

# gardi

ZAMEL Sp. z o.o.

# zameL

ul. Zielona 27, 43-200 Pszczyna, Poland  
 Tel. +48 (32) 210 46 65, Fax +48 (32) 210 80 04  
[www.zamel.com](http://www.zamel.com), e-mail: [export@zamel.pl](mailto:export@zamel.pl)

## 1. DESCRIPTION

Access control system with face recognition system allows granting access in a very modern and safe way to the given facility for the authorized person. It is perfect solution for places like companies, offices, schools, hotels, public buildings etc.

The advanced algorithms used in the reader allows correct recognition of faces (even wearing a mask!) and based on this grants access to the selected rooms, facilities etc. The system is also equipped with a contactless body temperature meter, which can limit access for the person with a fever.

Another interesting feature is voice reminders about the necessity of wearing a mask. When a recognized person enters the room without a mask the system will remind about the necessity to wear it.

The device is equipped with relay output allowing direct connection of electric strike or other control components for gates, doors, walk gates etc.

## TECHNICAL DATA

Internal operating system:	Linux
RAM:	DDR3 8 GB
Data memory:	8 GB
Display:	7" HD IPS
Camera:	2MP, wide-angle 120°, WDR- wide dynamic range, LED lighting at night
Face recognition time:	< 1 second (for database with 30 000 faces)
Face recognition index:	99.8%
Number of faces that can be registered:	up to 50 000
Connection to the network:	Ethernet Port RJ45 100 m
Communication protocol:	TCP/IP
Supply voltage:	12 V DC
Operating temperature range:	-10°C to 30°C
Temperature measurement distance:	0,5 m
Accuracy of temperature measurement:	± 0.3°C
Housing protection degree:	IP44
Weight:	916 g
Dimensions (without frame):	12 x 23 x 3 cm

## APPEARANCE



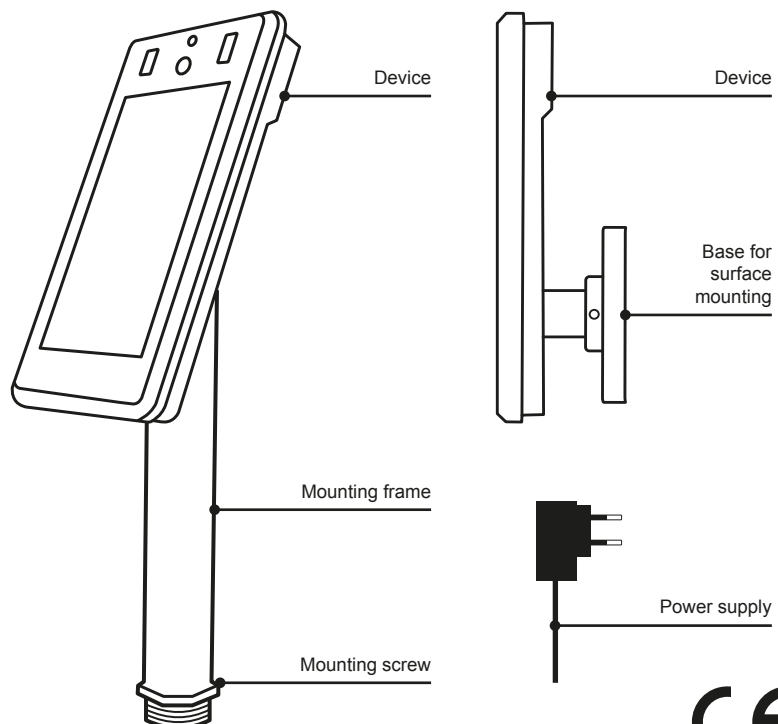
**CAUTION**

**Read the following instructions carefully before connecting the device.**

The device should be connected to grid in accordance with applicable standards. The connection method is described in this manual. Operations related to: installation, connection and adjustment should be carried out by qualified electricians, who have read the user's manual and know functions of the equipment. 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: missing components, damage to or deformation of the device. If the device operates improperly, please contact the manufacturer.

