

TARGA J-T760

User Manual

This manual contains the instructions for the installation and use of:

Selea Targa J-T760 in all its possible variations

This manual is only included for information purposes and its content may be changed without prior notice.

Selea pays the utmost maximum attention to the information provided. However, no guarantee can be given on the content of this manual. The company also specifically rejects any guarantees regarding the saleability of the product, or its suitability for specific purposes.

Copyrights

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Java and all Java based trademarks are registered trademarks owned by Sun microsystem.

All other product trademarks mentioned in the documentation are only used for identification purposes, and are the property of the respective owners.

Legal considerations

Video surveillance may be forbidden by local laws. Before carrying out video surveillance activities, check the legal requirements for the country of installation of the camera.

SECURITY

INTRODUCTION

Thank you for choosing our product.

Our company specialises in the design, development and production of vehicle number plate recognition cameras and software.

The camera discussed in this manual is a very sophisticated product, carefully designed and built to ensure the best performance levels.

This manual contains detailed instructions for the installation and the use of the product.

To ensure the best possible results, CAREFULLY READ THIS MANUAL BEFORE USING THE PRODUCT and store it with care in a safe place for future consultation.

NOTE: Some images in this document are only included for indicative purposes and may not provide a faithful representation of the actual product components.

WARNINGS FOR THE INSTALLER AND THE USER

This manual is an integral part of the product. It must be read in full before installing or using the product. Make sure that it is always with the product. If the product is transferred to a new location or sold/transferred to a new owner, always make sure that it is accompanied by this manual, so that it can be read by the new user, installer or any other authorised individuals.

Installation, use, cleaning or maintenance activities not consistent with the instructions of this manual are considered as improper and could cause damage, injury or even death, and will immediately make the warranty null and void, relieving **Selea** of all responsibility.



Extraordinary maintenance activities must **only be carried out by qualified personnel, authorised by the Distributor or Manufacturer.**

- During the whole life of the product, product safety or automatic adjustment components may only be modified by the manufacturer or the supplier.
- In case of camera malfunctioning, or functional or structural fault, disconnect the camera from the power supply and contact an approved **technical support centre authorised by the Distributor or Manufacturer**. Never attempt to repair the camera yourself. In case of repairs, always ask for original spare parts to be used, to prevent further problems and to ensure compliance with the terms of the warranty.
- All tampering or any replacements not carried out by qualified personnel may be dangerous for the user and will immediately relieve the manufacturer from all civil or criminal responsibility.
- When received, the product must be checked for integrity as vibrations and shock during transport can cause the loosening of some components. Check the camera enclosure and the product components for any damage. In case of damage, inform the installer and/or our technical support service.
- This product is suitable for use by children 8 years old or over, by people with impaired physical, sensory or mental abilities, or by people without experience or knowledge, provided that they are appropriately supervised, or that they have been correctly trained on the safe use of the product, and are aware of the connected hazards.
- The packaging material is potentially dangerous and therefore must be kept away from the reach of children or pets, and disposed of in accordance with local regulations.
- In case of enclosure or front glass damage, immediately switch off the camera and send it to a **technical support centre authorised by the Manufacturer or Dealer** for the necessary repairs.
- During installation and normal use do not place any objects on the camera, as excessive weight could impair performance.

- During the installation make sure to handle the product with care, avoiding collision with nearby objects.
- During the installation the operator must wear all the necessary personal protective equipment as provided for by local legislation. If working in a construction site, it must be ensured that the operator is made aware of all the safety requirements by the appropriate safety personnel.
- When connecting the product to the electricity network, make sure that all the safety measures are implemented, or seek the assistance of a qualified electrician.
- We recommend the application of appropriate safety measures to reduce the risk of electric shock and lightning strikes. Carefully read all the instructions in this document.
- Place or install the product on a stable base and in a protected area, so that it is not possible to step on or trip over power cables, LAN cables or any other connection to the camera.
- It is recommended that an easily accessible disconnect switch is installed upstream the camera, in accordance with the legislation in force in the country of installation. This disconnect switch must have contact separation for all the poles, to ensure complete disconnection in case of overvoltage. Correct connection to the earth is also a mandatory requirement. Under no circumstances should the earth cable be interrupted by the safety switch.
- For the connection to the power supply, use a double insulation flexible bipolar cable + earth, type H 05 VV-F, with a minimum section of 0.75 mm².
- Product for outdoor installations. Comply with the temperature range indicated in the manual. Do not touch the ends of connectors and mains cables. All damaged or worn cables must be replaced. In case of product malfunction, to resolve the problem, contact exclusively qualified personnel
- Do not install the product during a storm, in high humidity conditions, or when wet.
- Do not touch the ends of connectors and mains cables. All damaged or worn cables must be replaced immediately.
- The cables used to connect the camera must not consists of several joined cut lengths, but rather only one single length going from the product to the electric cabinet.
- Never remove the camera optical assembly.
- Before carrying out any maintenance or cleaning activities, disconnect the electric power supply.
- During cleaning activities only use a damp cloth. Do not use solvents or abrasives that could damage surfaces or components.
- If planning not to use the camera for an extended period of time, switch off the general power supply switch upstream the same.



Warning! Laboratory measurements "conducted on the IR beacon" in compliance with IEC622471:2006 1st Ed. and EN62471:2008, aimed at determining retinal risk, **made it possible to classify the IR beacon as belonging to the RISK-FREE Group**. It is however recommended to avoid looking directly at the illuminator when on, in particular, through magnification tools, such as eyeglasses or lenses. Under such conditions, exposure to infrared rays could cause retinal damage.

The company rejects all responsibility for any direct or indirect damage to people, pets or property due to failure to follow all the instructions of this manual, particularly in connection with installation, use and maintenance precautions.

PRODUCT DISPOSAL

Pursuant to art. 13 of Italian Legislative Decree no. 49 of 2014 ("Implementation of the WEEE 2012/19/EU directive on Waste Electrical and Electronic Equipment")



The crossed bin symbol indicates that the product was put on the market after 13 August 2005, and that at the end of its useful life it should be disposed separately from other waste.

The product must also be made unusable by removing the power supply cable.

At the end of its life this product must be disposed of with care, in order to reduce its impact on the environment and improve efficiency in the use of resources, and implementing the "polluter pays", prevention, preparation for reuse, recycling and recovery principles. Illegal dumping or incorrect disposal of the product will result in the application of fines in accordance with current laws.

Information on disposal in Italy

In Italy, WEEE must be handed over:

- to Waste Collection Sites
- to the dealer from where a new replacement item is purchased, who is legally required to take the old product free of charge (one item collected for each item sold);

Information on disposal in EU countries

The WEEE EU regulation has been incorporated in the various countries in different ways. Therefore, you should contact your local authorities or dealer in order to ascertain the correct disposal method.



RESPECT FOR THE ENVIRONMENT

In developing its products, **Selea** dedicates a lot of resources to environmental aspects. All our products pursue the objectives set in the environmental management system policy developed by the company in compliance with current laws.





This product does not contain dangerous materials, like **CFC**, **HCFC** or **asbestos**.

The packaging is made of **RECYCLABLE MATERIALS**.



The individual elements must be disposed of in accordance with the regulations of the country of use of the product.

For the identification of the materials refer to the following table:

Description	Material	
Pallet	Wood (FOR)	
Packaging box	Corrugated cardboard (PAP)	
Protection bag	High density polyethylene (PE-HD)	
Adhesive pads	Low density polyethylene (PE-LD)	
Bubble wrap		

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PRODUCT PRESENTATION

PRODUCT DESCRIPTION

Targa J-T760 is an all-in-one video surveillance system with automatic recognition and reading of number plates (**ANPR - Automatic Number Plate Recognition**).

It includes a camera with infrared sensitive optical sensor and a **LED IR** illuminator that allows to take a clear photo of a car license plate in any lighting conditions, both day and night, at distances of up to **30 metres**.

Thanks to the high capture speed of the sensor (up to **60 FPS**), it is possible to obtain sharp images of vehicles travelling at speeds of up to **200 km/h** (the maximum capture speed depends on the model).

The license plate is read by the camera itself, without the need for any other external devices. This is possible thanks to the character recognition and localisation software developed by **Selea**, which ensures extremely high success rates on all types of license plates supported by the firmware version.

Targa J-T760 is a fully IP device capable of connecting to the network through the built-in Ethernet interface. It supports TCP and RTP connection protocols and can compress to H264, H265 and MPEG4 formats any video streams produced by the integrated sensors.

The new features of this latest innovative version are:

- Storing up to **1TB** of the captured snapshots (16Gb default).
- Dual lane reading and direction detection.
- Estimation of vehicle transit speed.
- Identification of colour and type of vehicles.
- Identification of Make and Model.
- Stationary vehicle, wrong way transit and fire/smoke detection (optional).
- Detection of helmet presence/absence on the driver and passenger of motorcycles and mopeds (optional)
- On board **CPS Selea software** integration.
- Integration with **Selea Easy Connect** services.

Targa J-T760 can manage an advanced and flexible set of events and actions using both internal software tools, such as number plate reading or Motion Detection HW, and I/O digital ports, which allow installing an intelligent video surveillance system that does not require additional processing units, therefore saving on wiring and auxiliary components.

The MicroSD memory allows to store lists of known number plates for comparison with the captured ones, and therefore carry out independent activities based on the results of such comparisons (such as the opening of automatisms, etc.), or as a backup for possible temporary connectivity losses, by storing all the captured number plates until network channel functionality is re-established.

The access to all the camera data and configuration screens can be password protected using credentials issued by the administrator. It is also possible to implement a sophisticated encryption algorithm when transferring data, so that they may not be read by unauthorised clients.

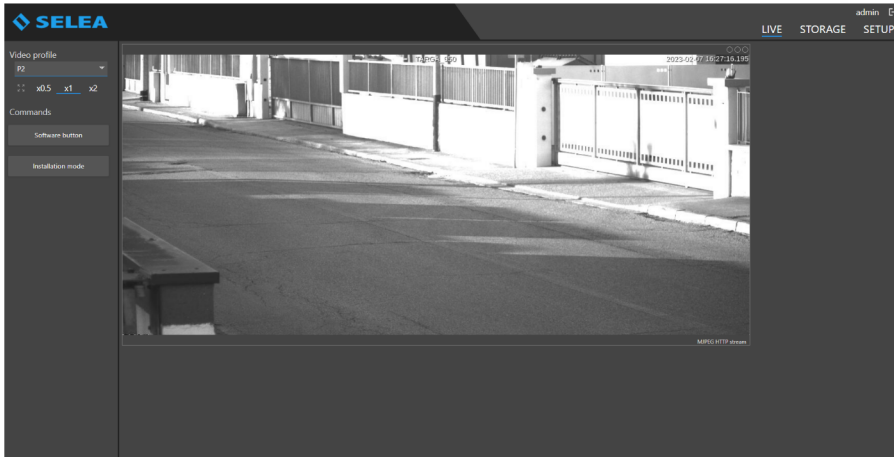
Targa J-T760 ensures excellent protection of the privacy and all the information transferred by the camera.

The following pages offer a simple representation of some camera functions:

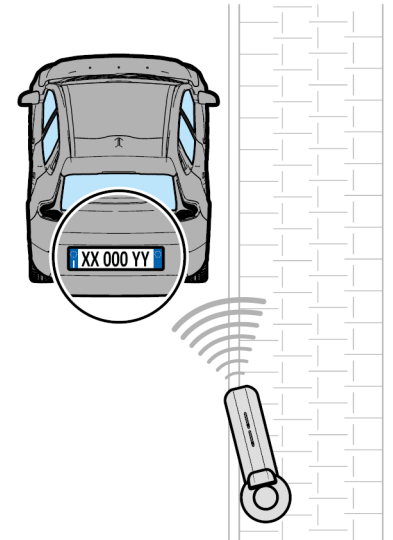
1. The screenshot gives a representation of the internal vision software through a browser window, showing a real-time **"LIVE"** image of the area covered by the camera.
2. When a vehicle goes through the area, the number plate is framed, captured and stored in the camera memory.
3. All the camera captures are available in the **"MEMORY"** section of the internal software. The data are stored in folders showing the acquisition date, split into sub-folders showing the 24 hour time bands.
4. The data can be forwarded to a remote server.
5. Depending on the reasons for the captures, the server combining the data with those sent may behave differently. For example, if the camera is installed to regulate car park access, when a number plate is recognised and accepted by the server, the vehicle will be allowed to enter or exit. Otherwise, permission to go through the monitored area will be denied. The data may also be controlled in real time by an operator, who will then be able to grant or deny access. Another possible use is the monitoring of the captured number plates by control authorities, who will be able to connect to remote databases (Transport or Home Offices) to ascertain breaches or irregularities.

It is possible to download the manuals of the cameras from the following link: <https://download.selea.com/it/>

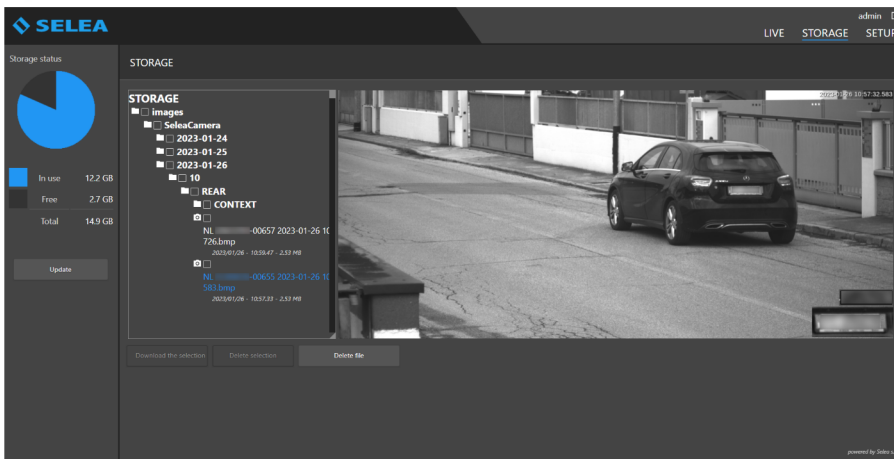
1



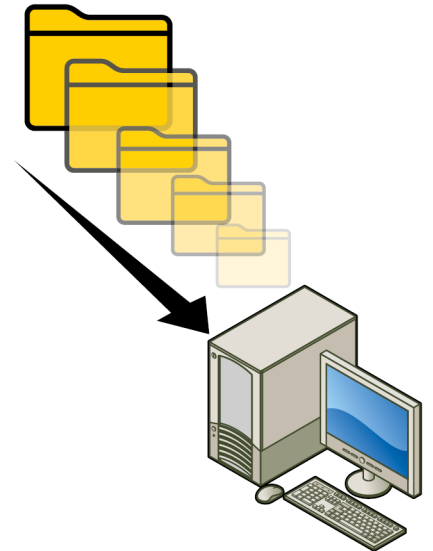
2



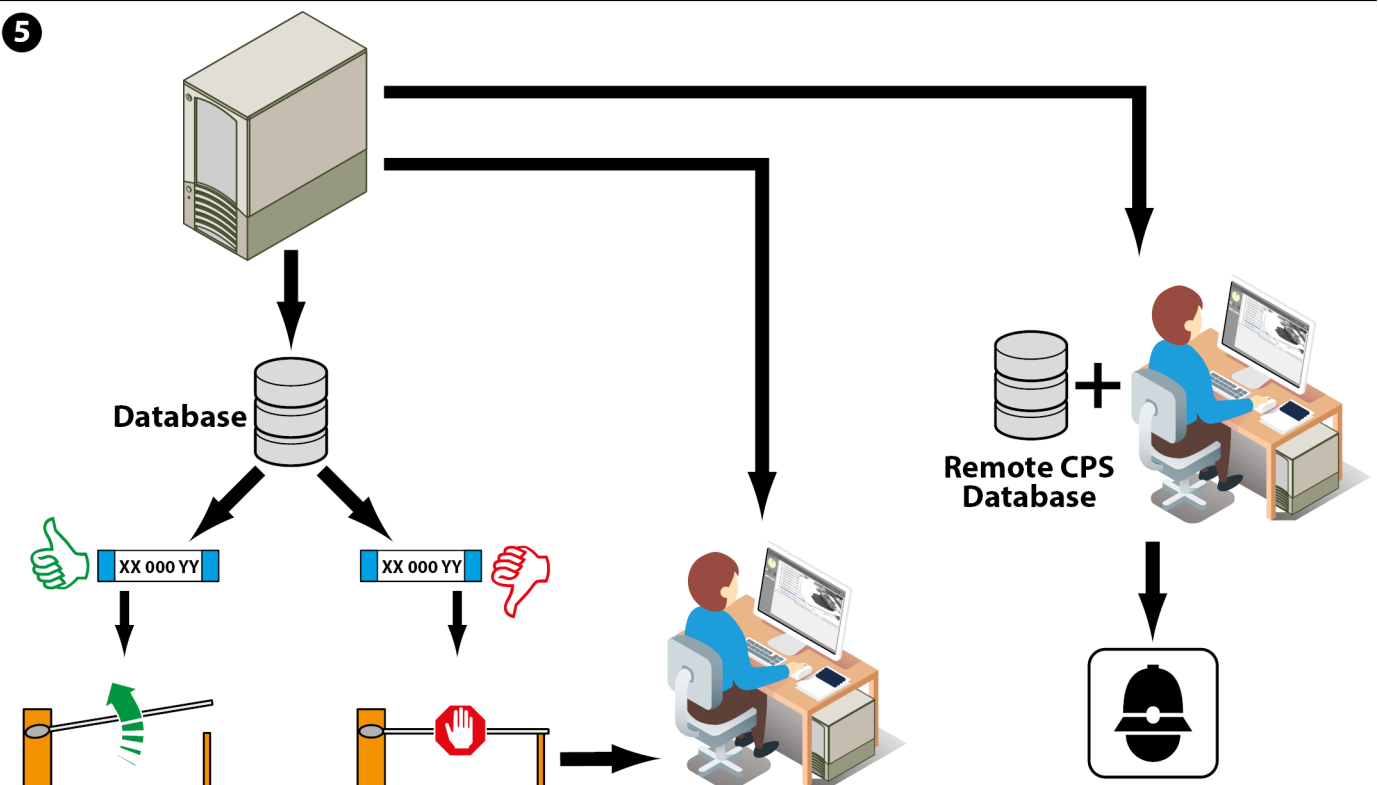
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4

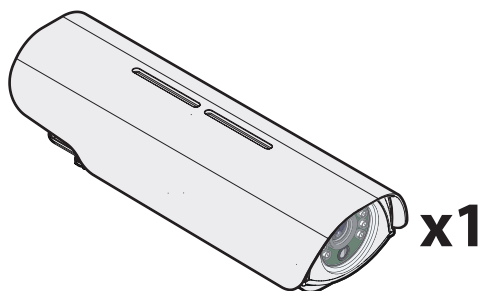


5

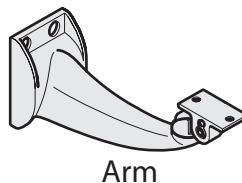


INSTALLATION

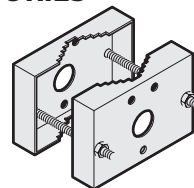
PACKAGE CONTENT



OPTIONAL ACCESSORIES



Arm



Post collar

The package also includes components for connection to various networks.

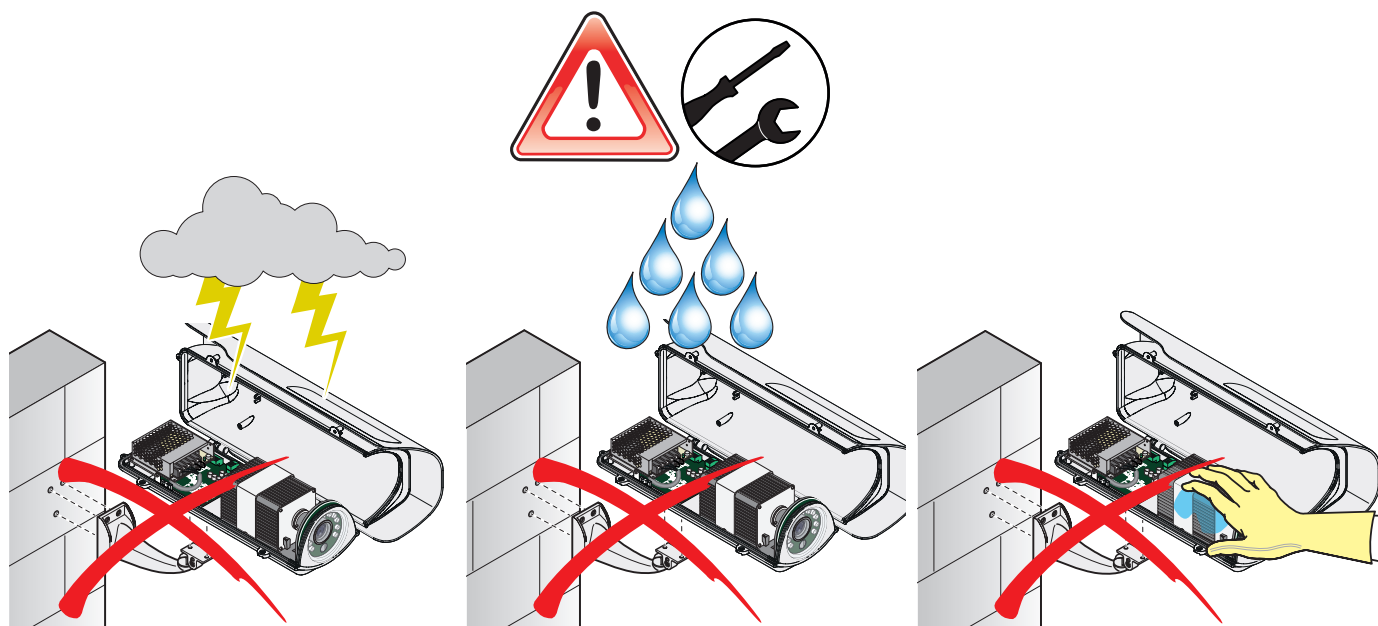
WARNINGS FOR THE INSTALLER

When connecting the product to the electricity network, make sure that all the safety measures are implemented, or seek the assistance of a qualified electrician.

