SVBONY SV905C Telescope Camera With CMOS Sensor User Manual

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SVBONY SV905C Telescope Camera With CMOS Sensor

Product Information

The SV905C is a camera model designed for various applications. It is equipped with a color sensor and a USB 2.0 interface. The camera features a SONY IMX225 sensor and has a total pixel count of 1.2 million. It offers a maximum resolution of 1280*960 pixels, with a pixel size of 3.75m*3.75m. The SV905C has a maximum frame rate of 39FPS and utilizes a rolling shutter for capturing images. The camera supports a wide range of exposure times, ranging from 64 microseconds to 2000 seconds. It has a read noise of 4.0e, QE peak of 75%, and a full good charge of 13ke. The SV905C also features a 12-bit ADC and a gain range of 0-720. It supports ROI (Region of Interest) function and offers binning options of 1×1 and 2×2. The camera is compatible with Windows, Linux, Raspberry Pi, and Mac operating systems.

Product Usage Instructions

1. Connect the SV905C camera to your computer using the provided USB cable.
2. Ensure that the camera is properly recognized by your operating system.
3. Install the appropriate software for your operating system. For Windows, you can use Sharpcap, Firecapture, PHD2, or ASCOM platform. For Linux, you can use AstroDMX Capture for Linux. For Raspberry Pi, you can use AstroDMX Capture. And for Mac OS, you can use AstroDMX Capture.
4. Launch the software and locate the SV905C camera in the device list.
5. Configure the camera settings according to your requirements, such as resolution, frame rate, exposure time, and gain.
6. Position the camera to capture the desired image or video.
7. Click on the capture button in the software to start capturing images or recording videos.
8. Review and save the captured content as per your preference.
9. Disconnect the SV905C camera from your computer when finished.

EU Importer

- **Name** Germany Retevis Technology GmbH

Instruction

Congratulations and thanks for purchasing our SVBONY SV905C camera! The manual is an introduction to the SVBONY SV905C camera for you. Please read the manual completely before using it. If you have any product

questions, please feel free to contact us in time: **info@svbony.com**. The SVBONY SV905C camera is specially designed for guiding and can also be used for astrophotography. Its stable guiding performance will definitely impress you! For software information and more technical information, please refer to the “SUPPORT” section of our official website: **www.svbony.com**.

Camera model and sensor type

Model	Color/Black and white	USB interface	Sensor
SV905C	Color	USB2.0	IMX225

SPECIFICATION

Model	SV905C
Sensor	SONY IMX225
USB Type	Type-C USB 2.0
Total pixels	1.2M pixel
Diagonal	6mm
Maximum resolution	1280*960
Pixel size	3.75μm* 3.75μm
Image area	5.6mm*3.2mm
Maximum frame rate	39FPS
Shutter type	Rolling Shutter
Time of exposure	64us-2000s

Read noise	4.0e
QE peak	75%
Full well charge	13ke
ADC	12bit
Gain	0-720
ROI function	Yes
Bin	1×1 2×2
Digital noise reduction	HCG mode
Video format	AVI
Communication interface	Direct Show interface
Application software	Windows OS: Sharpcap, Firecapture, PHD2, ASCOM platform Linux OS: AstroDMX capture for Linux Raspberry Pi: AstroDMX Capture Mac OS: AstroDMX Capture
Compatible system	Windows7,Windows10,and Main Stream Linux OS,Raspberry Pi, Mac OS
Working temperature	– 5℃ 45℃
Storage temperature	– 20℃ 60℃
Working humidity	20% RH-80% RH
Storage humidity	20% RH-95% RH
Power consumption	<0.5W
Back intercept	7.5mm/12.5mm
Protective glass	AR Coating