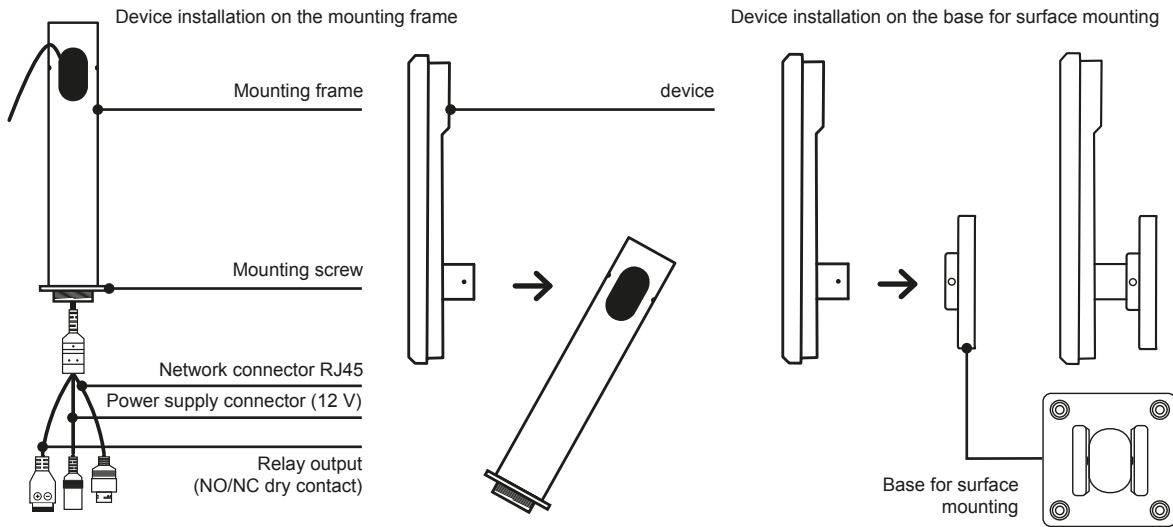


The symbol means selective collecting of electrical and electronic equipment. It is forbidden to put the used equipment together with other waste.

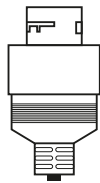


## 2. INSTALLATION

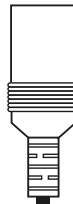
The device is supplied as standard with an assembled tubular frame. A bracket for direct surface mounting is also included in the kit. To mount the device in the surface unscrew the frame with Allen key included in the kit and install the base intended for surface-mounting in its place.



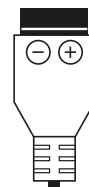
## 3. CONNECTORS



Network connector RJ45



Power supply connector (12 V)



Relay output (NO/NC dry contact)

## 4. FIRST START-UP AND CONFIGURATION OF THE NETWORK CONNECTION

The device can operate autonomously but it is required to connect it to the computer with LAN cable for configuration and setting purposes. After making all necessary settings it can be disconnected from the computer and it will operate independently.

4.1. Connect the device to power supply using power unit included in the set and connect it with RJ45 LAN network cable to any computer with active network card.

**After the power supply is connected, the device needs up to several minutes to warm up the sensors before it can measure the temperature of entering people.**

4.2. Enter the available network connections

(Windows 10: Settings > Network and Internet > Ethernet > Change adapter options (Fig.1)).