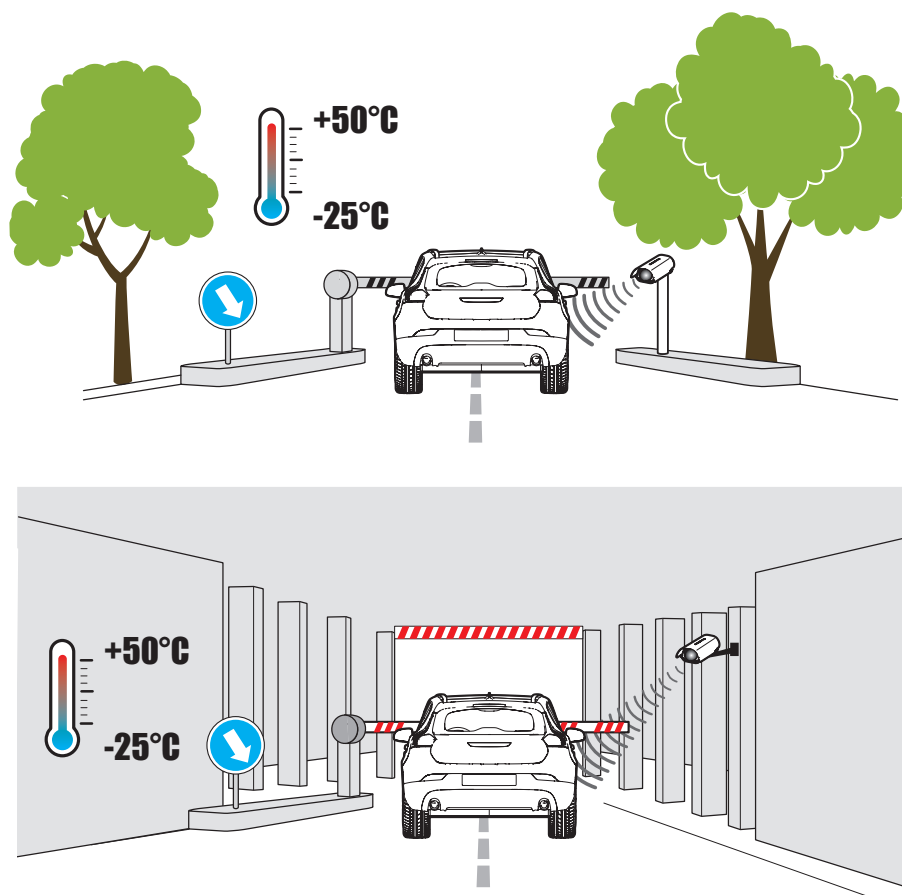


Do not install the product:

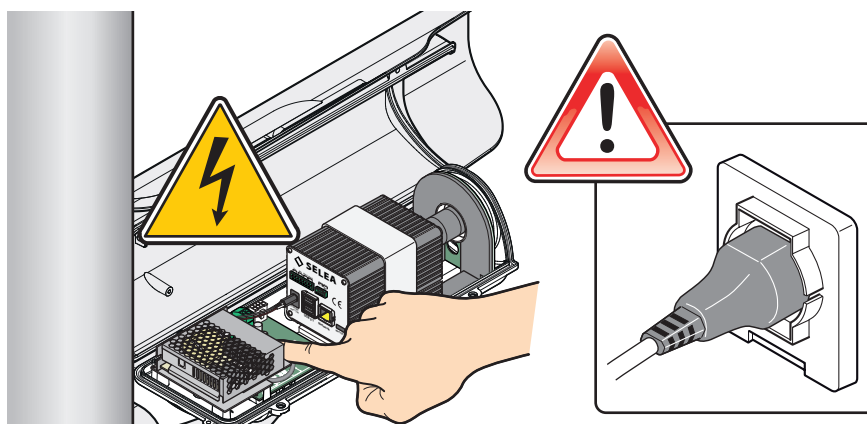
1. during a storm
2. in high humidity conditions
3. when wet.



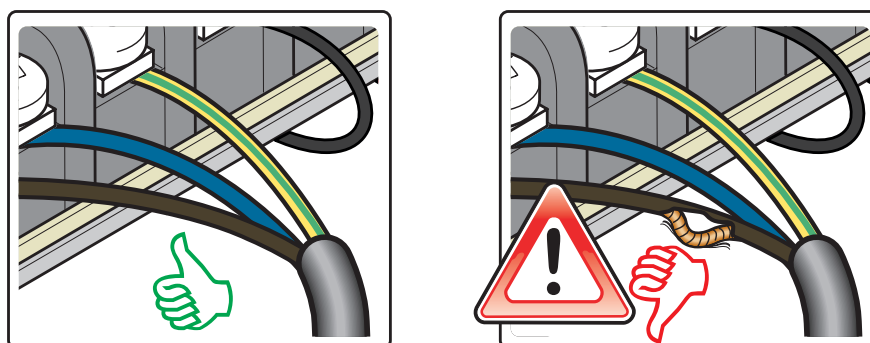
The camera is suitable for both outdoor and indoor installation.



Do not touch the ends of connectors and mains cables.



All damaged or worn cables must be replaced immediately.



In case of fault, see the troubleshooting section.

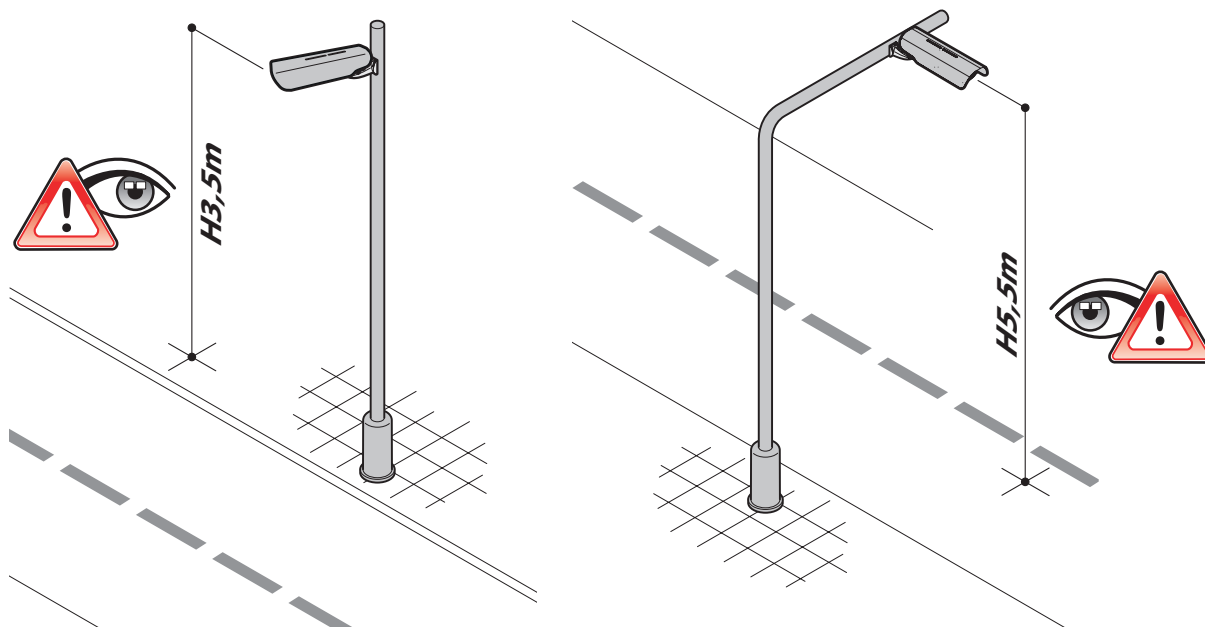
For technical support contact qualified personnel and/or **Selea** directly.

CAMERA INSTALLATION AND ADJUSTMENT

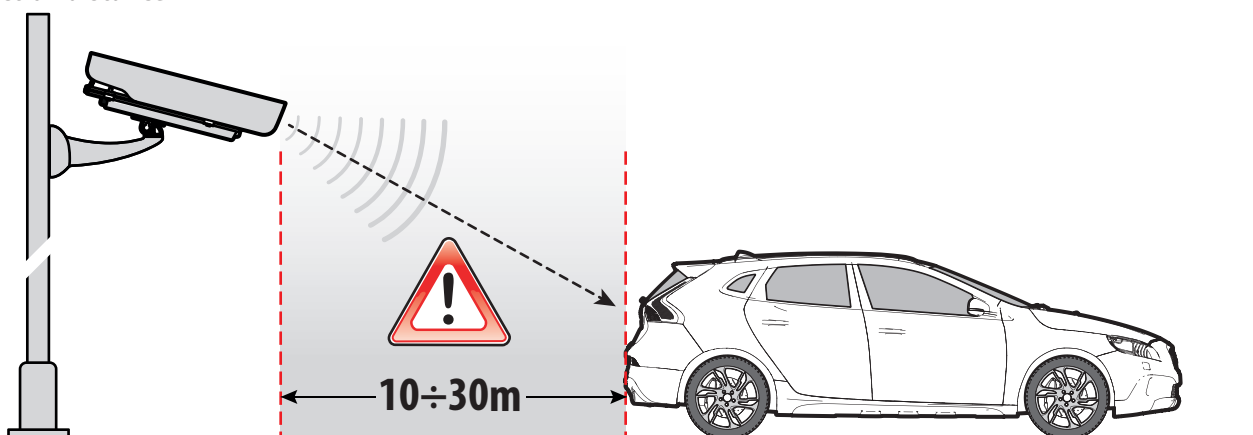
Targa J-T760 may be installed on a fixed base, or attached to the wall using the optional adjustable support arm. An optional collar is also available for pole installation.

In order to make the installation easier, a "support" function may be activated from the camera menu, which will help the installer to keep within the set camera tilt adjustment, character height and focusing limits.

Installation height



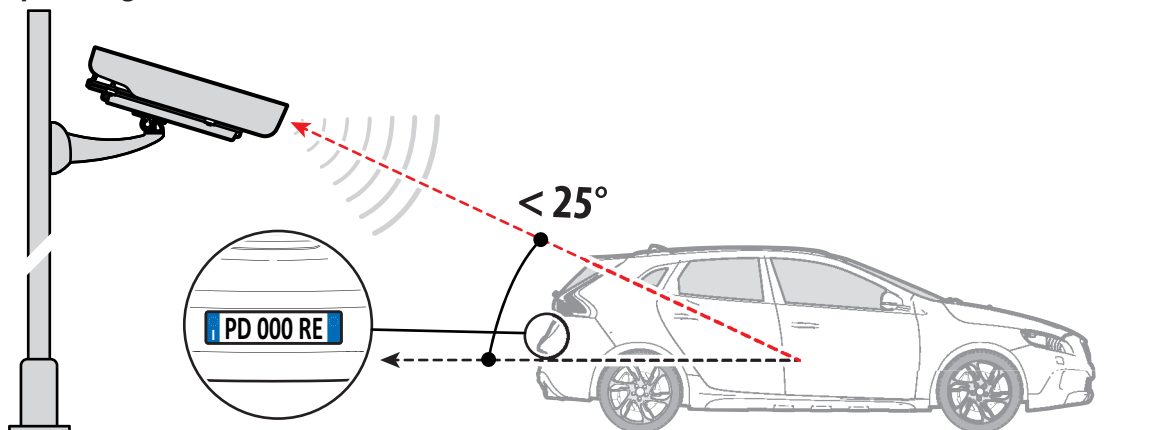
Detection distance



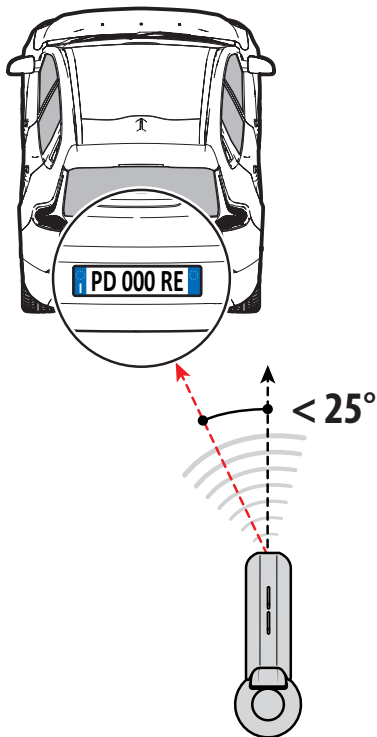
Make sure that the selected installation position actually allows to capture the information from transiting vehicles whilst keeping within the optimum values recommended by **Selea**. We recommended that preliminary capture tests are carried out from the selected position.

Also make sure that the number plates are not captured at angles exceeding:

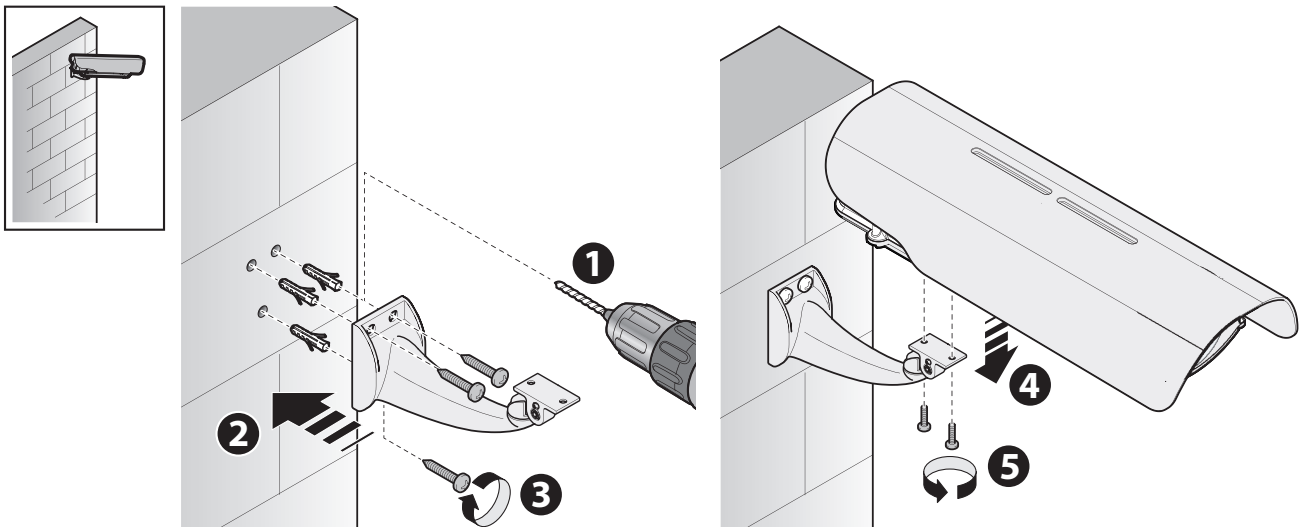
Vertical capture angle



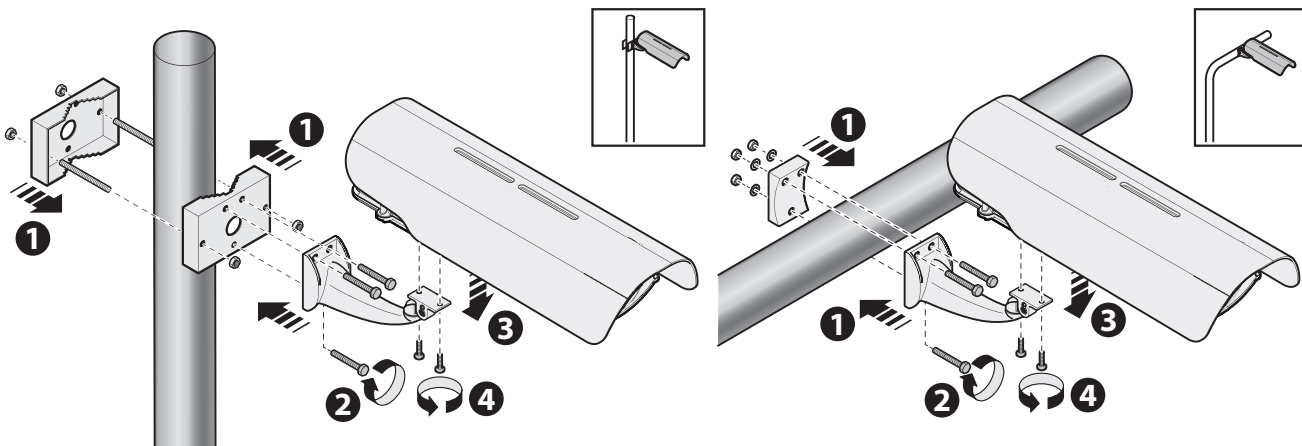
Horizontal capture angle



Wall installation



Post installation



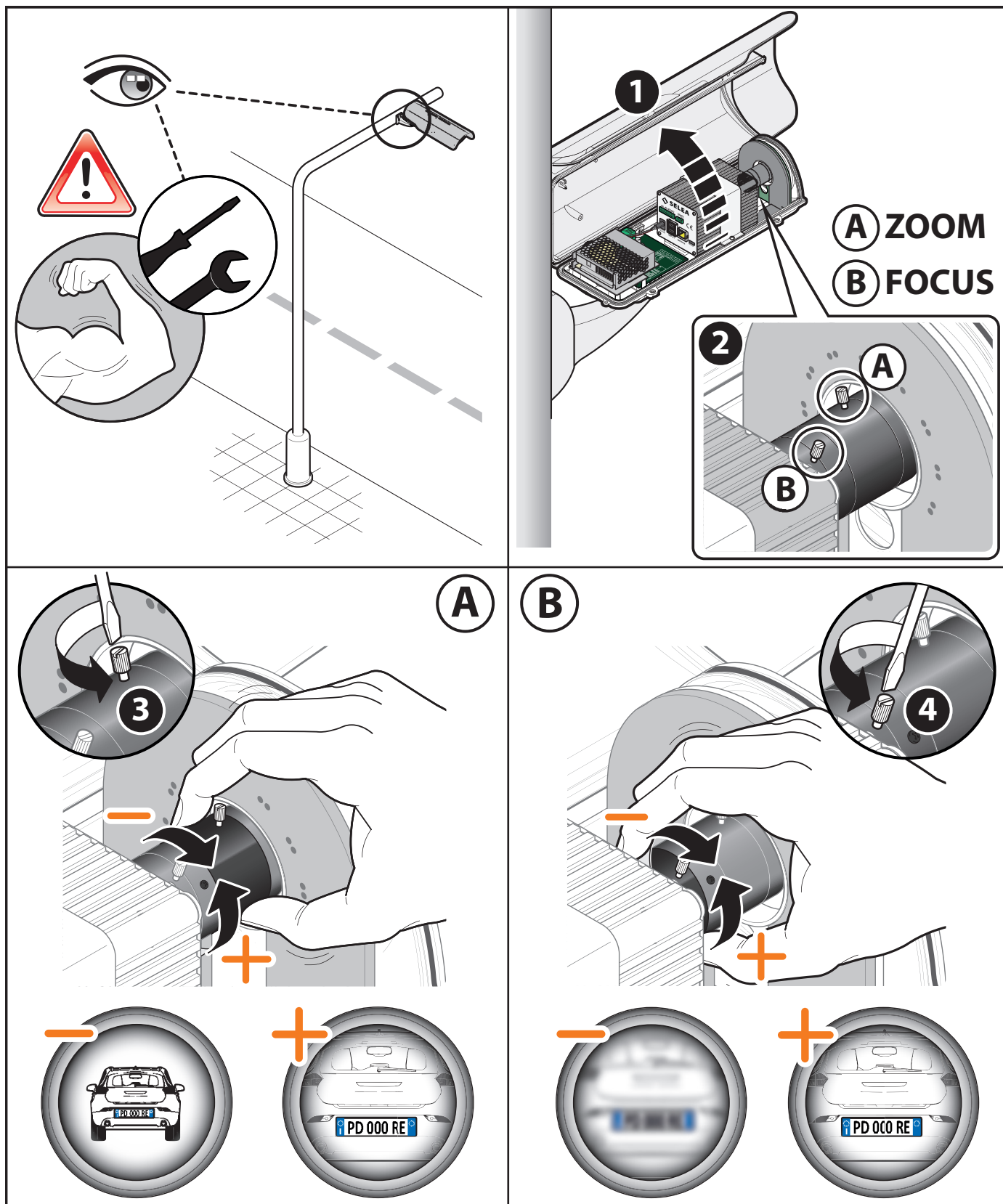
OPTICAL ASSEMBLY ADJUSTMENT

The camera is supplied as standard with IR optics with variable focus aspherical lenses. This makes it possible to move closer or further in relation to the selected capture area.

Selea supplies the product with the optical assembly already adjusted in view of the actual application indicated at the moment of purchase. **However, in some specific cases the user may still need to adjust the optical assembly after installation.** To do this, open the camera enclosure.

