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## DESCRIPTION

The ZMB-01 system is used for simultaneous viewing images from 9 wireless cameras and recording them on a hard drive (the system includes 2 cameras, while the remaining items can be ordered separately as ZMB-01/C, depending on the needs). After connecting a recorder to the Internet, the user can access the device online using an Android or iOS application.

The system includes:

- Recorder - 1 item,
- 2 MP camera - 2 items,
- 12 V / 2 A recorder power supply - 1 item,
- 12 V / 0.5 A camera power supply - 2 items,
- Expansion plugs and culverts for the cameras.
- Mouse, RJ45 cable.



## NOTE

The device should be connected to a one-phase network in accordance with legally binding standards. The connection method is described in this manual. Any activities related to installation, connection, and adjustment should be performed by qualified electricians who have read this user's manual and familiarised themselves with device functions. Removing the enclosure voids the warranty and poses a risk of electric shock. Before installation, make sure that there is no voltage on connection cables. To install the device, use a cross-head screwdriver with a diameter of 3.5 mm. The proper operation of the device is affected by how the device is transported, stored, and used. It is not advisable to install the device in the following cases: lack of any components, damage to or deformation of the device. If the device operates improperly, please contact the manufacturer.

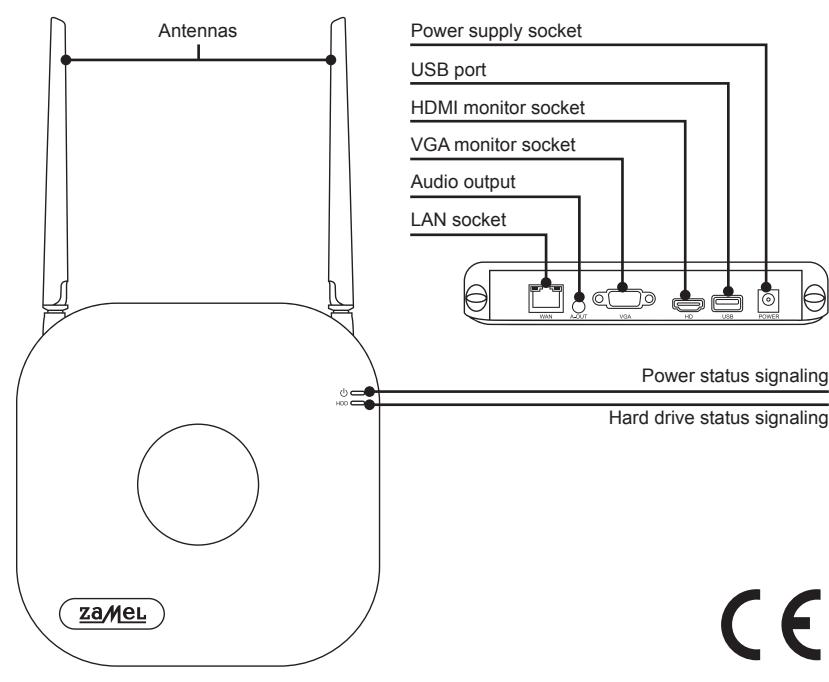


Do not dispose of this device in the trash can with other waste! In order to avoid harmful effects on the environment and human health, store used device in specially designated places. Household electronic waste can be returned for free and in any amount to the collection point established for this purpose, and also to the shop when buying new equipment.

## TECHNICAL DATA

RECORDER	
Power supply:	12 V DC
Power consumption:	4.1 W
Frequency:	2.4 GHz
Maximum number of cameras:	9
Compression method:	H.265/H265+, H264/H264+
Recorded image resolution:	1920x1080
Range:	up to 300 m in open area
Video outputs:	1x HDMI, 1xVGA
Plug-in socket:	1xRJ45 (10M/100M)
Hard drive socket:	SATA
USB slot:	backup, mouse plug-in
Remote access:	ANDROID and iOS application or online
Weight (without the hard drive):	479 g
Dimensions:	215 x 230 x 180 mm (with the antennas unfolded)
CAMERA	
Power supply:	12 V DC
Power consumption:	1.7 W
Matrix type:	2MP (1080p), 1/2.9" CMOS Sensor HISILICON Hi3516C
Infrared:	20 LEDs of ca. 25 m in light range
Housing protection rating:	IP66
Weight:	284 g
Dimensions:	73 x 160 x 160 mm (with the antenna unfolded)

## APPEARANCE



## INSTALLING THE HARD DRIVE

To install the hard drive:

- Disconnect the power supply cable from the recorder.
- Unscrew 5 screws at the bottom of the device - Fig. 1.
- Connect the SATA hard drive to the correct terminals (power supply, data transmission) - Fig. 2.
- Screw the hard drive to the recorder using the screws provided with the system and designated holes in the housing - Fig. 3.
- Screw the upper cover of the recorder.

