CYL-V

S I N G L E   C A M E R A

AUTOMOTIVE HD VIDEO RECORDER

USER MANUAL

D V 3 0 2

ROSCO
VISION SYSTEMS ®

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Rosco's CYL-V allows recording of exterior video and vehicle travel data. Mounted on the windshield, CYL-V captures a wide-angle view of the road as seen by the driver. The Recorder is capable of capturing audio inside the vehicle, although this feature may be disabled through software configuration.

- Photo Capture
- 3 Megapixel CMOS Camera
- Continuous Recording
- Full HD Video Recording
- Audio Recording
- Driver Event Button
- Event Logging
- Parking Surveillance
- G-force Sensor
- GPS Mapping
- Date & Time Stamp
- Includes a MicroSD card
- Security Lock with Two Keys

How Video and Data is Saved: Video and driving data is recorded in a continuous loop, with the oldest video and data being erased by the most recent if the MicroSD card is full. The compact system can hold hours of video and driving data before any over-writing takes place. "Events" are specific driving files where the driver pressed the Driver Event Button or exceeded a pre-configured speed or G-sensor value. High G-sensor events can be caused by harsh turns, panic braking, rapid acceleration, and collisions. Event files are marked and stored in a special folder on the MicroSD card called "EVENT." Non-Event video is stored in a separate folder called "VIDEO." When the standard "VIDEO" folder fills, the oldest video is erased by the newest. When "EVENT" folder fills, the oldest Event video is erased by the newest. When the SD card is full in either or both folders, the CYL-V keeps recording. The cards are set up to give priority to Event videos. Even when the EVENT folder is full, it continues to accept new Events. At the same time, the capacity for NORMAL video will be reduced to 1 hour (16 GB card) or 4 hours (64 GB card). CYL-V units are supplied with an internal GPS antenna that enables capture of vehicle location, speed, and direction. CYL-V creates proprietary files located on the removable Micro SD card which may ONLY be reviewed by using Rosco's proprietary CYL-V Player software on any Windows PC. The proprietary format allows vehicle speed, location, and G-sensor data to be displayed along with the recorded video. The software comes pre-loaded on the included MicroSD card and is provided at no additional cost. There are no follow-up fees for use or updating of the CYL-V Player by authorized users. Using the video player, critical videos may be converted to standard media-player formats for legal or administrative action.

Security: CYL-V is a commercial grade product designed to be used in a variety of applications. The Security Lock discourages unauthorized removal of the SD card. Installation via hard-wire connection to a vehicle's electrical system discourages tampering and provides parking mode recording capability up to 3 hours after the ignition has been shut off. Rosco's CYL-V Recorder is designed to provide error-free recording. The state-of-the-art hardware components and software programs are specifically designed for recording and storage of High Definition video. Rosco recommends the use of high-quality MicroSD cards, and we will periodically issue a list of recommended storage media. CYL-V is a Full HD Digital Drive Recorder with the most advanced technology.

SAFETY INSTRUCTIONS

To ensure proper operation please read this User Manual before installation and operation. Failure to follow this safety notice may cause a malfunction and will void the warranty.

DO NOT:
- Clean recorder with any liquids
- Insert foreign materials into the CYL-V device
- Attempt to disassemble, repair or modify the product
- Use cables or MicroSD cards that are not provided by or recommended by Rosco.

IMPORTANT

DO NOT REMOVE THE MICROSD CARD WHILE CYL-V RECORDER IS POWERED,
Wait until all LEDs are off before removing the MicroSD card.

PACKAGE CONTENTS

RECORDER UNIT

P/N: DV300
CYL-V Recorder Unit

ACCESSORIES

USB Data Cable

Keys   **Set-Screws**

MOUNTING BRACKET & CABLE

P/N: DV318
Windshield Mounting Bracket with Power Cable & Power Module

MicroSD High-Endurance with PC Adaptor

USB MicroSD Card Reader

PARTS IDENTIFICATION

Set Screw Located Behind Here

#	DESCRIPTION	#	DESCRIPTION
1.	Driver Event Button	7.	Status LEDs (PWR, GPS)
2.	Photo Button	8.	Mounting Bracket
3.	Micro SD Card Slot	9.	Mounting Bracket With Power Cable
4.	Reset Button	10.	Position Adjustment / Camera Release Button
5.	Mini USB Power Slot	11.	Power Cable
6.	Microphone	12.	Mounting Surface

