BioSis

Wal∠CAM

ANPR Camera
Operating Instructions

Version 05.16

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

We declare under our sole responsibility that the product
to which this declaration relates is in conformity with the
standards or other normative documents following the
provisions of Directive EEC/89/336

The serial number of this product may be found on the
camera housing.
You should note the serial number of this unit in the
space provided and retain this book as a permanent
record of your purchase to aid identification in the event
of theft.
Model No. SuperWalzCAM
Serial No.

About this Document
This manual is intended for administrators and users of the SuperWalzCAM™ Camera. It includes instructions for using and managing the SuperWalzCAM™ Camera on your network. Previous experience of networking will be useful when using this product. Some knowledge of Windows O/S may also be beneficial, for developing shell scripts and applications. See also the support page available on our Web site.

Safety Notices Used In This Manual
Caution! - Indicates a potential hazard that can damage the product.
Important! - Indicates a hazard that can seriously impair operation.
Do not proceed beyond any of the above notices until you have fully understood the implications.

Intellectual Property Rights
Intertraff Ltd has intellectual property rights relating to technology embodied in the product described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the patents listed at http://www.intertraff.com/patent and one or more additional patents or pending patent applications in the EU, US and other countries.
This product contains licensed third-party software. See the menu item "About" in the product's user interface for more information.

Legal Considerations
Video surveillance and especially automatic license plate recognition can be prohibited by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

Electromagnetic Compatibility (EMC)
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by increase the separation between the equipment and receiver. Connect the equipment to an outlet on a different circuit to the receiver. Consult your dealer or an experienced radio/TV technician for help. Shielded (STP) network cables must be used with this unit to ensure compliance with EMC standards.

USA - This equipment has been tested and found to comply with the limits for a Class B computing device pursuant to Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in this case the user at his/her own expense will be required to take whatever measures may be required to correct the interference.

Europe -   This digital equipment fulfills the requirements for radiated emission according to limit B of EN55022/1998, and the requirements for immunity according to EN55024/1998 residential, commercial, and light industry.

Japan - This is a class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI:2003 Class B ITE). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

Australia - This electronic device meets the requirements of the Radio communications (Electromagnetic Compatibility) Standard 1998 AS/NZS 3548.

Canada - This Class B digital apparatus complies with Canadian ICES-003 B by compliance with EN55022: Class B.

Liability
Every care has been taken in the preparation of this manual. Please inform us of any inaccuracies or omissions. Intertraff cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without prior notice. Intertraff makes no warranty of any kind with regard to the material contained within this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Intertraff shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material.

Trademark Acknowledgments
Internet Explorer, Microsoft, Windows, WWW are registered trademarks of the respective holders. Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

Support
Should you require any technical assistance, please contact Intertraff. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can report problems to Intertraff support, by logging in http://intertraff.com/get-support/

CONTENTS

IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Clean only with dry cloth.

6) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

7) Do not use near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

8) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

9) Protect the power cord from being walked on or pinched particularly at plugs and the points where they exit from the apparatus.

10) Only use attachments/accessories specified by the manufacturer.

11) Use only with the stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. Use caution when moving the apparatus combination to avoid injury from tip-overs.

12) Unplug this apparatus during lightning storms or when unused for long periods of time.

13) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged or objects fallen into the apparatus, the apparatus does not operate normally, or has been dropped.

PREFACE

SuperWalzCAM™ is a stand-alone, rugged, vehicle license plate capture camera solution, combining license plate recognizer, camera, lens, lighting, filter, housing, bracketry, opto-isolated solid-state relay for barrier operation, in a single calibrated and tested unit. The colour overview camera can be installed as option in the same housing. SuperWalzCAM can handle any speed from 1 to 250 km/h (1 to 155 mph), and distances for up 27 meters (89 feet), making it ideal for application ranging from parking to high speed traffic monitoring. It uses a high resolution CCD array sensor with solid state infrared illuminator to provide optimum images of reflective number plates over a full range of ambient light conditions. SuperWalzCAM™ is packed in a discrete, compact and rugged cast metal housing that is fully sealed to provide total reliability. The camera is completely self contained and requires only a 12V DC supply (5 Amp).

Features
• Super Sensitive .006 Lux Near IR Sensitive
• Sensor: 1/3" CCD
• Resolution: 1288 x 964
• Readout Method: Global shutter
• Frame rate: 30
• Software Controllable features & Functions
• Low Noise - Low Blooming
• Lens Mount: 6, 8, 12, 16 and 25mm

Computer Requirements
The following environments are essential for your computer to view camera pictures or to set up parameters.

Computer: Dual Core processor

O/S: One of the following should be installed. Microsoft Windows 7, 8 or 10.

Memories: 2 GB or higher

Trademarks
• Adobe, Adobe logos, and Acrobat are registered trademarks of Adobe Systems Incorporated in the U.S. and/ or other countries.
• Microsoft, Windows, Windows XP and Windows 7, are registered trademarks of Microsoft Corporation in the U.S. and/or other countries.
• Other names of companies and products contained in these operating instructions may be trademarks or registered trademarks of their respective owners.
• Distributing, copying, disassembling, reverse complying, reverse engineering, and also exporting in violation of export laws of the software provided with this product, is expressly prohibited.

Document Convention
These operating instructions use the following convention when describing the uses and operations.
• Windows 7 stands for Microsoft Windows 7.
• Windows 8 stands for Microsoft Windows 8.

PRECAUTIONS

1. The installation should be made by qualified service personnel or system installers.

2. Do not attempt to disassemble the camera.
To prevent electric shock, do not remove screws or covers if this is not strictly required.
There are no user-serviceable parts inside. Ask qualified service personnel for servicing.

3. Handle the camera with care.
Do not abuse the camera. Avoid striking, shaking, etc. The camera could be damaged by improper handling or storage.

4. Do not use strong or abrasive detergents when cleaning the camera body.
Use a dry cloth to clean the camera when dirty. When the dirt is hard to remove, use a mild detergent and wipe gently. Then wipe off the remaining detergent with a dry cloth.

5. Clean the camera faceplate with care.
Do not clean the faceplate with strong or abrasive detergents. Use lens tissue or a cotton tipped applicator with ethanol.

6. Never face the camera toward the sun.
Whether the camera is in use or not, never aim it at the sun. Otherwise, blooming or smear may be caused.

7. Do not operate the camera beyond the specified temperature, humidity or power source ratings.
Use the camera at temperatures between –25 °C and +60 °C, and humidity below 90 %. The input power source is 12 V DC.

8. To prevent fire or electric shock hazard, use a UL listed cable (VW-1, style 1007) for the 12V DC input terminal.

INTRODUCTION

This manual covers the following Intertraff Camera models:

- SuperWalzCAM_Mono

- SuperWalzCAM_Dual

All instructions and information in this manual are valid for both models unless otherwise stated.

System Requirements

CPU: Intel Dual Core, 2 GHz or above
Memory Size: 2GB
VGA card resolution: 1024*768 (recommended: Support Overlay function VGA Card)
OS: Windows 7, 8 or 10 (x32 & x64 bits)
DirectX: 9.0c or above
Local Area Network: 10Base-T Ethernet or 100BaseTX Fast Ethernet

WIRING

The SuperWalzCAM™ requires three different cables. From left to right in the picture above:
- ◆ Power cable and dry contact output for barrier operation.
- ◆ Standard cat5 cable with RJ45 connector to communicate with the camera via network
- ◆ 10 pins connector for power and synchronize one or two external illuminators

All the 3 connectors are IP68 rated. Screw terminations ensure simple 'field' connection, which fulfil the requirement for fast effective connections.
The length of the Power cable is 5 meters. Longer cable can be supplied on request. If power cable must be extended, we recommend to extend the AC cable, after having estimated the voltage drop based on the wire size, distance and load current.

The length of the cat 5cable should not exceed 100 meters. To cover longer distances you must install a network switch between cables.

The picture which follows shows that the RJ45 plug shall be crimped only after having inserted the RJ45 Plug Screw Type in the network cable.

POWER SUPPLY

The image below shows the SuperWalzCAM Power Supply.

The IP67-rated power supply can be installed outdoors.
The cable on the left, marked as "input" on the PSU, is the 110/220 AC input. Depending by the country of installation, the PSU can be supplied with different type of plugs. Please report to Intertraff your requirement at the time of the order.

The cable on the right, marked as "output" on the PSU, is the 12 volts DC output which is connected the SuperWalzCAM power supply connector (4 pins). The camera PSU connector must be joined to the SuperWalzCAM back panel as described in the previous paragraph.

We strongly advise not to remove the connector but should you decide to do so, please take care of the terminal polarity, blue (-) and red (+) as indicated on the PSU front label.

CAMERA INSTALLATION

Mounting and Adjusting the Camera
Once you have secured the camera to the camera-mounting bracket, you should aim the camera at the license plate point of capture. The SuperWalzCAM is supplied with different focal lengths, please check the table which follows:

		EU Plates	
		L89 HRH	
Product code	**N. of lanes**	**Min distance[1] mt (lane width)**	**Max distance[2] mt (lane width)**
SWZ_6	1	3.2 (2.6 mt)	6 (4.9 mt)
SWZ_8	1	4.4 (2.4 mt)	7.9 (4.4 mt)
SWZ_12	1	6 (2.4 mt)	13.9 (5.6 mt)
SWZ_16	1	8.3 (2.4 mt)	16.3 (4.6 mt)
SWZ_25	1	13.9 (2.6 mt)	27 (5 mt)[3]

[1] Characters height: 40 pixels
[2] Characters height: 20 pixels
[3] For capturing distance >20 meters, SuperWalzCAM requires extra illuminators.