Camera Introduction

Appearance

Guiding software installation

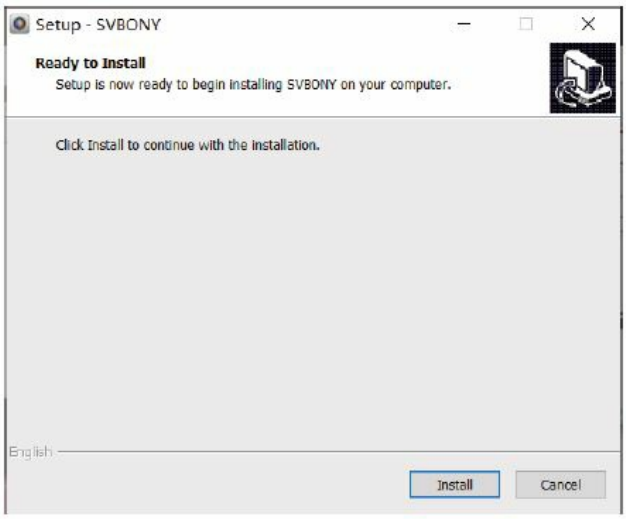
Camera driver installation

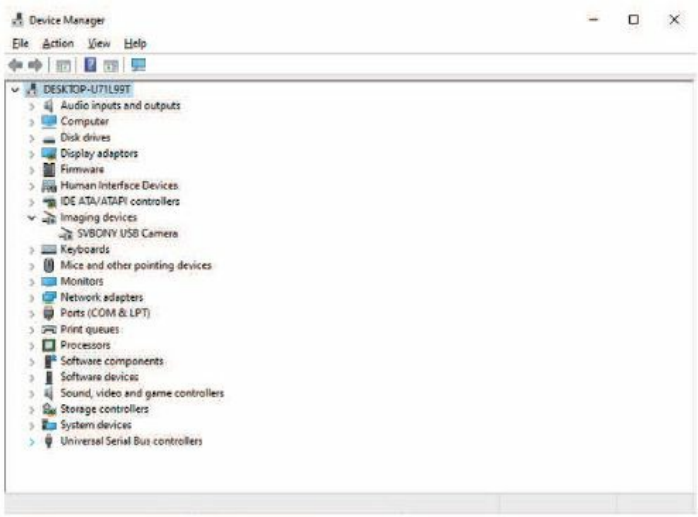
Driver Download: You can copy the camera driver through the presented CD or download the latest driver through the SVBONY official website: **https://www.svbony.com/Support/SoftWare-Driver/**

Install the Windows driver

1. Double-click the driver installation package, select the language, and enter the installation page.
2. Click Install and wait for completion.
3. Check the driver installation: After the installation is complete, connect the camera to the computer's USB port via a USB cable, and the camera will automatically recognize it.
4. Check the camera status in the device manager.

Note: Please do not connect the camera before installing the driver.