IMPORTANT: While pressing the position adjustment button, insert the recorder into the bracket, aligning the mini USB power source in the bracket with the mini USB power slot in the recorder

1. Press & Hold Position Adjustment Button

2. Insert the Recorder Into the Bracket
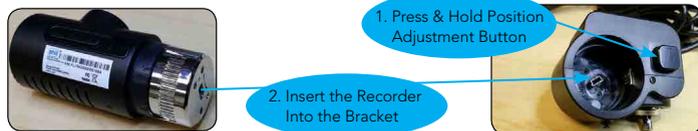
WIRING

Electrical systems vary from vehicle to vehicle. Please refer to your vehicle's manual for details prior to installing a CYL-V recorder.

The following represents the preferred installation of CYL-V for commercial and other fleet vehicles. The CYL-V Power Cable includes important voltage regulation and safety circuits which are necessary for proper operation of CYL-V Recorder. NEVER use power cables other than those supplied with CYL-V. Make sure ignition is off during installation. Wire directly to fuse panel, do not apply piggy-back on existing hardware.

1. Prepare all the parts necessary for installation.

2. Find the location of the fuse box in the vehicle. Identify the fuses for connection of the RED POWER wire and the YELLOW IGNITION (ACC). Identify appropriate location for installation of the mounting bracket in the vehicle.

3. After determining that Power Module location is appropriate, make the following connections:

   a. Connect the BLACK WIRE (GROUND -) to chassis ground.

   b. Connect the RED WIRE (POWER +) to a constant 12 V source that which will remain live after the ignition is turned OFF.

   c. Connect the YELLOW wire (IGNITION) to an ACC power source. NOTE: it is very important to select a connection point which has zero voltage when the vehicle ignition turns OFF. See further details on next page.

4. Identify approximate CYL-V Recorder location on windshield. Confirm sufficient cable length available to reach from windshield location to the under-dash connection to Power Module. Remove the A-Pillar cover and route the cable as needed.

5. Connect the mounting bracket to Power Cable.

EXAMPLE: Ground Wire connected to the vehicle chassis ground

WIRING

IMPORTANT NOTE FOR INSTALLER

The CYL-V Power Module contains three wires **red**, **black**, and **yellow**. The yellow wire is intended to trigger Parking Surveillance by sensing the moment when the driver shuts the ignition. Parking Surveillance provides recording at lower frame rate for a pre-selected time period. Parking Surveillance options are noted in the Configuration menu. In situations where a user chooses not to utilize this option, it is still recommended to wire the system properly, and use the Configuration choices to disable the option within the software.

Installers should make certain that the yellow wire is secured to the vehicle fuse block at a terminal which will be at a zero-voltage state when the vehicle ignition key is OFF. A typical location on a fuse block would be the ACC port for cigarette-lighter power. Zero-voltage state should be verified using a voltmeter prior to installation.

Blade type fuses

Micro2 fuse
Micro3 fuse
Maxi fuse
Low-profile mini fuse
Mini fuse
ATO (regular) fuse

CYL-V's power module includes an internal circuit to protect against high current or voltage spikes.   We do, however, recommend that a professional installer provide an Add-A-Circuit Fuse Holder, or similar type of Fuse Holder, with a 2A fuse for additional protection. Please refer to the vehicle manual and fuse block schematic to identify appropriate fuse holders and best locations for CYL-V power/ignition/ground wire connection points.

Add-A-Circuit Fuse Holder Assembly & Parts (Example Photos)

Two Add-A-Fuse Holders Assembled on CYL-V Power and Ignition Wires
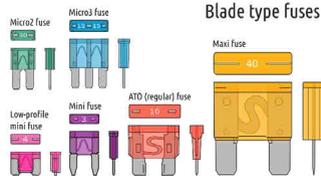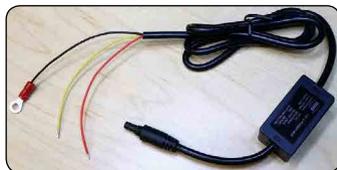
ATM Add-A-Fuse- Kit
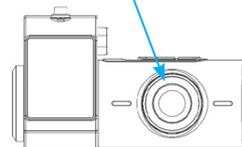

ATC Fuse Tap

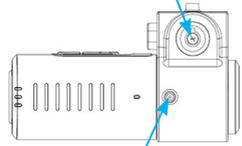Fuse Tap Kit for ATO Fuses

ATM Mini Fuse Tap

MOUNTING

Adjust Camera Lens for Best Viewing Angle

Press & Lock the Push Lock

Tighten Set Screw

1. Determine CYL-V Recorder location on windshield. **Typically** the Recorder is mounted behind and slightly below the mirror. Different windshield configurations allow many other acceptable mounting locations (see recommended CYL-V location at left). The goal is always to minimize forward-viewing obstruction while enabling optimal recorded images. CYL-V Recorder should be level both vertically and horizontally. Use caution to avoid embedded metal mesh found in some windshields, as this will inhibit GPS performance.