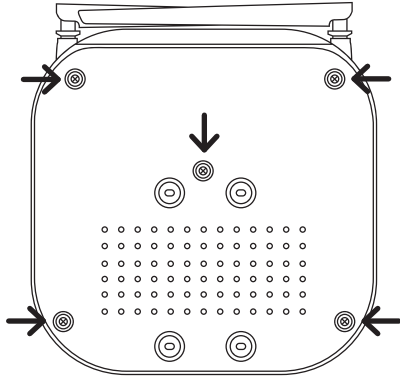


Fig.1

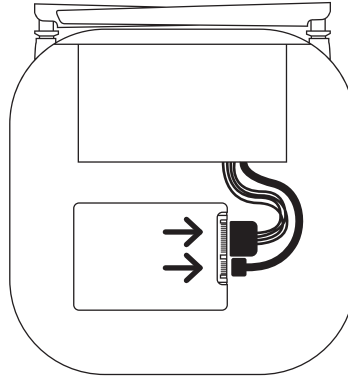


Fig.2

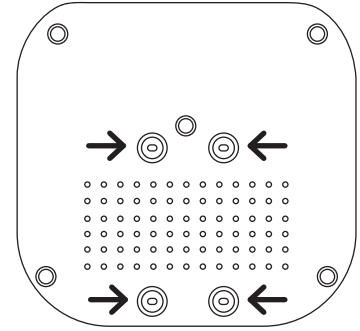
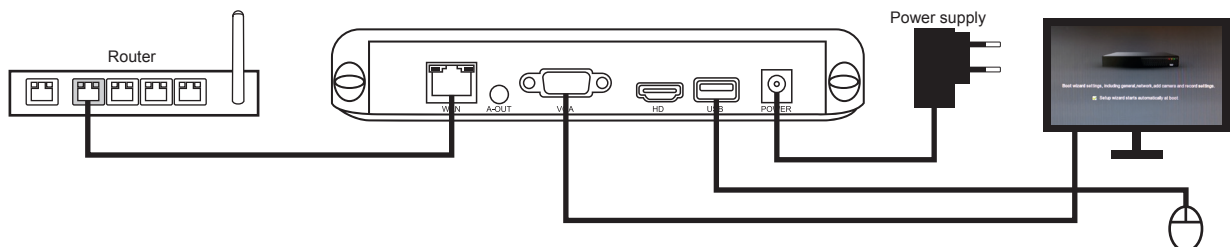


Fig.3

## CONNECTING THE RECORDER

- Connect a TV set or a monitor to the recorder via the HDMI or D-SUB socket, using the correct cable (outside the scope of delivery).
- Connect any available router with Internet access to the LAN socket using a network cable with RJ-45 connectors.
- Connect the power supply unit (12 V, 2 A) to the recorder.

**The system includes 3 power supply units (2 smaller, 12 V/500 mA units for powering the cameras and 1 larger, 12 V/2000 mA unit for powering the recorder)!**



## INSTALLING AND CONNECTING THE CAMERAS

- Hang the camera using 3 expansion plugs and screws provided with the system - Fig. 4.
- To adjust the camera angle, loosen the screw at the bottom of the camera using the Allen key provided with the system (Fig. 5). Next, adjust the two dimensions of the camera to set its position at the required angle. After adjusting the camera, tighten the locking screw.
- To connect the camera, plug in the power supply (12 V/500 mA power supply unit). The culverts provided with the system should be used for conducting cables through walls.