Depending on the model purchased, the camera is provided with one or two sensors and an equal number of lenses. The lenses have been tuned by Intertraff before the delivery. If you wish to refocus the lens once the camera is installed, you can do that by removing the front panel of the SuperWalzCAM, as shown in the picture which follows:

Each lens has two rings. The ring closer to the camera' sensor is the IRIS, while the other controls the focus. If you wish to refocus the camera, loosen the knob and re-adjust the focus. When the operation is completed do not forget to retighten the knob.

By default, the IRIS of the lens installed on camera is set to 4 (for SWZ_6 and SWZ_8mm), and 5.6 (for SWZ_12 and SW_16). We do not advise changing the setting of the IRIS because the Operator may rely on the Brightness, Exposure, Shutter and Gain of the camera, control the brightness of the image.

If you are using the camera with Intertraff license plate recognition software, please note that this requires the height of the license plate characters to be between 10 and 40 pixels, although especially for multi-syntax scenarios, it's strongly advised that, at the nominal point of capture, the height of the characters is between 20 and 40 pixels.

During the SuperWalzCAM installation the horizontal and vertical angle should never exceed **30 degrees**. The lower the angle, the higher the recognition rate which can be expected.

Adjust the aim of the camera with vehicles passing through the point of capturing, so that the number plates are roughly central in the image. If the camera is offset to the side of the road, the vehicles will appear to move diagonally through the field of view. They should be central when just passing the point of capturing. The central point must be adjusted to coincide with the optimum plate image size as the vehicle approaches or recedes from the camera.

When the camera position is properly set, tighten the mounting bolts firmly so as to prevent further movement. When the rest of the system is working, the camera aim can be checked more accurately and readjusted if necessary.

How to connect to the SuperWalzCAM

Power the camera. When the camera starts, you hear a bip which indicates that the Operating System started successfully.

To access the SuperWalzCAM, make sure that the camera is connected to your LAN through the network cable. The default IP address of the SuperWalzCAM is **192.168.0.12**, while the gateway is **192.168.0.1**

There are basically three ways to access the SuperWalzCAM:
1. If the SuperWalzCAM is connected to Internet, you can use TeamViewer to access the SuperWalzCAM. The TeamViewer is preinstalled and the TeamViewer UserID and Password is mentioned in packing list within the camera serial number.

2. After having connected the SuperWalzCAM directly to your laptop using a crossover cable, you can use the UVNC software application to access the SuperWalzCAM. You can download the UVNC client using the following link: http://www.uvnc.com/downloads/ultravnc.html
The IP address of the SuperWalzCAM is 192.168.0.12 and the UVNC password is 654321

3. If you wish to access the SuperWalzCAM using a VGA monitor, mouse and keyboard, you can do so by removing the back panel of the camera housing. The connector on the right side of the two ethernet inputs is a Display port input. You can use a Display port to VGA adapter to connect the SuperWalzCAM to a VGA monitor. Mouse and keyboard can be connected to the device via the USB 2.0 input which is located on the left side. Because there is only one USB port available, you need to use a USB slipper to connect mouse and keyboard.
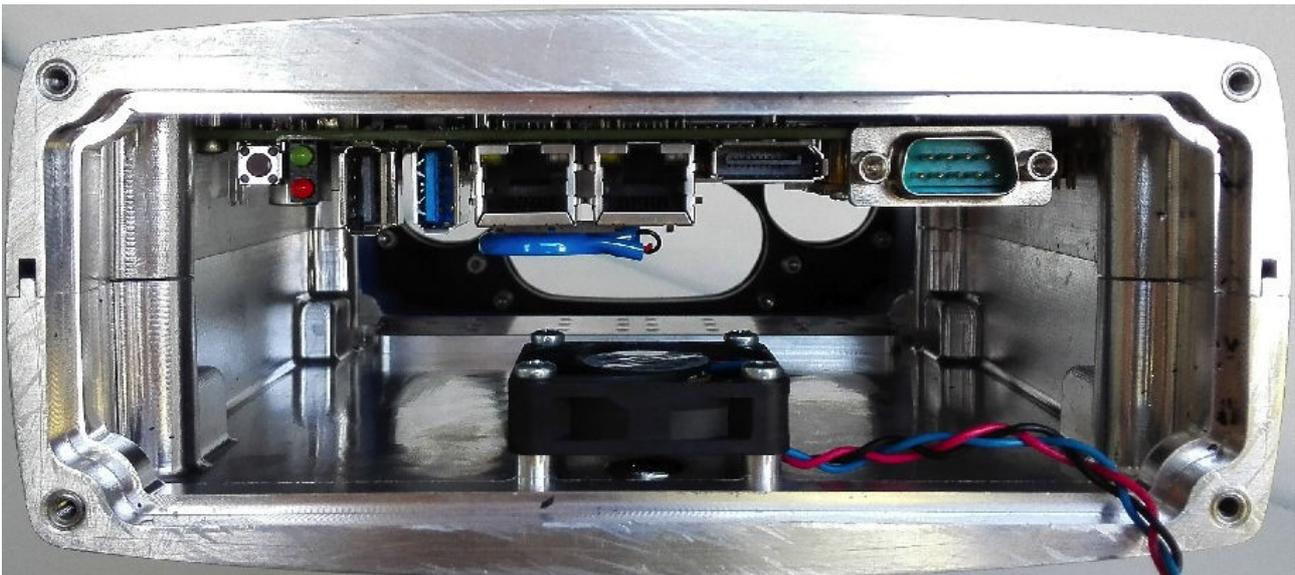
Rebooting the camera

You only need to power off the camera, and reconnect the camera to the power supply to reboot the SuperWalzCAM.

SuperWalzCAM Cameras Setup

To setup the camera please run the FlyCapture software application from Start / All Programs.
Once the FlyCapture started, you will be presented with the following menu which lists the cameras installed.
If you own a SuperWalzCAM Dual, there will be two GigE cameras, one for license plate recognition and the other for overview image capturing.
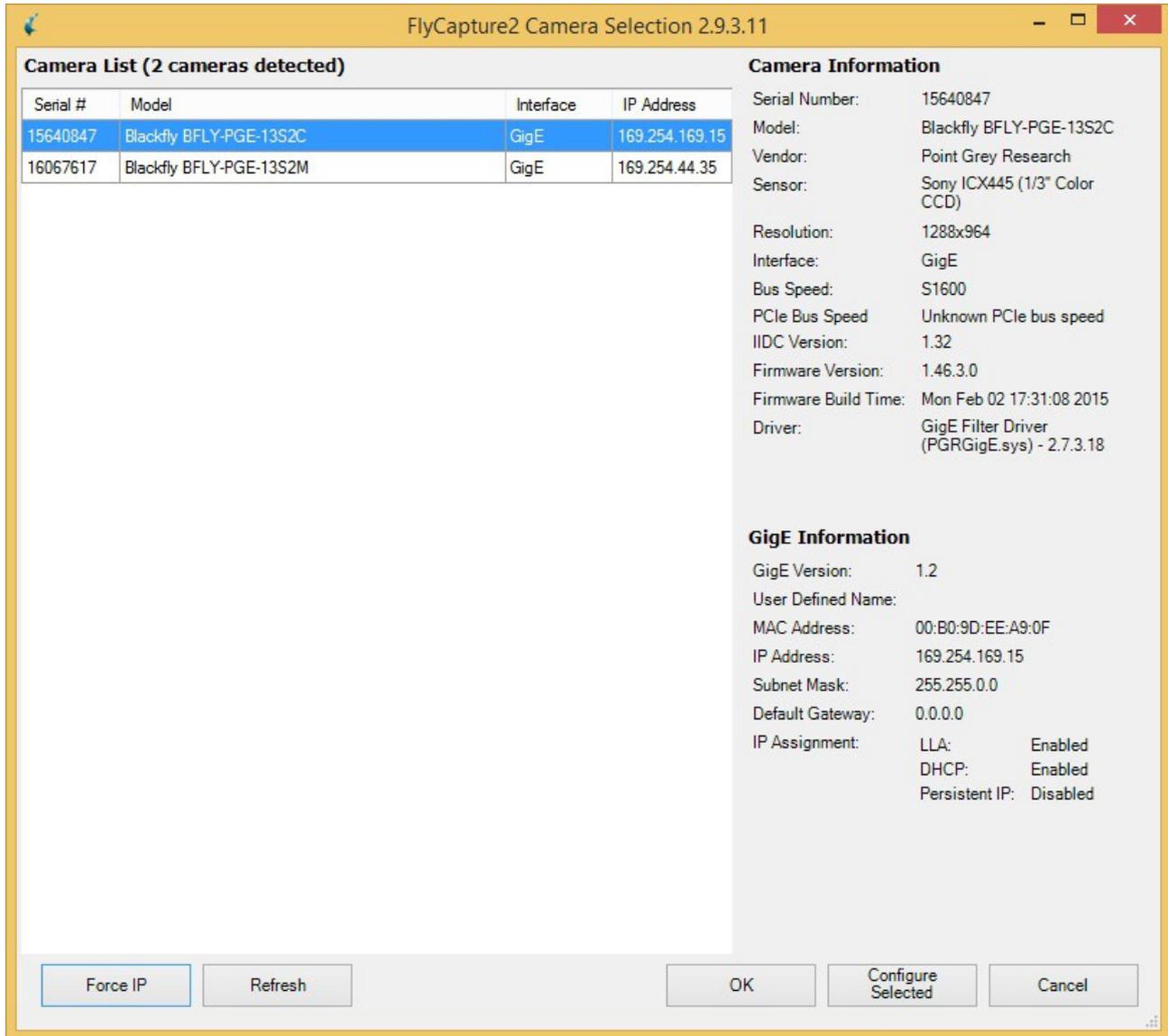
Plate Recognition Camera configuration