2. Clean the windshield glass with commercial glass cleaner. Make sure that the recorder key lock is in the unlocked position. Peel off the adhesive pad, mount the Bracket/Recorder assembly onto the windshield at the selected location and then carefully press the assembly onto the windshield, holding it in place with pressure for one minute.

3. While pressing and holding the position adjustment button, rotate the recorder within the bracket to make sure that the camera lens is facing straight.

4. Turn the vehicle ignition on, Red LED will come on, indicating Power to recorder. After a moment, the same LED will turn green, indicating active recording.

5. Allow Recorder to run for five minutes. Turn the vehicle ignition off and confirm the LED is off, indicating that no power is going to the Recorder. Note: Recorder is pre-configured at the factory without parking mode.

6. Remove camera from bracket and connect the USB cable to PC or laptop, review video to confirm camera views.

7. If you configured your CYL-V to activate parking surveillance mode:
    a. After ignition is turned off, a Green LED will stay on to indicate parking surveillance is on.
    b. Green LED will shut off when parking surveillance mode times out.

8. Upon verification of camera position and angle, return the Recorder to vehicle, reinsert the Recorder into the Mounting Bracket. Lock the Recorder into place, and tighten the Lock Screw. This will maintain the camera angle for later Recorder removals and re-mounting.

IMPORTANT: Installation should only be done when windshield is at room temperature. Allow 2-4 hours for adhesive bond to cure properly before operating vehicle.

OPERATION

- With a compatible MicroSD Card inserted into the Recorder, turn vehicle ignition on. The "PWR" LED will be red and three beeps will be heard, indicating the Recorder is receiving power and initializing. After a few seconds, the "PWR" LED will change from red to green, indicating the recorder is functioning normally and recording.

- Vehicle position information may not be immediately available, as it can take several seconds or longer (up to five minutes) for the internal GPS antenna to acquire satellite signals and begin logging vehicle location data. Blue "GPS" LED will light when satellite acquisition is successful.

- If you hear continuous beeping after ignition on, there may be a failure of the MicroSD card no SD card, or a device malfunction. Shut off the ignition, remove the Recorder from the Mounting Bracket, and remove the Micro SD card. Using a PC, check to see if the MicroSD card can be properly read, and its files viewed using the CYL-V Player program.

- If the card cannot be read, first try formatting the card using "CYL-V_Settings.exe." With the card inserted in the computer, open "CYL-V_Settings.exe" and select "Format SD Card" button. If the card still does not function, then it is defective and should be replaced. If so, insert a new MicroSD card into the Recorder and start driving. If beeping continues, there is possibly a hardware failure, refer to Troubleshooting in this manual. If beeping occurs while driving, simply press the red Driver Event Button to silence, but it is important to investigate the reason for beeping as soon as the vehicle returns to base.

- Parking Mode – when parking mode is off, Recorder will shut off a few seconds after ignition is off. When parking mode is on, Recorder will continue recording at a reduced frame rate, and will shut off totally at the end of the pre-configured parking mode time period.

- When Recorder power is off, all LEDs will be dark, and it is safe to remove the MicroSD card.

- Video files may be played by either of the following two methods:
  - Remove the SD card and insert the card into a PC or laptop
 - Connect the data cable from the Recorder to a PC or laptop

Alarms & Alerts:

- Power ON/OFF: three beeps
- Photo Snapshot: single beep
- GPS position on: single beep
- Event Recording (Panic, G Sensor, over speed): two beeps
- Time setting via configuration tool: two beeps
- SD card error or no Card: when the system detects a problem with the SD card, recording will stop, the red LED will turn on and an audible beeping will sound. The beeping will eventually stop and it can be disabled by pressing Driver Event Button for 5 seconds. Shutdown the device safely take out the SD card, and check the card.

