User Manual

CARGOVISION

Part#:77-S274

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1. INTRODUCTION

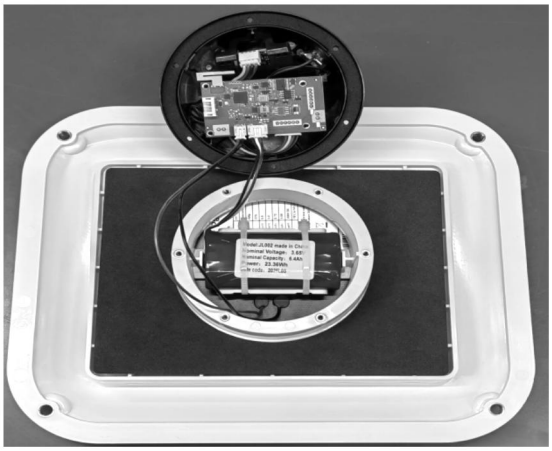
The Phillips Connect CARGOVISION is one of a growing family of sensors and system monitoring products from Phillips Connect used in conjunction with a PCT Gateway and Remote Listener System, or other cloud-based reporting system. CargoVision is designed to provide an uncompromised, on-demand view of the interior of a trailer in 1080P quality.

Simple installation and connectivity to your existing Phillips Connect Trailer Gateway module provides the ability to pre-program image capture events based on motion, door open/closed (if equipped), time-based or web-based image on-demand. Images are uploaded to the cloud for viewing through the Phillips Connect customer portal or automated API feed.

2. GENERAL FEATURES

- Environmental Resistance: IP67
- Operational Temperature: -40℃ to 70℃
- Solar Panel Max Power: 4W
- Battery Capacity: 6.4Ah
- Installation Time: ~15 minutes
- Connectivity: BLE 5.0/2.4 GHz (to PCT Gateway module)
- Image Quality: 720P
- Ideal Mounting Location:Top, Rear, Driver's Side of trailer approximately 48" from rear of trailer and 12" from roof
- Mounting Location Tolerance: +/-8" from roof, +/- 24" from rear door
- Flash: Red and white LED

Mounting Surface



Interior View

3. SPECIFICATIONS

IMAGE PROPERTIES
Resolution: 1080*720
Field of View: 140°
Flash: 1 second illumination per LED (red and white)

GATEWAY DATA INTERFACE
Bluetooth 5.0

ELECTRICAL
Solar Panel MP (current @ max power):4W
Solar Panel VMP (voltage @ max power): 5.8V(DC)
Battery Type: Li-ion, Rechargeable

- Nominal Capacity: 6.4Ah
- Nominal Voltage: 3.65V(DC)

Battery Performance (from full charge to depletion)

- Up to 800 images
- Operates for up to 400 days while idling

ENVIRONMENTAL
Ingress Protection Rating (External to Trailer): IP67
Operating Temperature: −40°F to +149°F (−40°C to +65°C)

MECHANICAL
Dimensions: 8.55” (H) x 10.14” (W) x 3.30” (D) (217.2mm x 257.6mm x 83.8mm)
Depth on trailer exterior: 0.96” (24.4mm)
Weight: 1.53 lbs. (695.9g)
Mounting: 48” from rear of trailer; 12” from roof
Location: Roadside rear of trailer