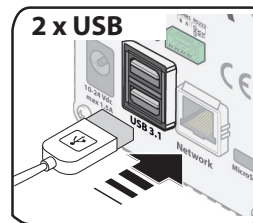
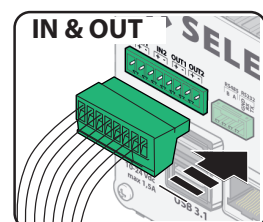
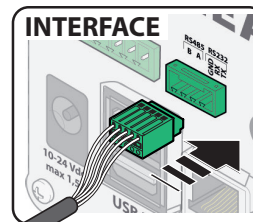
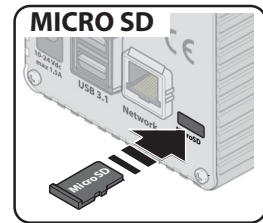
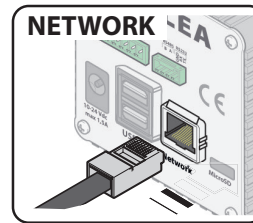
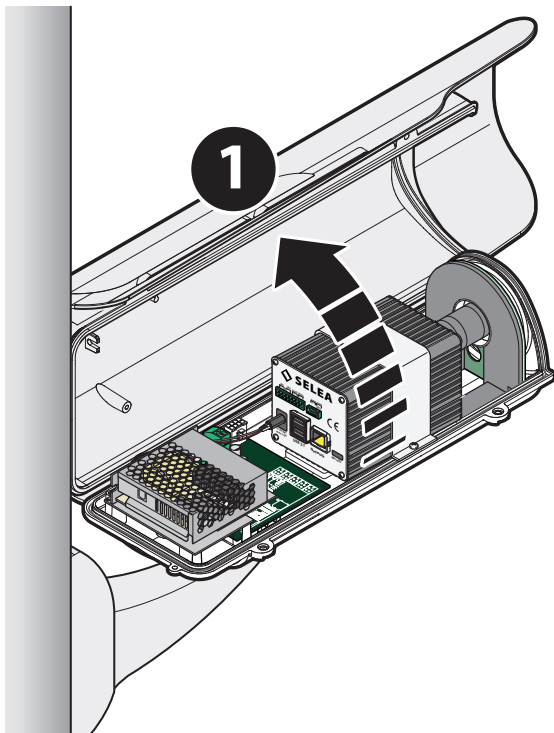


THE IRIS has already been optimised at the factory and must not be modified for any reason.



CAMERA CONNECTION

On the back of the cameras are several ports for different connections.



NETWORK: 10/100Mb auto-sensing connection port.

INTERFACE: serial output connection (RS485 or RS232 standard) for tilt movement purposes (see chap. PTZ) **Attention:** this port can't be used if the Wiegand option is installed.

USB: It is possible to connect external equipment via the USB port. There are two 3.1 USB ports available.

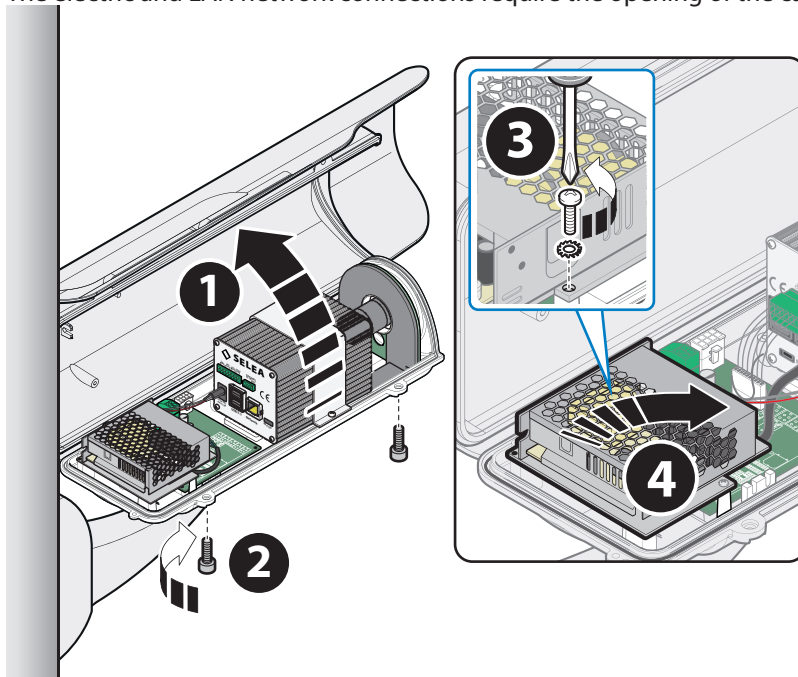
.MICROSD: Slot for a MicroSD card (included with the equipment) which is used to store the data recorded by the camera.

IN & OUT: Two configurable inputs. To change status short the two contacts.

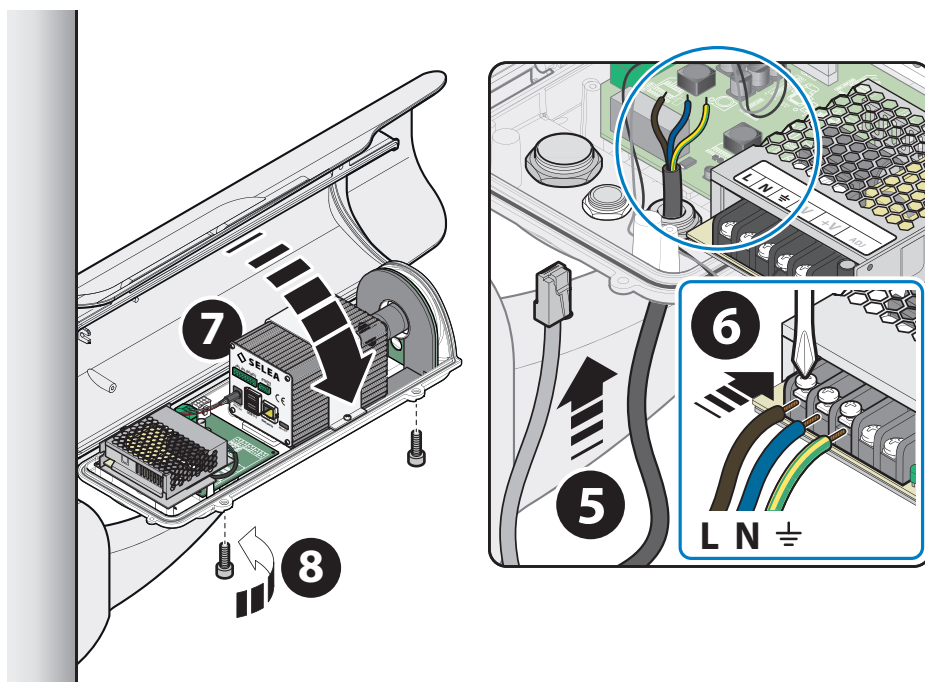
One 10mA 5-12 Vdc opto-isolated output. and one 0.3A - 125 Vac / 1A 30 Vdc volt-free contact relays

ELECTRIC AND LAN NETWORK CONNECTIONS

The electric and LAN network connections require the opening of the camera enclosure.



1. Unscrew the enclosure screws.
2. Open the enclosure.
3. Unscrew the Phillips screw securing the left/right side of the power supply unit.
4. Rotate the power supply unit as shown in the figure on the side.



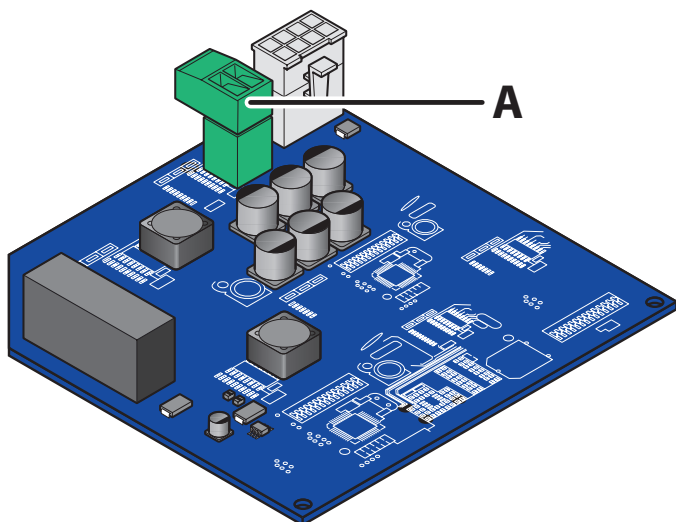
5. Unscrew the IP66 cable gland caps and feed the required cables through. The larger one allows to feed the network cable through with the connector already attached.
6. Connect the wires to the power supply terminals (if possible with fork lugs). The power supply cable section must be 3x0.75 mm. Move the power supply unit to its original position and secure with the screw. Tighten the caps so that the cables are tight.
7. Close the camera enclosure paying attention to the edge seal: replace if pinched or damaged!
8. Fasten the enclosure parts using the two screws.
- 9.



Inside the camera enclosure are some connections between the printed board and the camera body: do not tamper with them or use any connections other than those described in these pages.

ELECTRONIC CARD INTERNAL CONNECTION

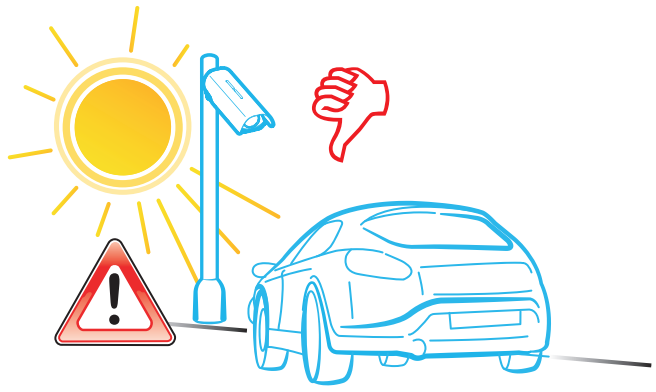
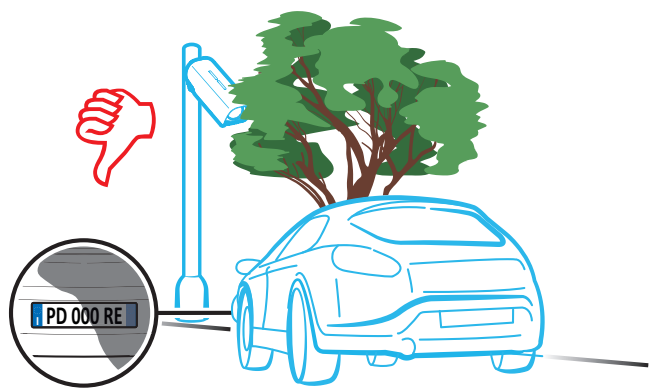

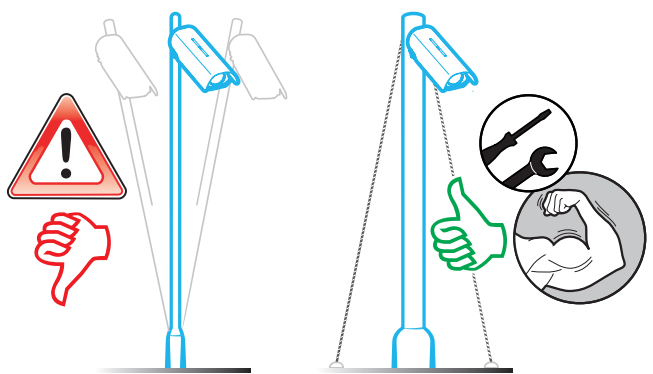
The image below shows the board with all the options installed, allowing for the use of all the variants of **Targa J-T760** discussed in this manual.



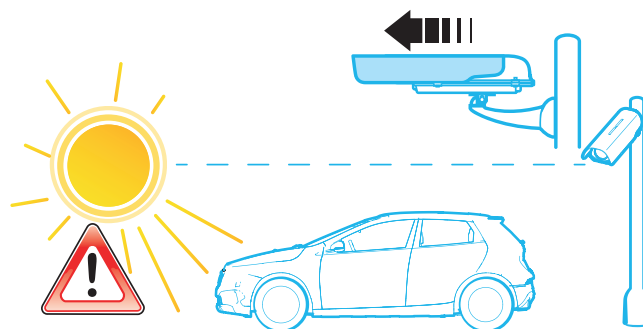
- A** External **25.3Vdc** power supply connector.
Use power supplies of at least **50W/camera**.

RECOMMENDATIONS FOR BETTER INSTALLATION

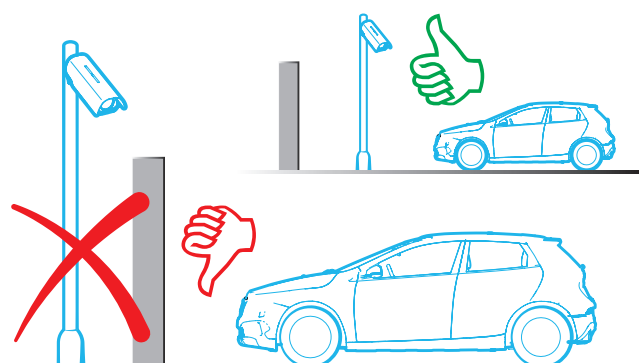
The following suggestions have been compiled based on feedback from our installers, who have experienced issues similar to those that you may experience. Following these suggestions can make calibration much easier, helping you to obtain the best from your camera.

<p>Avoid as much as possible to install the camera with the sun at the back: sun light could reflect on the number plate, causing flare that could make it unreadable.</p>	
<p>Avoid as much as possible uneven shadows (e.g. trees, gates, poles, signs) only affecting part of the number plate (shadows affecting the whole number plate will not cause reading problems).</p>	
<p>Avoid gates, fencing, irregular pavements (for example cobblestones) in the frame: the interference caused could make it difficult to identify the number plates, making their reading frequency difficult.</p>	
<p>Make sure that the product is not prone to oscillations. In case of post installation, this should be of a large diameter, to prevent oscillations as much as possible. If using an already existing structure (for example a lamppost), ensure stabilisation using tie rods.</p>	

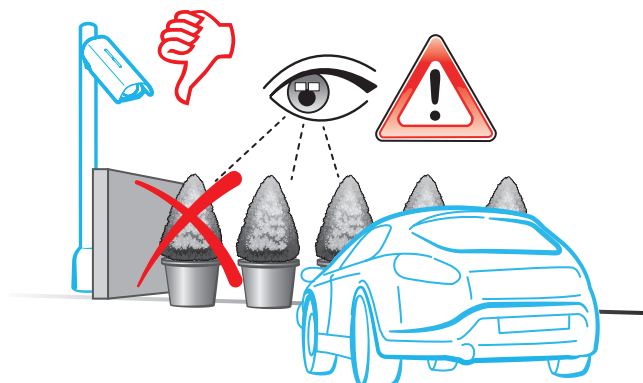
Adjust the sun shield of the enclosure so that when the sun is in front of the camera there is no interference with the image.



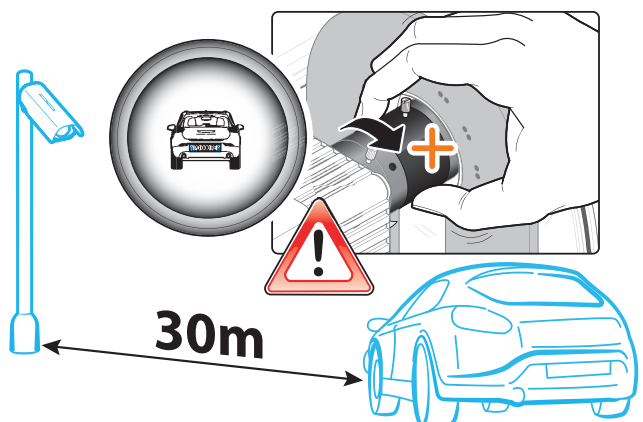
In case of accesses requiring front number plate reading, channel the vehicles and capture number plates when vehicles are still. Avoid positioning the camera much before the gate so that the number plate is captured while the vehicle is moving, allowing the gate to open when the car reaches the gate position.



In designing the access point, avoid the possibility of obstructions of the line of vision between the number plate reading position and the camera (for example plants sprouting leaves in spring, or in any case growing in front of the camera).



Always make sure that the number plate focus position is as far as possible from the camera. When moving closer focusing issues are minimised. When adjusting the focus, place a car at the selected position and make sure that the camera focuses on the number plate, rather than the pavement or background.



USING THE CAMERA

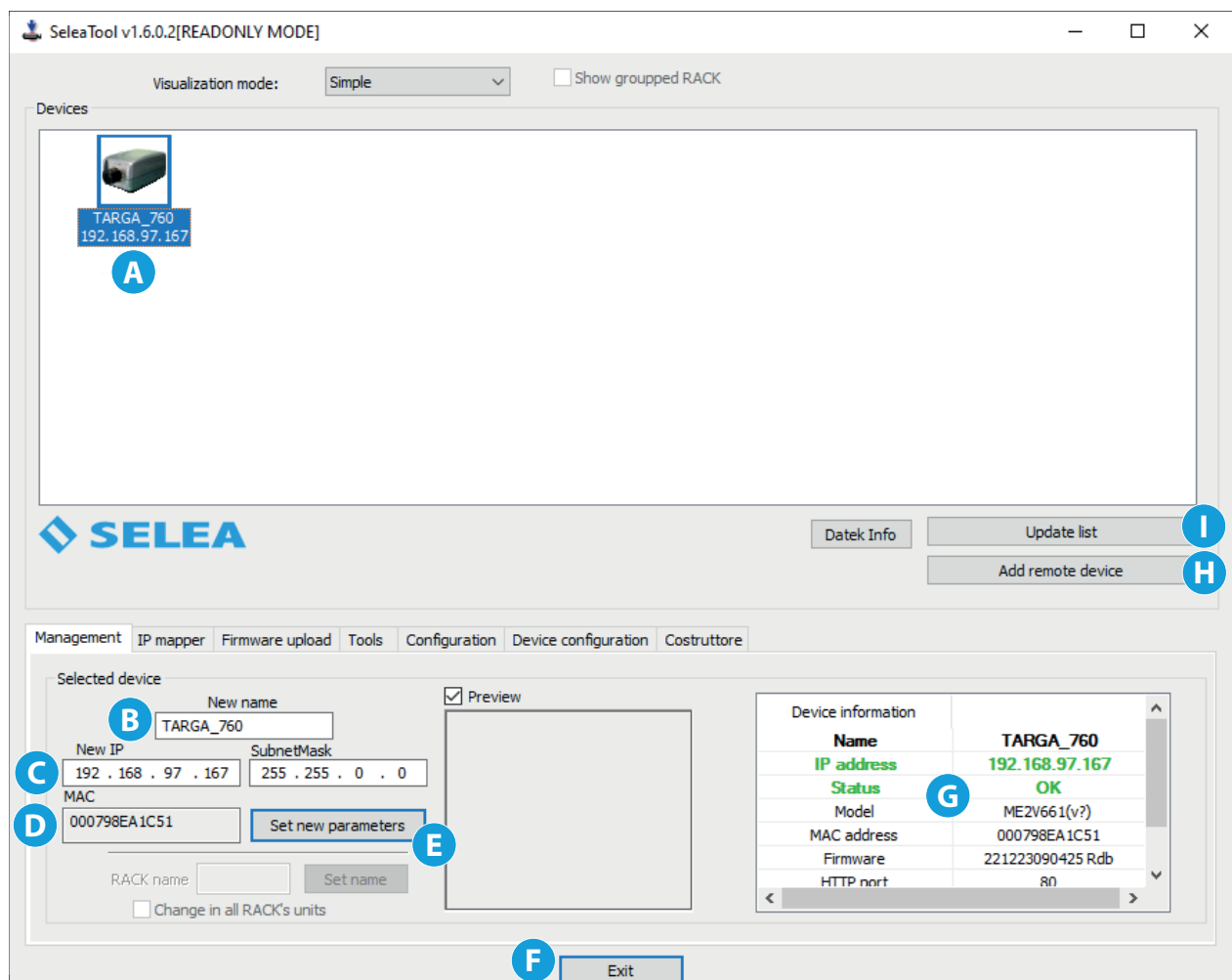
FIRST START-UP

In order to access the **HTTP** screen of the camera, make sure that the computer used is in the same **IP** class of the camera (**default 192.168.0.1** without access credentials). Any updated standard browser may be used. Before connecting and switching on the camera, make sure that the **Targa J-T760** default **IP** is not conflicting with other network devices (router, server, NAS, etc...) with the same **IP** address.

If your **IP** class is not compatible with the **Targa J-T760** default class, it will still be possible to reach the camera using the supplied **SeleaTool** software (download from https://dl.selea.com/download/9ekk/file/SeleaTool_1.6.0.2.exe): the camera will be identified using the **MAC address**, and can be selected in the software in order to assign a free network **IP**. When the firmware is restarted, it will be possible to access the camera using the Internet browser and continue the product customisation procedure.

Click "**Set new parameters**" to assign the new **IP** address to **Targa J-T760**, which at the end of the restart procedure will be shown in **SeleaTool** with a green border.

SeleaTool can also be used to scan the network for free **IP** addresses, to know the **IP** address of your computer, to update the firmware of **Selea** products, and much more.



- A** Window showing all the cameras of the network in which the software is installed.
- B** Window showing the model of the camera selected for **IP** address assigning purposes.
- C** Field used to assign the new **IP** address.
- D** Shows the own MAC address of the selected camera.
- E** Key used to confirm and therefore edit the new **IP** address that will be assigned to the camera.
- F** Key used to exit the software.
- G** General information regarding the selected camera.
- H** Key used to manually add a camera by entering its **IP** address and other network data.
- I** Key used to update the list of network cameras after the addition of a new device.

