings menu;
- Date & Time** – date and time settings;
- Video settings** – video format input settings:
  - Door 1** – the first outdoor panel video format setting;
  - Door 2** – the second outdoor panel video format setting;
  - CAM1** – the first camera video format setting;
  - CAM2** – the second camera video format setting;
  - Auto check** – automatic video format setting;
- Screen saver** – date and time screensaver display in stndby mode (Disabled, 1, 3, 5, 10 min, Never close);
- SD card info** – micro SD card capacity and free space information;
- Format SD** – micro SD card formatting. Please format microSD card before use it. Recommended to use microSD cards of the 6-th class and above;
- Format flash** – internal memory formatting. Format internal memory for the first time using it;
- Backup pictures** – copy snapshots from internal memory to microSD card;
- Software version** – version and date of software release;
- Factory default settings** – restore factory default settings.





### 6.3. Ring and volume settings

Press «Ring» icon in the main menu to enter melody and volume settings.

Following parameters are available in the «Ring» menu:

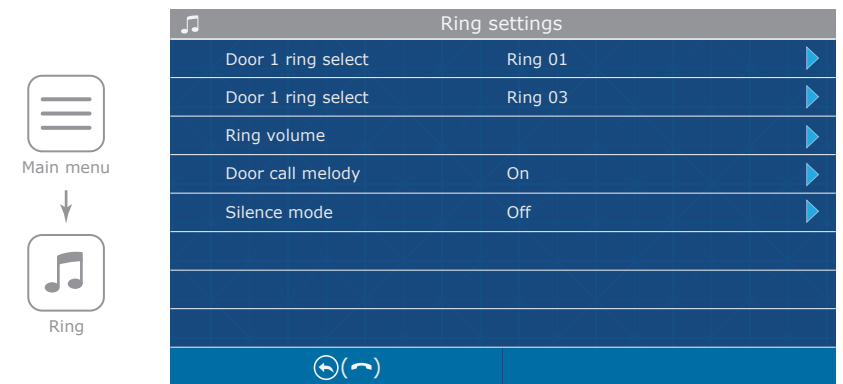
**Door 1 ring select** – choose the melody for the first outdoor panel;

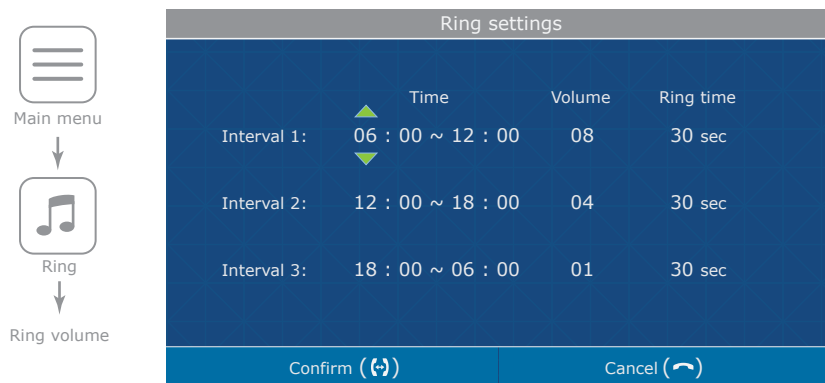
**Door 2 ring select** – choose the melody for the second outdoor panel;

**Ring volume** – choose volume level (from 00 to 10) depending on the time of a day and also ringing time of the melody (05-45 seconds);