4. CAMERA FUNCTION DESCRIP

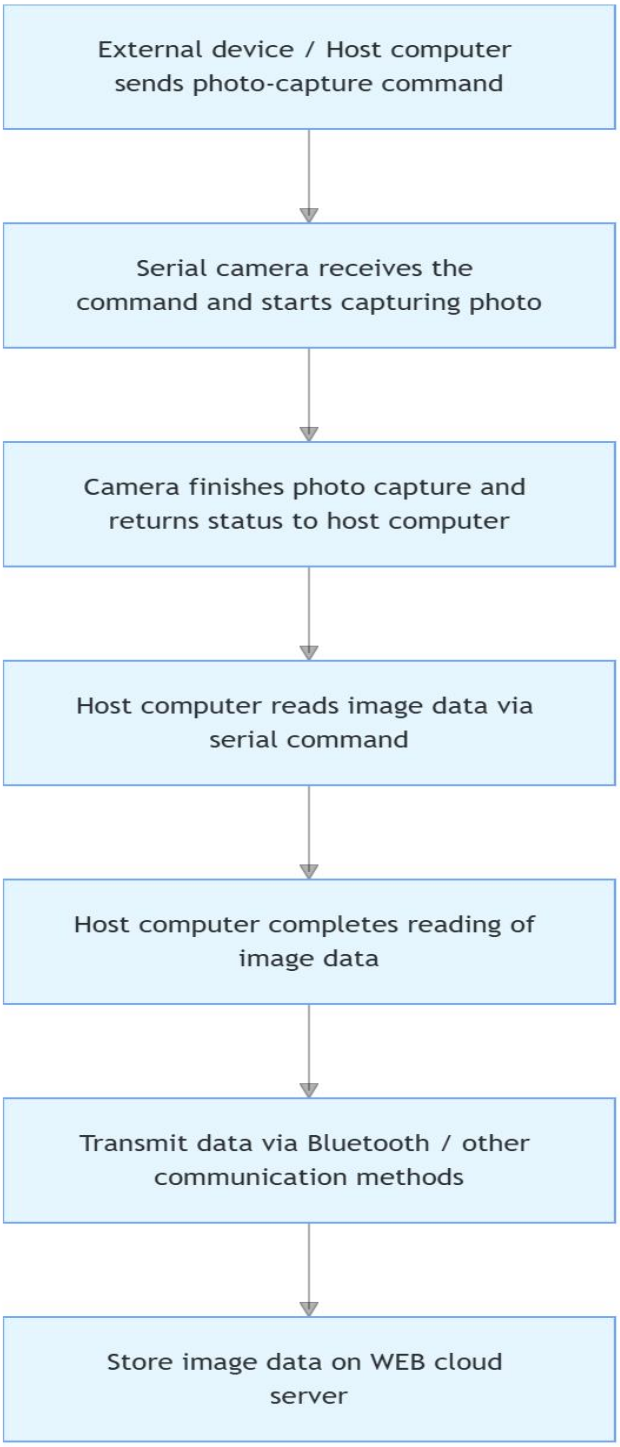
4.1 FUNCTION OVERVIEW

This product uses a serial port camera as the image acquisition device, and is only used for taking static pictures. It does not have the ability to output video streams. The external device (the host computer) connects to the camera via the serial port to complete the control of taking pictures, the reading of image data, and the subsequent storage in the cloud.

4.2 WORKING PROCESS

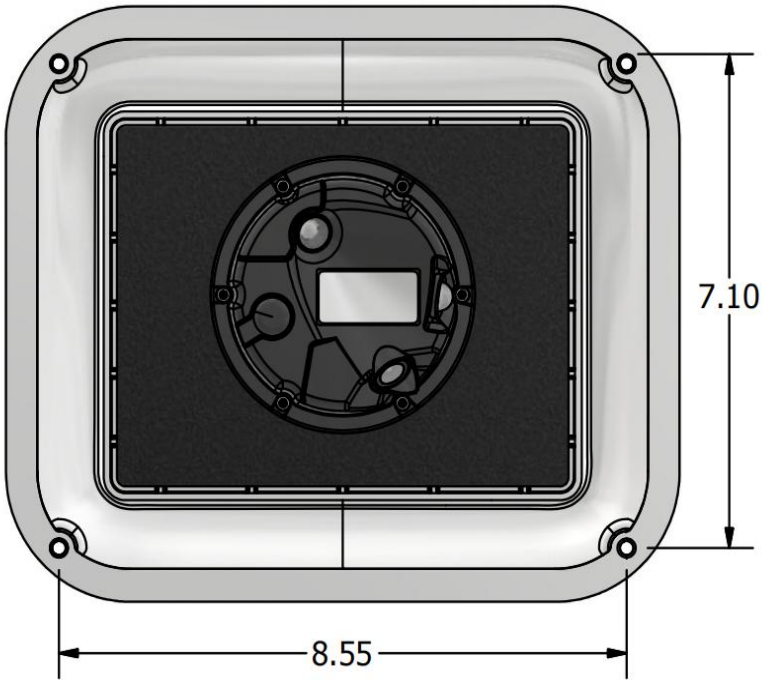
- The external device/upper computer sends a photo-taking command to the camera via the serial port.
- After receiving the command, the serial port camera starts taking photos and then sends the status back to the upper computer upon completion.
- The upper computer reads the image data from the camera through the serial port command.
- After the image data is read, the upper computer transmits the data to the WEB cloud for storage via Bluetooth or other communication methods.