ACCESSING THE CAMERA FROM THE WEB

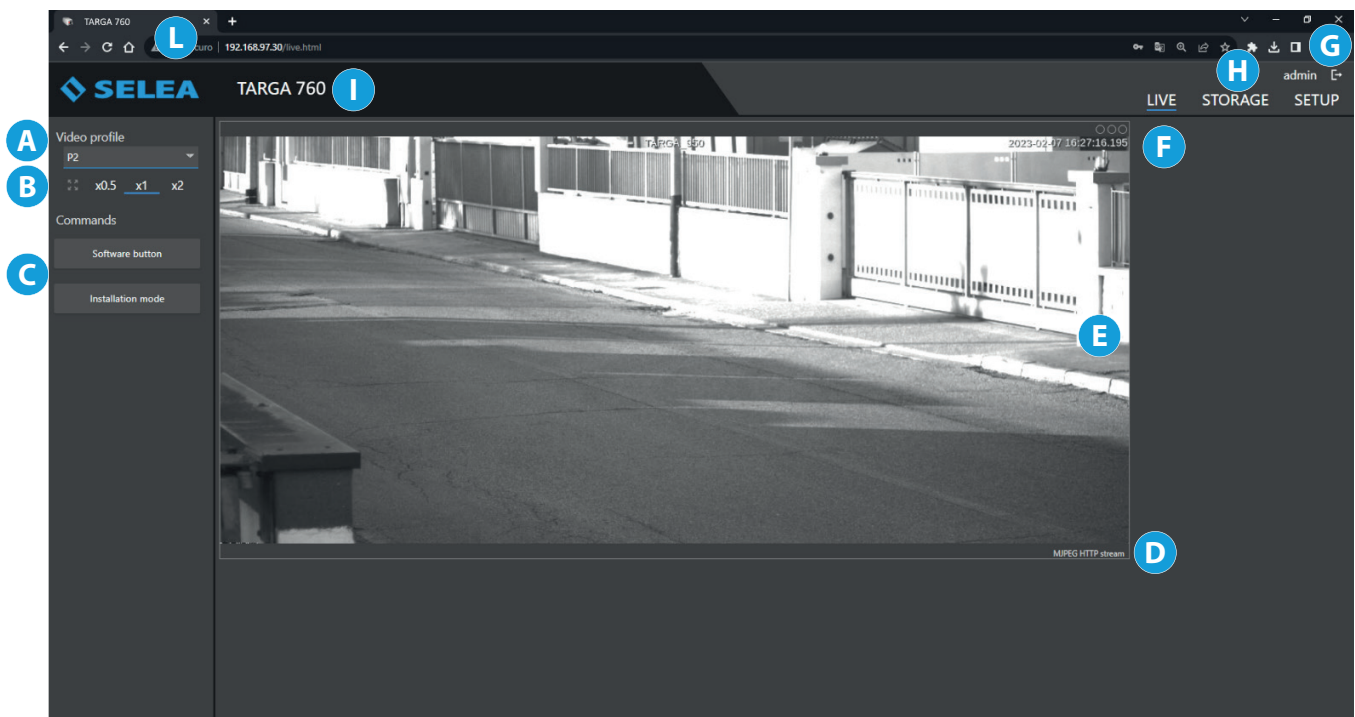
By entering the **IP** address assigned to the camera in the preferred browser, it is possible to access the home page (**Live page**) of **Targa J-T760**, which will immediately show the image currently being captured by the same. Google Chrome offers the best stability results.

Although not necessary, we also recommend the installation of a video playback software to improve image quality: currently available browsers (IE, Chrome, Firefox, Safari, etc...) only natively support **"M-JPEG Stream"** and **"JPEG Snapshot"**. Although these will allow to see what **Targa J-T760** is capturing, they produce significant network traffic. Moreover, with **"JPEG Snapshot"** playback may not be **smooth**.

The new **Targa J-T760** host has been fully redesigned to make the product more intuitive. Menus are sorted by topics based on the functions and the parameters most used during configuration.

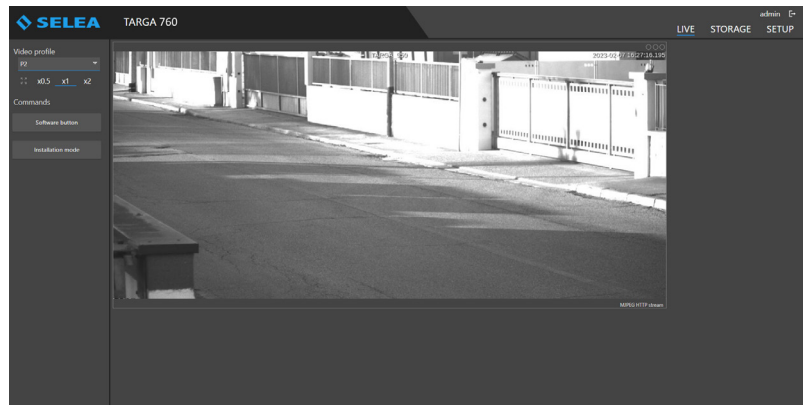
However, in order to make the most of the product, we recommend that you fully read this manual, which provides a clear and practical explanation of how thanks to the flexibility of its host, **Targa J-T760** can be suited to several installation solutions.

LIVE MENU

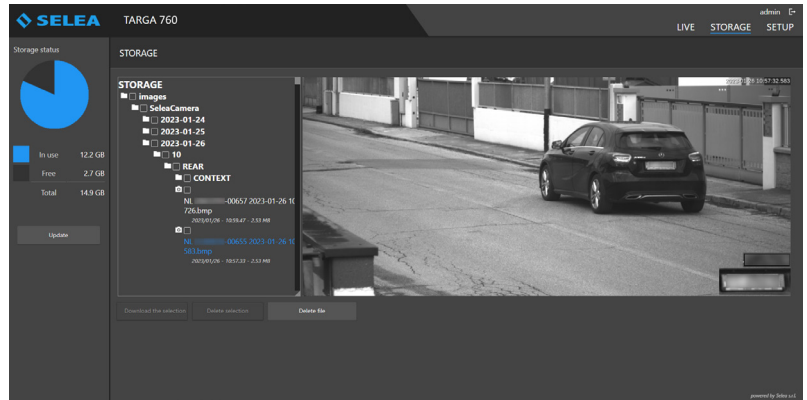


- A** This button will display a drop-down menu for the selection of the video profile; three alternatives are available, based on the camera being used; **Number plate sensor (profile 1)** - **Number plate sensor (profile 2)** - **Context sensor (profile 3)**. The selected alternative will be shown in the **live-view** screen.
- B** The three buttons are used to set the size of the **live-view** area.
- C** Quick selection buttons:
 - the **"software button"** is used to perform an action configurable from the **EVENT MANAGEMENT** section in the **SETUP**.
 - the **"installation mode"** activates the software assistant in **Targa J-T760**, to help you with positioning adjustment and the focusing of the optical assembly. To leave this function, reload the camera **IP** screen.
- D** It indicates the video **codec** being used by the computer to decompress the video stream.
- E** **Live-view** screen.
- F** Current date and time.
- G** Button that allows the user to **log out** and return to the initial login page
- H** The three buttons are the main menu controls always visible in all the software screens.

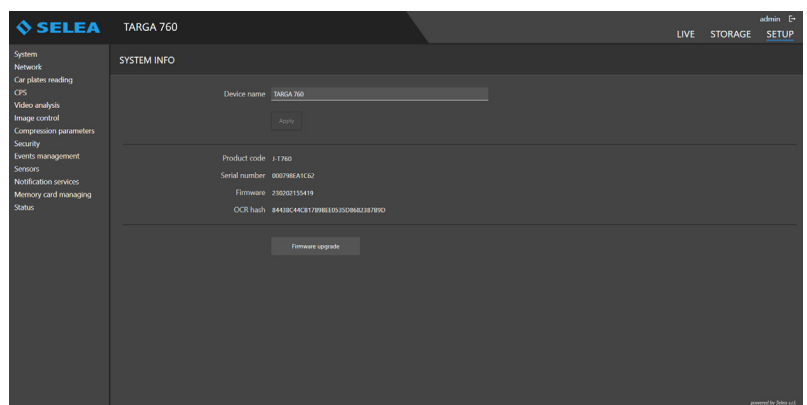
LIVE menu: This is the default screen that appears when the **IP** address of **Targa J-T760** is entered. The real-time images captured by the camera are also displayed here.



MEMORY menu: it can be used to access information stored in the **MicroSD** memory inside **Targa J-T760**: in specific, it makes it possible to display and upload/download snapshots and lists. It is possible to upload to the memory TXT files containing number plate lists (Windows notepad can be used as editor). In this case, it is important to make sure that each number plate has its own row and that no comments or other text are included.



SETUP menu: it can be used to customise many aspects of **Targa J-T760** so that it meets your needs as much as possible. As this product has an extremely high number of functions, the amount of items in the setup section is obviously very high, although not all of them will be required. In order to help you to remember their positions inside the setup section, the parameters have been sorted into pages and sub-pages: on the left of the screen are a number of pages, named based on the context in which the parameter is used. When a page is clicked, a drop-down window opens listing the sub-pages relevant for the topic of the page.



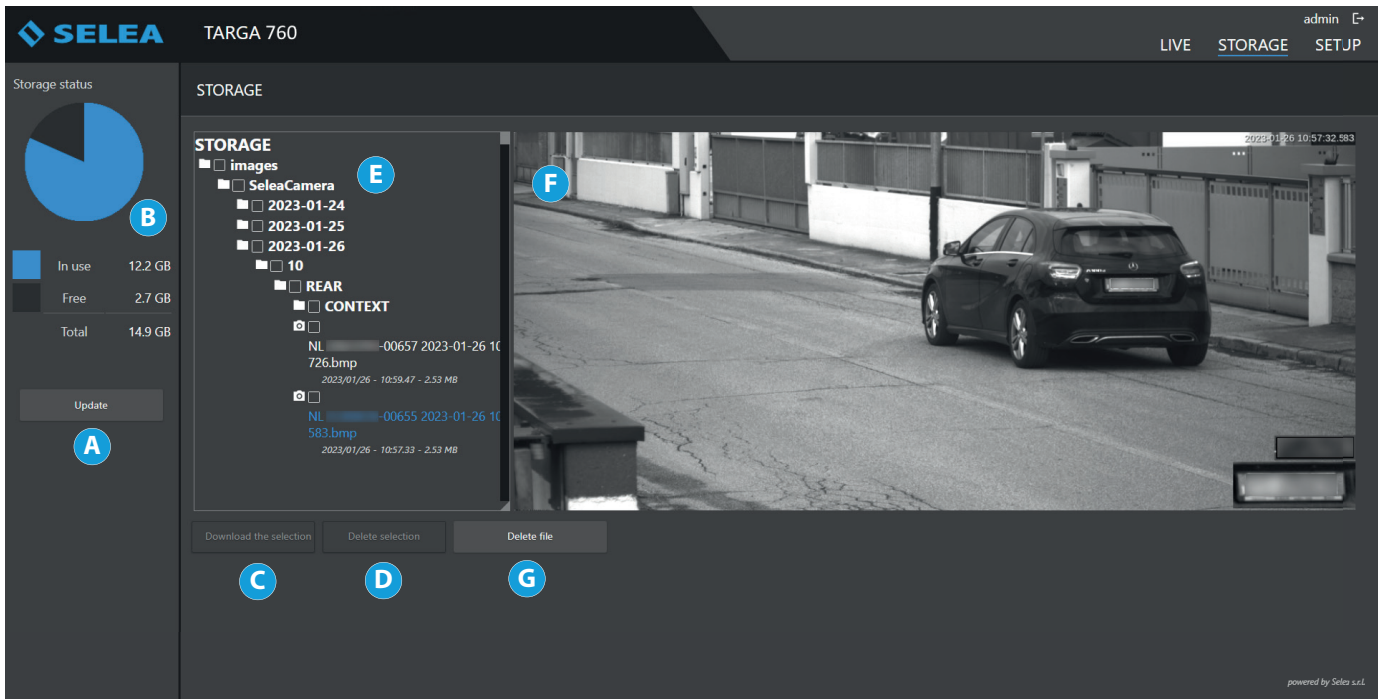
- I** This is the name assigned to the camera.
- L** **IP** address entered in the browser to connect to the camera.

MEMORY MENU

As previously indicated, it can be used to access information stored in the **MicroSD** memory inside **Targa J-T760**: specifically, it makes it possible to display and upload/download snapshots and lists.

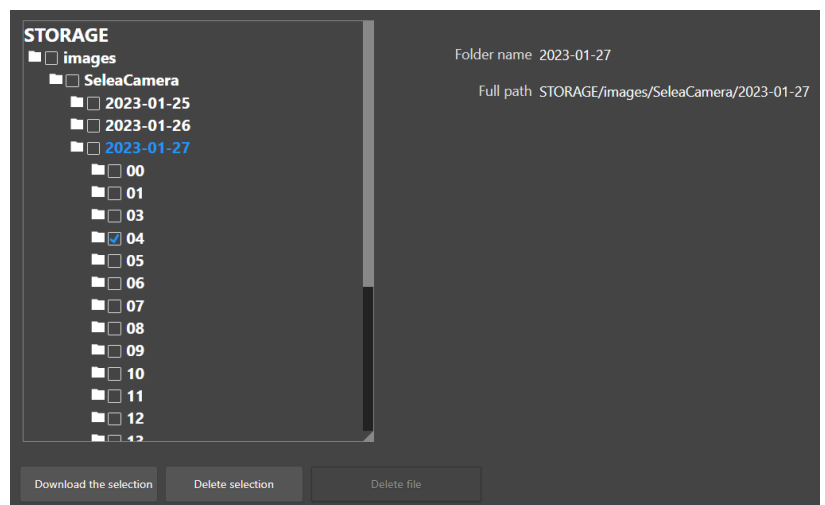
All the data are sorted into folders: the main folder is called **STORAGE**. Sub-folders will be named based on the capture **DATE**. Further level sub-folders will also be created based on the capture **TIME**. Lastly, there is also a **JPG** file, consisting of the captured number plate number, the sequential capture number, the exact capture time and date.

Select one of the **JPG** files in the list to display the image of the vehicle captured, with the number plate highlighted.



- A** Button used to update the list of the recordings made.
- B** It indicates the capacity and the free space of the memory card where the data is saved.
- C** Button used to download one or more selected data to the pc. The file will be saved in the selected browser file download folder and will take on the name of the camera, with the **“.gz”** extension.
- D** Button used to delete one or more selected files from the memory.
- E** List of the folders of the readings performed and saved by the camera.
- F** Image showing the vehicle captured by the camera, with the number plate highlighted.
- G** Button used to delete the individual selected file.

In order to download a whole folder relating to a group of captures, **“flag”** the folder and press **“Download the selection”**.



SETUP MENU

As previously discussed, this menu gives the possibility of customising **Targa J-T760**. This menu includes many functions and sub-functions, which may be available or not based on the needs of the user.

Below is an explanation of all the menu items, and the various functions.

We remind that all changes must be confirmed using the **“Save parameters”** button in the screens.

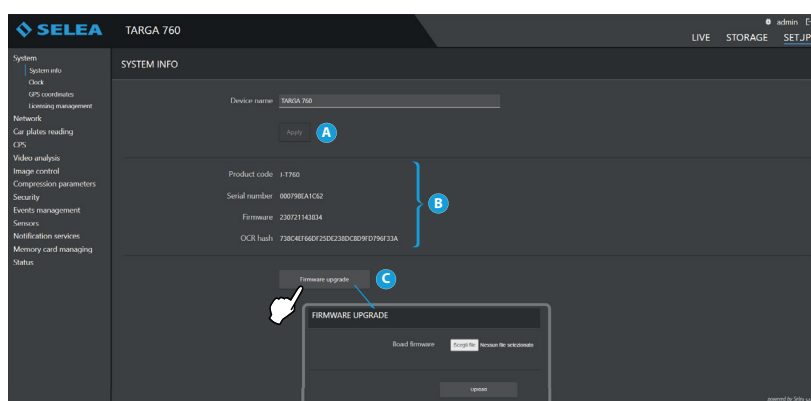
SYSTEM

Using this screen, it is possible to adjust the main system functions managed in the camera: these are split into four sub-menus: **Information - Clock - GPS coordinates - Licensing management**.

Information

It groups together all the product information, which can be useful in case of need of technical support from **Selea**.

- A** It is possible to change the name of the device, which will be displayed in the LIVE menu and used for notifications requiring the device name.
- B** Own camera data.
- C** Button used to update the camera firmware.

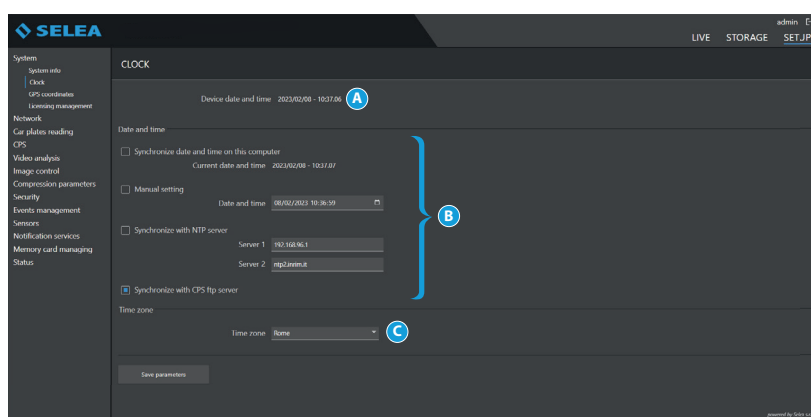


Clock

This is used to update the date and time of the device. It is important that these details are correct, as the metadata of the snapshots will include the date and time of the device! If they are wrong, the archiving software may store the snapshots incorrectly, making them difficult to retrieve, especially if planned automatic cancellations are active. In case of black-out, a battery keeps the date system active for at least one week.

Upon restart, date and time will automatically be restored.

- A** Date and time displayed in the LIVE menu.
- B** Date and time adjustment field. It can be the same as that of the computer where the camera is displayed, manually set, synchronised with an external NPT server by entering the IP address or synchronised with CPS FTP server configured in the Notification services section.
- C** Time zone adjustment field.

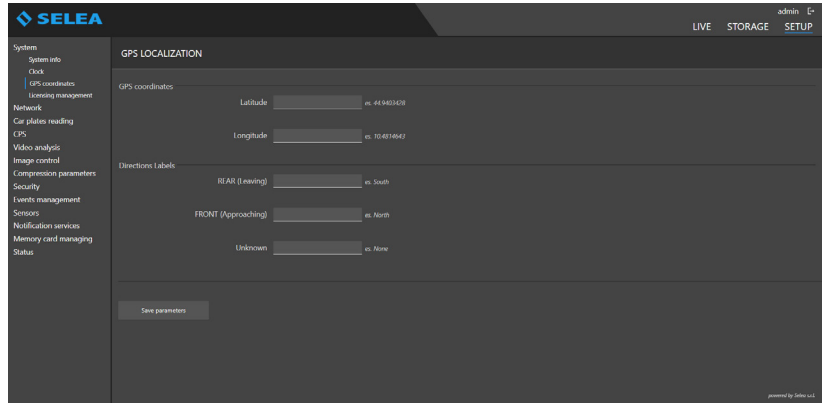


GPS coordinates

To assign the geographical coordinates for the installation: the snapshots will include the geographical details of the captured position.

In the **"latitude"** and **"longitude"** fields enter the values of the GPS coordinates in decimal format (e.g. 44.9403428 and 10.4814643).

In the **"REAR"**, **"FRONT"**, and **"UNKNOWN"** fields, custom labels can be entered to indicate the vehicle direction. The entered labels will replace the default ones in notifications.

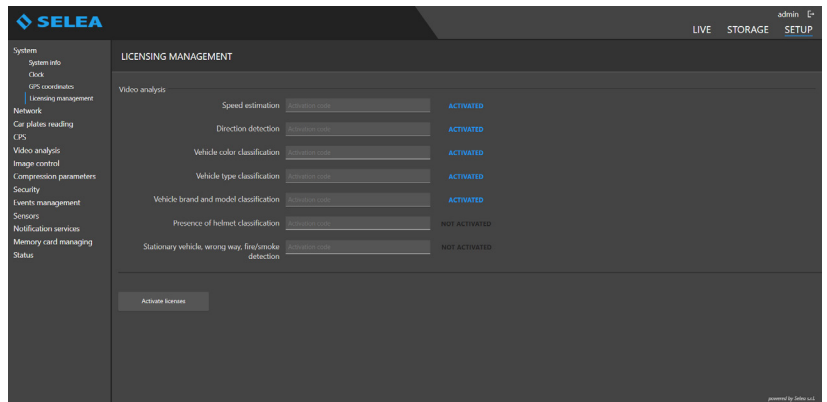


The screenshot shows the 'GPS LOCALIZATION' configuration page in the SELEA web interface. The left sidebar contains a menu with options: System, System info, Clock, GPS coordinates, Licensing management, Network, Car plates reading, CPS, Video analysis, Image control, Compression parameters, Security, Events management, Sensors, Notification services, Memory card managing, and Status. The main content area is titled 'GPS LOCALIZATION' and includes a 'GPS coordinates' section with input fields for 'Latitude' (value: 44.9403428) and 'Longitude' (value: 10.4814643). Below this is a 'Directions labels' section with input fields for 'REAR (Leaving)' (value: es. South), 'FRONT (Approaching)' (value: es. North), and 'Unknown' (value: es. None). A 'Save parameters' button is located at the bottom of the configuration area.

Licensing management

It displays the status of the video analysis licenses active on the camera.

It also allows you to activate any inactive licenses if you have the activation code.



The screenshot shows the 'LICENSING MANAGEMENT' configuration page in the SELEA web interface. The left sidebar is identical to the previous screenshot. The main content area is titled 'LICENSING MANAGEMENT' and includes a 'Video analysis' section with a table of licenses. The table has columns for the license name, the activation code, and the status. The licenses listed are: Speed estimation, Direction detection, Vehicle color classification, Vehicle type classification, Vehicle brand and model classification, Presence of helmet classification, and Stationary vehicle, wrong way, fire/mobile detection. The first six licenses are marked as 'ACTIVATED', while the last one is marked as 'NOT ACTIVATED'. An 'Activate licenses' button is located at the bottom of the configuration area.