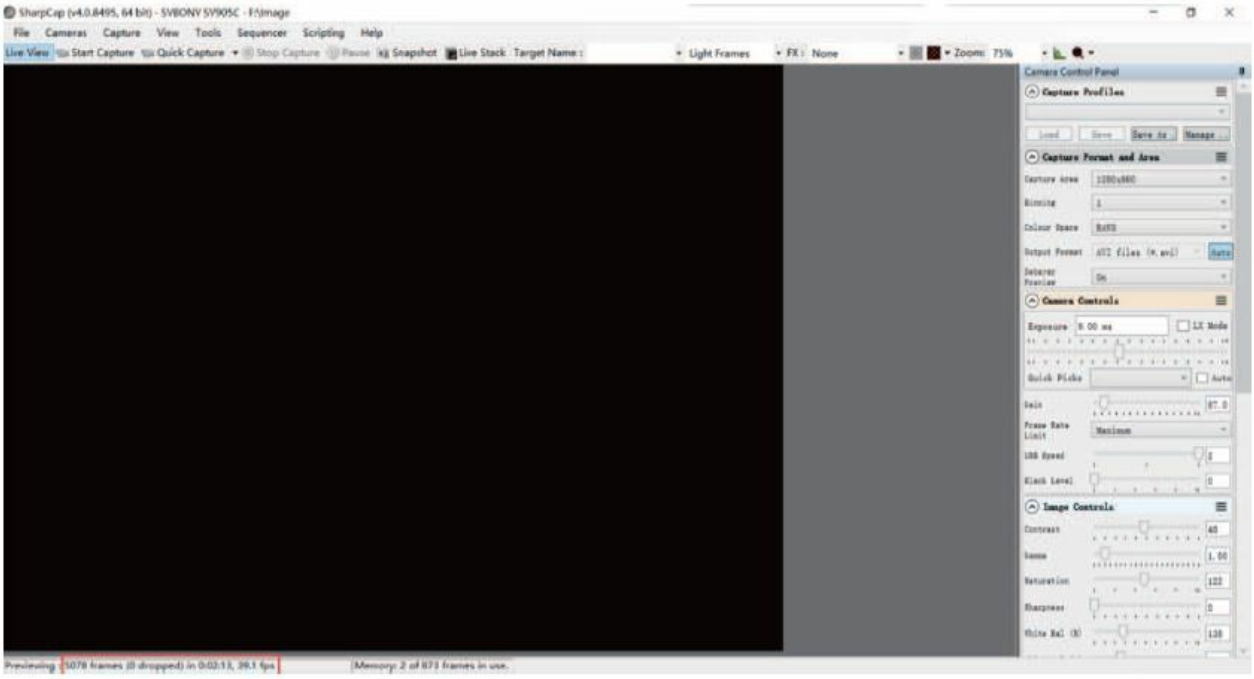


Shooting software installation

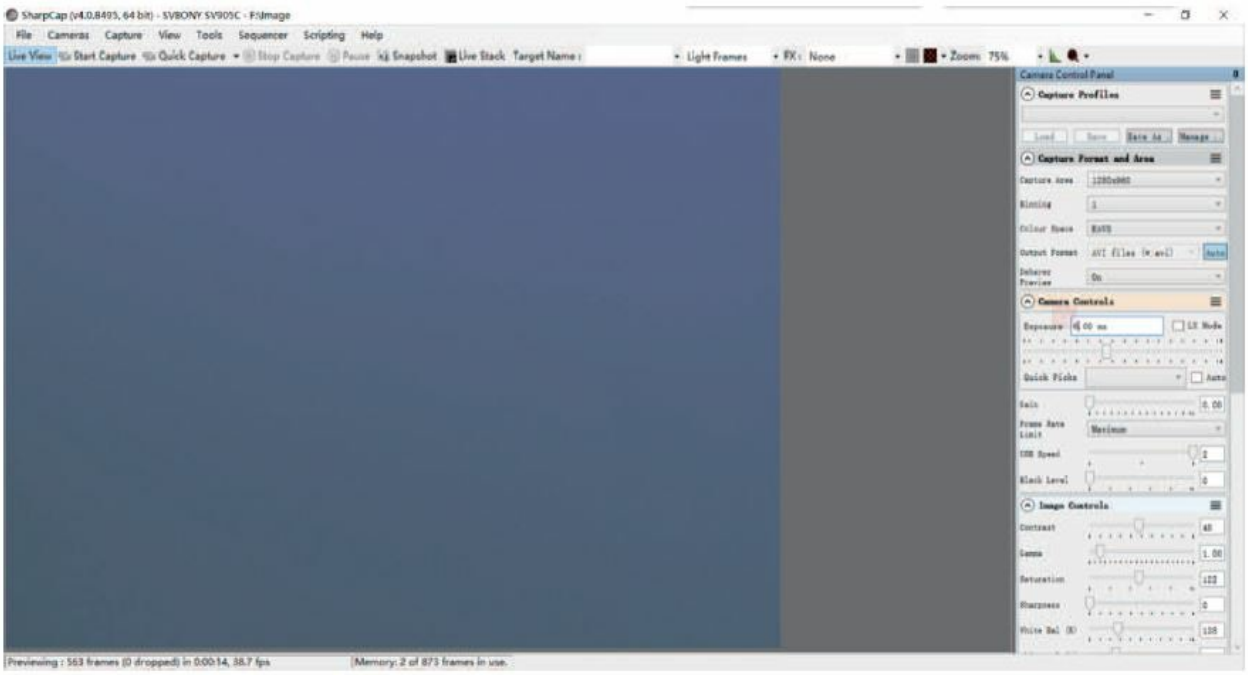
1. Install and use shooting software
    1. Use Sharpcap software: download the latest version from the Sharpcap official website.
    2. Click Install, set the installation path (default) to complete the installation.
    3. After the installation is complete, perform a preliminary test; open the software, find the Svbony Camera model in the camera drop-down menu; and click Connect.
    4. Set the shooting storage path.
    5. The instructions for getting started with Sharpcap can be viewed in the "Help" option of the software. At