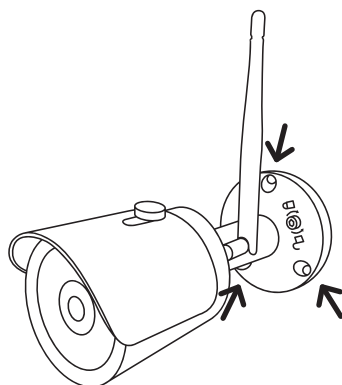


Fig.4

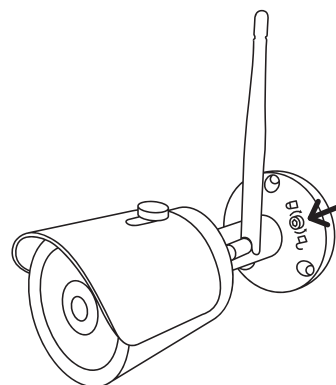


Fig.5

## FIRST START

After completing all connections and powering the recorder and the cameras, the monitor should display the home screen with the ZAMEL logo, meaning that the system was started. After a few seconds, the device will start the system and the main screen with the configuration wizard will be displayed (Fig. 6). The wizard can be disabled by unchecking the "Start the wizard during startup" box. When starting the system for the first time, use the wizard to configure the device in the following manner:

- Click on "DALEJ/NEXT" in the configuration wizard.
- The login window will be displayed (Fig. 7). Enter the user name and the password.

**The default settings are:**

**User: admin**

**Password: 12345**

- Click on the "Log in" key. A notification will be displayed, saying that the password is too simple and should be changed. Change the password by clicking on "Modify".

**The password should be changed after the monitoring system is placed in service in order to block unauthorized access to the device.**

- The next screen is used to change the basic settings, such as language, video standard, date and hour, etc.
- The next screen is used to adjust network settings. In the case of a permanent IP address, enter it in corresponding fields. In the majority of cases, dynamic DHCP address assignment should be enabled by checking the "Enable DHCP" box and default port settings (Fig. 8).
- The next wizard screen is used to add cameras.

**By standard, the cameras included in the system are already configured to support the recorder and should automatically upload on the list.** If the system does not see any of the cameras or if additional cameras are to be added (a maximum of 9 cameras can be programmed for a single recorder), proceed according to the instructions in "Adding cameras".

- The last window of the wizard is used to enter the recording settings to determine the hours and days, on which the camera is to record image. By standard, continuous recording is set on all cameras. To change the time and recording type, proceed according to instructions in "Recording settings".
- After entering the basic settings and clicking on "Close" on the wizard, the system will switch to normal operation. The image from all cameras should be displayed.
- Double-click on the image to display it in full screen mode.
- Right-click to display the pop-up menu with links to basic settings and to switch the image display mode to multiple cameras, as well as to go to the main menu.

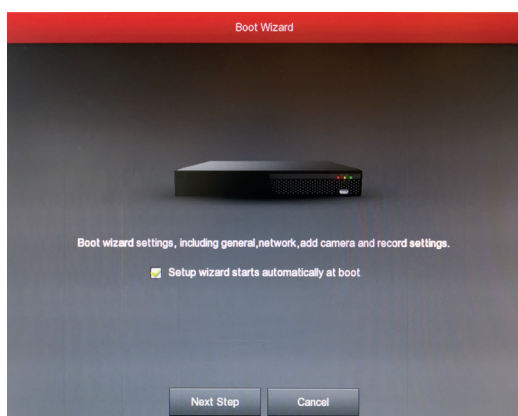


Fig.6

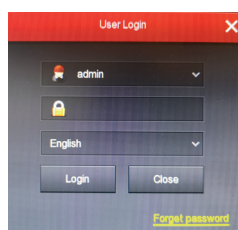


Fig.7

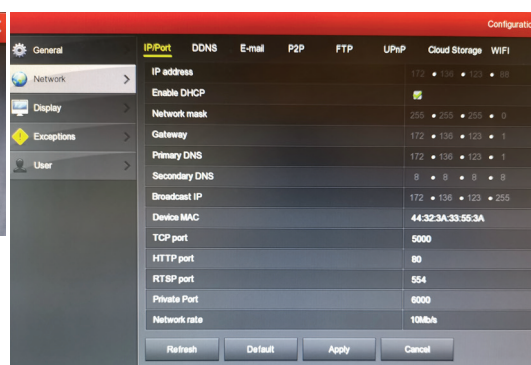


Fig.8

## MAIN MENU

To go to the Main menu (Fig. 10), open the pop-up menu by clicking on the mouse and selecting the "Menu" icon (Fig. 9).