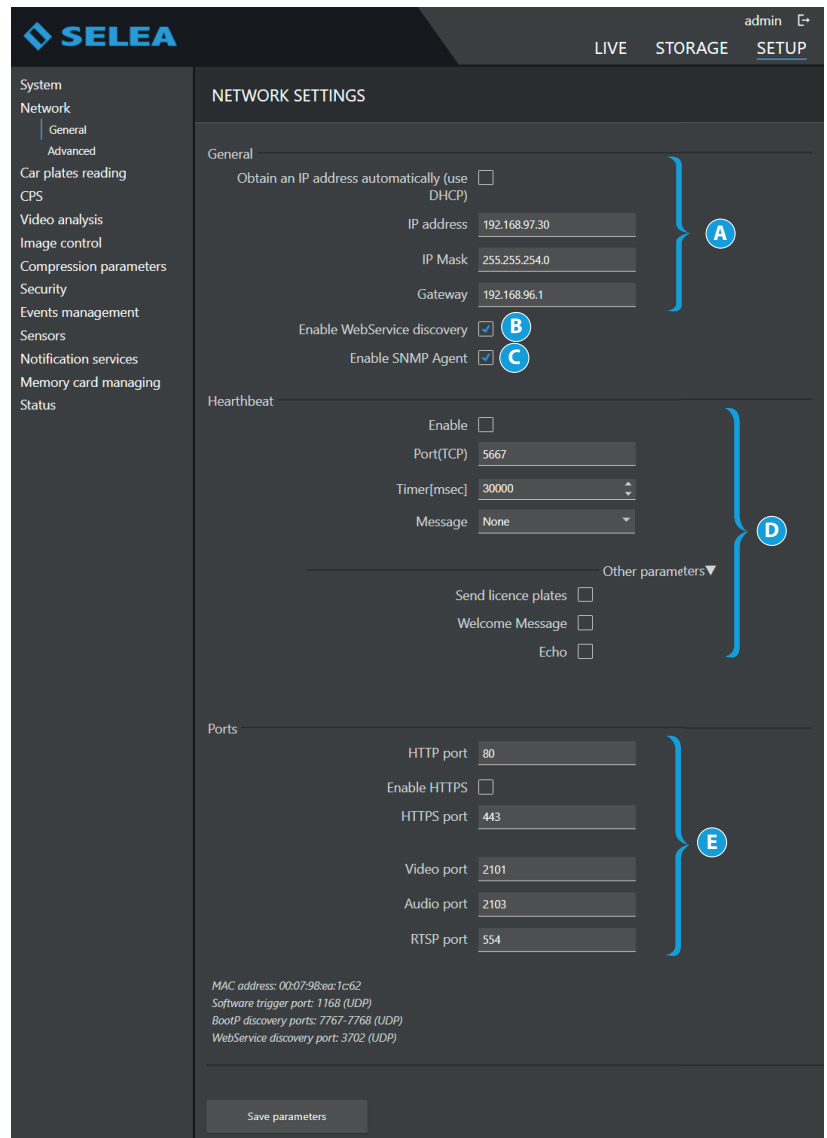
License	Activation code	Status
Speed estimation	XXXXXXXXXX	ACTIVATED
Direction detection	XXXXXXXXXX	ACTIVATED
Vehicle color classification	XXXXXXXXXX	ACTIVATED
Vehicle type classification	XXXXXXXXXX	ACTIVATED
Vehicle brand and model classification	XXXXXXXXXX	ACTIVATED
Presence of helmet classification	XXXXXXXXXX	NOT ACTIVATED
Stationary vehicle, wrong way, fire/mobile detection	XXXXXXXXXX	NOT ACTIVATED

NETWORK

General

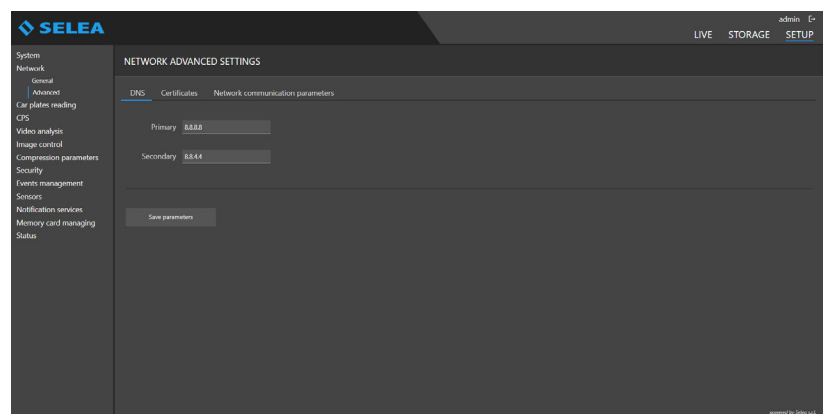
It can be used to change/set the camera network configuration.

- A** Assigning parameters for the configuration of the camera within the network; Selea discourages from using the DHCP method if the product must interact with CPS or other software whose addressing is indeed based on the assigned IP.
- B** If enabled, it will project on your network information regarding its configuration and potentials, also making it visible to ONVIF standardisation compatible software programs (Open Network Video Interface Forum).
- C** Enabling the SNMP agent will allow the server and network device manager to monitor network usage and keep track of important issues such as uptime and other device parameters.
- D** If enabled, it allows you to monitor the correct functioning of the camera which will send messages to your client (Telnet) with customizable frequency on the specified TCP port.
- E** On the other hand, port customisation will only be necessary in the specific cases when Targa must interact with not particularly flexible third-party software, or when such requests are already used by other systems. These values are assigned by default and can be modified. We remind that the same ports must be configured on the router to which the camera is connected.



Advanced-Dns

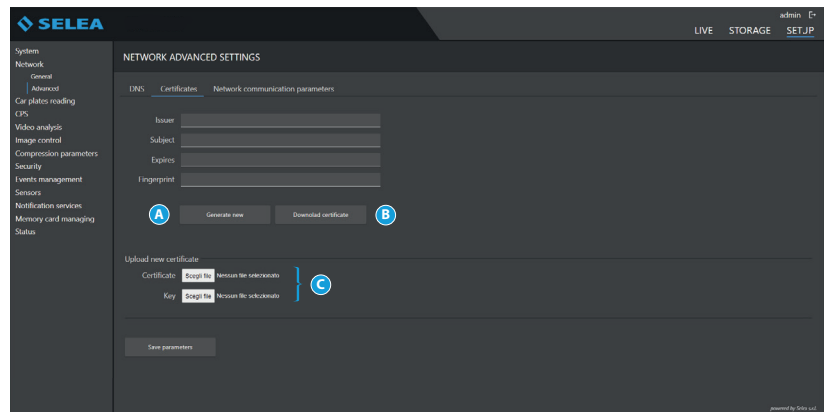
If the camera must use the Internet, make sure to enter any DNS server parameters.



Advanced-Certificates

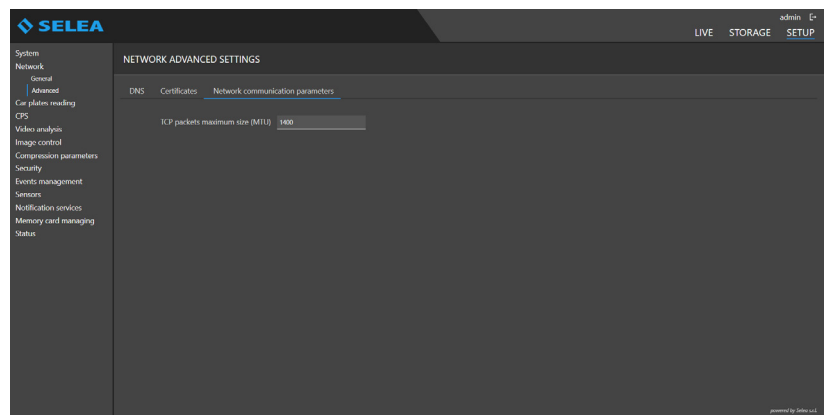
From here it is possible to insert an SSL certificate to guarantee an encrypted and protected connection between camera and client.

- A** Allows you to automatically generate a self-signed certificate guaranteeing a secure connection to the camera.
- B** Allows you to download the installed certificate which can be used to configure a client to accept the connection only from this server.
- C** Allows you to upload a certificate authenticated by a certification authority



Advanced-Network communication parameters

It can be used to change the size of the packets to sizes smaller than the standard one for Ethernet networks, sometimes used in VPN or mobile connections. This modification makes it possible to avoid packet fragmentation and the introduction of unwanted latency in the reception of the same. Before changing this parameter, it would be appropriate to measure the transmission line MTU, or the smallest MTU of any of the connections making up the "transmission route" from the iZero address to the destination address. In other words, the transmission MTU is the largest MTU value that may travel through the path without further fragmentation.



CAR PLATES READING

General

Here you can adapt the operation of the **OCR** on board of the camera to your specific needs, taking however into account that the default settings are those that Selea considers the most appropriate in most situations.



SELEA admin ⌵

LIVE STORAGE **SETUP**

System
Network
Car plates reading
 General
 Visualization
 Exposure
 Illuminator
 Context camera
 Processing area
 Countries
 Setup context
CPS
Video analysis
Image control
Compression parameters
Security
Events management
Sensors
Notification services
Memory card managing
Status

CAR PLATES READING SETTINGS

Enable car plates reading ☒ **A**

Tipologia algoritmo Version 3 (deep learning) **B**

Reading parameters

Minimum reading confidence 70 % **C**

Minimum car plate length 5 characters **D**

Minimum characters height 15 (20-30 px) **E**

Disable two lines processing car plates ☐ **F**

Ignore read car plates on image edges ☐ **G**

Abilita notifica per targhe non lette ☐ **H**

Fake codes detection Advanced **I**

Enable multiple codes reading ☒ **L**

Enable white on black reading ☐ **M**

Enable russian plates reading ☐ **N**

Enable arabian chars reading ☐ **O**

Transform 'O','U' in '0','U' ☐ (ex. 18 JP67 → 10 JP67) **P**

Kemler codes reading priority ☐ **Q**

Type of reading Kemler Front **R**

Send the reading through serial port don't send **S**

Mode of operation weighted **T**

Time window 30 sec

Readings count 10

Enable OCR on external signal ☐ Other parameters...

Reading control Error tolerance **U**

Maximum errors number 1

Save parameters

powered by Selea s.r.l.

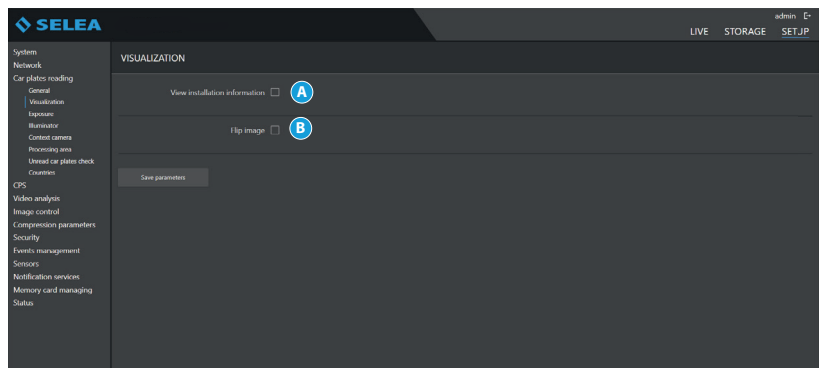
- A** With the “flag” ticked, number plate reading is enabled. Otherwise the camera will work in video surveillance mode. It is recommended that reading is disabled in case of system debugging.
- B** It allows to select the type of license plate reading algorithm used by the **Targa J-T760**.
- C** Percentage confidence value for the recognition of the character analysed by the system **OCR**. In case of no recognition, the “~” character is assigned. A maximum of two characters per number plate may not be recognised.
- D** This sets the minimum number of characters of the captured reading for it to be considered a number plate. We remind that the new Italian number plates have 7 digits (AA 123 BB).
- E** This parameter is useful, for example, to discard number plates marginally framed in relation to the main search area (for example to filter opposite lane front number plates, smaller in case of road check points).
- F** If enabled, it excludes the reading of number plates on two rows (for example motorcycles or old off-road vehicle number plates). It decreases the reading field, particularly when reading is only required for the front number plate.
- G** It gives the possibility of avoiding the reading and forwarding of incomplete number plates that still exceed the minimum set length, particularly when vehicles are travelling at slow speed, such as when crossing accesses. Before sending the number plate, the camera waits for the last consecutive character to move away from the edge of the framed area by a distance sufficient to assume that there will not be further characters that may be considered part of the number plate during the analysis. However, this function also entails that even if complete, the number plate will only be captured once it moves away from the image edge, as **Targa J-T760** waits for the possibility of further characters.

- H** If enabled, it allows notifying detected license plates whose characters could not be read.
- I** It identifies in a way other than **"UNREAD"** badly read number plates from advertising signs, or other captured items:
Standard: the snapshot is classed as **"UNREAD"**
Advanced: the snapshot is classed as **"unread_fake"** as the text detected cannot be part of number plate.
Disabled: the reading is not discarded from the processing and anything recognised as text will be classed as a possible number plate.
- L** If enabled, in case of contemporary transit of two vehicles (e.g. dual lane captures, rear number plate + front number plate of the vehicle on the other lane or lorry number plate + trailer number plate, or vehicle + kemler number plate) several separate notifications will be sent (active by default).
- M** If enabled, it allows the reading of the old or foreign number plates with black background and white characters.
- N** If enabled, it allows the reading of Russian number plates.
- O** If enabled, it allows the reading of number plates with Arabic characters.
- P** If enabled, it allows you to transform the characters 'ö', 'ü' into 'O', 'U' in the notification phase.
- Q** If enabled, it allows reading Kemler codes (for example signs on the back or the front of a lorry).
- R** Use to set if Kemler codes must be read on the front, the back or whole of the vehicle.
- S** Used to also forward the captured number plate to the camera serial port, if required also coded in one of the formats indicated in the drop-down menu.
- T** Modification of the **OCR** behaviour in relation to time:
Continuous reading: OCR always active and continuous search of possible number plates within the frame.
 How long the same number plate can remain in the frame before the camera records it as new must be indicated in the **"time window"** field below.
Enable OCR on external signal allows you to enable license plate reading in the selected mode as long as the configured input is active (also valid for weighted and redundant reading).
Weighted: in this case multiple readings of the same number plate are carried out, and recognition is validated (and possibly an event is generated) only if at least 50% of the readings are consistent. Function recommended in situations when vehicles move slowly or stand still for a few seconds in front of **Targa J-T760**, allowing the capture of a sufficient number of samples. The number of subsequent readings is specified in the field below.
External trigger: the **OCR** is only interrogated when the vehicle produces an input on the camera inputs (due to loops or other devices), even some milliseconds before (thanks to the capture pre-trig field). The **"time window"** field makes it possible to set for how long the same number plate can remain within the capture area before being considered new. It is in fact not necessary for the activation loops to be exactly at the capture position: they could indeed be positioned before. If no number plate is detected for the triggered event, the image is nevertheless sent with the label **"TRIGGER"**.
Redundant reading: it helps to further improve reading reliability. The number plate is only logged after reading a second consecutive frame after the first one, applying statistical criteria in order to ascertain which reading is more reliable. This function is not considered active if the **"Enable travel direction evaluation"** flag is also active.
- U** it gives the possibility of applying further software filters to the reading, for an even more reliable result.
No control: the number plate is read character by character, with the final result only containing the characters that have exceeded the confidence threshold set in the appropriate field (default 60%).
Syntax check: the reading algorithm will attempt to obtain a result consistent with the number plate syntax. In this way, there will be the a higher probability of obtaining complete readings of the characters of a number plate, and overlook any external characters.
Wrong character tolerance: as above, but allowing for syntax errors; the maximum number of errors, up to two, is specified in the field below, with the character not exceeding the confidence level set replaced by **~**.
 In this way, the number plate is still classed as **"read"** (although with errors).

Visualization

It groups those number plate reading parameters dealing with how the number plates will be presented to the observer.

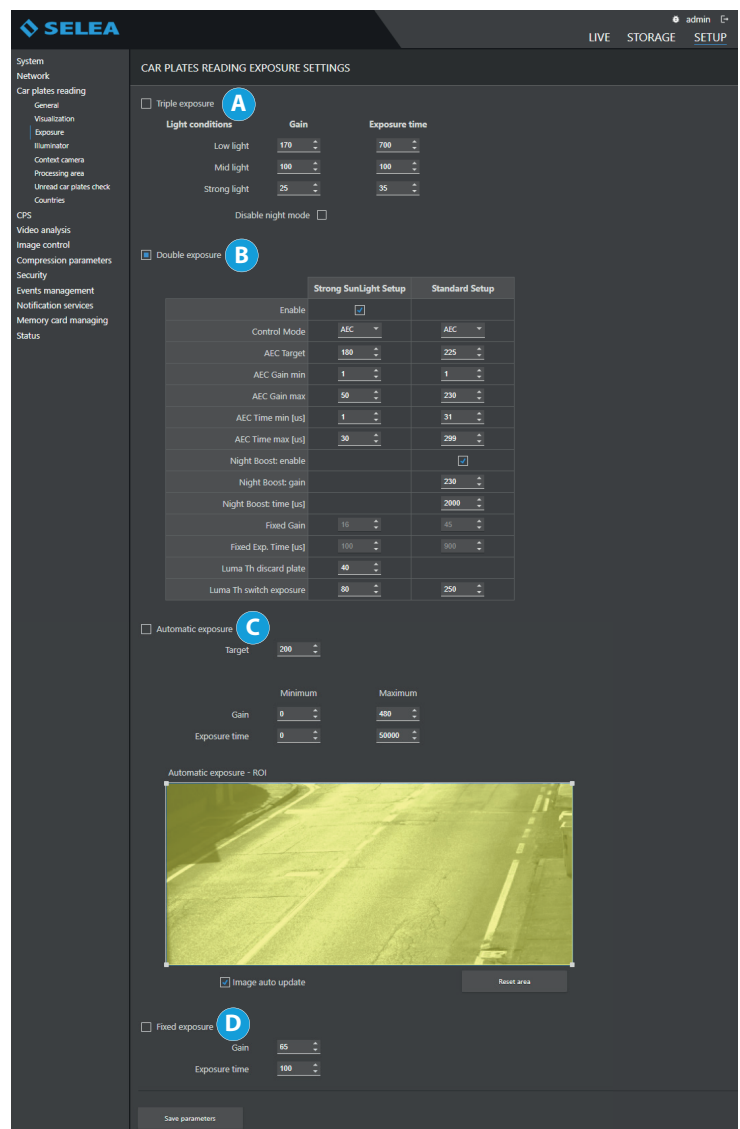
- A** This function facilitates the calibration of the optical assembly by inserting near the read number plate the height in pixels of the character and the focusing at the furthest point of the capture. To ensure optimal reading, the minimum character height must be at least 20 pixels. It will also be possible to ascertain that the focusing of the number plate is as good as possible. For this, it will be necessary to adjust the ring nut of the optical assembly to the highest possible focus value. To facilitate the procedure, during the rotation the highest captured value will be displayed in brackets for a few instants.
- B** It rotates the video capture by 180° in order to meet some installation needs, such as ceiling assembly.



Exposure

It can be used to adjust the parameters of the built-in high-speed sensor. It includes two automatic gain and exposure time adjustment modes, in order to help obtain an appropriate capture of the number plate in any external lighting conditions. The default parameters are optimised at the factory, and as a rule should not be changed unless recommended by **Selea** technical support service.

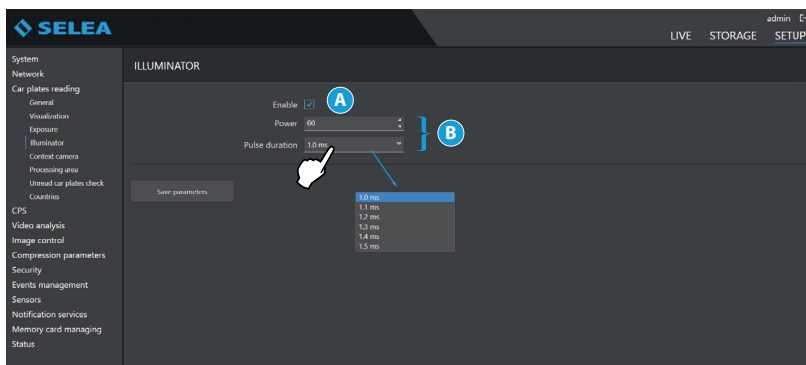
- A** **Triple exposure:** mode expressly devised by Selea to ensure the reading of number plates in any lighting conditions, including extreme (backlighting, sun reflecting on the number plate, etc...). It has a slight negative effect on the speed of the Live stream displayed. It adjusts the parameters of the sensor for the optimisation of the visibility of the number plate, overlooking the rest of the frame. To ensure optimum capture, reading trials are carried out with 3 different positions.
- B** **Double exposure:** mode expressly devised by Selea to ensure the reading of number plates in any lighting conditions, including extreme (backlighting, sun reflecting on the number plate, etc...) for the new OCR algorithm. It has a slight negative effect on the speed of the Live stream displayed. It adjusts the parameters of the sensor for the optimisation of the visibility of the number plate, overlooking the rest of the frame. To ensure optimum capture, reading trials are carried out with 2 different positions.
- C** **Automatic exposure:** useful during the installation in order to assess framing. However, it does not guarantee optimum number plate reading in all conditions.
- D** **Fixed exposure:** the exposure remains unchanged and set on the user's values.



Illuminator

It is important to remember that the **Targa J-T760** built-in high-speed optical sensor is an infrared sensor with visible light filtering optics. Therefore, in order to obtain visible images, the framed area must be sufficiently illuminated by infrared rays.

From the above, it is easy to understand that in order to ensure the correct operation of **Targa J-T760** the built-in light should never be switched off unless internal tests are being completed, or in case of out-of-range installation requiring additional **IR** light.



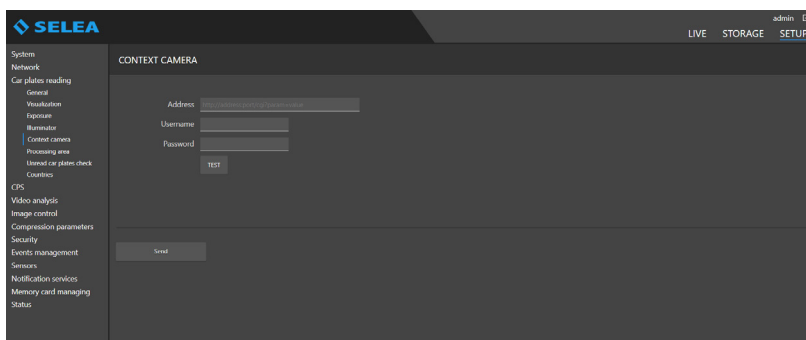
A Enable the function

B Modifiable values

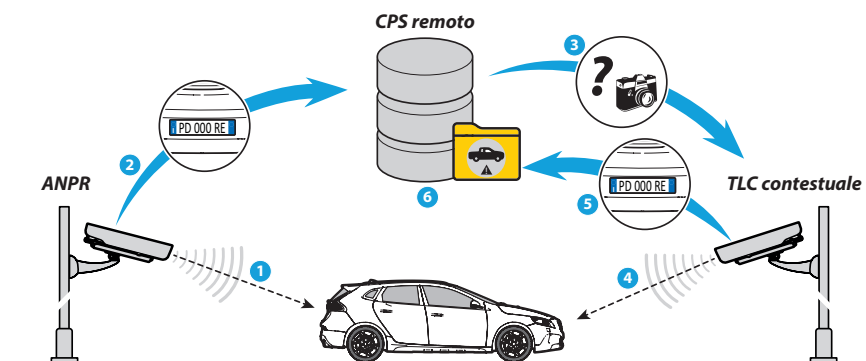
Context

it gives the possibility of configuring the acquisition of snapshots from additional cameras.