From the Flycapture camera menu, select the GigE camera: BFLY-PGE-13S2M which is the ANPR Camera. Then from the toolbar select: Settings / Control Camera Toggle Dialog Camera. You will be presented with the menu which follows. At this point select the TAB Camera Settings:
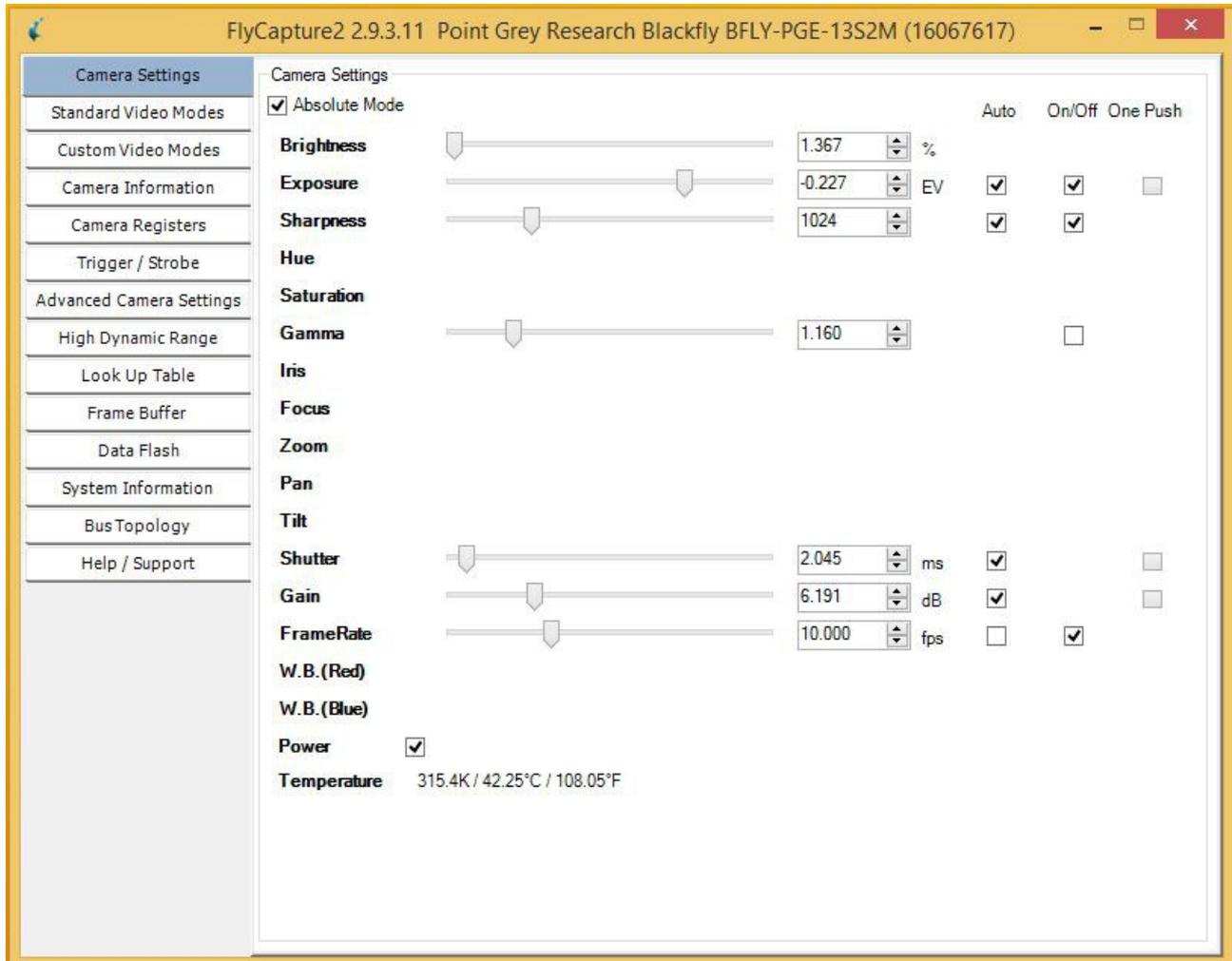
Make sure that checkbox **Absolute Mode** is marked.
Absolute values are real-world values, such as milliseconds (ms), decibels (dB) or percents (%).
Using absolute values is easier and more efficient than applying complex conversion formulas to the integer values.

The suggested **Brightness** value to be used is 0

Sharpness, we found that this value works better in Auto mode.

Gamma. It can increase the contrast of the plate but if a plate has non reflective spots, these become black and usually they merge with the license plate characters. Therefore the suggested setup for the Gamma is 1.1.

Regarding the **FrameRate**, considering that the images the camera outputs are uncompressed, it's advisable to remove the checkbox auto besides the FrameRate and to reduce the fps as much as possible, especially if the SuperWalzCAM is used for access control applications where the speed of the vehicles is slow. Suggested value 10 fps.

SuperWalzCAM User Manual v05.16

Then move please to **Custom Video Modes** and make sure the **Pixel Format** submenu is set to **Mono 8** and the **Packet Size** to 9000, then Press Apply.
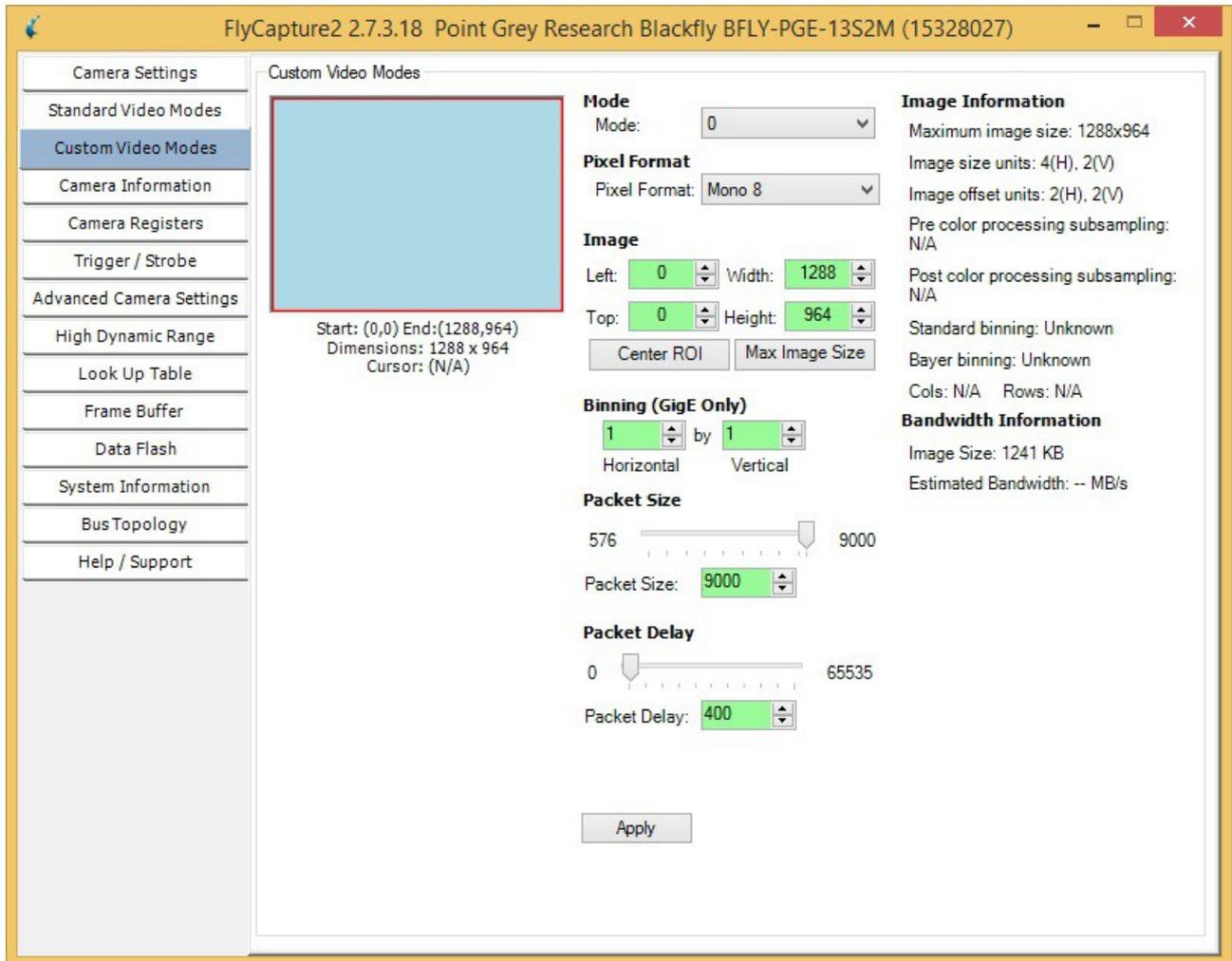
Then from the menu on the left, select Trigger Strobe:
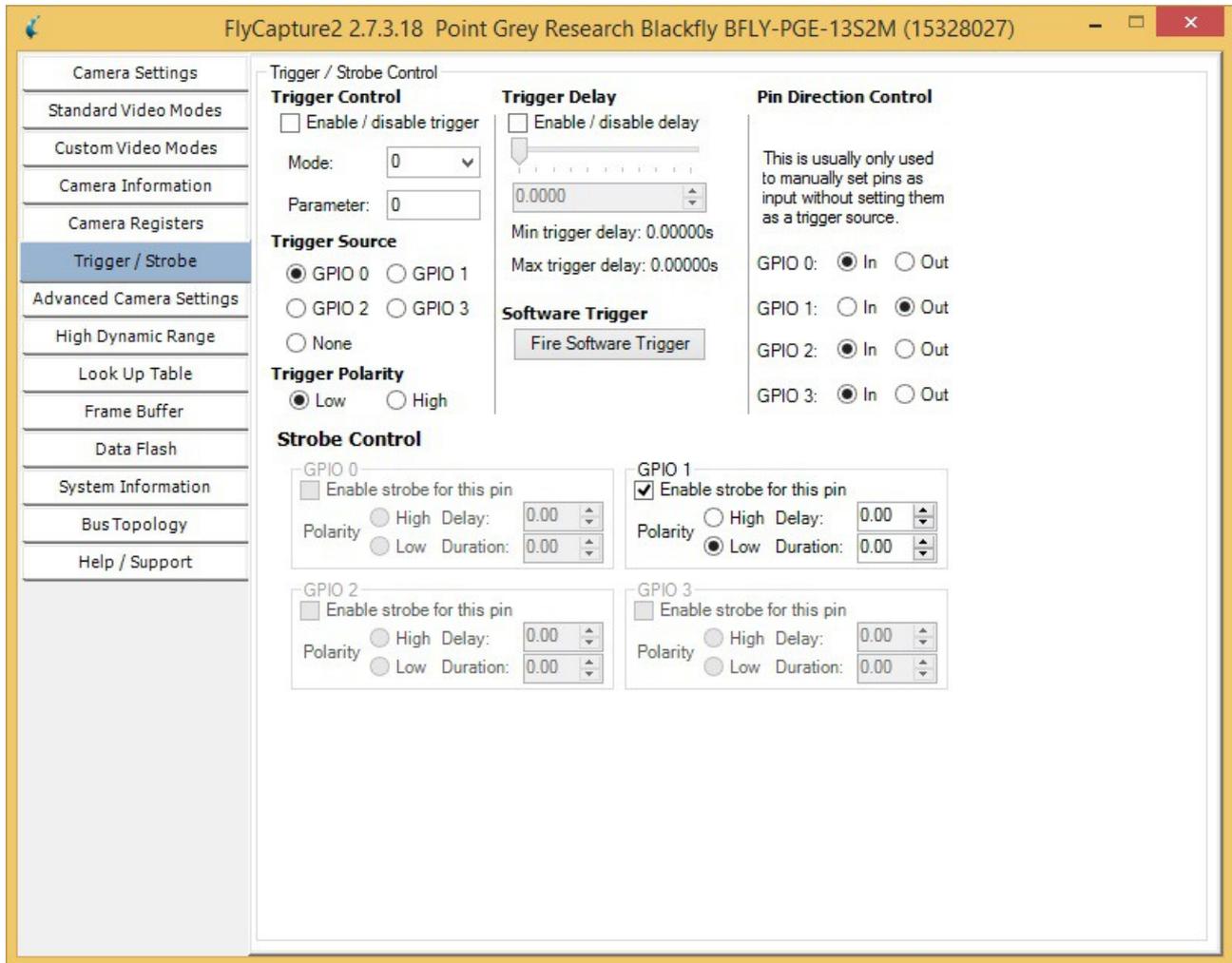
To synchronize the LEDs to the camera, in the **Pin Direction Control** submenu, select the GPIO 1 **Out** radio button.