CYL-V CONFIGURATION

Computer Preparation – insert MicroSD card into a PC or laptop, open the drive containing the MicroSD card. You will see the following folders.
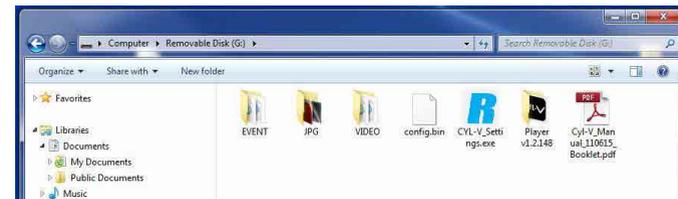
Recommended: Create a folder on PC, copy & paste the above three CYL-V files from MicroSD Card into the new folder for future use.
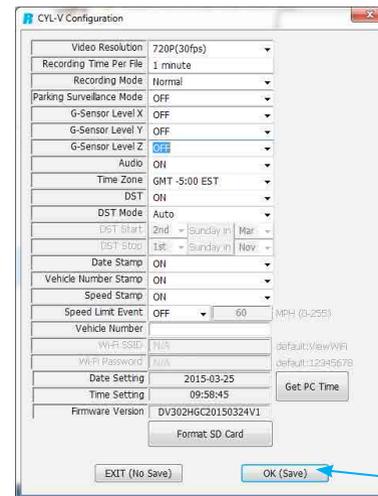
CYL-V Recorder is supplied with a factory default configuration, see below for specific default settings. If the factory default settings are acceptable, there is no need to do anything further. Simply insert the Micro SD card into the Recorder, and begin driving.

If configuration settings need to be changed, insert Micro SD card into a PC or laptop, and click on the CYL-V_Settings.exe file   on the SD card.

The "CYL-V Configuration" screen will pop-up. Select and modify settings as desired.

"CYL-V_Player vX.exe" and "CYL-V_Settings.exe" do not require installation, simply drag and drop the executable (.exe) files to your computer.

IMPORTANT: Changes in Configuration settings will only be accepted after clicking on the "OK (Save)" button.

DESCRIPTION OF CONFIGURATION OPTIONS

Video Resolution	720p(30fps) 720p (60fps) 1080p (30fps)	Depending on the size of memory card and video quality \ preference.Default setting is 720p at 30 frames per second
Recording Time per Minute	1 minute	The video recording time is fixed for one minute per file
Recording Mode	Normal	Continuous recording from ignition-on to ignition-off at full frame rate. If events occur during driving, an event file will be created and placed in an Event folder. Non-event normal files will be placed in a "video" folder. When MicroSD card is full, oldest files will be replaced by newest files.
	Event Only	This option only saves files created during "events". When MicroSD card is full, oldest Event files will be replaced by newest Event files.
Parking Mode	OFF 1 HOUR 2 HOUR 3 HOUR	When parking mode is configured, and when ignition is OFF, CYL-V will record at a lower frame rate of 1fps. When parking mode is set to OFF, CYL-V will stop recording as soon as the ignition is OFF. Green LED will remain lit while Parking Mode is active

G Sensor Level	Sets the X, Y and Z Sensitivity (From 0.1 up to 4.0G),see p.13
Audio Recording	Turn audio ON or OFF
Time Zone Setting	Sets the correct time zone and daylight savings time where applicable
DST Mode	Auto manual
DST Start/stop	Set up dates to start and stop DST time (manual mode only)
Date Stamp	Stamp dates in the video file recording
Vehicle Number Stamp	Stamp vehicle number in the video file recording
Speed Stamp	Stamp speed in the video file recording
Speed Limit Event	Turn on/off the speed limit. When on, do not leave blank, enter a value
Vehicle Number	Enter desired vehicle number (up to 9 characters: 0-9, A-Z, Space)
Firmware Version	Indicates the current firmware version installed in the CYL-V recorder