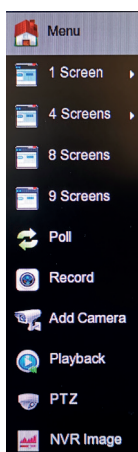


Fig.9



Fig.10

## ADDING CAMERAS

By standard, the cameras included in the system are already paired with the recorder. Therefore, no additional steps need to be taken to add them. However, if, for any reason, the cameras are not displayed on the list of devices or if additional cameras are added (offered by Zamel as product with the symbol: ZMB-01/C), program each camera for the recorder by following the instructions below:

- In the main menu, select the "Camera" option to open the "Camera management" window and display the list of cameras installed in the system (Fig. 11).
- Next, click on the "Wireless code Add" to display the notification in Fig. 12 signaling that the 120 sec. programming procedure was started.
- Find the programming button on the incoming cable connected to the camera. If it is secured with a cap, remove it to gain access to the button (Fig. 13).
- Next, press the programming button for about 6 sec. until 3 LEDs on the camera front start to blink. After a few seconds from releasing the button, the new camera should appear on the list of available devices in the recorder. Use this method to add subsequent cameras (as part of the 120 sec. programming procedure). If all cameras are not programmed in 120 sec., call the programming function from the recorder's menu again.

**9 cameras in total can be programmed for the recorder.**



Fig.11

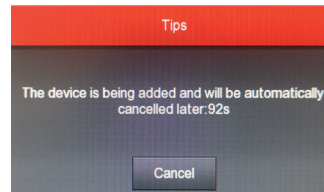


Fig.12

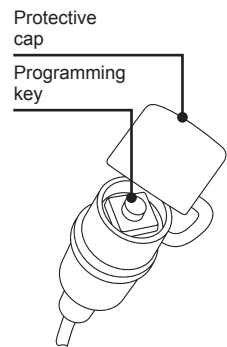


Fig.13

## RECORDING SETTINGS

Click on the main icon "Record" to access settings used to configure the mode, in which the camera is to operate (continuous operation, motion detection) and the time, in which the camera is to operate (days of the week, hours). Fig. 14.

By default, the system is set to continuous operation on all channels (cameras), meaning that the recorder will record image from all cameras non-stop.

This can be done by distributing green or yellow rectangles depending on the day of the week (column) and hour (row). A green rectangle means that image will be recorded at the specified hour. A yellow rectangle means that image will be recorded at the specified hour only when movement is detected. When both continuous recording and motion-sensing are set for a specified hour (green and yellow rectangle), 2 films will be recorded - one as scheduled and one when motion is detected.

All schedule settings are made either for all cameras at the same time (select the "All" option in the "channel" field) or for individual cameras independently (select the channel number [camera], to which the schedule setting will apply, in the "channel" field).

**If the motion detection function is used, perform an additional configuration of individual cameras in the following manner:**

- in the main menu, select the "Camera" option,
- in the open window, select the "Motion" tab (Fig. 15),
- select the channel (camera), to which this setting applies, in the "Channel" field,
- select the motion detection sensitivity (0-10) in the "Sensitivity" field,
- check the "Enable detection" box,
- if motion detection is to initiate a voice signal, check the "Voice alarm" box,
- if motion detection is to initiate a procedure to send a notification e-mail, check the "Send e-mail" box,
- check the "Record channel" box,
- determine the time, for which the recorder is to record image after motion is detected, in the "Recording time" field,
- determine the day of the week, on which motion detection is to be active (if motion detection is to be active on all days, select "All") in the "Day of the week" field,
- check the "Period 1" and set the time from 00:00 to 24:00,
- apply the changes by clicking on "Apply".

The settings can be automatically copied to other cameras (channels), using the "Copy" function.