the same time, a PDF format file is available for download under “Documents” on the homepage of Sharpcap’s official website, and you can learn after downloading.

2. Check the shooting software
    1. Check the frame rate



    2. Remove the camera dust cover and adjust the exposure time; There are light and dark changes in the preview interface, indicating that it is working properly.



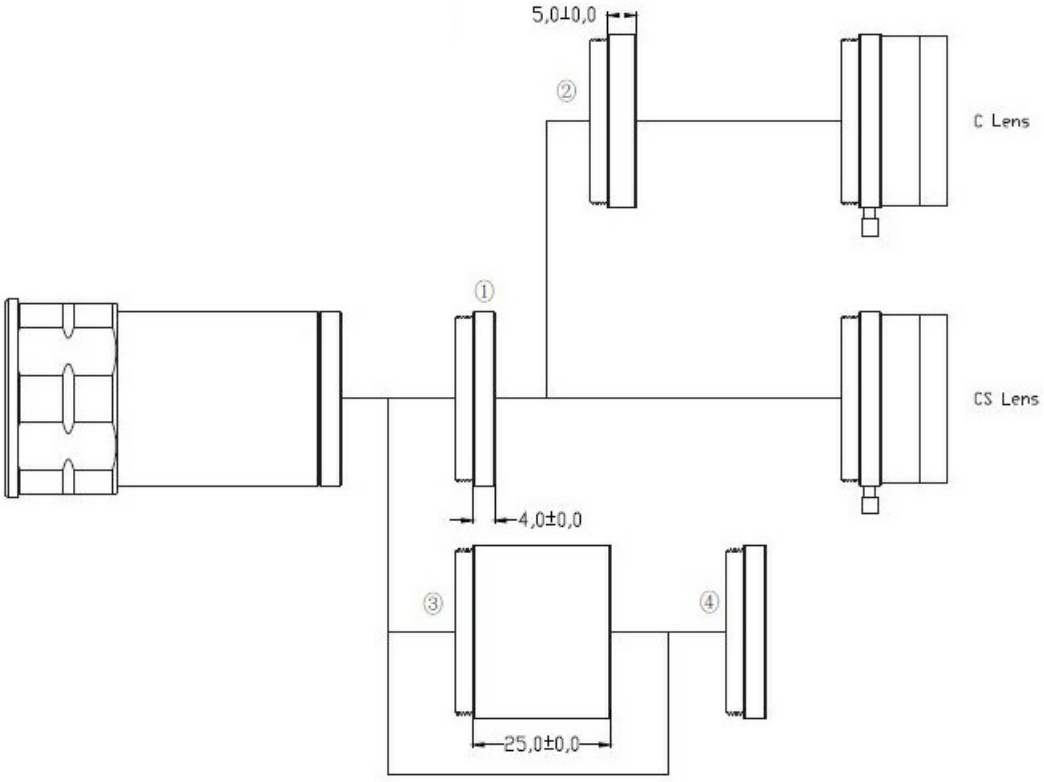
Guiding software installation

1. Use PHD2 software: download the latest version on the PHD2 official website (There is also a guide step for the download link on the ebony official website).
2. Click Next and set the installation path (default); click Install to complete the installation.
3. The guidance on the introductory operation of PHD2 can be viewed in the “Help” option of the software. At the same time, there is an introductory operation manual on the homepage of the PHD2 official website which can be downloaded for learning and use.
4. For PHD2 application issues; general troubleshooting; error reports; feature requests and PHD2 development