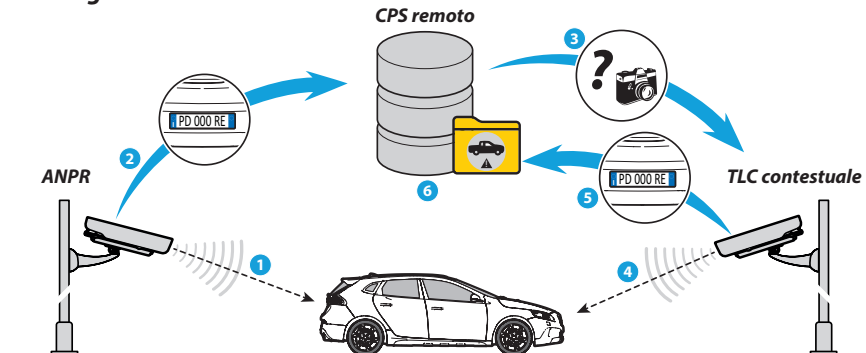
If your ANPR has a "double eye" function (integrated colour context camera), there could be two attached contextual images, indicating here the presence of a camera that captures the scene from a different point of view.



Standard CPS use



Targa J-T760 CPS use



As shown in the drawings, with **Targa J-T760** interactions between the capture position and the remote **CPS** server are greatly reduced to the advantage of the contextual frame capture speed and the reduction of band consumptions.

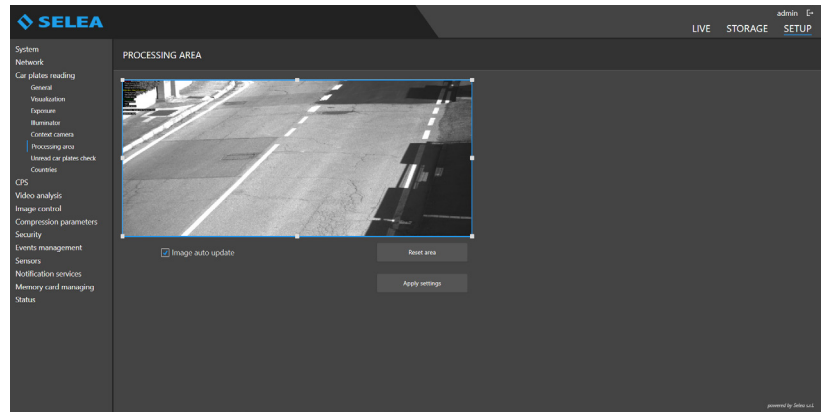
Processing area

It gives the possibility of isolating those parts of the video recording that could interfere with the correct identification of the number plates.

Some examples: screening the lane opposite the capture lane, to avoid the reading of unwanted number plates, removing rest areas from the field of view, preventing the algorithm from continuously searching for number plates from advertising signs or regular patterns such as fences or pavements, etc...

Move the mouse pointer on the green squares at the corners of the display area and drag them to the desired point.

The area outside the polygon will not be considered in the **OCR** video analysis.

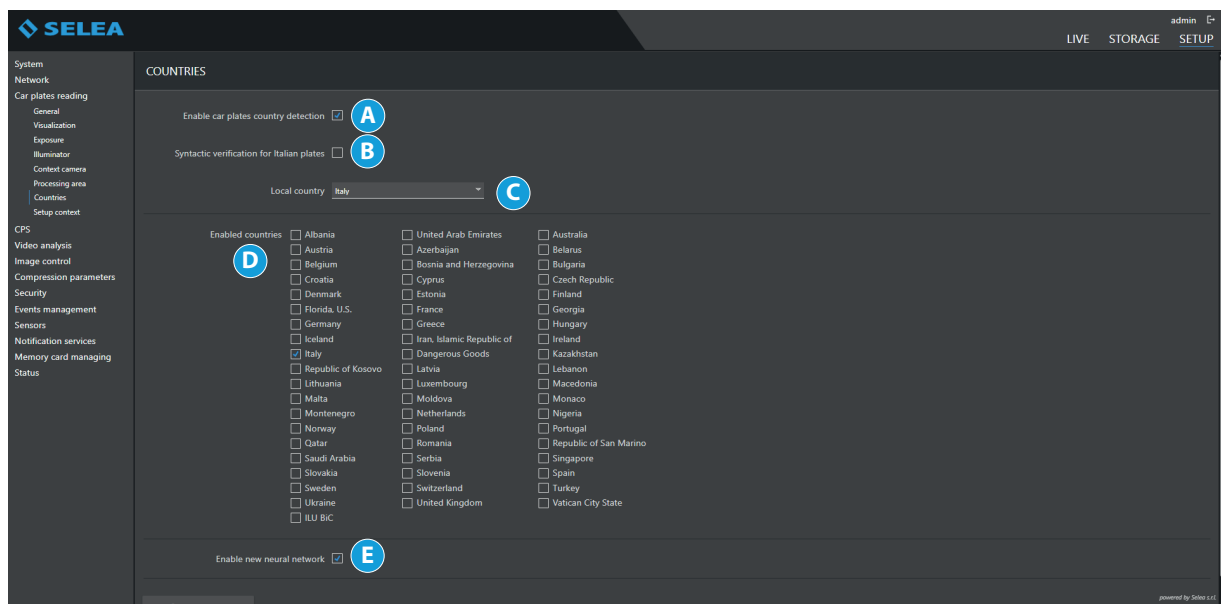


Countries

It allows to indicate the number plates of which countries must be recognised by the camera.

It is possible to select any number of countries as the same time without any impact on the overall performance of the camera.

It is however recommended that recognition of number plates from countries that are unlikely to transit through the area is not enabled. This is to avoid that a number plate with similar syntax is classed by mistake as belonging to an enabled unlikely country.



- A** Enable/disable the function.
- B** **Italian number plate syntax check:** it checks that the read number plate complies with the syntax rules of Italian number plates, applying any required corrections. If after the corrections the number plate still does not comply with such rules, it is discarded and labelled as "UNREAD".
- C** The country of installation of the camera must be indicated here.
- D** List of countries.
- E** It allows enabling nationality recognition through a neural network.

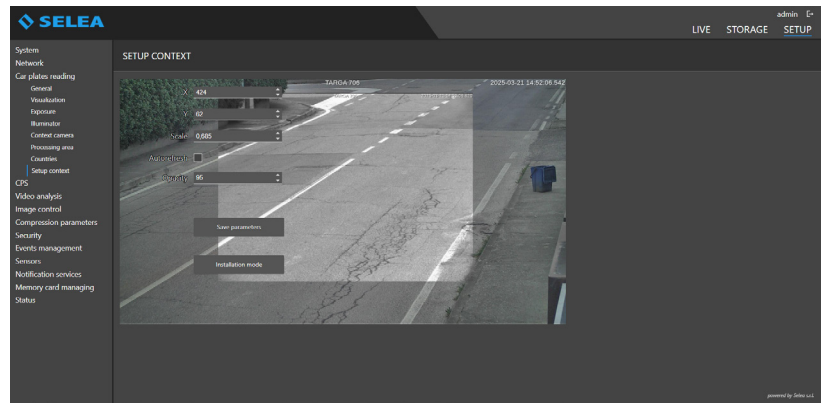
Setup context

It allows aligning the images captured by the two sensors in the camera to ensure greater accuracy in video analysis.

The color image remains fixed, while the OCR image can be adjusted using the following parameters:

- **X**: horizontal shift
- **Y**: vertical shift
- **Scale**: adjustment of the OCR image size

By overlaying these images, the accuracy of the video analysis performed on them is improved.

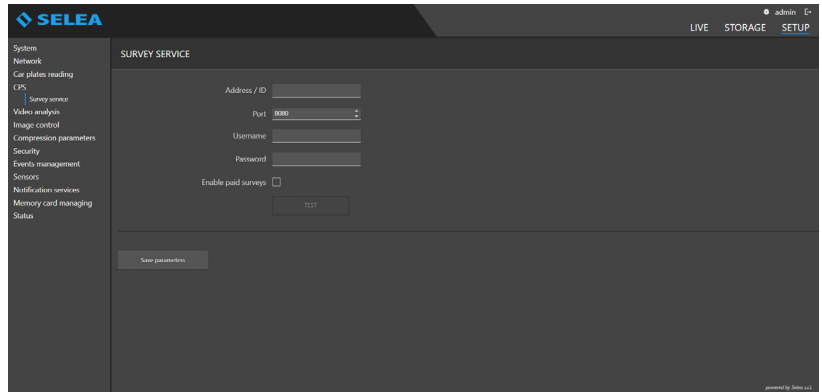


CPS

One of the most important new features of the **Targa J-T760**, giving the possibility of carrying out advanced checks on the number plate immediately after capture.

Survey service

It is possible to enter the address of a **CPS** service connected to remote **databases** (Transport or Home Offices, etc...) in order to complete the captured snapshot with information regarding the status of the read number plate. The added information will obviously depend on the database accessed by the indicated **CPS**.



The screenshot shows the SELEA web interface with the 'SURVEY SERVICE' configuration page. The left sidebar contains a menu with items: System, Network, Car plates reading, CPS, Survey service, Video analysis, Image control, Compression parameters, Security, Events management, Sensors, Notification system, Memory card managing, and Status. The 'SURVEY SERVICE' page has a dark theme and includes the following fields and options:

- Address / ID**: A text input field.
- Port**: A dropdown menu with '8080' selected.
- Username**: A text input field.
- Password**: A text input field.
- Enable paid surveys**: A checkbox that is currently unchecked.
- Test**: A button located below the 'Enable paid surveys' checkbox.
- Save parameters**: A button located at the bottom of the configuration area.

At the top right of the interface, there are tabs for 'LIVE', 'STORAGE', and 'SETUP', with 'SETUP' being the active tab. The SELEA logo is visible in the top left corner of the main content area.

VIDEO ANALYSIS

Allows you to set the parameters relating to the operation of the speed estimate of the vehicles in transit.

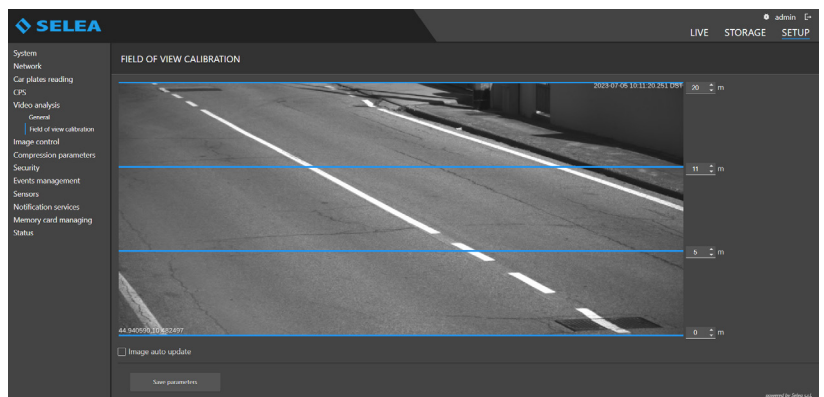
General

Allows enabling or disabling the integrated video analytics features of the camera.



Field of view calibration

Allows you to configure the calibration parameters of the field of view to obtain a correct estimate of the vehicle speed.



Setup lanes (optional)

It allows to outline the traffic lanes of vehicles by establishing their direction to detect vehicles traveling in the wrong direction.

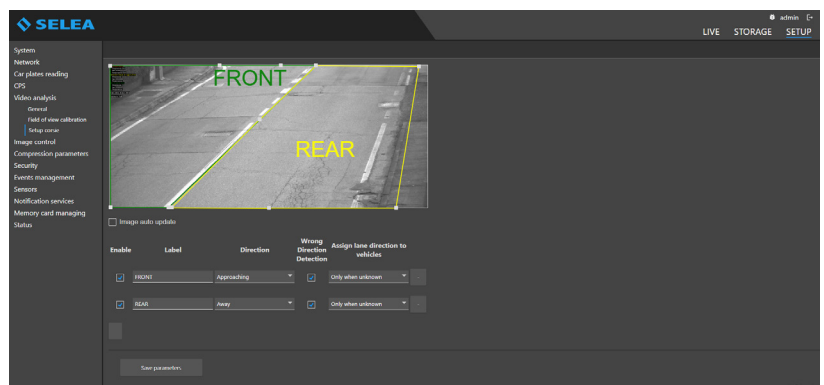
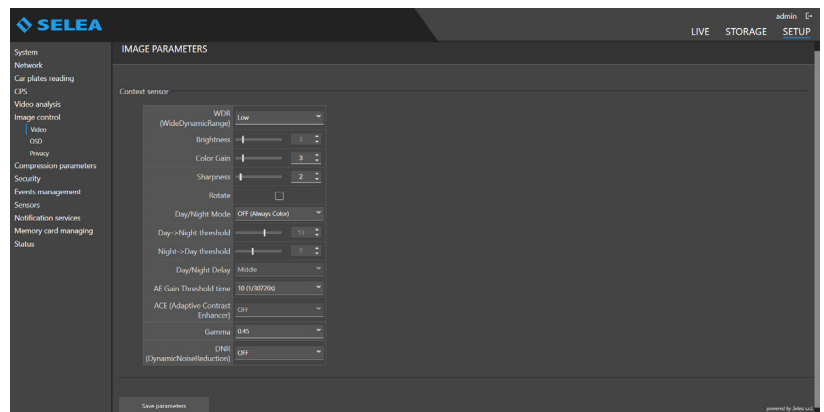


IMAGE CONTROL

Video

It can be used to set the parameters for the second **Targa J-T760** context digital sensor.



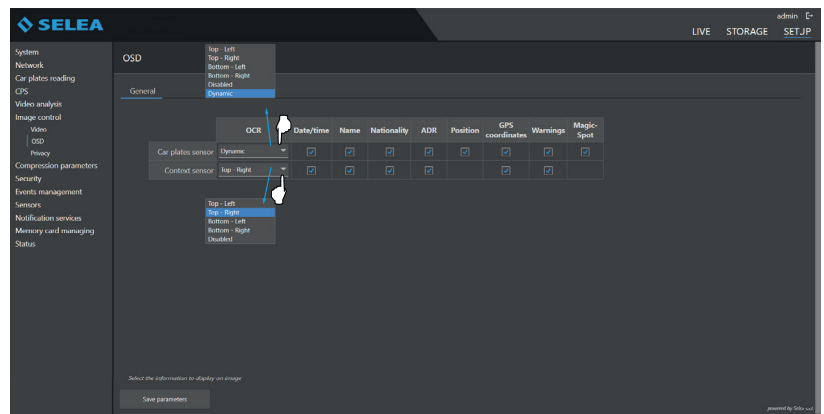
OSD

All the **Targa J-T760** models allow the superimposition of current date and time, and camera name.

The selection is possible for both the number plate sensor and the context sensor.

To enable the information to be displayed, the relevant box must be flagged.

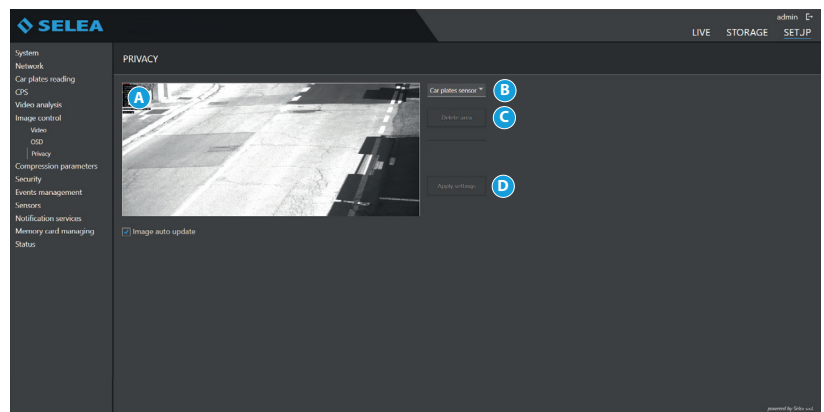
Furthermore, using the drop-down menu, it is possible to select the position where the information must appear with respect to the captured image.



Privacy

Using this function, it is possible to darken people's faces in the frame so that they do not appear in live-view, in the snapshots and any recordings. Number plates will still be read and stored.

- A** Frame on which to draw the face darkening rectangle.
- B** Selection of the sensor on which to enable the darkened area.
- C** **"Remove area"** key, to be pressed to remove the previously configured darkened area.
- D** **"Enable settings"** key, to be pressed after setting the darkened area.



COMPRESSION PARAMETERS

Video

Targa J-T760 manages 3 different streaming video profiles, which can be independently configured. The first profile refers to the video stream captured by the built-in high speed sensor, the second one always to the number plate sensor but configured differently and the third one to the video stream captured by the context sensor. The parameters that can be changed are the same for each profile, although their values will depend on the actual profile.

Resolution: to select the size of the supplied image.

Coding: it allows to select the type of compression applied to the video stream for each profile.

MPEG4 (default): the video stream is transmitted with less bandwidth.

H264: the video stream is of high quality and, thanks to its compression, is transmitted with a lower bandwidth.

H265: the video stream is of high quality and, thanks to its compression, is transmitted with a lower bandwidth.

Quality: allows you to select the quality of the images displayed with each profile from five levels.

Higher quality will entail higher band requirements and higher snapshot kb size. This may cause delays in transferring the images (depending on network and network traffic) and in uploading them to the hard-disks.

Coding control: it gives the possibility of specifying which parameters should be kept constant in case of network performance variations.

Band: in case of network channel quality decrease, the number of frames sent will automatically be reduced, although they will be of the quality selected by the user.

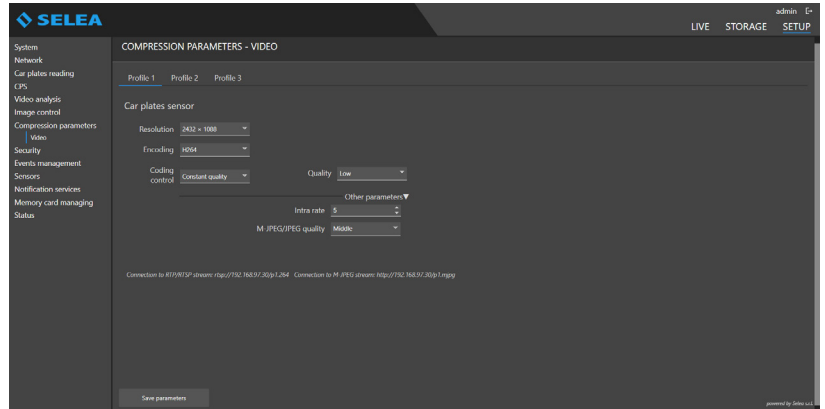
Intra rate: only for MPEG4 coding, it indicates the interval at which intra-frames are included in the video stream. Video streams compressed using the MPEG4 standard consist of two types of frames: intra-frame and p-frame. "Intra" frames contain a complete image, similar to a JPEG, and are also called "key frames". "P" or "predicted" frames do not contain a complete image, but only information regarding the differences between the current frame and the previous key frame. If subsequent frames are very similar to each other, this technique allows to reduce band usage whilst maintaining good image quality. It is however necessary to update the key frame at regular intervals, by including an intra-frame in the stream. The "Intra-Rate" field can be used to indicate every how many frames an intra-frame must be included. The more the distance between intra-frames, the more video stream compression will be possible, at least in almost static captures. However, it must be considered that when playing back a recorded video, the cursor may only be placed near key frames. Therefore, excessive distance between intra-rate frames may not be appropriate. An "Intra-Rate" of 100 is normally a good compromise.

Stream M-JPEG quality: changes the quality of the image you see by watching the live image via the browser

Snapshot JPEG quality: changes the quality of the snapshot that you can ask the camera for via HTTP command:

http://<IP_camera>/P<n>.jpeg, where n=profile number (1,2 or three for the context where provided)

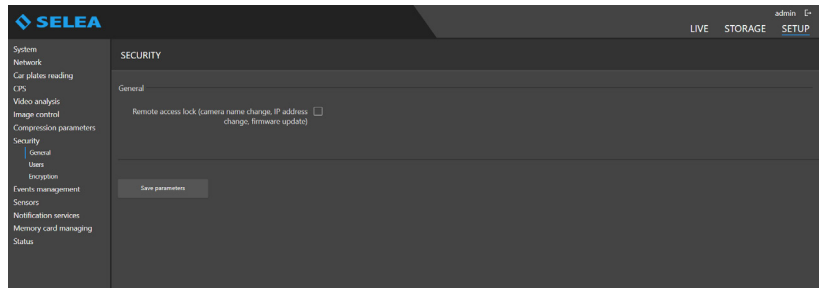
The HTTP call for the snapshot request can be made by a third-party software or simply by typing the command in the browser's address bar.



SECURITY

General

The remote access block for some functions is enabled/disabled.



Users

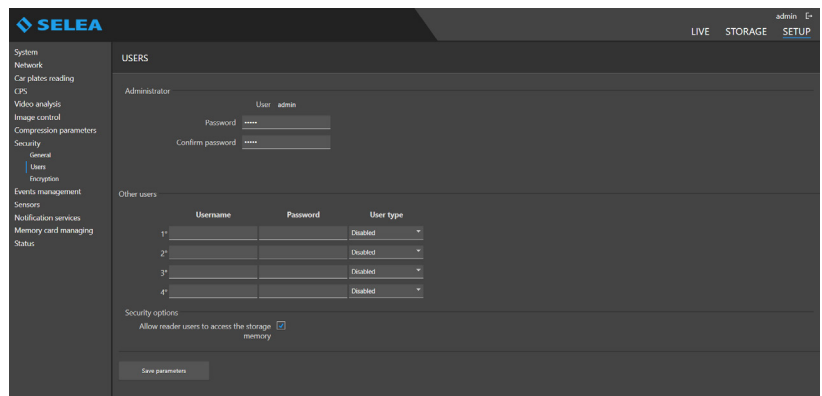
Camera viewing access credentials may be set with both **Administrator** and simple **User** authority.