**Door call melody** – ringing melody on the outdoor panel, «On» or «Off»;

**Silence mode** – incoming call melody and keyboard muting, «On» or «Off».



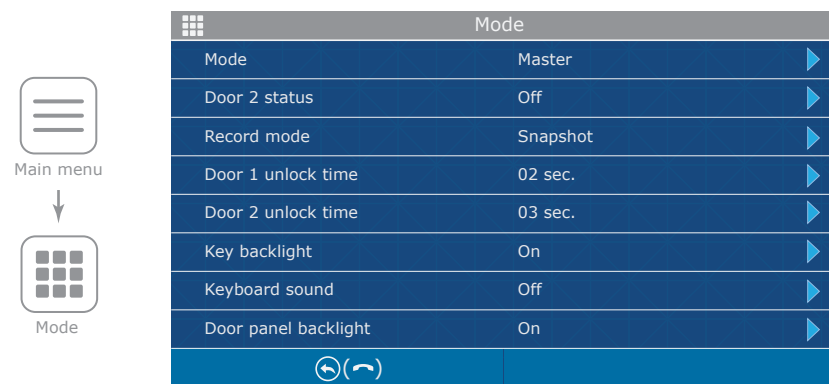


### 6.4. Working mode settings

Press «Mode» icon in the main menu to enter working mode settings.

Following parameters are available in the «Mode» menu:

- Mode** – choose «Master» if you use one monitor in the system or if it's the monitor which all the door panels and CCTV cameras are connected to. Choose «Slave» if there is more than one monitor in the system and no door panels or CCTV cameras connected to this monitor;
- Door 2 status** – «On» or «Off», include or exclude second door panel from the monitoring list;
- Record mode:** «Snapshot» – take snapshot while incoming call or manually;  
«Record» – record video while incoming call or manually;



- Door 1 unlock time** – Door 1 relay delay time, 1,3, 5, 7 or 9 seconds;
- Door 2 unlock time** – Door 2 relay delay time, 1,3, 5, 7 or 9 seconds;
- Key backlight** – «On» or «Off»;
- Keyboard sound** – «On» or «Off»;
- Door panel backlight** – «On» or «Off».

### 6.5. Alarm settings

Press «Alarm» icon in the main menu to enter alarm settings.

Following parameters are available in the «Alarm» menu:

#### CAM1 sensor type:

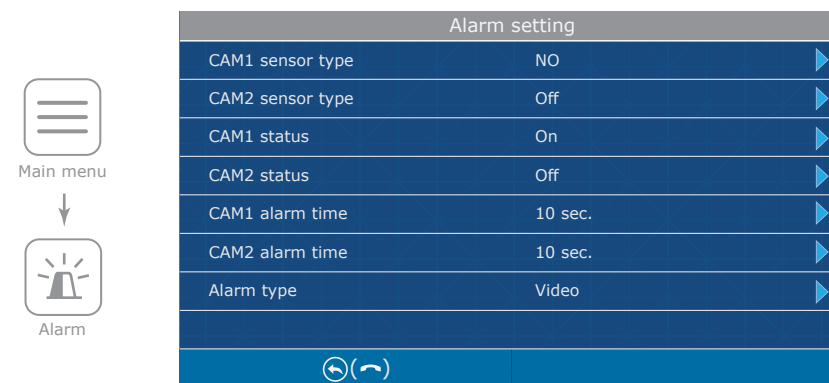
- «NO», motion sensor with normally disconnected contacts are used;
- «NC», motion sensor with normally connected contacts are used;
- «Off», motion sensor doesn't used;

#### CAM2 sensor type:

- «NO», motion sensor with normally disconnected contacts are used;
- «NC», motion sensor with normally connected contacts are used;
- «Off», motion sensor doesn't used;

**CAM1** – include or exclude first camera from the monitoring list;

**CAM2** – include or exclude second camera from the monitoring list;



**CAM1 alarm time** – alarm melody ringing time, activated by CAM1 motion sensor, from 00 to 10 seconds;

**CAM2 alarm time** – alarm melody ringing time, activated by CAM2 motion sensor, from 00 to 10 seconds;

**Alarm type:**

- «Snapshot» – save photo if motion detection has occurred;
- «Record» – save video if motion detection has occurred.

## 6.6. Software motion detection settings

Software motion detector can observe and detect motion without any external sensors using any camera image changes with the time. Camera power, that is used for motion detection must be constantly on to let the monitor observe image changes and detect motion.