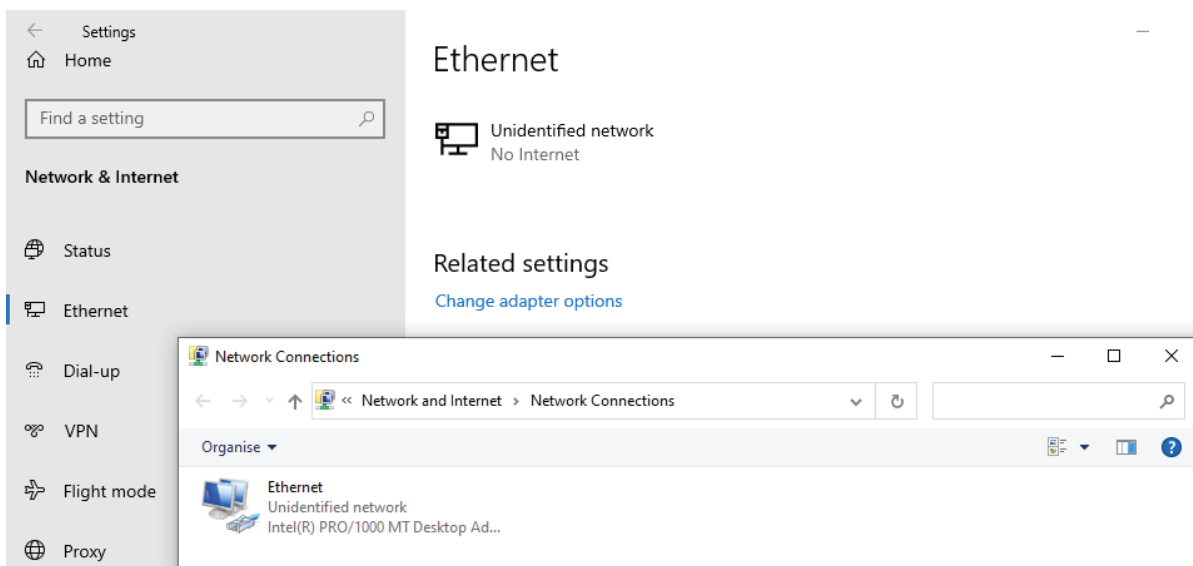


Fig.1

4.3. Right click on the network connection and select „Properties” (Fig.2).

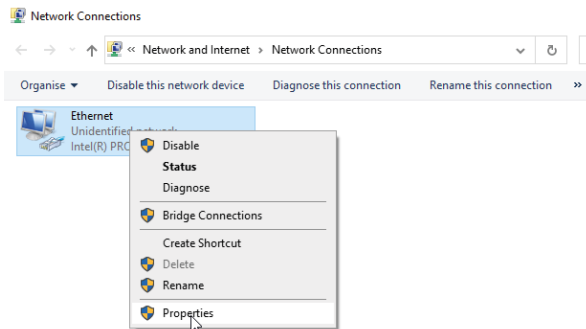


Fig.2

4.4. Search for „Internet protocol version 4 (TCP/IPv4)” in the opened list, select it and press „Properties” button (Fig.3).

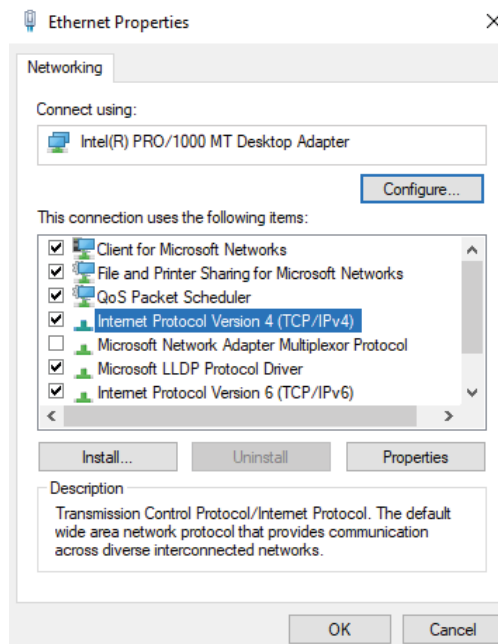


Fig.3

4.5. Select „Use the following IP address” in the opened window, enter the IP address and Subnet Mask as shown in Fig.4 and confirm your selection with OK button.

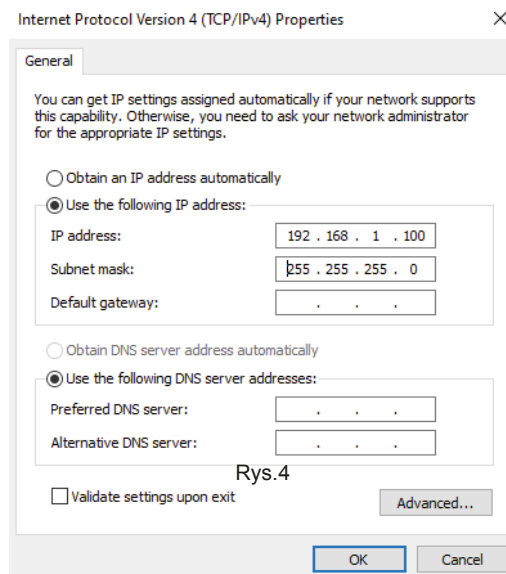


Fig.4

4.6. Enter the following address in your web browser: 192.168.1.100

To correctly log in to the device the web browser must have „ActiveX” controls active (available only in the Internet Explorer as a standard). Chrome browser requires the installation of „IE Tab” plug-in (Fig.4) and connection with the device via this plug-in (Fig.6).