Three **user** alternatives are available:

Disabled: the user cannot access the camera.

User: the user can access and view the camera, but not change parameters.

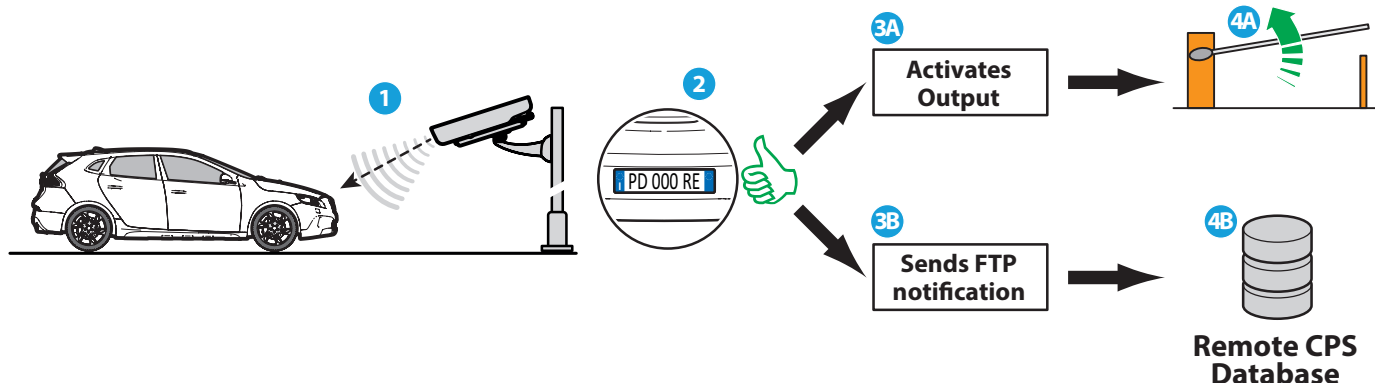
Administrator: the user has the same authority levels as the administrator.



EVENT MANAGEMENT

"Events" are physical or software situations foreseen or planned by the user, which trigger **Targa J-T760** to respond with an action that can be physical (activation of an output), software based (e.g. the forwarding of a notification), or both.

Example:



Number plate control list

This sub-page can be used to create/load inside the camera some number plate lists to associate with certain "actions", such as notification of passage, or activation of electro-mechanisms.

There are already two lists (WHITE LIST and BLACK LIST), in addition to the "OUTSIDE LIST". For each list, it is now possible to individually define a behaviour in relation to 3 types of possible actions; these are:

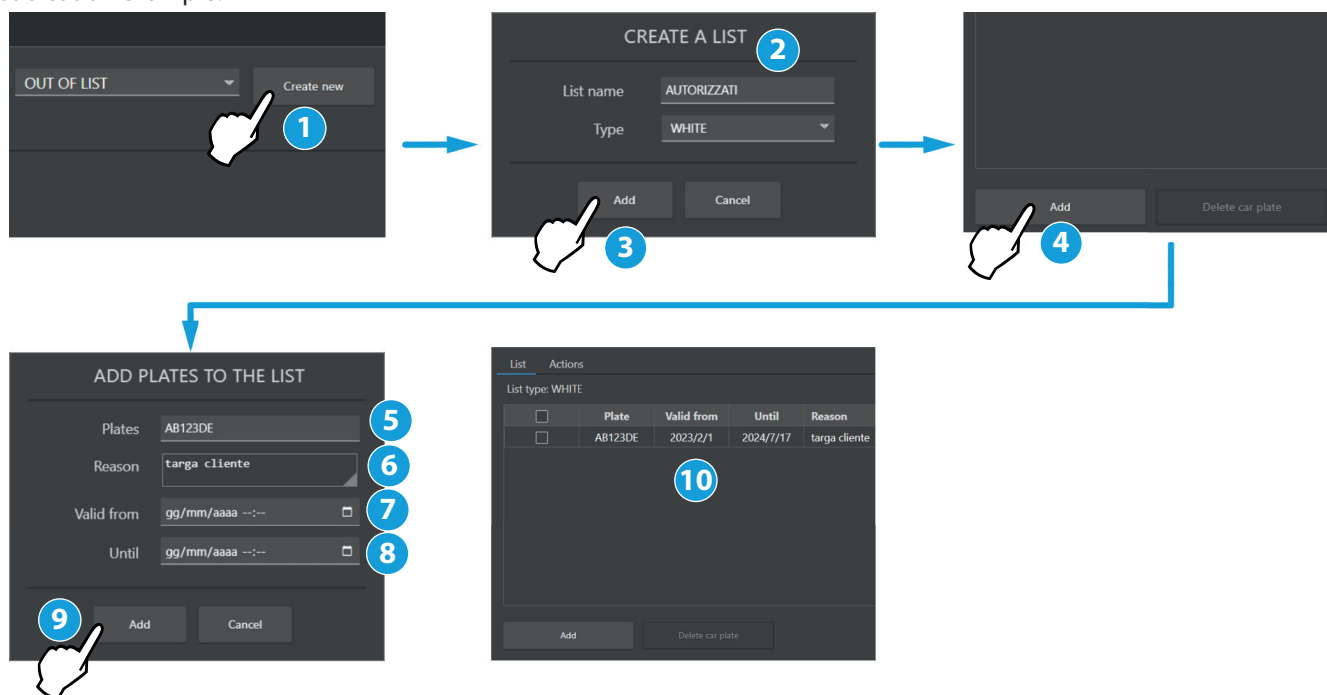
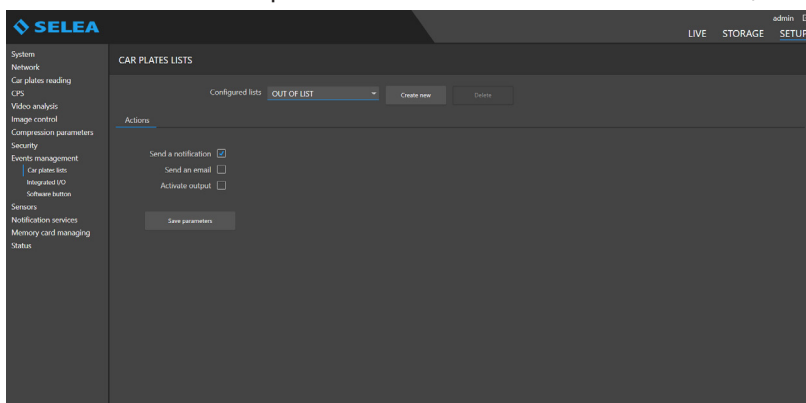
"send notification"

"Send email"

"activate output"

It is now also possible to create new lists, without number limit, although each created list must belong to one of the two permitted types, either "WHITE LIST" or "BLACK LIST", and can only generate one or more of the three types of actions contemplated.

List creation example:

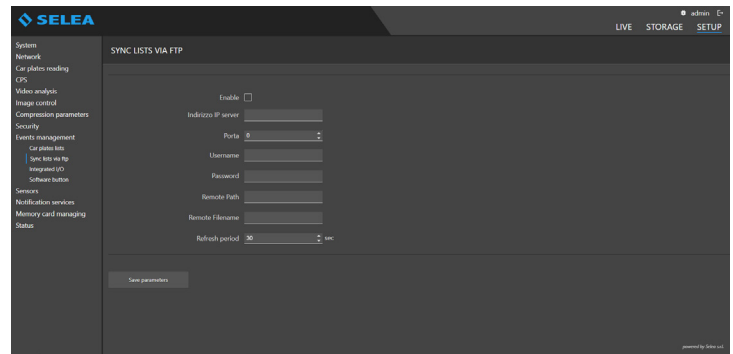


To delete a number plate, insert a "flag" on its side and click "delete" underneath.

To delete a list, select the list and click delete at the side.

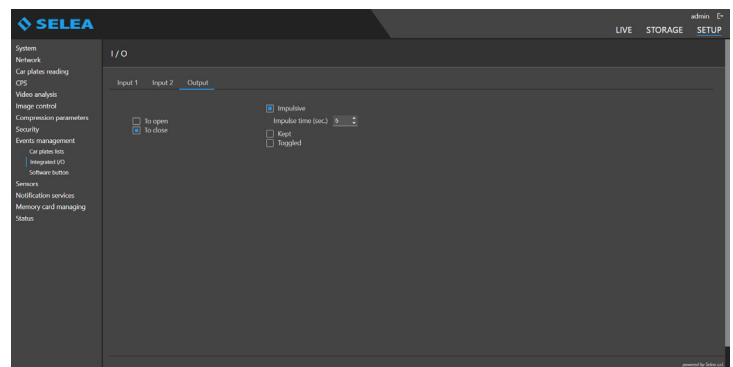
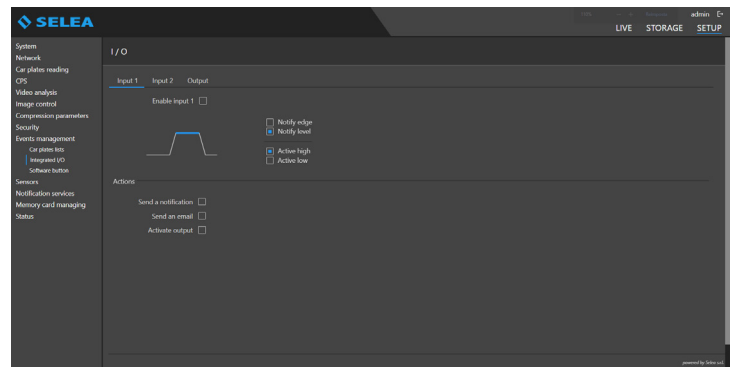
Sinc lists via FTP

Allows you to synchronize the **Targa J-T760** white/black lists with remote lists residing on an FTP server. It is necessary to indicate the complete IP address of the FTP server with the related port. Registered Username and Password must be those of the FTP user created on the FTP server. It is possible to enter the Remote path of the lists and the Remote file name of the remote list which can have the following formats: BLACK.CSV, WHITE.CSV to add the plates to the Targa J-T760 predefined black/white list or BLACK_LISTNAME.CSV, WHITE_LISTNAME.CSV for creating a new list named with the given name. The format of the license plates in the CSV files is as follows: PLATE; MOTIVATION; dd/mm/yyyy 00:00:00; dd/mm/yyyy 00:00:00;



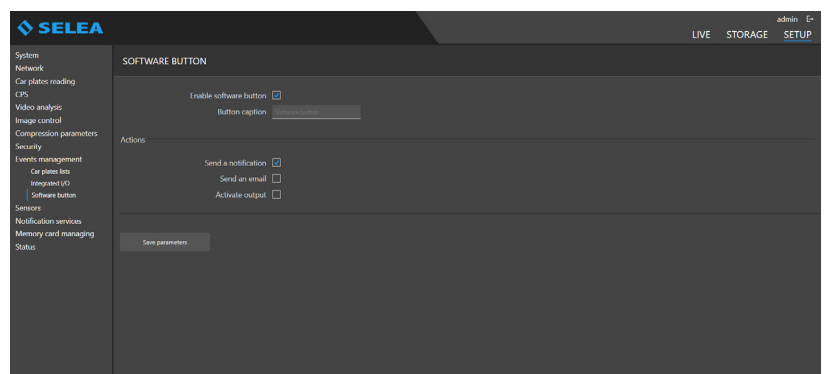
Integrated I/O

It can be used to configure the behaviour of the two digital inputs of **Targa J-T760**, meaning which electric variation must be detected to generate a reason for an event. It is possible to decide if the event must start on completion of the variation (level) or while the variation is being performed (front). To make things easier, **Targa J-T760** shows a drawing that indicates with a red dash which electric phenomenon will be the triggering event. Also in this screen, and solely to make things easier, we have included the behaviour that the digital output will need to maintain when used as response action to an "event".



Software button

It creates a "button" in the **home-page** of **Targa J-T760**, which when pressed generates an "event" (to which it will be possible to associate one or more actions, like for example the manual opening of the bar). A name may be assigned to the button in the field below.



SENSORS

General

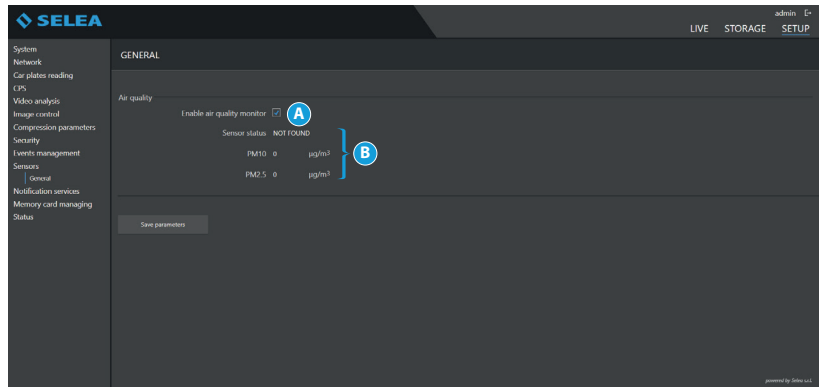
- A** Allows you to enable the air quality sensor, if installed on the camera.
- B** Shows the state of the sensor and the PM10 PM2.5 ($\mu\text{g}/\text{m}^3$) values detected on the last reading.

Sensor state can have three states:

OK: the sensor is enabled.

Disabled: the sensor is disabled.

Not found: there is no sensor.



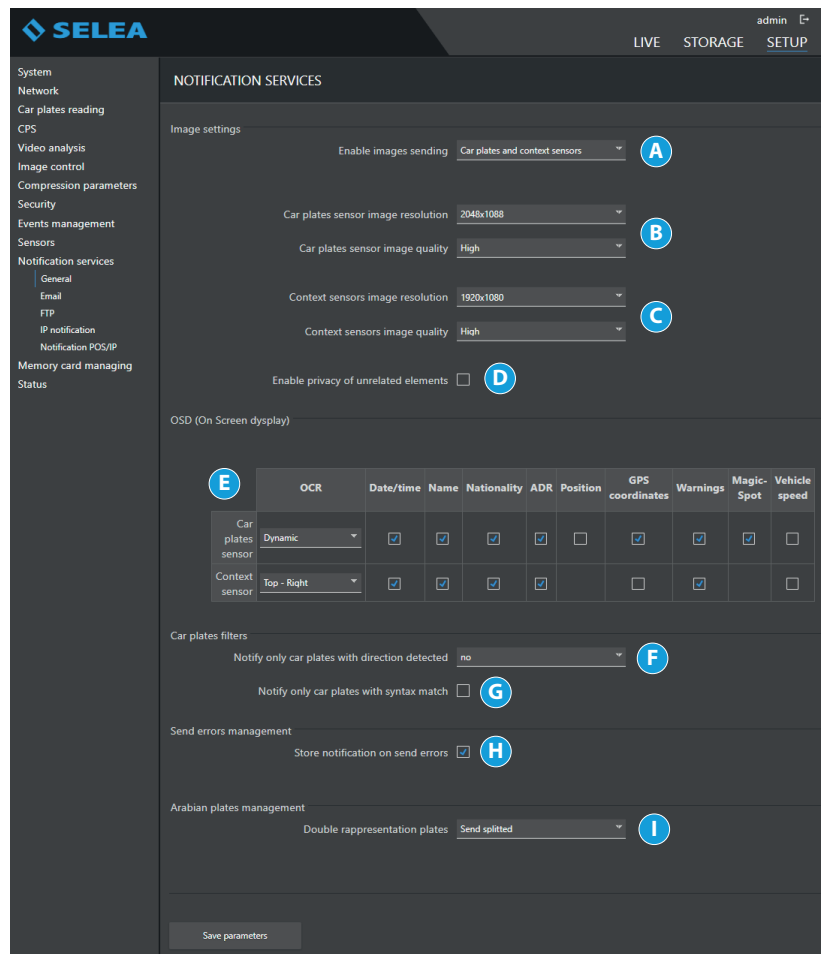
Third party software can extract the values read by the sensor using the following HTTP GET call: **https://IPcamera/cgi-bin/pollution.php** which will return a JSON with the sensor information as in the following example `{"status":"OK","PM10":4,"PM2_5":3}`.

NOTIFICATION SERVICES

It can be used to configure communication channels that will later be used in **“actions”** (such as the forwarding of mails, the FTP user, etc.). These channels are generally employed to send notifications. It is also possible to set the characteristics of such notifications.

General

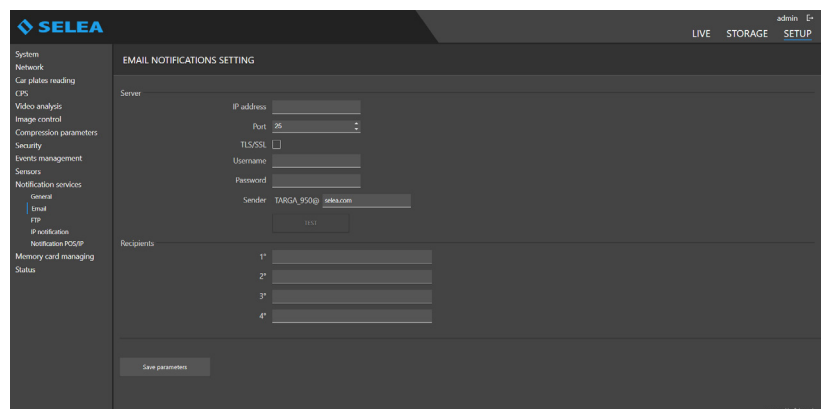
- A** Select whether to receive images from both sensors (OCR and context) or only from one of the two.
- B** Adjust the resolution and image quality of the license plate sensor.
- C** Adjust the resolution and image quality of the context sensor.
- D** It allows enabling the privacy mode, which blurs elements unrelated to the vehicle whose license plate has been read.
- E** Choice of the information that will be sent for each type of sensor, to enable or disable the information select the box below.
- F** You can choose for which types of plates to send the notification based on the detected direction.
- G** If selected, notifies only the plates with recognized nationality.
- H** Any information not sent through the network will be saved in the Targa J-T760 internal memory.
- I** Allows you to choose the method of sending Arabic license plates with double representation (Arabic and Latin).



Email

Enter here the parameters required for sending mails: **SMTP** server **IP/name** and credentials required for its use. **Targa J-T760** will automatically fill the **“sender”** with the name assigned to the camera in the **“SYSTEM”** page, leaving to the user the possibility of customising the domain.

In this screen, it will also be necessary to indicate up to **4** mail recipients, which will be the ones receiving the notification when an event to which the mail has been assigned as consequential action is detected.



FTP

In **Targa J-T760** it is possible to configure two servers ("**Server A**" and "**Server B**" page). For each server, enter the **IP** address of the machine on which the **FTP** server service is active, and to which **Targa J-T760** will send the snapshot, together with the corresponding port (if the standard port is already being used by other software installed).

The authentication credentials must be the same as those that will have to then be entered in the **FTP** user that will be created on the **FTP** server (for example **Selea CPS**).

Forwarding options:

"Connection Method": it can have 3 different values:

Standard: standard non-protected FTP mode.

FTPS: it is the image forwarding mode protected by "Explicit TLS" system.

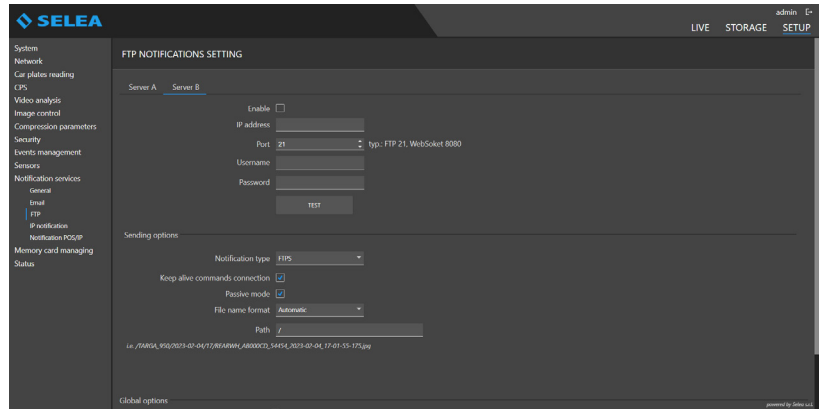
WebSocket CPS: it is a proprietary transmission mode in which images are forwarded through a secure HTTPS connection. The socket is open and indefinitely maintained. This type of communication avoids the need to manage more than one configuration of ports on firewalls, as only one port is open.

"Keep the command connection active": it prevents the FTP server from terminating the connection after the snapshot has been received, asking that the login initially completed by the camera is kept active, so that less operations may be required at the next forwarding. This function is fully supported by Selea CPS (with several other FTP servers the communication will be interrupted after some time).

"Passive mode": to enable passive connection mode.

"Active mode data port": enter the connection port for active mode.

"File name format": it entails an automatic system for allocating names to snapshots, or for the customisation of the path and name of the same through the use of TAGS (which can be selected using the appropriate key on the right of the field).



IP notification

Alarm notifications are forwarded to the **IP** that the user enters in the appropriate field, using one of the available protocols. It is possible to notify two servers at the same time (**ServerA** and **ServerB**).

HTTP GET/POST: Targa sends requests to the CGI web server in the typical formats of the selected protocol (GET or POST from the drop-down menu).