Then go to **Strobe Control** submenu. Mark the checkbox **Enable strobe for this pin** and set the Polarity to active low.
Bear in mind that if the polarity is not corrected (active high), the LED will remain ON and thus will stop working.

In the **Advanced Camera Settings**, go to **Auto range Control** and from the Property drop down menu, select **Exposure** and enter the following values:
Min = 256
Max = 768
Then push the Set Range button.
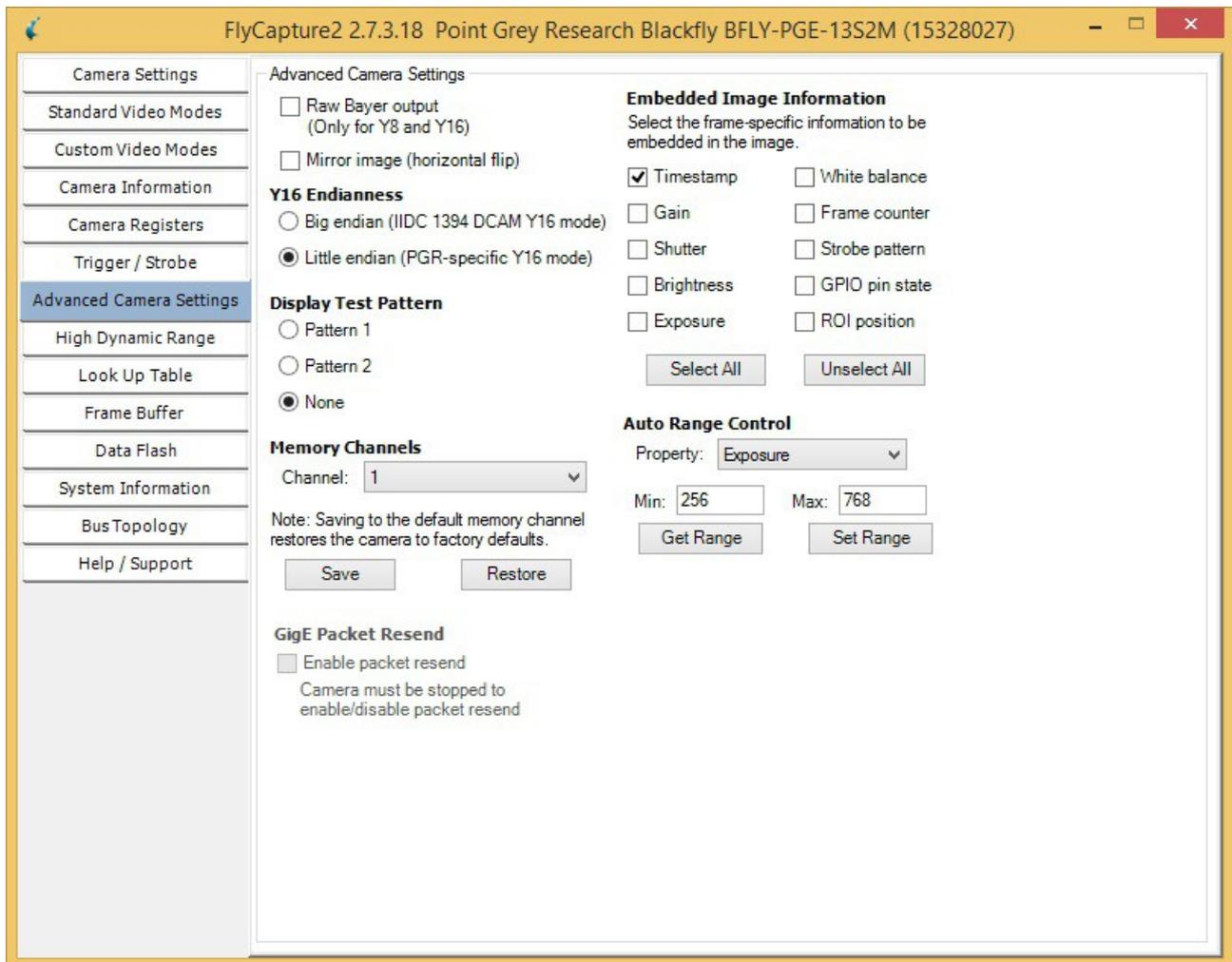
Stay in **Auto range Control**. From the Property drop down menu, this time select **Shutter** and enter the following values:
Min = 3 (if the camera has been installed in Middle East, set the Min to 6)
Max = 60 (which corresponds to 1/500 s. For high speed traffic set the max time to 30 which corresponds to 1/1000 s)
Then push the Set Range button.
When you setup the shutter please make sure that the shutter does not exceed 60 or 1/500 sec.
If the shutter is operating on a higher value (>1/500 sec or >60), there is a high risk that the LEDs will stop working. This because the LEDs are synchronized with the camera board therefore if the shutter of the camera board is too slow, the LED will stay ON while they are designed to switch on and off.

From the Property drop down menu, now select **Gain**. The Gain Min value is 256 which must be entered in the field: **Min**. The Gain **Max** value, can only be ascertained at night when there is no external illumination. Different camera to license plate distances, require different values for the Gain, thus the only way to setup the Gain is empirically. If the value is too high, the license plate will appear too bright. If the Max gain value is too low the plate will be too dark. The suggested Max gain value is: 400.
When both Min and Max value has been entered please press the Set Range button.

To record the camera configuration, move to Memory Channels submenu and select Channel 1, then press the button save.

If for any reason you wish to **restore the camera default values**, you need to select **Default** from the Channel drown down menu and then press the button Restore.