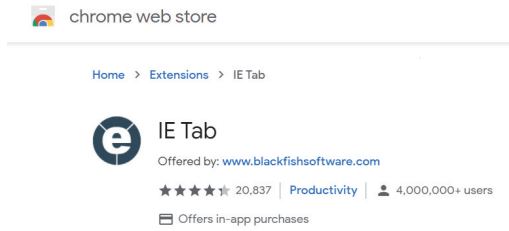


Fig.5

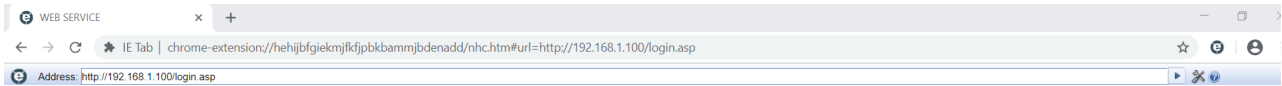


Fig.6

4.7. Download and install the „WebCamera.exe” application after the login window appears. For this purpose:

- click the link below the „Login” button (Fig.7)

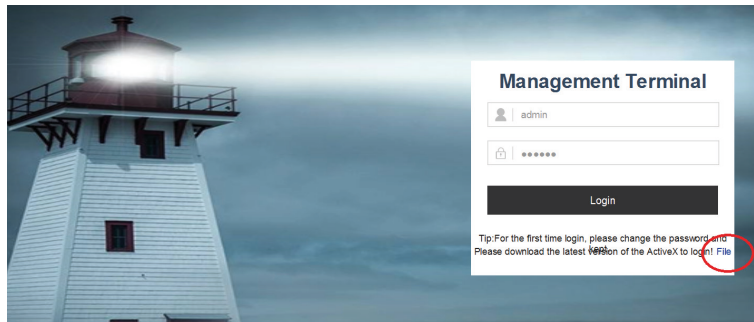


Fig.7

- agree to download the application by pressing „Save” button (Fig.8)

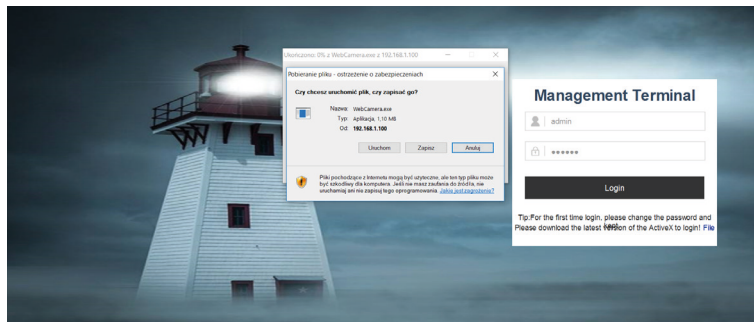


Fig.8

- close the web browser after downloading the installed and start the „WebCamera” installer Fig.9 and install the program.

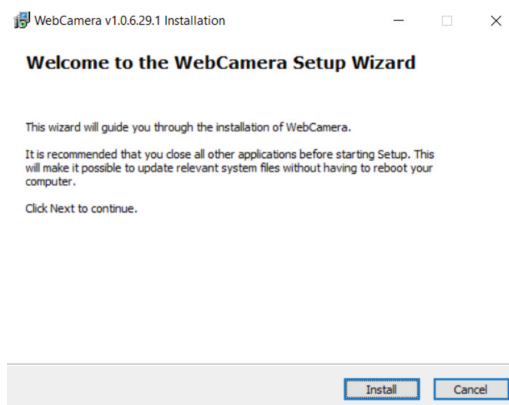


Fig.9

## 5. LOGIN AND CONFIGURATION

### 5.1. Logging in to the device

Once you have installed the IE Tab plug-in for Chrome and the WebCamera application as described in section 4 of this manual, you can now log on to your device. For this purpose:

- Start Chrome browser - activate previously installed IE Tab plug-in (see section 4.6) and enter the address in the IE Tab address bar: 192.168.1.100 which should open the login screen again (Fig.10).