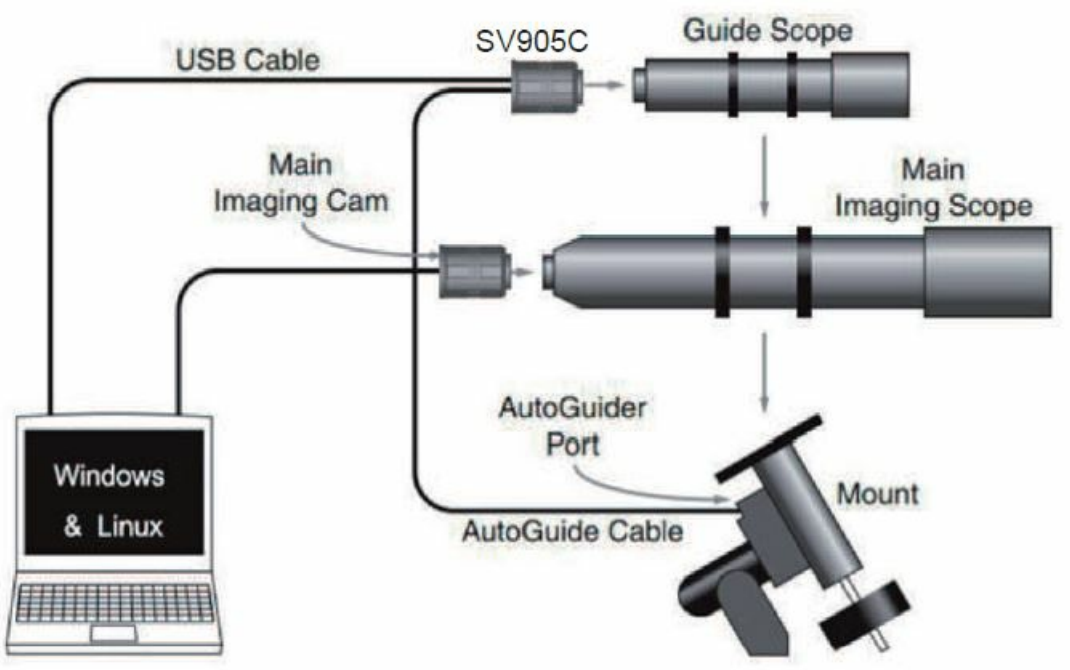
issues, you can post in the Open PHD Guiding Google team to find out the reasons.

Accessory Connection

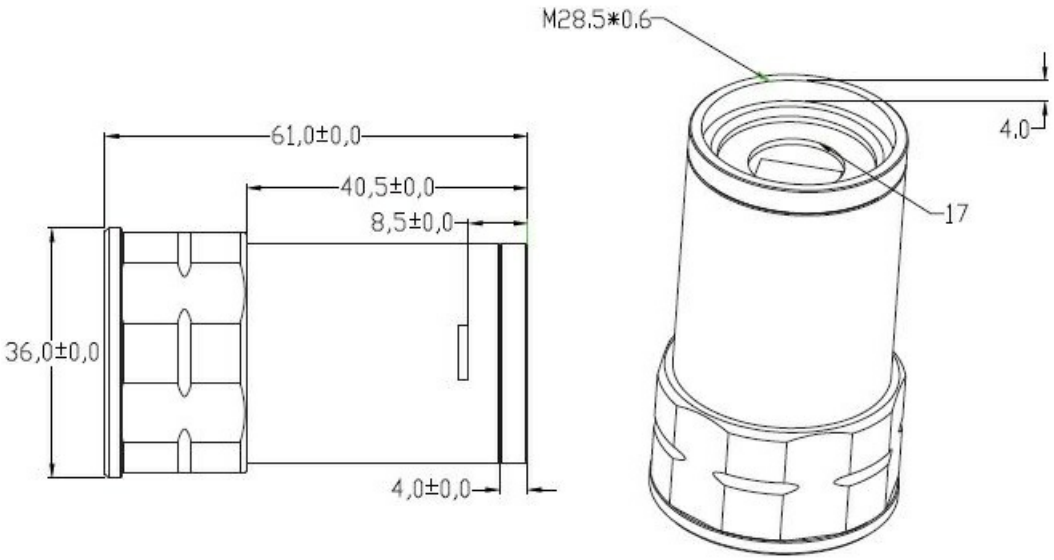
1. M28.5-CS Adapter Ring
2. CS-C Adapter Ring
3. 1.25” Extension Tube
4. 1.25”Filter