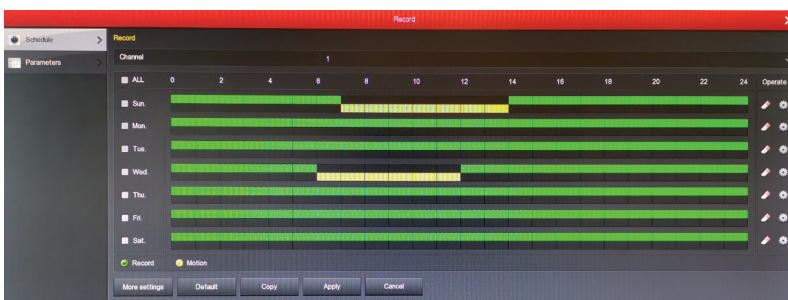


Fig.14

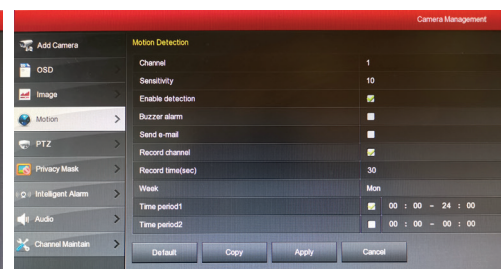


Fig.15



## PLAYING THE FOOTAGE

To play the material recorded by a given camera, click on the "Play" icon in the main menu.

In the open window (Fig. 16) in the upper right corner, in the calendar, select the day, for which the recorded footage is to be played. Below the calendar, select the camera (channel number), for which the footage is to be played. Image from several cameras (max 4) can be simultaneously played.

In the lower part of the screen, the bar displays the hours, in which the footage was recorded. Simply click on any place on the bar to go to the desired hour, minute and second of the footage. Footage can be also filtered to select images recorded in the standard "Record" function or images recorded through "Motion" sensing.

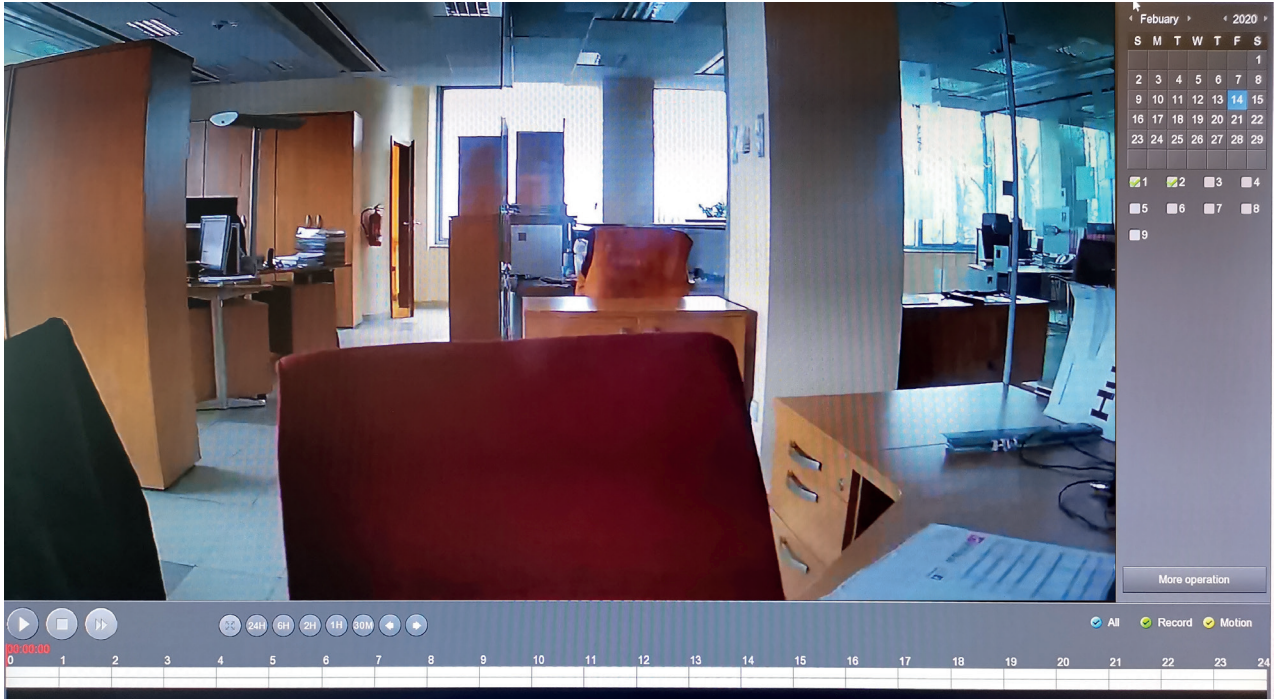


Fig.16

## FOOTAGE EXPORT TO EXTERNAL MEMORY

The device can be used to export the footage recorded in the .avi format to an external disc/memory stick plugged into the USB port. After plugging the portable memory unit to the USB socket (a USB hub needs to be used in order to simultaneously connect the mouse, which is necessary to operate the menu), click on the "Export" icon in the main menu to open the window as in Fig. 17.