**Motion detect** menu includes next sub menus:

**MD source:**

- «Off» – software detector is off;
- «Door1» – motion detection on Door1;
- «Door2» – motion detection on Door2;
- «CAM1» – motion detection on CAM1;
- «CAM2» – motion detection on CAM2;

**MD sensitivity:**

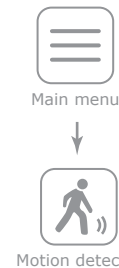
- «Lowest» – lowest software detector sensitivity;
- «Low» – low software detector sensitivity;
- «Middle» – middle software detector sensitivity;
- «High» – high software detector sensitivity;
- «Highest» – highest software detector sensitivity;

**MD area** – motion detection area setting;

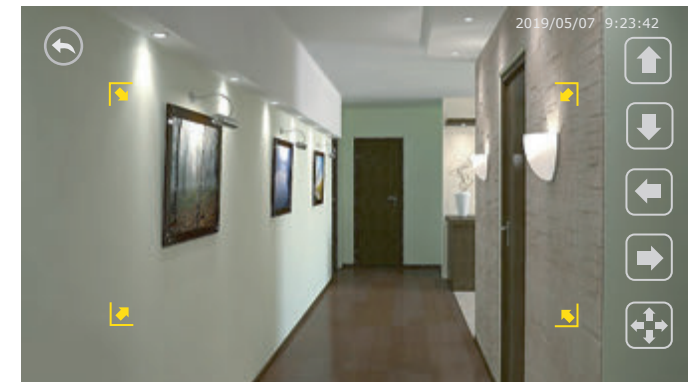
**Store mode:**

- «Snapshot» – save photo if software motion detection has occurred;
- «Record» – save video if software motion detection has occurred;

**MD notification** – «On» or «Off». Enable or disable key backlight blinking if software motion detection occurs.



MD setting	
MD source	CAM1
MD sensitivity	Middle
MD area	
Store mode	Snapshot
MD notification	On



Use up/down/right/left arrow keys to move motion detection area in corresponding direction of the image while mode;

Use right/left arrow keys to move right motion detection area border or up/down arrow keys to move bottom area border while mode;

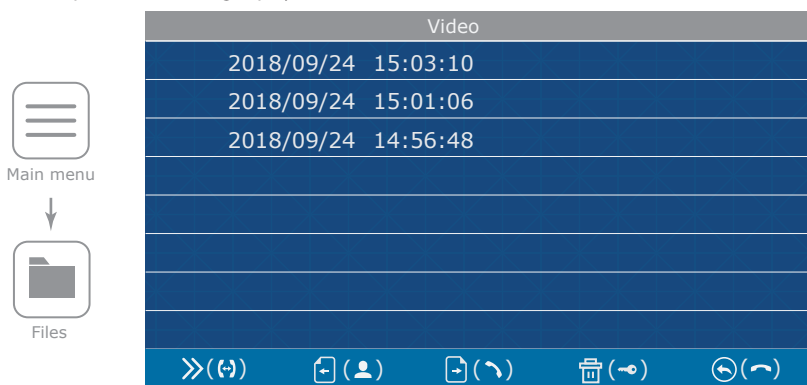
Press or icon to change between moving and resizing motion detection area modes.

### 6.7. Snapshots and records playback

Press «Files» icon in the main menu to enter snapshots and records playback.

Following folders are available in the «Files» menu:

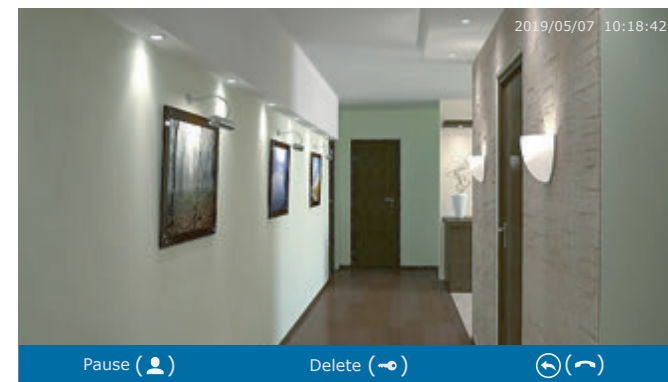
- Video** – video files playback;
- Photo** – snapshot files playback;
- Ring** – MP3 files playback;
- Frame** – photo frame images playback.