Colour Camera configuration

From the Flycapture camera menu, select the Colour camera: BFLY-PGE-13S2C
Then from the toolbar select: Settings / Toggle Camera Control Dialog. At this point throughout the menu on the left, move to Camera Settings:
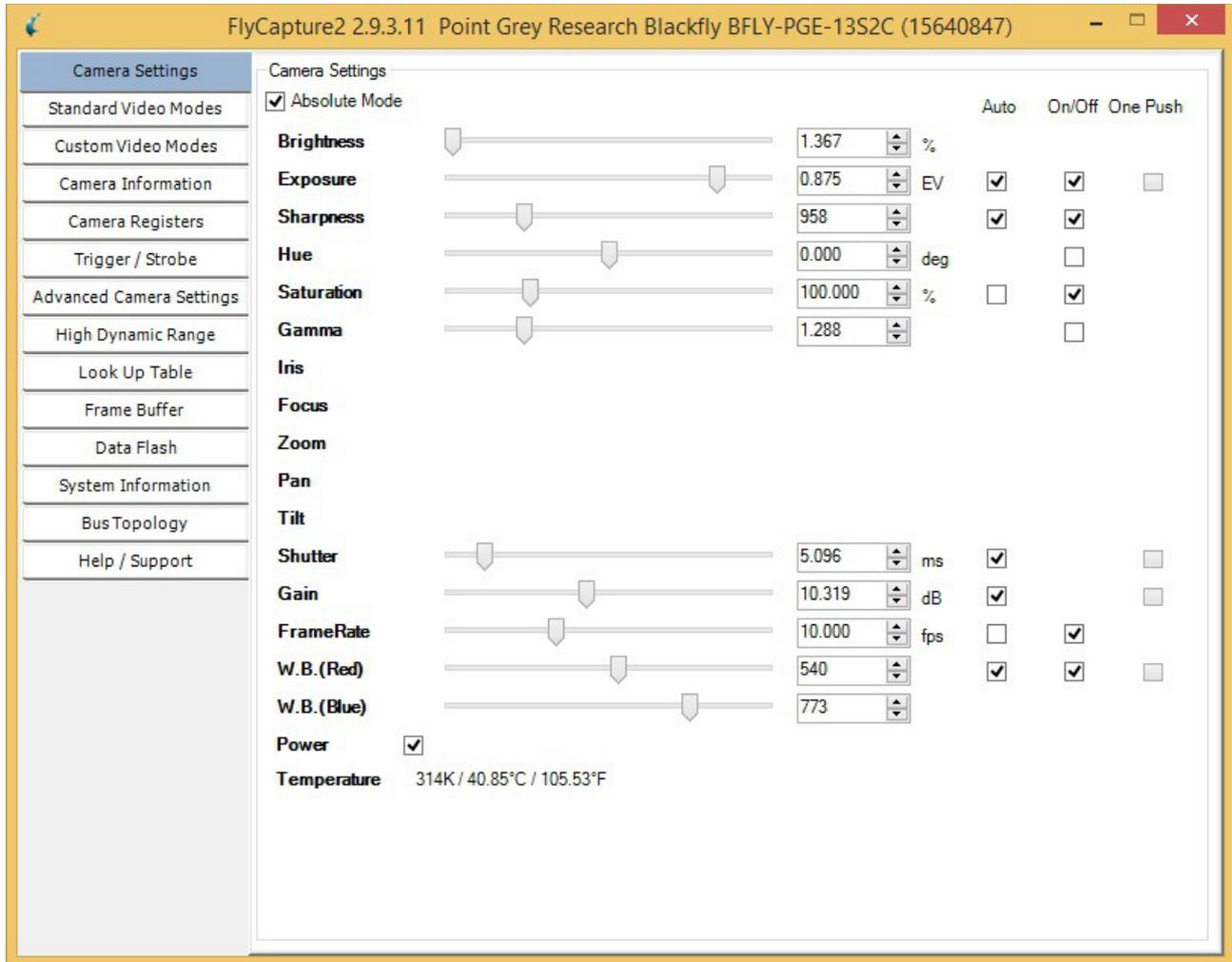
The suggested Brightness value to be used is 0

For the colour camera, Sharpness, Hue, Saturation, Gamma, Shutter and Gain work well in auto mode.

Regarding the FPS, considering the images which the camera outputs are uncompressed, it's advisable to remove the checkbox auto besides the FrameRate and to reduce the fps as much as possible, especially if the SuperWalzCAM is used for access control applications where the speed of the vehicles is quite slow. The suggested value is 10 fps.

Move to **Custom Video Modes** and make sure the **Pixel Format** submenu is set to **RGB 8** and the packet size to: 9000. Then press Apply.
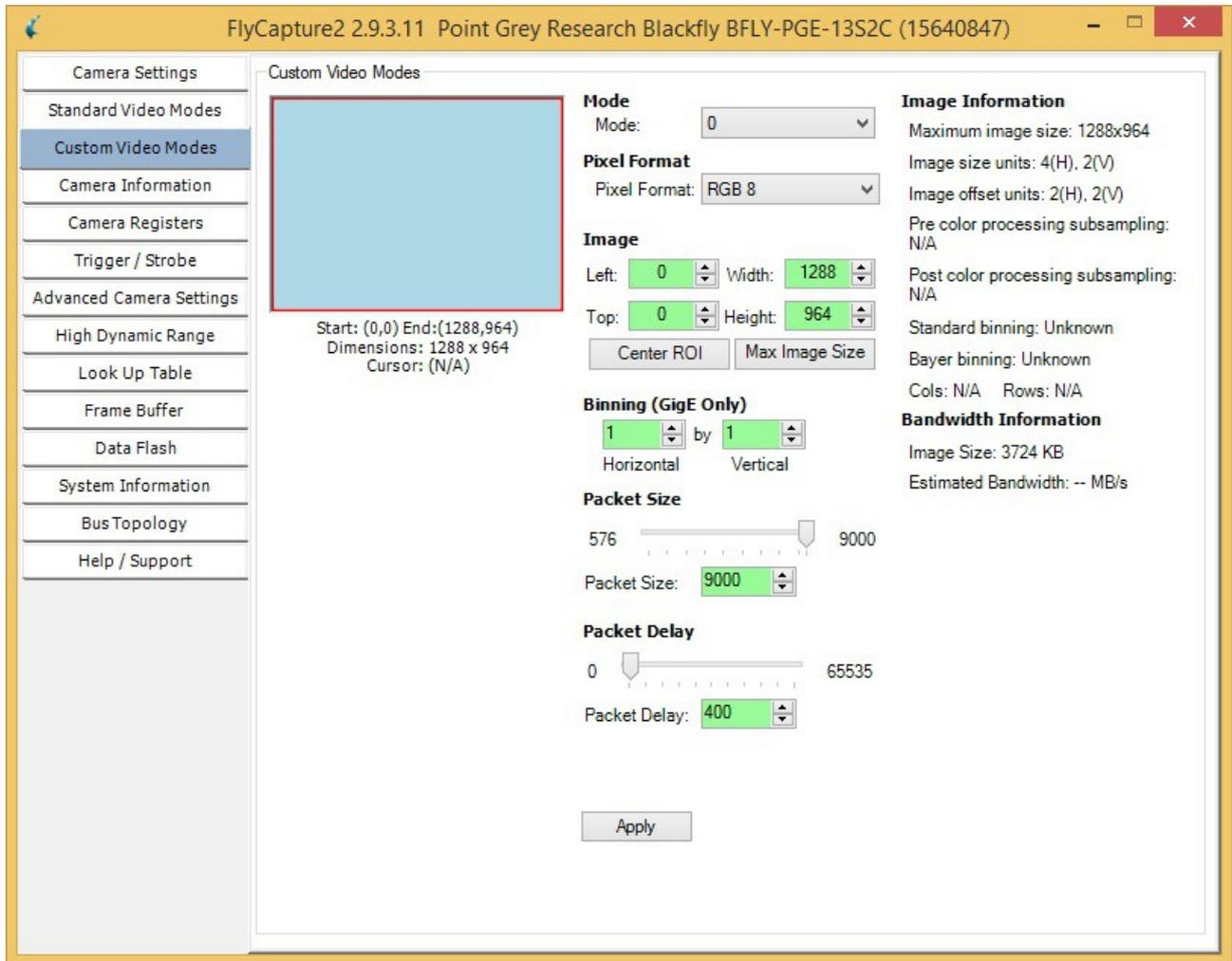
Proceed to **Advanced Camera Settings**, go to Auto range Control and from the Property drop down menu, select Shutter and enter the following values:
Min = 1
Max = 150 (For high speed traffic this value should be decreased although by doing so the images will appear darker if the external illumination is weak).
Then push the Set Range button.

Regarding the Exposure as well as the Gain, it's advisable to use the default values and leave these features working in auto mode so that the sensor will adjust these parameters according with the external illumination.

Exposure Min and Max values:
Min = 256
Max = 768

Gain Min and Max values:
Min = 256
Max = 814
When both Min and Max value has been entered please press the Set Range button.