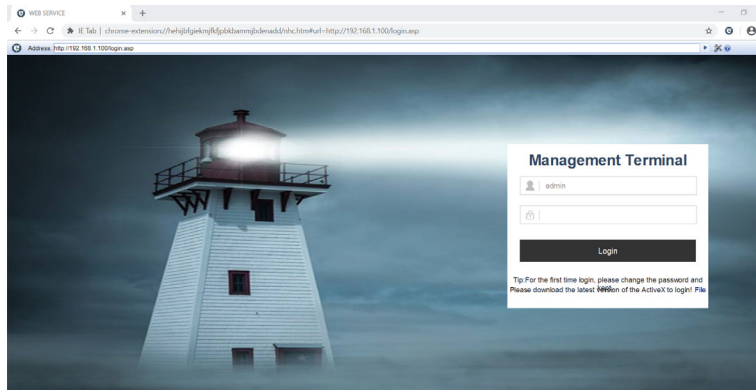


Fig.10

- Enter your login data details (username and password) and click „Login“. The default login data:  
**Login: admin**  
**Password: 123456**

*User name and password can be changed after login in the tab: System > User Manager in the settings menu.*

### 5.2. Device configuration

After logging in, you should see the main screen (Fig.11) with the device's camera preview, the language selection field, and the gear wheel symbol that you need to click to go to the device settings.

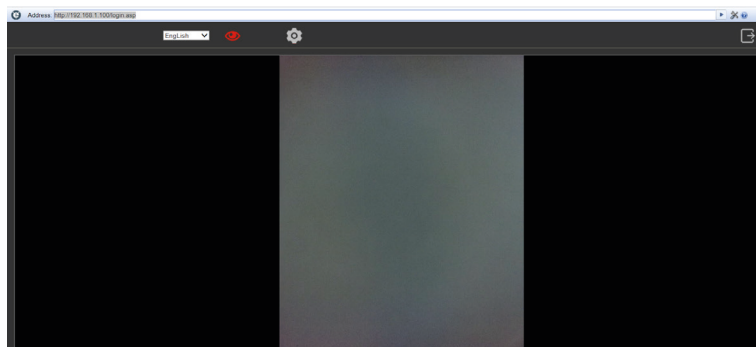


Fig.11

#### 5.2.1 The most important settings and configuration options

- EVENTS > Smart Analytics tab (Fig.12)

*Majority of settings in this tab should be left with default values to ensure optimum operation of the device.*

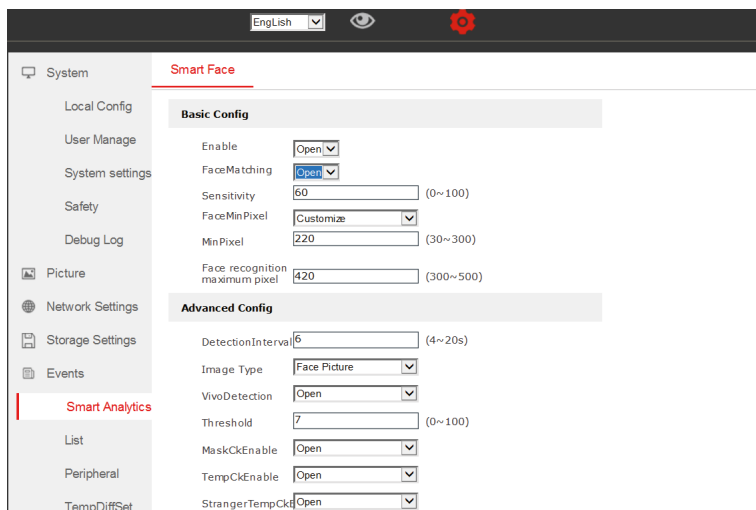


Fig.12

- **Enable** (Open / Close) – activation or deactivation of the device (for „Close” - the device will not detect face, measure temperature etc.
- **MaskCkEnable** (Open / Close) – switching on/off the mask detection
- **TempCkEnable** (Open / Close) – switching on/off temperature detection
- **StrangerTempCkEnable** (Open / Close) – switching on / off of temperature detection of unknown person (not entered into the system)
- **WarnTemp** – temperature set for warning of increased body temperature for entering people