- move to the next folder in the list: Video → Photo → Ring → Frame;
- navigate between the pages inside current folder;
- delete all files inside current folder;
- back to the «Main menu».

Press on file name to start playback. Use the keys to pause, playback or delete current record. Also you can return to the file list by pressing button.

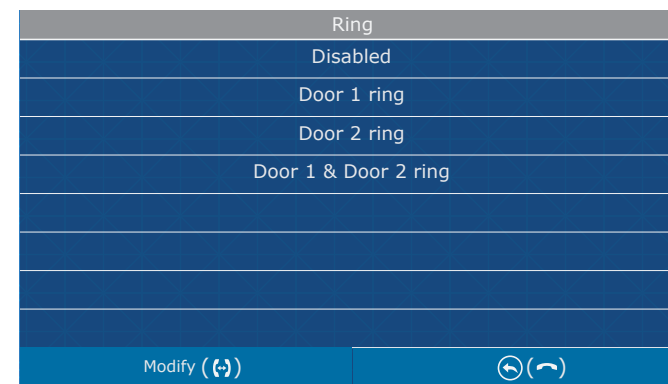
- start/stop playback;
- delete current record;
- return to the file list.



### 6.8. Using custom MP3 melody as a ringtone

Create «RING» folder in the root of microSD card, if it isn't already created by the monitor. Paste MP3 files you would like to use as a ringtone into this folder. File names must have only english letters and figures in its name and its quantity must not exceed 8 symbols to be visible on the monitor.

Insert microSD card into the monitor and go to the «Files» menu. Then press button twice to go to the «MP3» folder, choose the file you would like to use as a ringtone using and buttons then press button on the file name to start/stop playing or button to set current melody as a ringtone. In a new window choose the number of the outdoor panel to apply current melody:



### 6.9. Image viewing (photo frame)

Create «FRAME» folder in the root of microSD card, if it isn't already created by the monitor. Paste JPG files you would like to view into this folder. File name should have only english letters and figures in its name and its quantity should not exceeds 8 symbols to be visible on the monitor .

Insert microSD card into the monitor and go to the «Files» menu. Then press **(⇌)** button three times to go to the «Frame» folder and choose the file to start viewing.

Note that JPG images resolution must not exceed 2560×1440 pixels. Other image formats and resolutions are not supported.

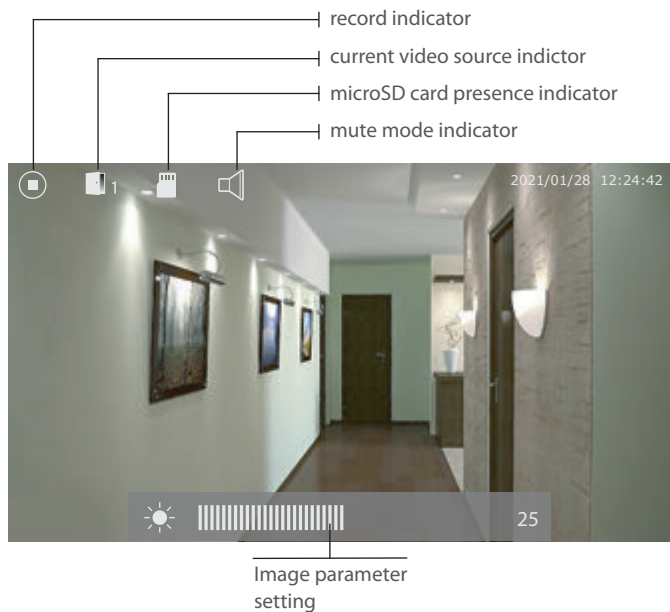
### 7. Display and volume settings

While outdoor panel or CCTV camera image monitoring press **⚙** button to enable brightness control menu. Press **▲** or **▼** button to increase or decrease image brightness.