To record the camera configuration, move to Memory Channels submenu and select Channel 1, then press the button save.
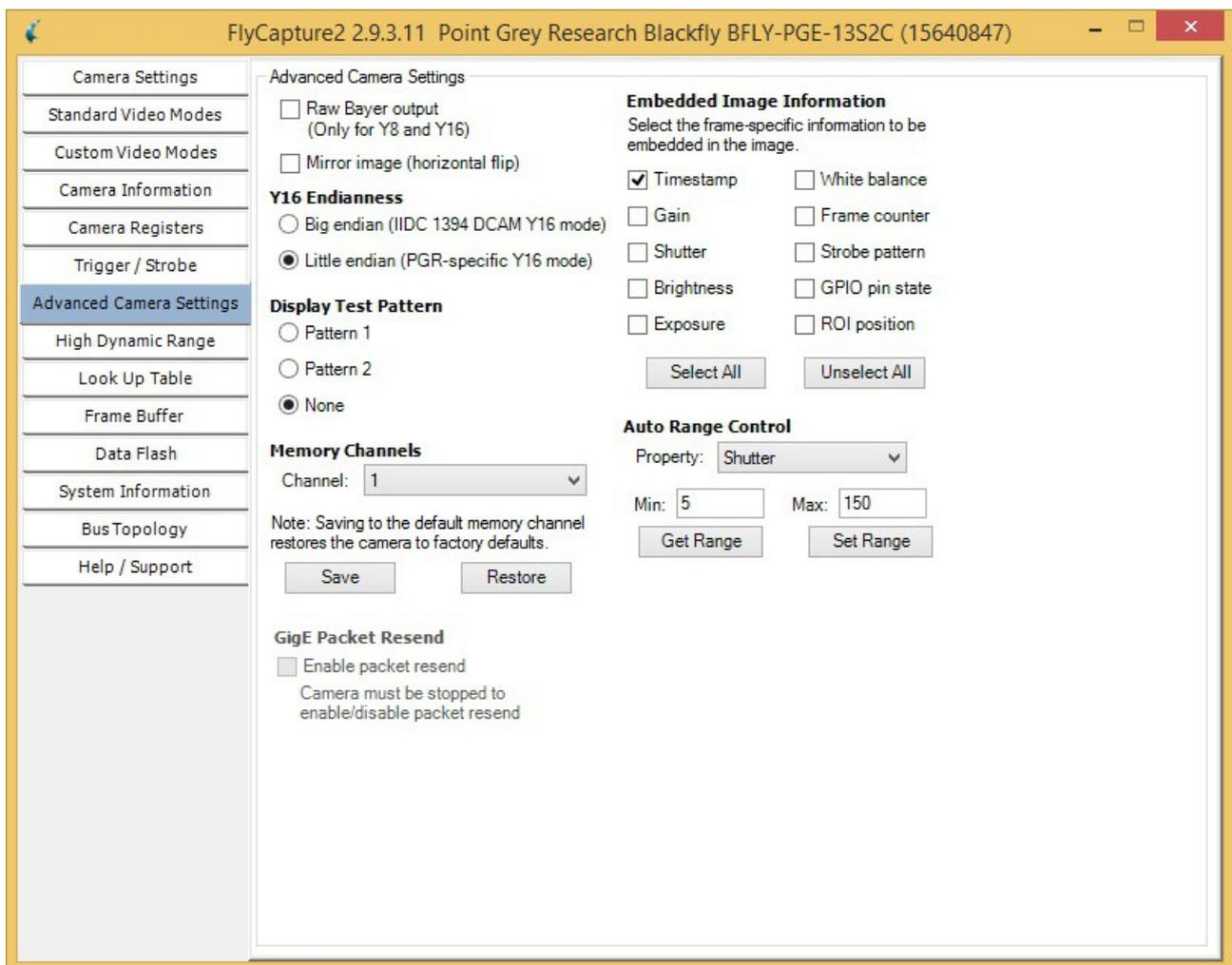
Restoring the camera default values

If you wish to **restore the camera default values**, access the Camera Control Dialog and proceed in Advance Camera Settings menu. Go in the Memory Channels and select 'Default' from the Channel drop down menu, then press Restore.