- **EVENTS > List tab** – (Fig.13)

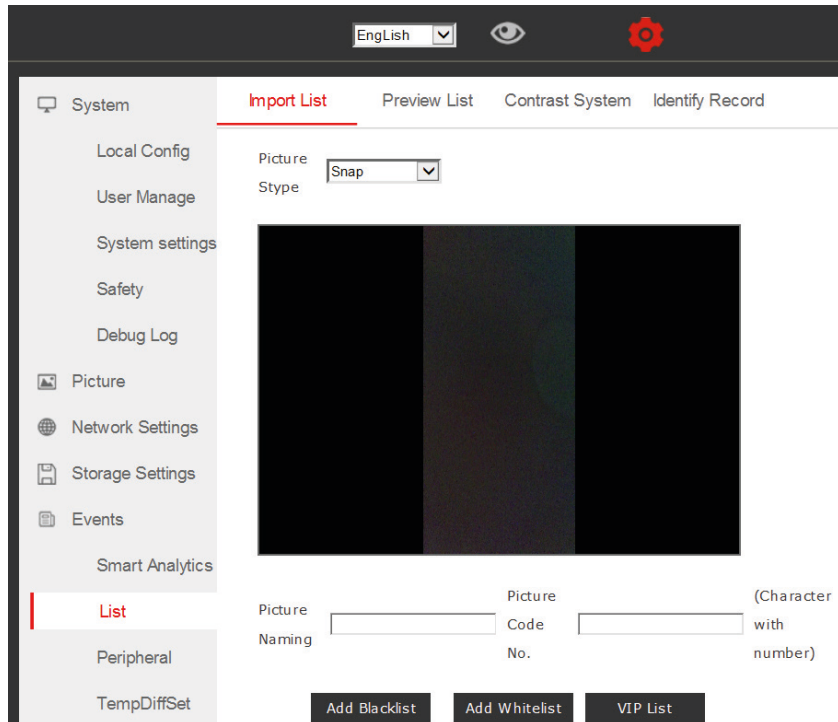


Fig.13

- **Import List** – tab allowing adding images of people, which should be recognized by the device

A picture of a given person can be added in two ways:

- photo file upload - function Picture Style > Import – enter access path for the photo (maximum size 960 x 960 px) and click „upload” button. Give a name of the photo after upload (Picture Naming) - any name, e.g. name, surname and number (Picture Code) and click Add Whitelist to add it to the list of people authorized to enter.

- photo recording by the device - function Picture Style > Snap - enter the name first (Picture Naming) and number (Picture Code) under which the picture will be recorded. Then place a person whose image should be recorded in front of the device and press „Add Whitelist” button. Now, the device will take a photo of recorded person and add its image to the list of persons authorized to enter.

**Before registering a new person, make sure that the face recognition function is active. Go to EVENTS > Smart Analytics tab and set the „FaceMatching” option to OPEN.**

- **Preview List** – tab allowing you to preview a whitelist of people saved in the system who are allowed to enter the facility and remove them from the list (Fig.14)