Press **⚙** icon again to go to the contrast setting and one more time to get to the color setting.

While talking with the visitor press **⚙** button to enable talking volume control. Press **▲** or **▼** button to increase or decrease talking volume.

While incoming call press **⚙** button to enable ringing volume control. Press **▲** or **▼** button to increase or decrease ringing volume.



### 8. Manual and automatic recording

Every time visitor press call button on the outdoor panel, recording process starts automatically. Depending on the «Record mode» setting (page 17) snapshots or video can be recorded.

User can also take snapshots or record video manually during outdoor panel or CCTV camera monitoring . Press **▲** button to take a snapshot or press **▼** button to start video recording. Press **▼** button again to stop video recording.

Note:

*Video can be recorded only if SD card installed into monitor slot. If SD card slot is empty then monitor records snapshots using internal memory, doesn't matter what «Record mode» is set.*

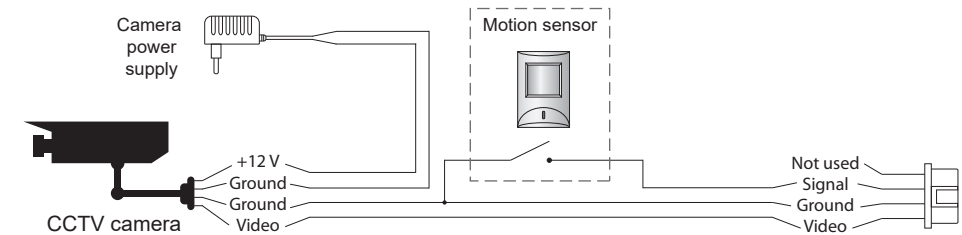
*100 snapshots can be stored using internal memory. If the quantity exceeds 100 snapshots then older snapshot are replaced by the new one.*

### 9. External sensors motion detection recording

Camera 1 and Camera 2 has motion detection function from external motion sensor. When external sensor connects or disconnects its contacts (depending on «CAM1 sensor type» or «CAM2 sensor type» setting in «Main menu» → «Alarm», page 17-18), recording starts on the indoor monitor. Video recording time is 10 seconds. Press **☎** button to stop recording manually.

Use any external sensors that have normally opened «NO» or normally closed «NC» contacts. When the sensor is activated it connects (NO case) or disconnects (NC case) contacts which activates recording on the indoor monitor.

External motion sensor connection.



## 10. Limited warranty

Manufacturer guarantees product normal functioning during the warranty period if the user keeps all safety instructions described in that manual.

Warranty period is 12 months from the moment of the product purchasing (warranty period could be extended up to 24 months or more, depending on the local regulations).

Warranty period allows user to make guarantee repair in cases when normal functioning of the product was violated by the fault of manufacturer and the user haven't offend transporting, installation and working conditions.

This limited warranty does not cover any damage to the product that results from improper installation, accident, abuse, misuse, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions, or any unauthorized disassembly, repair or modification.

Warranty void in such cases:

- the product was damaged by the fault of the customer;
- the product wasn't properly installed according recommendations from the manual;
- the sticker on the backside of the product was broken;
- the product was not used for its intended function.

This limited warranty covers only repair, replacement, refund or credit for defective products, as provided above. Manufacturer is not liable for, and does not cover under warranty, any damages or losses of any kind whatsoever resulting from loss of, damage to, or corruption of, content or data or any costs associated with determining the source of system problems or removing, servicing or installing products.

This warranty excludes third party software, connected equipment or stored data. Manufacturer is therefore not liable for any losses or damage attributable to third party software, connected equipment or stored data.

In the event a product has been discontinued, manufacturer shall either repair the product, offer to replace it with a comparable product or provide a refund at the lesser of the purchase price or the product's current value.

Repaired or replacement products will continue to be covered by this limited warranty for the remainder of the original warranty term.