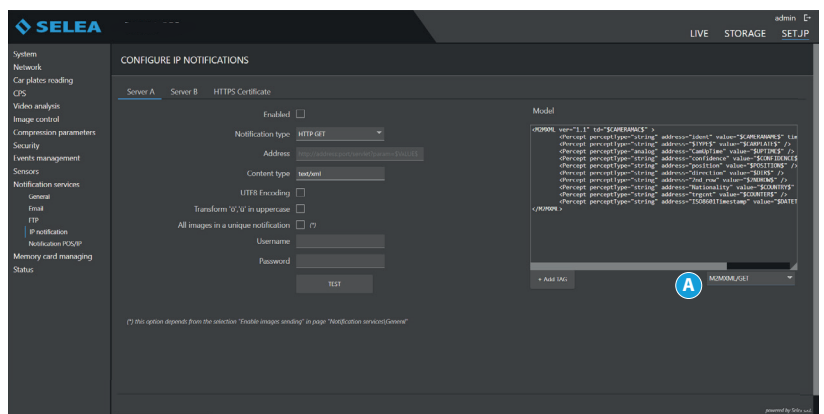
TCP/IP: Targa establishes a connection with the indicated IP. As soon as the connection is established, it forwards data based on the model in the field on the right.

By pressing **"A"** shown in the figure below, it is possible to pre-load standard models that are valid for most situations. In case of needs, by pressing the appropriate key on the page it will be possible to add further **TAGS**.

In the example in the figure, the address could be a possible server listening on port **80**.

[http://192.168.1.120:80/notifica.cgi?param=\\$VALUES](http://192.168.1.120:80/notifica.cgi?param=$VALUES)

IP address port service name on web server placeholder parameter

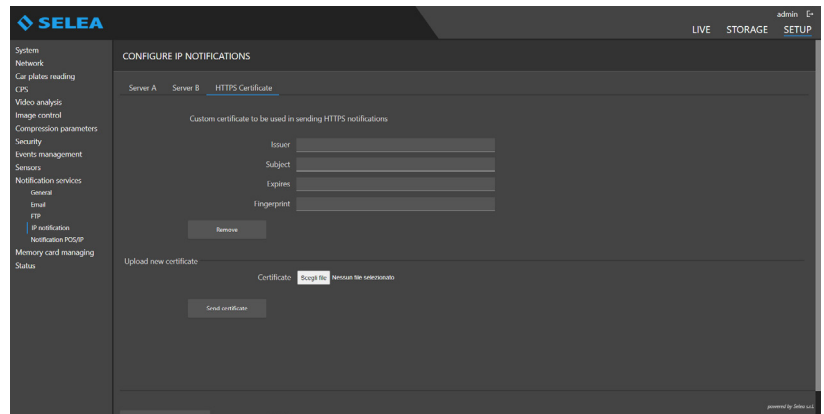


The **\$VALUES** placeholder will be replaced with the text in the field on the right, which can be fully customised based on the needs of the interaction software.

It must be noted that the text entered in the **"model"** field is forwarded in **ASCII** format. If necessary, it is also possible to forward **UTF8** coded text by ticking the appropriate **"flag"**.

HTTPS certificate

Allows you to upload the https certificate of the reference server; in this case, the connection will take place only after verifying the identity of the server by comparing the declared certificate and the one inserted in the camera.



POS/IP notification

This is a data and/or image transmission system (based on the placeholders used as models) compatible with several types of third-party VMS software, such as Milestone or Avigilon. It can be customised by the customer using the own management software based on communication requirements.

“Enable”: to enable or disable this type of communication.

“Port”: to specify the number of the port being used.

“Permitted IP Accesses (1 to 4)”: to be filled with the IP addresses of the clients that can access this “server” function offered by the camera.

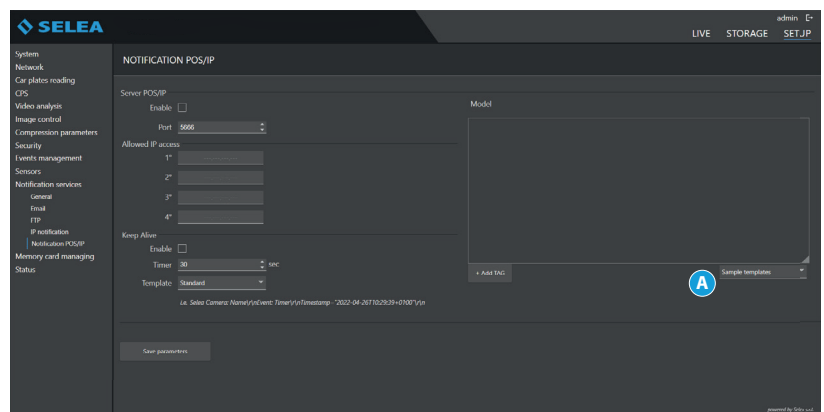
“Keep Alive”: allows to enable the sending of notifications with a standard or customized template with customizable frequency to verify that the connection to the server is not interrupted.

“MODEL”: it contains the various TAGS relating to the possible information forwarded by the camera to the enabled IP addresses. This Model can be customised by the user using the list of all possible data fields available in the camera.

Press **“A”** to open a drop-down menu for access to a list of available pre-configured templates

“Add TAG”: it can be used to create an own custom model by entering the various **TAGS** required for the specific application.

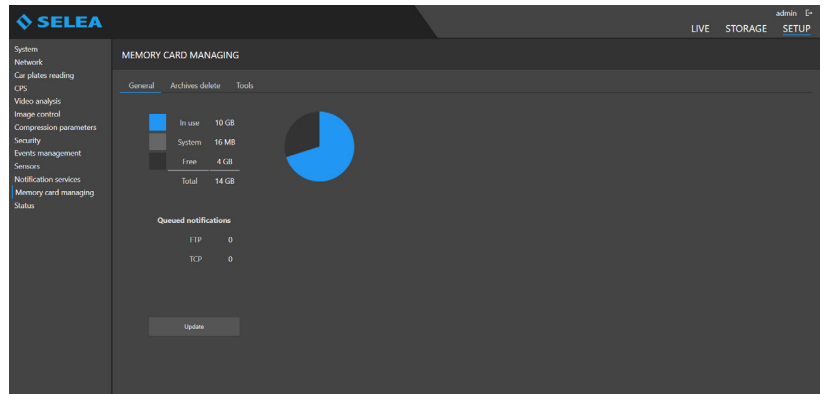
“Save Parameters”: to save the **“POS/IP”** configuration and make it permanent.



MEMORY

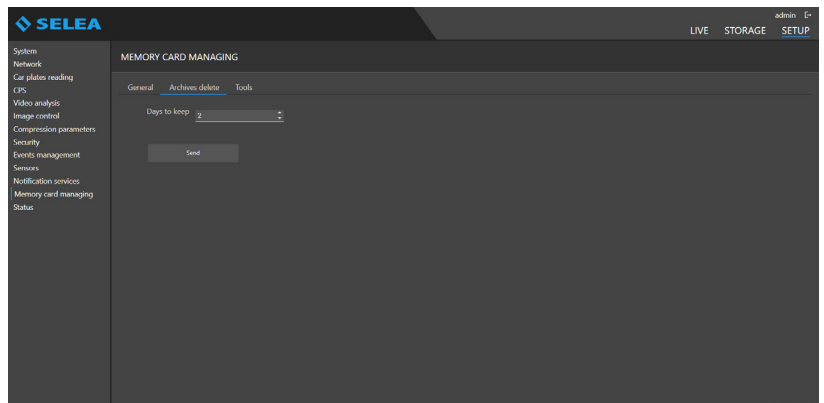
General

This is a graphic and intuitive representation of the memory available for snapshots, lists etc.



Delete

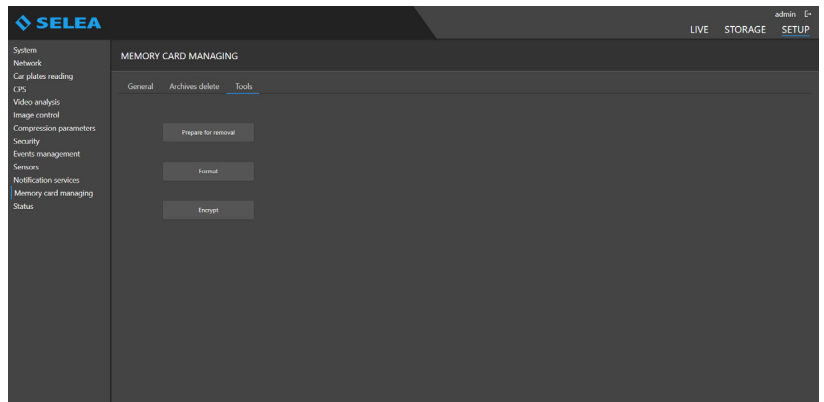
The **“Delete”** sub-page can be used to set for how many days the saved information must be kept. All the saved information stored for a number of days exceeding the set limit will be deleted.



Tools

The **“Tools”** sub-page contains the buttons to correctly remove the memory device without the risk of losing data (**“Prepare removal”** key), to simulate its absence (and therefore prevent the possibility of its use without physically accessing the inside of the camera enclosure), and to format it (**“Format”** key), to completely remove its content or correct any logic errors caused, for example, by blackouts during writing.

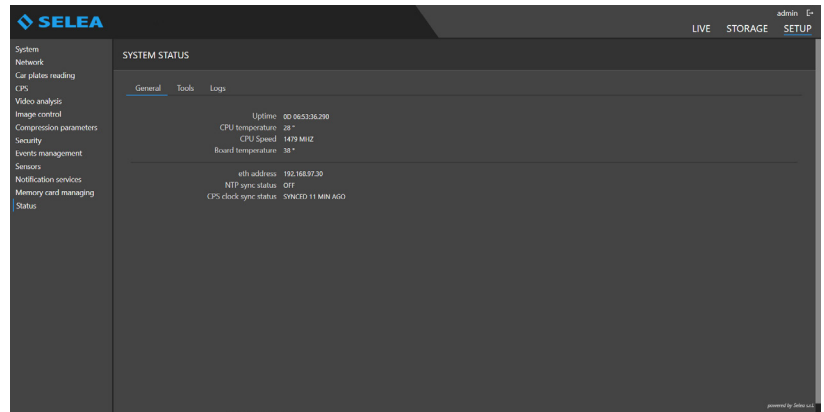
Furthermore, it is possible to make the data contained in the memory more secure by encrypting the data (**“Encrypt”** key).



STATUS

General

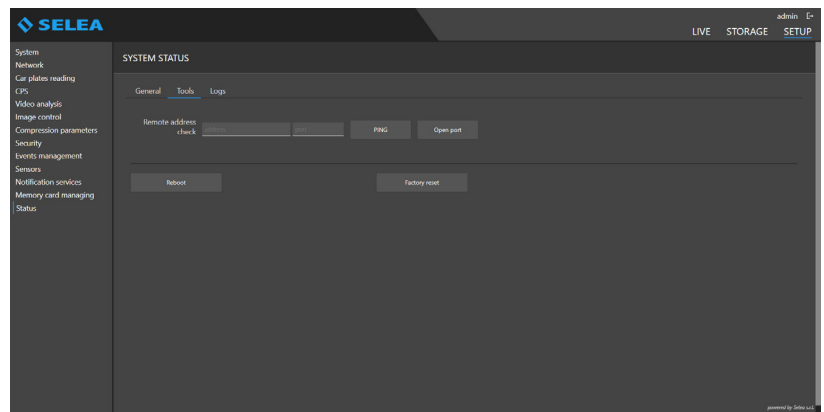
It groups together information regarding the current camera operation (how long it has been on, processor temperature, operating temperature inside the camera enclosure, processor speed, CPS status, **IP** address and if an **FTP** connection with a server is active, etc.), and gives the possibility of rebooting the same through the “Tools” sub-page.



Tools

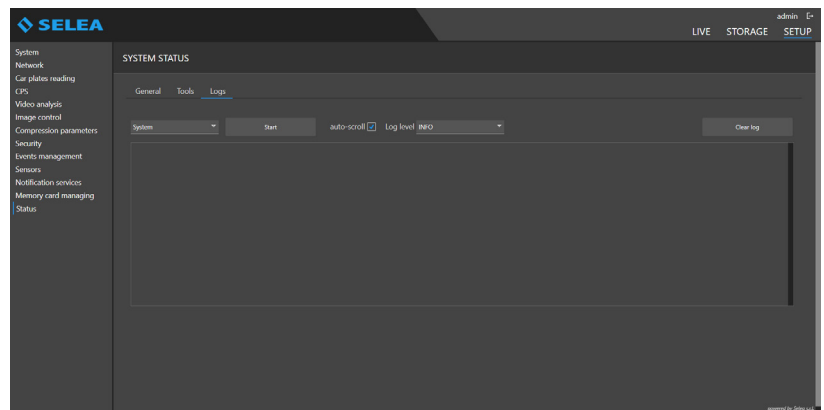
In the “Tools” screen, the “Remote Address check” item gives the possibility of checking the consistency of the communication between the camera and an external service (e.g. NPT server, HTTP server, FTP server, email server, etc.).

The “Reboot” button can be used to restart the camera, while “Factory reset” resets the camera to the factory settings.



Logs

In the “Logs” screen press “start” to see in real time the **Log** of all the camera internal operations relating to **CPS** and **System** services.



FIRMWARE UPDATE USING SELEATOOL

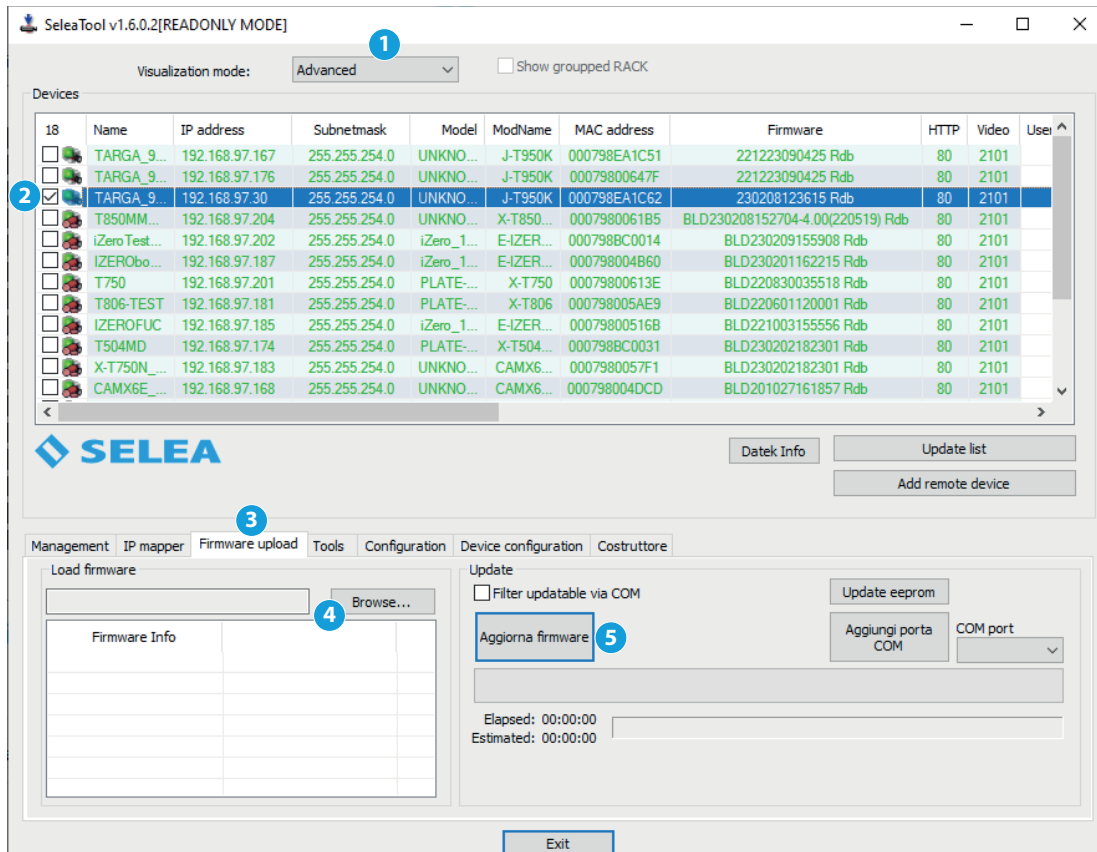
The **“firmware”** is the software installed in the camera internal memory that manages most of the **Targa J-T760** functions. The camera is already supplied with a pre-loaded firmware, which should not be modified unless:

- recommended by **Selea Customer Support**, when contacted by yourself due to technical issues.
- Selea has issued a new firmware version compatible with your model, which includes new interesting features.

WARNING: Updating the firmware is a very delicate operation that should only be carried out if strictly necessary. Wrong firmware updates can make the product unusable, which must then be sent to a Selea Technical Support Centre for repairs.

Make sure that during the firmware update there are no interruptions of any kinds.

If possible, when updating the firmware connect both the camera and the computer using an **UPS** protected electric line. Disable all screen savers and energy saving functions in the computer.



Before the starting the firmware update, make sure to have available all the files (.IMG extension) of the desired version, which can be downloaded from the support.selea.com website, or obtained from **Selea Customer Support**.

The uploading of new firmware to the device must be completed through an **Ethernet** connection and using the **SeleaTool** wizard.

Follow the procedure below:

1. Open **SeleaTool**. Wait for the **“Selea Devices”** panel to list all the cameras of the network. Select **“Advanced”** display mode in the top drop-down menu.
2. Tick the box of the device to update.
3. In the **“Firmware upload”** page, click **“Browse”** and find the previously obtained firmware update file. Click **“Open”**.
4. The **“Firmware Info”** table on the bottom left shows information regarding the selected firmware. Check the compatibility with the model being updated and that the version is as desired.
5. It is now possible to proceed with the update: click **“Update firmware”**. **NOTE:** the update requires the entering of the access credentials of the **Targa J-T760** camera being updated. These must be entered in the appropriate fields on the same row of the product being updated.
6. The **“Status”** panel bar and the **“Update”** column show the status of the update (deletion, upload, verification,...) and the percentage advancement status.
7. After completing the installation, **Targa J-T760** restarts automatically and appears in the **SeleaTool** window. The restart confirmation message also appears. Click **“OK”**.

NOTE: The update of the firmware does NOT cause the loss of any existing camera configurations. No changes are made to the IP address or to all the other set parameters.



DECLARATION OF CONFORMITY



SELEA Srl with headquarters in
Via Aldo Moro 69 - 46019 Cicognara di Viadana (MN) - Italy

DECLARES

under its own responsibility that its number plate reading products of the Targa,iZero series

comply with the requirements of the following directives:

1) Directive on electromagnetic compatibility 2014/30/UE

- EN 55032 Devices for multimedia technology Features of radio interference
- EN 55035 Devices for multimedia technology Characteristics of immunity.
- EN 61000 Electromagnetic Compatibility (harmonics emitted, flicker, electrostatic discharge, Immunity to radiated radio frequencies, immunity to fast transients, surge tests, conducted interference, Immunity to magnetic fields, immunity to fast interruptions and voltage variations)

2) Low voltage directive 2014/35/EU

- EN 62368-1:2018 / EN 62368-1:2020 (Rev. 3) Inform. technology equip., Equipment security.
- EN 62471:2008 Photobiological Safety (Risk-free group).
- EN 60529 Degree of protection provided by enclosures: (Serie iZero: IP 66 - Serie Targa: IP68).
- EN 62262 Resistance to Impact (Only for series Targa: IK10)
- EN 60068 Resistance in severe environmental conditions (dry heat, wet heat, cold).
- EN 60721 Resistance to Sinusoidal vibrations (Class 3M3).

3) European 2011/65/EU and 2015/863/EU on the limitation to the use of dangerous substances within electrical and electronic equipment according to the quantities described

- Lead Pb content: < 0.1%;
- Cadmium Cd content: < 0.01%;
- Polybrominated Biphenyl PBB Content <0.1%;
- Mercury Hg content: < 0.1%;
- Chromium Cr content: < 0.1%;
- Polybrominated Diphenyl Ethers PBDE content <0.1%;
- Bis(2Ethylhexyl) Phthalate DEHP content <0.1%;
- Benzil Buthyl Phthalate BBP content <0.1%;
- Dibutyl Phthalate DBP content <0.1%;
- Diisobutyl Phthalate DBP content <0.1%;

The products of the families listed above are therefore compliant with the RoHS directives

Cicognara, March 10 - 2025

Manager

Renato Grassi (R&D director)



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NOTES BY THE INSTALLER

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Selea limited warranty declaration

The warranty shall not apply for faults caused by:

- Unauthorised modification or improper use.
- Improper or inadequate product maintenance or wiring.
- Damage caused by external events such as lightning, electric line overvoltage and telephone line fault.
- Fall or improper transport procedures
- Use of inappropriate components or accessories, or components not supplied by Selea.
- Use outside the limits of the environmental conditions of use of the product.
- Improper installation or maintenance.

Selea guarantees the product, the accessories and the supplies against manufacturing defects for a period of one year from the date of purchase (the date of the sale document shall apply). In case of fault notification received by **Selea** within the terms of the warranty, the company shall undertake to repair or replace the defective products. Replacement products may be new or as new.

Selea does not guarantee uninterrupted product operation. Should **Selea** be unable to replace or repair the product, the cost of the product at distribution level shall be reimbursed.

Selea products may contain refurbished parts with performances similar to new components.

Selea shall not issue any expressed warranty, either in writing or verbal. Notwithstanding the provisions of current regulations, implicit sale, quality and specific use suitability guarantees are limited to the duration of this warranty.

Notwithstanding the provisions of current local regulations, the remedies contemplated by this warranty declaration are the only actions for the safeguard of the customer. Notwithstanding what expressly indicated above, and within the provisions of the law, **Selea** rejects all personal responsibility or all responsibility of its suppliers in connection with contract or tort (including negligence) for consequential, indirect, incidental, special or punitive damages of any nature whatsoever, or for loss of income or profit, loss of information or data, or other financial loss resulting or in connection with the sale, installation, maintenance, use, performance, failure or interruption of operation of its products. This shall also apply when **Selea** or the distributor are informed of the possibility of such damage. The responsibility of the company shall be limited to the repair or replacement of the product, or the reimbursement of the price paid, at the full discretion of **Selea**.



Selea s.r.l.

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