Next:

- select the camera number(s), for which the footage is to be stored,
- select the recorded file type (Record - file recorded in the normal mode, Motion - file recorded in the motion detection mode),
- set the date and hour of the beginning and end of the footage you wish to store,
- click on "Search" to display the list of recordings from the filtered period.

**The recorder divides footage into hourly sections even when continuously recording.**

- From among the files displayed, select (check with a yellow tick) those which are to be exported,
- click on Start to start exporting the file to external memory.

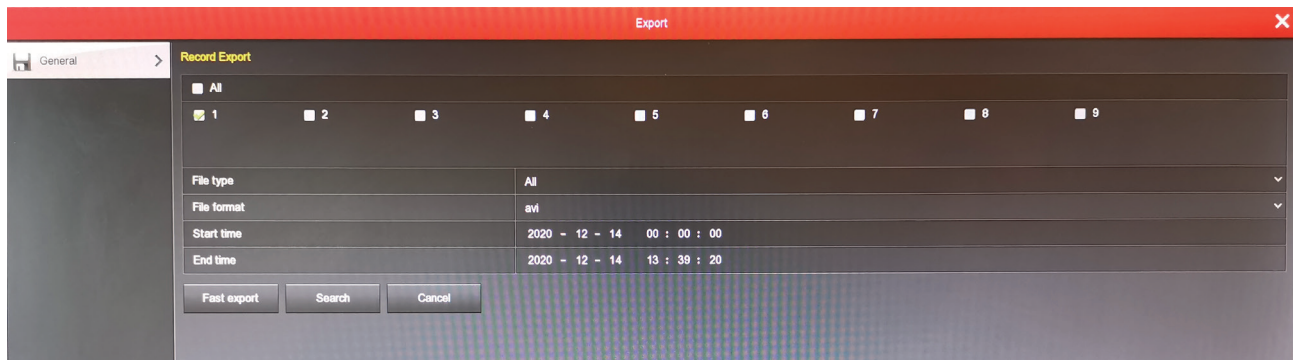


Fig.17

## REMOTE ACCESS FROM THE APPLICATION (ANDROID, IOS)

The device can be remotely accessed through an application installed in the Android or iOS system on a mobile device. The recorder needs to be correctly connected to the Internet (See "First Start" in this manual) and the **BitVision** application needs to be installed on the phone or tablet.

### INSTALLATION AND STARTUP

- BitVision is available for free in the Google Play and App Store. After starting the application, the main screen will be displayed (Fig. 18).
- Next, swipe to the right or click in the upper left corner of the application in order to unfold the submenu (Fig. 19).
- Click on the human symbol in the upper part of the menu, in order to open the login window (Fig. 20).
- When starting the application for the first time, enter your e-mail, to which a verification code will be sent. Enter the address in the registration window (Fig. 21).