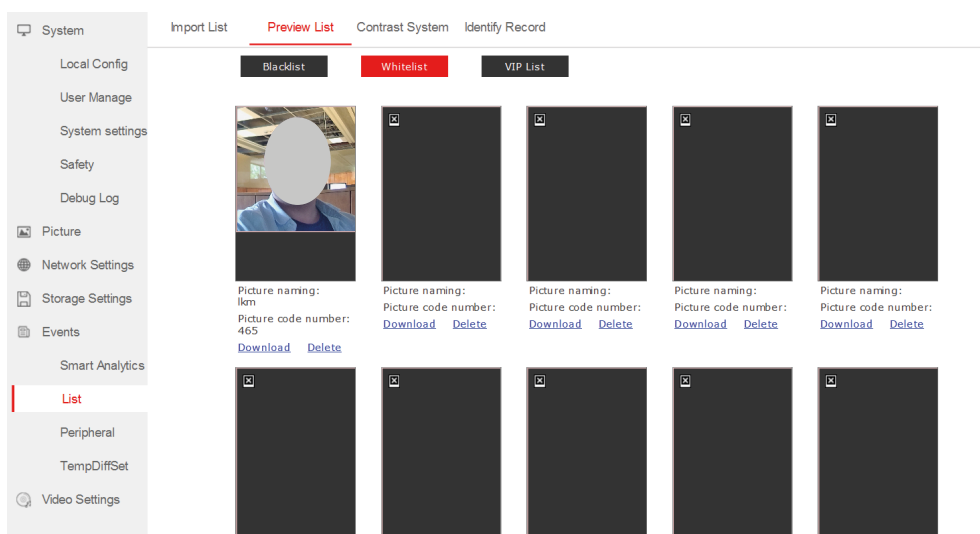


Fig.14

- **Identify Record** – tab allowing previewing list of people who have attempted to enter the facility within a specified time (date and time range). It shows photo of person, information whether the person is known or unknown, whether the mask was worn and what her/his temperature was (Fig.15).

Database picture	Snapshot	Name	Id	List	Time	Temperature	Whether mask	Detailed situation
		No	No	Stranger	2020-06-17 07:59:24	36.43°C	NO	similarity:0%
		No	No	Stranger	2020-06-17 07:59:09	36.31°C	NO	similarity:0%

Fig.15

- **EVENTS>Peripheral tab** – (Fig.16)

**Setting**

**FaceOpen**

MatchSuccess

TemperatureNormal

WearMask

**VoiceSetting**

VoicePrompts

MaskVoice

**VideoSetting**

VideoSwitch

**UnlockingParam**

UnlockControl

UnlockOutputTime  (1~254)\*50ms

UnlockingMethod

Fig.16

- **MatchSuccess** – face recognition activation or deactivation(active option prevents access of person whose face has not been recognized)
- **TemperatureNormal** – activation or deactivation of temperature measurement(active option prevents access of person with increase temperature)
- **WearMask** – activation or deactivation of mask wearing necessity (active option prevents access of person without a mask)
- **VoicePrompts** – (open / close) – voice messages switching on / off
- **MaskVoice** – (open / close) – activation / deaction of voice message about the need to wear a mask
- **UnlockControl** – (open / close) – switching of relay output between the modes: normal open and normal close
- **UnlockOutputTime** – period of relay activation after opening

- **Video Settings > Audio Parameter tab** – (Fig.17)
- **Output Volume** – adjustment of voice messages volume

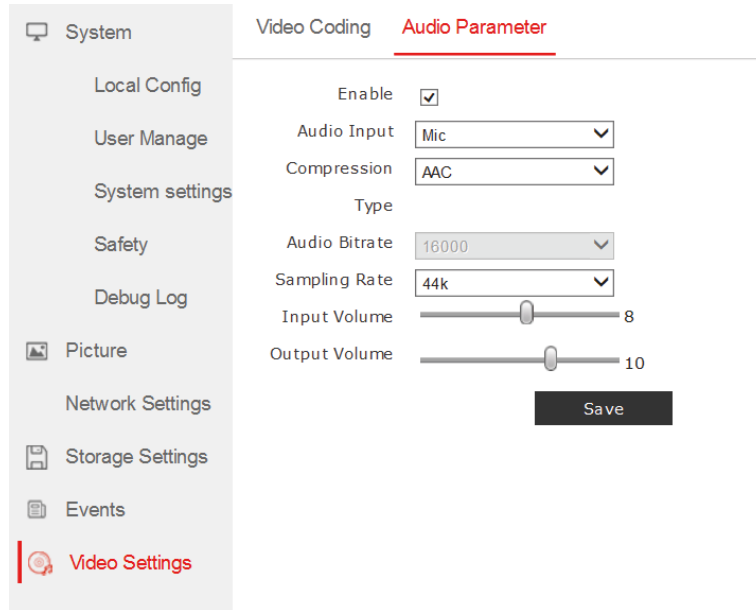


Fig.17

## WARRANTY CARD

There is 24 months guarantee on the product

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.
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.

Salesman stamp and signature, date of sale