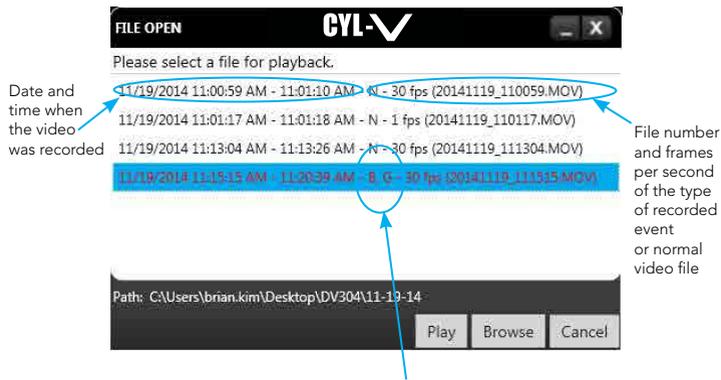| VIDEO RESOLUTION OPTIONS		64GB (OPTIONAL BY USER)	32GB (OPTIONAL BY USER)	16GB (COMES WITH UNIT)
1080p (30fps)	Hours of Recording Time	9.9	5.0	2.5
	Event Only - # of Events	416	208	103
720p (60fps)	Hours of Recording Time	11.8	5.9	2.9
	Event Only - # of Events	495	248	123
720p (30fps)	Hours of Recording Time	13.9	7.0	3.5
	Event Only - # of Events	586	293	145

CYL-V PLAYER

NOTE: CYL-V player software is pre-installed on included MicroSD card. No installation is required; simply drag and drop "CYL-V_Player vX.exe" onto your Windows computer (X is the latest version number of the software and is subject to change). Player software is NOT compatible with Mac OS.

	NAME	DESCRIPTION
A	Playback Point	A White dot moves to follow video playback point
B	Playback Speed	Adjust speed of video playback
C	Previous File	Move to previous file
D	Previous Frame	Move to previous frame
E	Playback Controls	Controls fast rewind, rewind, pause, play, fast forward
F	Next Frame	Move to the next frame
G	Next File	Move to the next file
H	Mute	Click to mute
I	CYL-V Settings	Open CYL-V settings
J	Export Files	Convert a video file to an unencrypted .MOV format for export and playback using Windows Media Player or other standard player programs.
K	Open Files	Click to open video files from SD card or folder on computer
L	Volume Control	Move slider to adjust volume of playback audio
M	Full Screen View	Click to see a full screen view
N	Video Playback Screen	Displays exterior camera video recorded through the windshield
O	Brightness Control	Controls the video image to brighter or darker
P	Google Map	Displays vehicle position on map at time of displayed video
Q	Pop-up Map Screen	Click to review the vehicle location on a larger pop-up map screen
R	G-force Graph	3-axis graphic displays vehicle motion and any impact detected by the G-Sensor
S	Time Stamp	Displays time video was recorded

* For CYL-V Recorders supplied with GPS option.

1. To playback video, click the icon ( ) in the player screen and if no .MOV files appear, click "Browse" button in the below pop-up screen.

2. Select "Computer" then "Removable Disk" where the recorded data is stored and click "OK" button to see a list of video files recorded in the SD card folder

3. Select and double click a ".MOV" file or click "Play" button to playback video

Date and time when the video was recorded

File number and frames per second of the type of recorded event or normal video file

Path: C:\Users\brian.kim\Desktop\DV304\11-19-14

Displays the type of recorded events
(G: G-SENSOR, B: Driver Button Event, S: Over Speed Event, N: Normal Video)

EVENT TYPE	DESCRIPTION
Speed Event	S: Indicates when the vehicle exceeds pre-configured speed limit
Button Event	B: Indicates activation of Driver Event Button
G-Sensor Event	G: Indicates when vehicle experienced sudden acceleration, deceleration or rapid side-to-side movement
Normal	N: Indicates when a normal, non-event file is recorded
Parking Event	P: Indicates Parking Mode Events when vehicle is parked

While reviewing the contents of a Micro SD card using a PC or laptop, it is also possible to change configuration settings from within the Player program. Simply click on the System Setup configuration icon ( ) located at the lower right corner of the player screen.

The following window will then appear, within which all configuration changes may be entered.

NOTE: Click "SAVE" button when you complete the change.

Map coordinates are stored and synchronized with Google Maps. To use this function, the PC must have an internet connection. The G-Force sensor detects changes in directional forces affecting the vehicle. The CYL-V Player displays G-force data in a graphical format, and creates Events when those forces exceed user-set values.