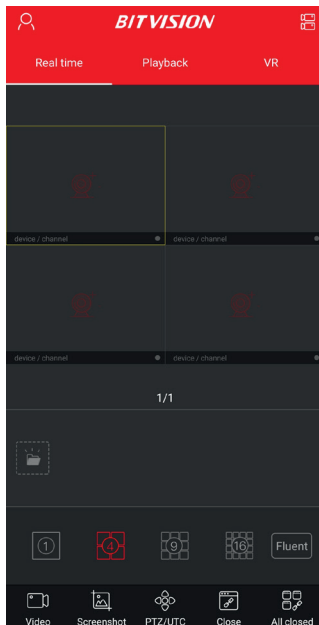


Fig.18

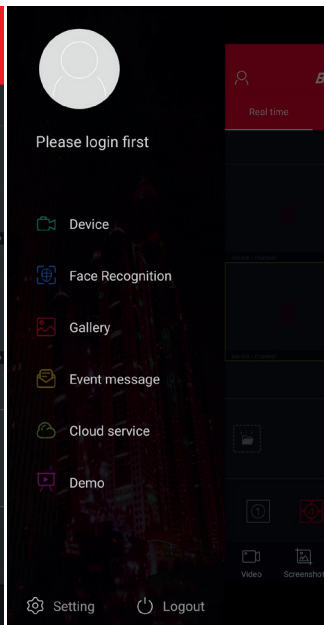


Fig.19

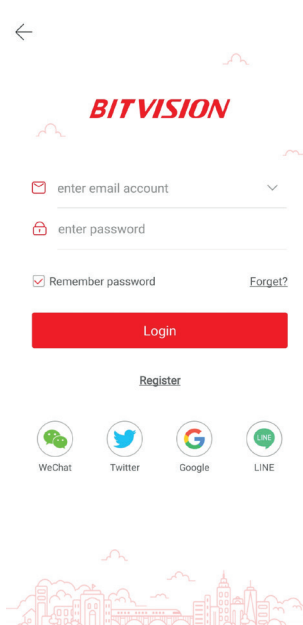


Fig.20

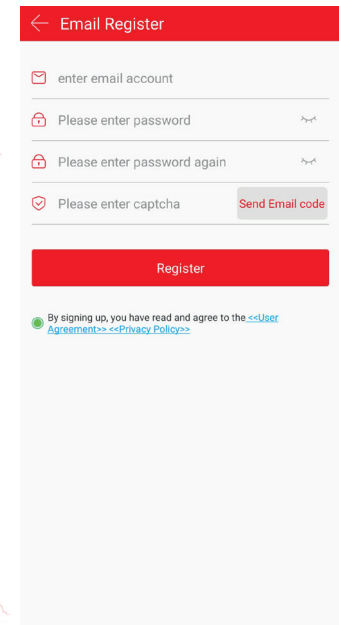


Fig.21

### ADDING A RECORDER TO THE APPLICATION

After successfully logging into the application, the recorder and the cameras paired with it need to be added to the application in order to obtain remote access to this device. Proceed as follows:

- Open the application submenu by swiping right or clicking in the upper left corner.
- Click on "Device management" to open a window as in Fig. 22. Click on the plus sign in the lower left corner of the window.
- Click on the "Add device" icon - Fig. 23.
- Click on the "Add SN" icon - Fig. 24.

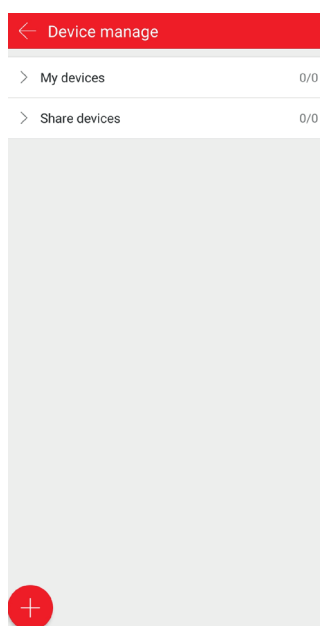


Fig.22



Fig.23

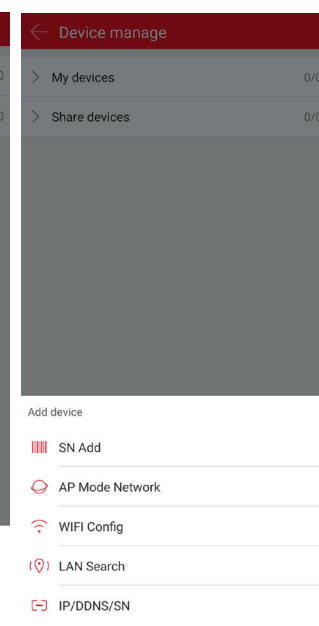


Fig.24

- In the opened window as in Fig. 25, add the serial number of the device by scanning the QR code from the recorder's menu or by entering it manually.