Wall mount bracket. Assembly and installation instructions
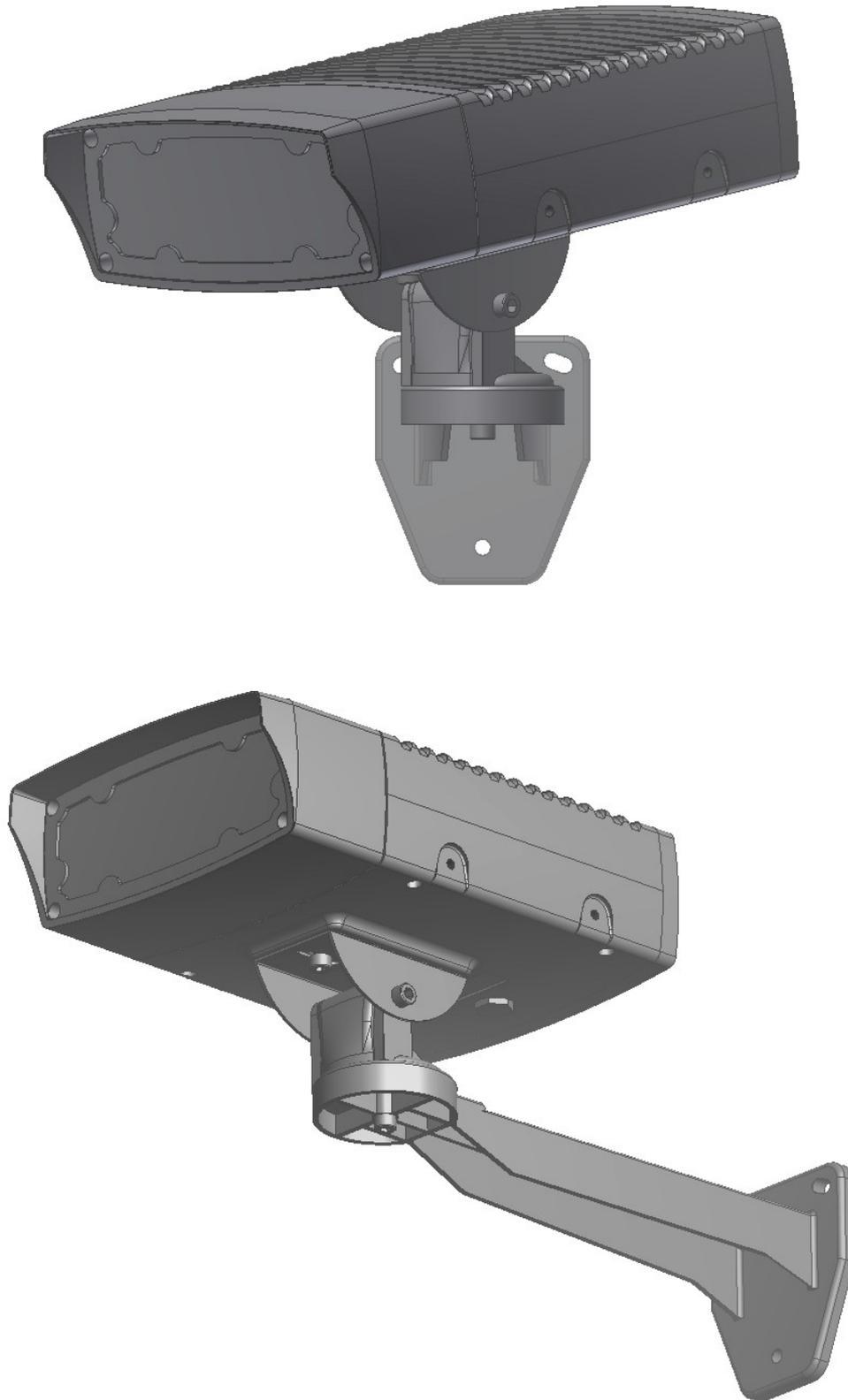
Option 1
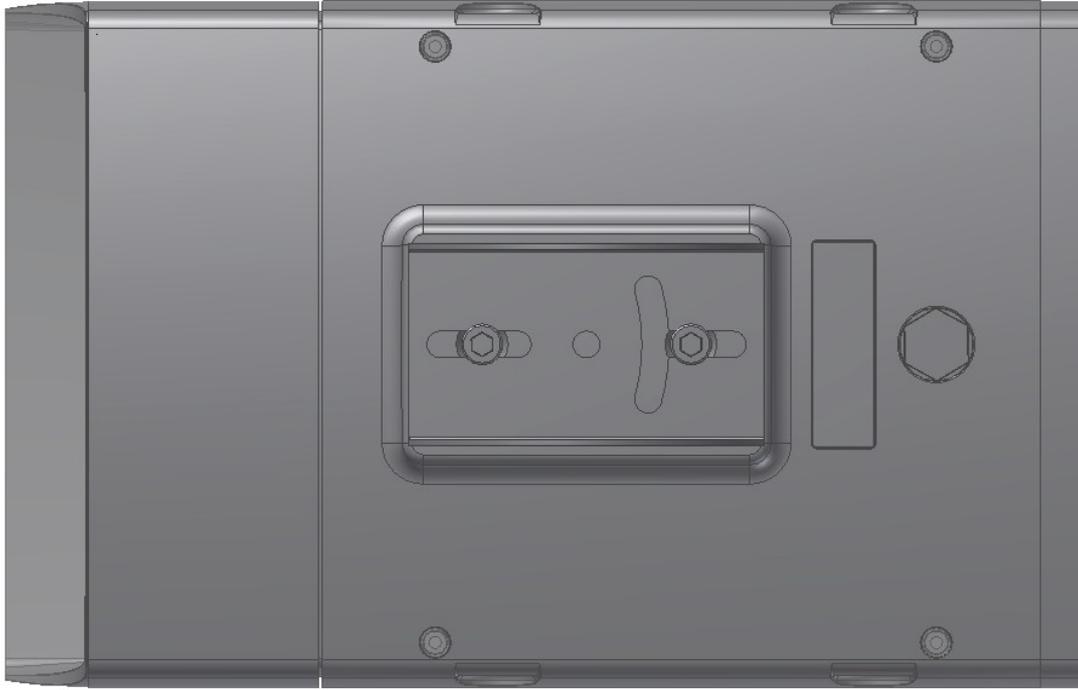
Option 2, to fine tune the horizontal angle
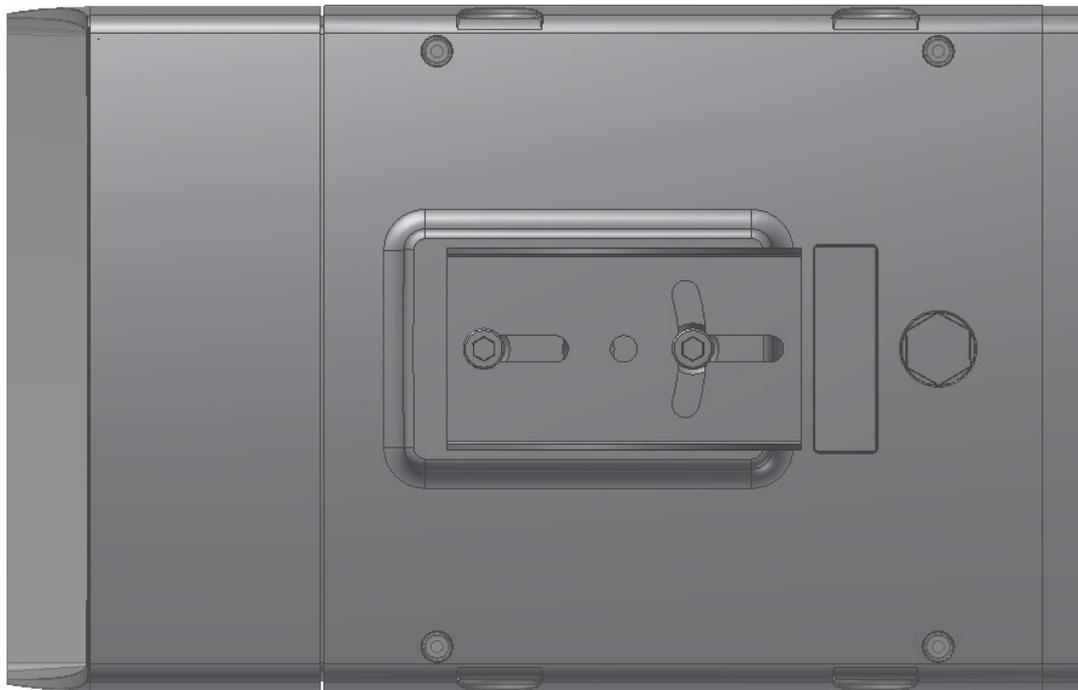
Option 2, details
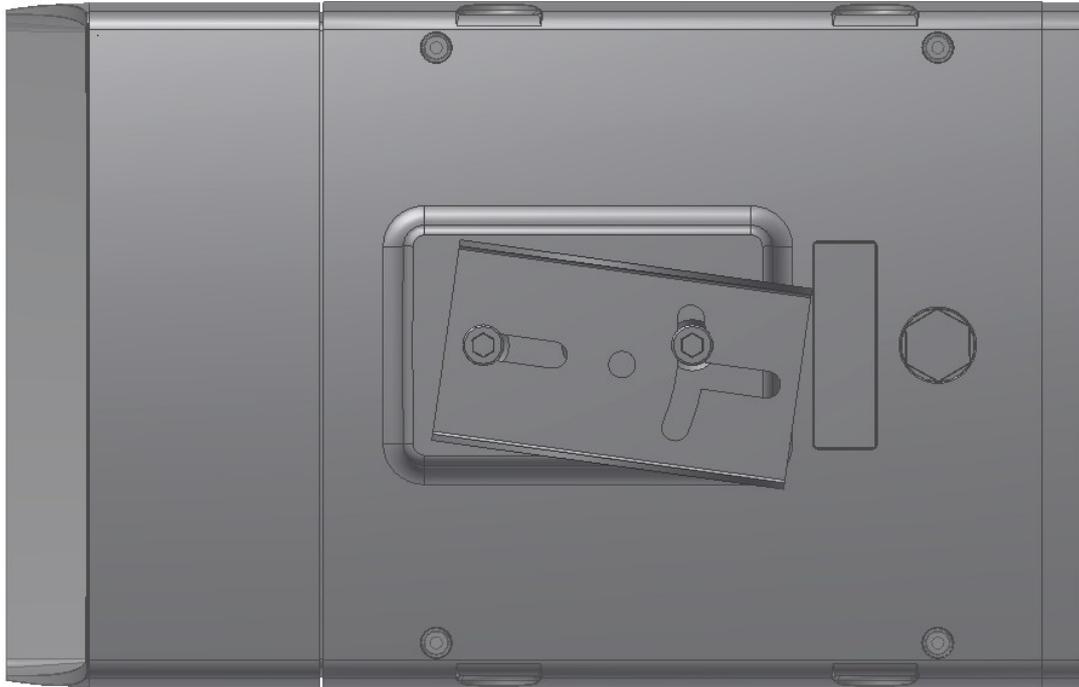
Ceiling mount bracket. Assembly and installation instructions
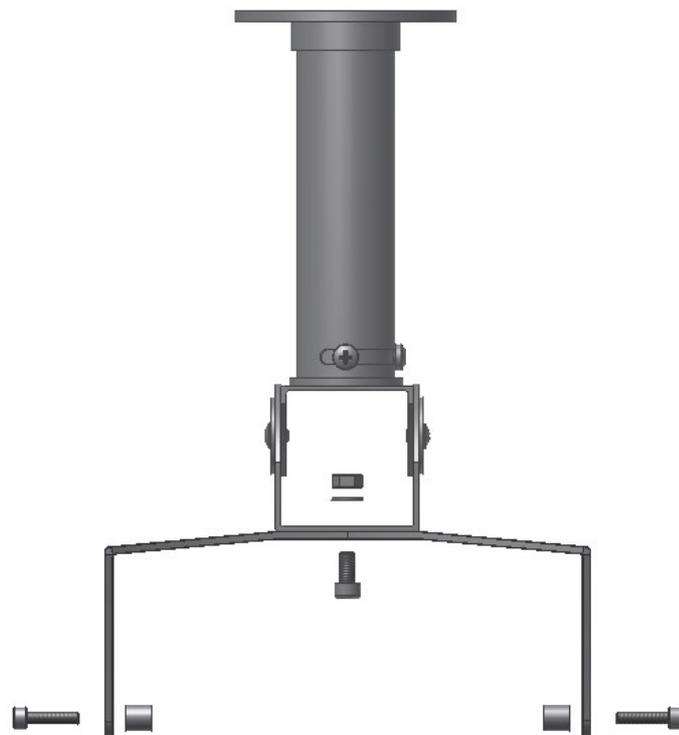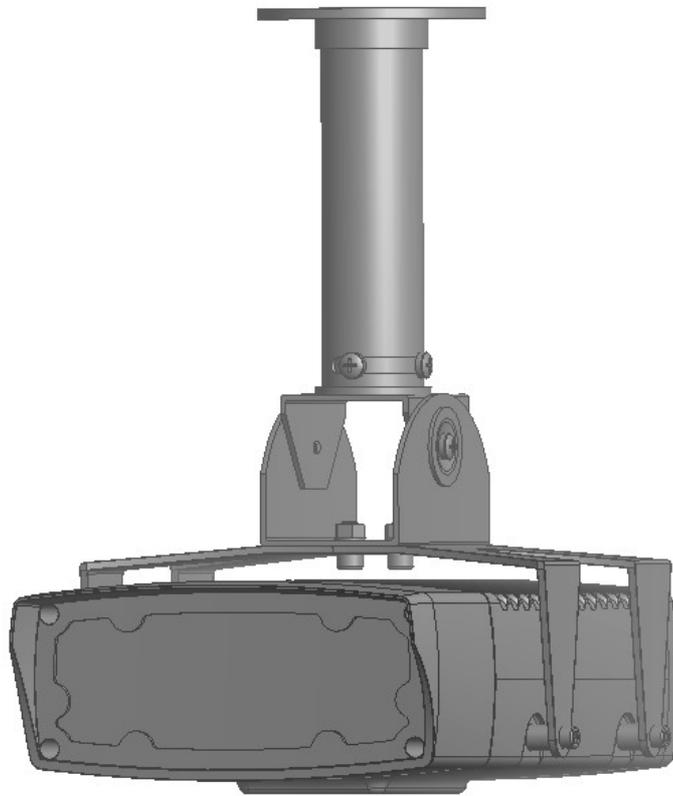
Vehicle mount bracket. Assembly and installation instructions
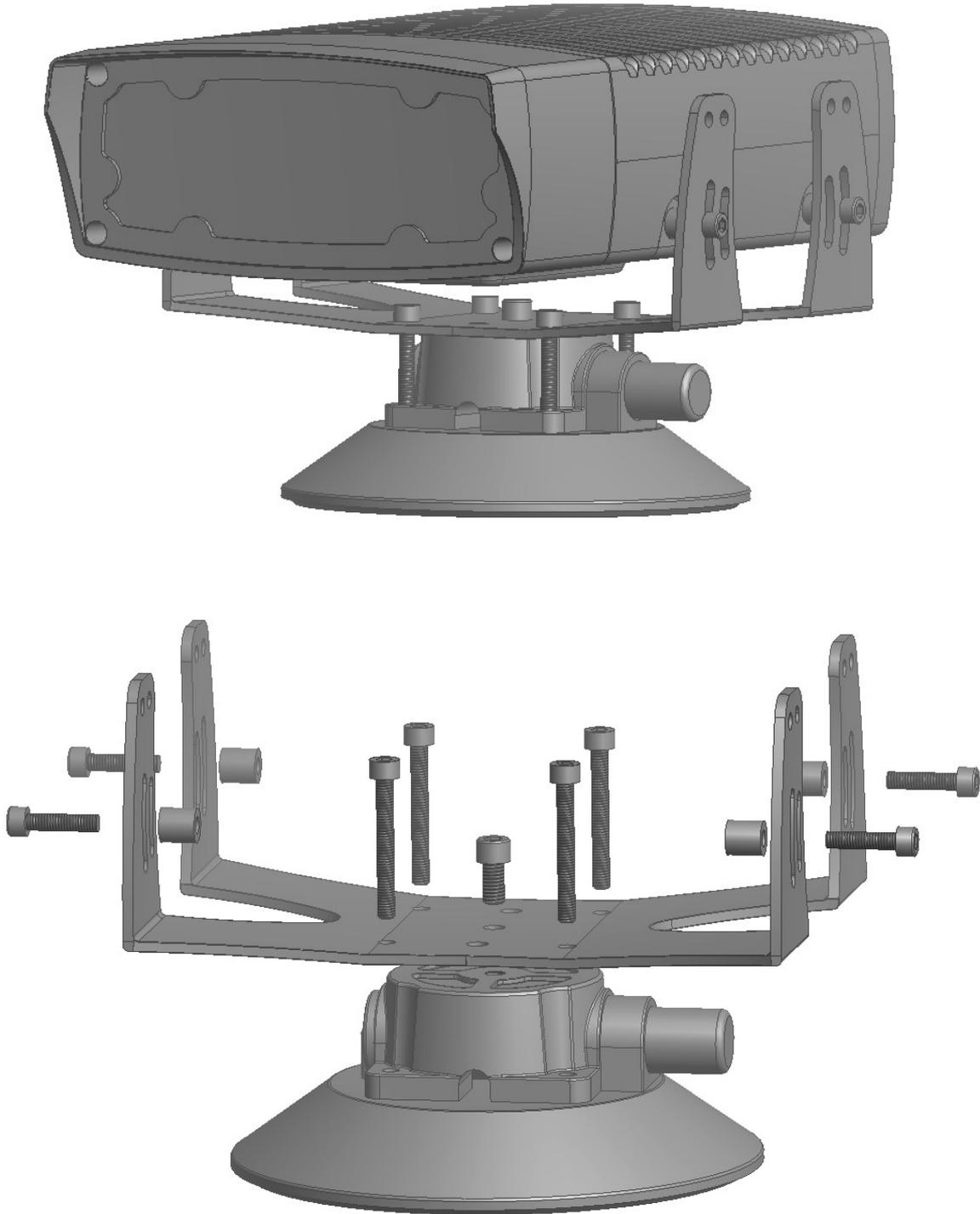
RMA INSTRUCTIONS