Connecting



Structure



General Clean
SV905C camera is equipped with protection window glass and the inside of the color sensor is dry and sealed. If you want to clean the sensor, we recommend that you do it during the day, with better light so that you can see the dust clearly: please connect the camera to the telescope first; then point the telescope to a bright place; next, install a Barlow lens to see the dust. Please adjust the exposure to make sure not to overexpose.

1. For larger dust, it is recommended to blow off the dust on the glass surface with air;
2. The shadow of the dust is recommended to be removed by the software in the flat field frame.

Quality Assurance & Warranty
The Astronomy Camera warranty time is one year. Within the warranty period, if the camera fails to function, we will provide free after-sales maintenance service. Besides the warranty days, we provide life-long maintenance services and charge only the parts that need repair or replacement. The buyer will pay for the postage of returning the camera to the factory to be repaired. Within the warranty period, if the following condition occurs, certain maintenance costs will be charged.

1. The malfunction and damage are caused by incorrect use, unauthorized repairs, and alteration.
2. The damage caused by fire, flood, earthquake, other natural disasters, and secondary product damage.
3. The product malfunction was caused by the fall and transportation failures after purchase.
4. The malfunction and damage caused by the other barriers (man-made factors or external devices).
5. Purchase without the warranty card and purchase invoices.

ATTENTION!
Before using this device, read this guide which contains important operating instructions for safe usage and control for compliance with applicable standards and regulations.

FCC Requirements

- Products authorized under Part 15 using SDoC or Certification require a label containing one of the following compliance statements

1. Receivers associated with licensed device service operations:
   This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.
2. Stand-alone cable input selector switch: This device complies with part 15 of the FCC Rules for use with cable television service.
3. All other devices:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

CE Requirements:
(Simple EU declaration of conformity) Hong Kong Svbony Technology Co.,Ltd declares that the equipment type is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/30/EU the ROHS Directive 2011/65/EU, and the WEEE Directive 2012/19/EU; the full text of the EU declaration of conformity is available at the following internet address: **www.svbony.com**.

Disposal
The crossed-out wheeled bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

IC Requirements:
CAN ICES-3(B)/NMB-3(B)

Avoid Choking Hazard

- Small Parts. Not for children under 3 years.

Approved Accessories

- This device meets the regulatory standards when used with the Svbony accessories supplied or designated for the product.
- For a list of Svbony-approved accessories for your item, visit the following website: **http://www.Svbony.com**

Warranty Card

- Product Model
- Purchasing Date
- Defect Reason
- Dealer Name
- Telephone
- Users' Name
- Users' Address
- Users' Email

Remarks

1. This guarantee card should be kept by the user, with no replacement if lost.
2. Most new products carry a one-year manufacturer's warranty from the date of purchase.
3. The user can get a warranty and after-sales service as below:
    - Contact the seller where you buy.
4. For warranty service, you will need to provide a receipt proof of purchase from the actual seller for verification

Exclusions from Warranty Coverage:

1. To any product damaged by accident.
2. In the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs.
3. If the serial number has been altered, defaced, or removed.

Hong Kong Svbony Technology Co., Ltd

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Documents / Resources

	SVBONY SV905C Telescope Camera With CMOS Sensor [pdf] User Manual SV905C Telescope Camera With CMOS Sensor, SV905C, Telescope Camera With CMOS Sensor, Camera With CMOS Sensor, With CMOS Sensor, CMOS Sensor

References

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- Svbony - Astronomer's favorite brand
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- SoftWare Driver