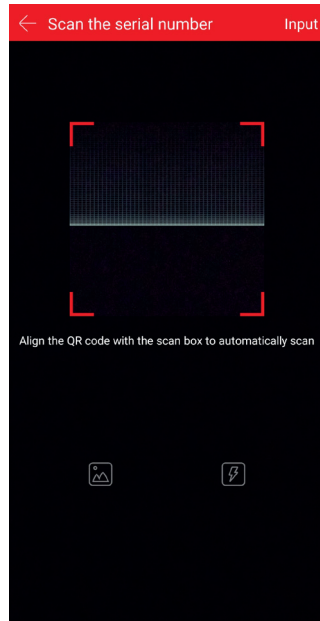


Fig.25

- To find the code in the recorder's menu, click on "Configuration", and then "Network" in the main menu and go to the P2P tab (Fig. 26) to access the recorder's encoded serial number in the form of a QR code (3 from the left).

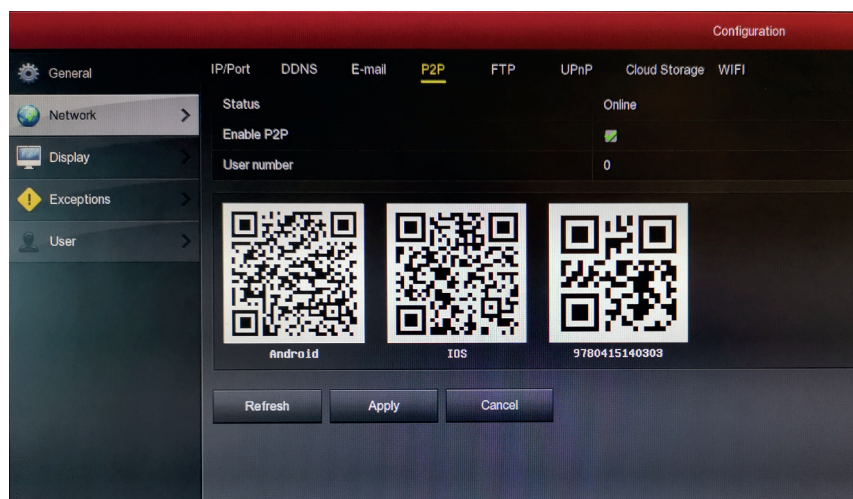


Fig.26

The recorder's serial number can be also entered manually. The serial number can be found under the QR code in the recorder's menu (Fig. 26) and on the sticker at the bottom of the housing.

- After scanning or manually entering the recorder's serial number, a window will appear as in Fig. 27. Enter the user name and the password used for the recorder and the Captcha code printed on the sticker at the bottom of the recorder. Click on "Confirm".

- In the next window (Fig. 28), program the name, by which the recorder will be identified in the application (any name, such as: "Home", "Work", etc.) and assign it to a device group (by default, check "My devices").
- After clicking on "Close", the recorder should appear on the list under the selected name (Fig. 29). A green lamp next to its name means that the recorder is available online. When the lamp is red, the recorder failed to connect with the Internet (power supply or network cable disconnected, incorrect network configuration, problem with Internet connection).

Fig.27

Fig.28

Fig.29

- Next, go to the main window of the application (Fig. 30) and click on one of the rectangles intended for displaying camera images to open the window as in Fig. 31.
- Check the channels (cameras) from the recorder to be displayed in the application (by default, check all by ticking the "My Devices" box as in Fig. 32). Click on "Confirm" in the main application window to display the image from cameras installed in the recorder.

Fig.30

Fig.31

Fig.32

## WARRANTY CARD

There is 24 months guarantee on the product

Salesman stamp and signature, date of sale

1. ZAMEL provides a two-year warranty for its products.
2. The ZAMEL warranty does not cover:
  - a) mechanical defects resulting from transport, loading / unloading or other circumstances;
  - b) defects resulting from incorrect installation or operation of ZAMEL products;
  - c) defects resulting from any changes made by CUSTOMERS or third parties, to products sold or equipment necessary for the correct operation of products sold;
  - d) defects resulting from force majeure or other aleatory events for which ZAMEL is not liable;
  - e) power supply (batteries) to be equipped with a device in the moment of sale (if they appear).
3. All complaints in relation to the warranty must be provided by the CUSTOMER in writing to the retailer after discovering a defect.;
4. ZAMEL will review complaints in accordance with existing regulations.;
5. The way a complaint is settled, e.g. replacement of the product, repair or refund, is left to the discretion of ZAMEL.
6. Guarantee does not exclude, does not limit, nor does it suspend the rights of the PURCHASER resulting from the discrepancy between the goods and the contract.