4.3 WORKFLOW PICTURE

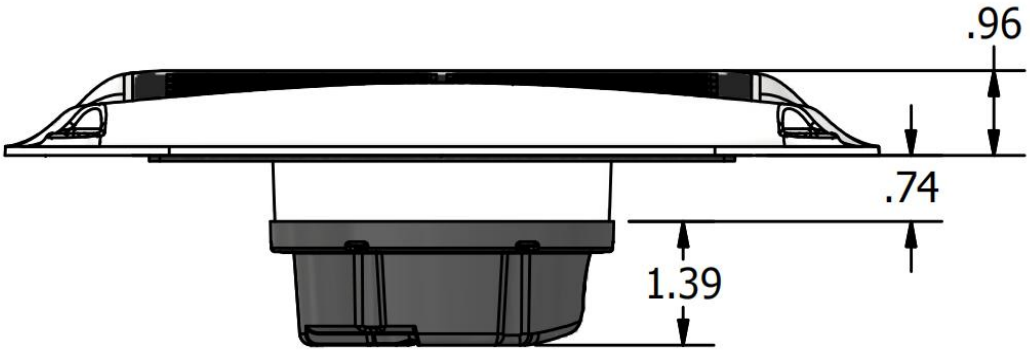


5. MECHANICAL DETAILS

5.1 FRONT/REAR DIMENSIONS



5.2 SIDE DIMENSIONS



6. FCC WARNING STATEMENT

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement
The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located for operating in conjunction with any other antenna or transmitter.

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.
(2)This device must accept any interference received, including interference that may cause undesired operation.

7. IC WARNING STATEMENT

7.1 IC Warning

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
(I) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.
This device complies with Canadian ICES-003 and RSS-247.

Radiation Exposure: This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

IC Radiation Exposure Statement
The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located for operating in conjunction with any other antenna or transmitter.

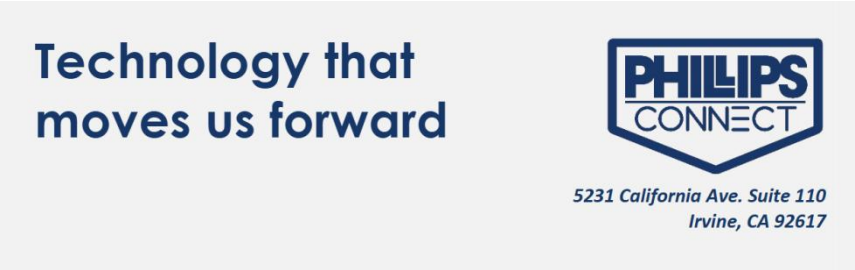
7.2 Avertissement IC

Cet appareil contient des émetteurs/récepteurs exemptés de licence qui sont conformes aux RSS exemptés de licence d'innovation, sciences et développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes:
(I) ce dispositif ne peut pas causer d'interférence.
(2) ce dispositif doit accepter toute interférence, y compris l'interférence qui peut causer un fonctionnement indésirable du dispositif.

Selon la réglementation d 'Industrie Canada, cet émetteur radio ne peut fonctionner qu 'en utilisant une antenne type et gain maximum (ou inférieur) approuvés pour Industrie Canada par l'émetteur. Réduire brouillage radioélectrique potentiel avec d'autres utilisateurs, le type d'antenne et son gain doivent être choisis que la puissance isotrope rayonnée équivalente (e.i.r.p.) n'est pas supérieure à celle nécessaire pour communication réussie.

Cet appareil est conforme aux normes canadiennes ICES-003 et RSS-247.

Exposition aux radiations: Cet équipement est conforme à la réglementation canadienne sur les radiations.
limites d'exposition établies pour un environnement non contrôlé.

Déclaration d'exposition aux radiations IC
Les antennes utilisées pour cet émetteur doivent être installées de manière à assurer une distance de séparation d'au moins 20 cm au moins de toute personne et ne doivent pas être co-localisés pour fonctionner en conjonction avec autre antenne ou émetteur.

8. MECHANICAL DETAILS