How to Return Equipment or Components Via the RMA Process

1. Obtain an RMA Number
2. Ensure that all equipment and/or components you are returning are wrapped in packaging resistant to electrostatic discharge (ESD).
3. Ensure that all equipment and/or components you are returning are packed in sturdy containers (preferably the original containers).
4. Clearly mark the RMA number on the outside of the return shipping container(s).
5. Send returns to the following address:

Italtraff srl
Via Acclavio 9 - Zona Industriale
74024 Manduria (TA)
ITALY
Attn: [RMA number you were assigned]

You are responsible for all costs associated with the return (e.g., shipping carrier, customs, etc.). Outside Europe, the costs are for round-trip shipments for all items. Inside Europe, the costs are one-way for warranted items and round-trip for non-warranted items.

Shipments must be door to door. Freight, duties, and taxes must be prepaid. We recommend using one of the following freight companies:

United Parcel Service (UPS)
FedEx
DHL Worldwide Express

Ensure that any other paperwork or correspondence you send with the returned equipment reflects your RMA number.

IMPORTANT NOTICE
RMA numbers are valid for thirty (30) days from the date of issuance in the Europe, and for sixty (60) days in all other countries. If Intertraf does not receive the equipment to which the RMA number has been assigned within the allowed time frame, the RMA will be closed, and any equipment received bearing this RMA number after the expiration date will be refused. Neglecting to follow any or all of the above instructions may result in refusal to accept a returned item and/or a charge for repair, regardless of warranty status.

Note: For international shipments please include a copy of your customs invoice with your shipment.

ADDITIONAL COSTS THAT MAY BE ASSESSED DURING REPAIR

Maintenance & Troubleshooting

There are no replaceable maintenance items. Depending on the installation conditions it may be necessary to clean the front window from time to time. This should be done carefully with a clean damp cloth, taking care not to scratch the surface of the sunshield.

Problem	What to do
Camera does not start	1. Check the power supply (12 volts DC) 2. Open the backplane of the SuperWalzCAM and control that the fuse did not blow. 3. If necessary, connect monitor, mouse and keyboard to make sure it's still possible to login into Windows O/S.
Pictures are too bright at night	Consider to decrease the Gain max value. Run the Flycapture, select the camera. From the tool bar select Toggle Camera Dialog. Then from go in Advance Camera Settings and select Property: Gain, from the Auto Range Control submenu. Then select a lower value for the Max gain.
Pictures are too dark at night	Consider to increase the Gain max value. Run the Flycapture, select the camera. From the tool bar select Toggle Camera Dialog. Then from go in Advance Camera Settings and select Property: Gain, from the Auto Range Control submenu. Then select a higher value for the Max gain.
Objects are not in focus	Refocus the lens following the instructions previously reported
Are the LED switched on?	Point a mobile phone camera on the WalzCAM front panel to check if the LED is on or off Please bear in mind that, the LEDs switch off if the shutter is operating on a higher value (>1/500 sec or >60)
The camera video signal disappeared	This happens when two different software applications accessed the camera at the same time. If the video streaming is off, run the Flycapture and select the camera. From the Flycapture toolbar, select Toggle Camera Dialog. Then from the menu on the left select the TAB Advance Camera Settings and in Memory Channels submenu choose, "default" then press Save. At this point the camera will be operating using the default values and the video streaming should be visible. If the video streaming is not yet visible, press the button PLAY. Afterwards, please access the Advance Camera Settings TAB and Select Channel 1 from the Memory Channels, then press save to make the camera using the special configuration this user's manual explained in the previous pages. At this point it's always useful to double check that the params correspond to the desired ones: ANPR Camera: – **Camera Settings**: FPS: 10 – **Camera Video Mode**: Pixel Format: Mono 8. Packet Size: 9000 – **Trigger Strobe**: GPIO 1_Out; Enable strobe for this Pin; Polarity Low – **Advance Camera Settings**: Exposure: 256 - 768; Shutter: 3 – 60; Gain 256 – 400; Channel 1: SAVE

	Colour Camera:
	– **Camera Settings**: FPS: 10
	– **Camera Video Mode**: Pixel Format: RGB 8. Packet Size: 9000
	– **Advance Camera Settings**: Exposure: 256 - 768; Shutter: 1 – 150; Gain 256 – 812; Channel 1: SAVE

TECHNICAL SPECIFICATIONS

ANPR Sensor Specifications	
Sensor Type	1/3-inch CCD
Total Sensor Pixels	1.288 x 964 (1.3 MP)
Chroma	Mono
Pixel size	3.75 µm
Lens Mount	CS-Mount
Interface	GigE
Max Frame per Seconds	30 FPS
Video Streaming	Mono 8
Shutter	Global shutter
Lens	MP fixed focal, manual IRIS: 6, 8, 12, 16, 25 mm
Power Requirements	12 V nominal
Power consumption	2.5 W (Maximum)
Lifetime MTBF	> 150.000 hours

Colour Sensor Specifications	
Sensor Type	1/3-inch CCD
Total Sensor Pixels	1.288 x 964 (1.3 MP)
Chroma	Colour
Pixel size	3.75 µm
Lens Mount	CS-Mount
Interface	GigE
Max Frame per Seconds	30 FPS
Video Streaming	RGB 8
Shutter	Global shutter
Lens	MP fixed focal, manual IRIS: 6, 8, 12, 16, 25 mm
Power Requirements	12 V nominal
Power consumption	2.5 W (Maximum)
Lifetime MTBF	> 150.000 hours

LED (x4)	
Wavelength	Controlled pulse Infra-red LED, 850nm
Power consumption	12W
Radiant Intensity	630mW/sr @ 1A
Forward current	1000 mA
Operating Temperature	-40°C ~ 100°C
Lifetime MTBF	> 50.000 hours

Processing Module	
CPU	Intel® Atom™ QC E3845 (1.91GHz, 2MB cache)
System Memory	DDR3L-1333 SO-DIMM, 4GB
SSD Had Disk / Mini-PCIe	1x mSATA for 30 GB options: 60 GB, 120 GB, 240 GB
Display Interface	DisplayPort
USB	1 port USB3.0 on board 1 port USB2.0 on board 2 ports USB2.0 via pin header
Controller	2x Intel® I210IT PCI-E Gigabit LAN
Connector	2x RJ-45 on board
Wi-Fi / Half Mini PCIe	IEEE802.11b/g/n
Digital Output	Dry contact relay, 1A - 12VDC

Power Requirement	+12V: 1.57A
Operating Temperature	-40°C / +85°C
Relative Humidity	10%~90% (non-condensing)
Operating System	Microsoft® Windows® 8.1
Power, Housing & Environmental Specifications	
Power Supply	12 VDC
Power Consumption	2.5 A
Ambient operating temp.	-25º to +60º C
Ambient operating Humidity	20 up to 93%RH
Storage Temp.	-25º to +70º C
Storage Humidity	Up to 98% RH
IP rate	IP66 according with EN60529
Camera Housing	Aluminium anodized
Output (IP 67)	A: 4 pins. Power & Output (N.O.) B: RJ45, Ethernet 10/100 BASE-T C: 10 pins, Extra Illuminator Sync
Tripod mount	Bottom 3x 1/4-inch 20 UNC
Dimensions (L x W x H)	270 x 165 x 80mm
Weight	2.5 kg
Power Supply Unit	
Mains Supply	110/220V, 50Hz – 5 A
Output	Nominal 12 Volts DC
Dimensions (L x W x H)	165 x 68 x 42 mm
Weight	1 kg
IP rate	IP67 according with EN60529

Product codes

		EU Plates	
Product code	**N. of lanes**	**Min distance¹ mt (lane width)**	**Max distance² mt (lane width)**
SWZ_6	1	3.2 (2.6 mt)	6 (4.9 mt)
SWZ_8	1	4.4 (2.4 mt)	7.9 (4.4 mt)
SWZ_12	1	6 (2.4 mt)	13.9 (5.6 mt)
SWZ_16	1	8.3 (2.4 mt)	16.3 (4.6 mt)
SWZ_25	1	13.9 (2.6 mt)	27 (5 mt)³

[1] Characters height: 40 pixels
[2] Characters height: 20 pixels
[3] For capturing distance >20 meters, SuperWalzCAM requires extra illuminators.

Weights, dimensions and distances indicated are approximate. Specifications are subject to change without notice.

Intertraff

Manduria, Italy

http://www.intertraff.com