KEY
X-AXIS: LEFT / RIGHT MOTION
Y-AXIS: FRONT / BACK MOTION
Z-AXIS: UP / DOWN MOTION

VEHICLE	X, Y, Z AXIS
School Bus	0.8, 0.8, 1.4
Shuttle Bus	0.8, 0.8, 1.4
Coach Bus	0.8, 0.8, 1.4
Truck	1.4, 1.4, 2.2
Van	0.8, 0.8, 1.0
Sedan	0.8, 0.8, 1.0

Note: X, Y, Z axes are 0 when vehicle is stationary. Using the Player configuration screen, adjust the G-sensor values for each X, Y, Z axis. This is a trial-and-error effort, since different types of vehicles will react differently under various road conditions. The values represent a range (+ or -) around 0 gravity. Under normal driving conditions for automobile, settings of X= 0.8g, Y= 0.8g, Z= 1.0g are recommended as being sufficient to identify driver-behavior issues while being high enough to avoid most unnecessary Event-marking caused by potholes or normal braking. Please see the above chart for suggested settings appropriate for a variety of commercial vehicles.

MICRO SD CARD

• Your CYL-V recorder is provided with a MicroSD card.

• The MicroSD card is pre-configured with factory default settings (see pages 9 -10).

   If desired, configuration settings may be changed to accommodate a fleet's specific requirements.

• **Do Not Use MicroSD Card for any other purpose. Using the MicroSD Card for any other purpose will cause damage or loss of video files on the card.**

• **Maximum supported MicroSD Card is 64 GB.**

Re-Formatting the MicroSD Card: Under normal use conditions, the MicroSD card should be reformatted at least once per year. Under heavier (such as off-road or high shock) or more frequent use, it is advisable to reformat the card more frequently. Additionally, smaller-capacity MicroSD cards will need to be reformatted more frequently than larger-capacity cards. Reformat the MicroSD card using "CYL-V_Settings.exe" software (see p. 9) to prevent MicroSD card errors from occurring over an extended period. Note that upon reformatting the MicroSD card, all existing operating and data files will be deleted. Be sure to perform a backup of any important video files and configuration prior to reformatting. After reformatting, you may insert the reformatted MicroSD card into CYL-V. The Recorder will automatically write the current configuration file to the MicroSD card. New Data folders will be created on the reformatted Micro SD Card and new Data files will be created as driving resumes.

CAUTION: Not all MicroSD cards work with the CYL-V unit. Additionally, there are many off-spec or counterfeit MicroSD cards sold on the internet. Rosco purchases original SD cards from authorized distributors.
We recommend purchasing from Rosco. However, if you choose to purchase elsewhere, consult Rosco or your authorized Reseller for MicroSD Card compatibility. The following is a list of approved MicroSD Cards which may be purchased from Rosco. This list may be periodically updated without notice.

ROSCO P/N	MEMORY SIZE	DESCRIPTION
DV352	16GB	High-Endurance MicroSD Class 10, Preloaded
DV349	64GB	High-Endurance MicroSD Class 10, Preloaded

TROUBLESHOOTING

	PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Power	LED display is off No chime heard upon starting vehicle.	No power to recorder	Check the power cable connections
LED Display	RED LED lights are off but beep sounds heard upon starting vehicle.	System is in unknown state or malfunction	Remove CYL-V Recorder from the bracket and press "Reset" button for few seconds and check again or insert a brand new or formatted blank SD card and power up again to recover
Event	GREEN LED is constantly blinking and constant beeping	Constant Events and chimes due to bumps or potholes	Increase G-Sensor settings based on your vehicle needs
Speed	Green LED is constantly blinking and constant beeping	Speed limit set too low	Increase Speed limit setting through device configuration based on your vehicle needs
GPS	GPS LED (Blue) remains unlit while driving	GPS antenna is not able to acquire satellite signal due to weather condition	Relocate CYL-V mounting base to position on windshield with line-of-sight to sky
SD card Error	Constant beeps	SD error, no SD card, not recording video files	Reformat or replace SD card
Playback	Blurry video or no video image	Camera/lens problem	Make sure Camera/lens is clean and clear of obstructions and not damaged
Playback	No audio	Improper audio setting in CYL-V Player (mute) or configuration error	Configuration - set audio recording check mark to "ON". Player – adjust volume control slider as desired or unmute. Check speaker settings on PC.
Playback	Sluggish	Card Problem	Reformat MicroSD card

TECHNICAL SPECIFICATIONS

SENSOR	3 Megapixel 1/3" CMOS
LENS	Fixed Focus Lens
SHUTTER	Electronic Shutter
VIDEO RECORDING	1920 x 1080, 30 frame/sec 1280 x 720, 30 frame/sec (factory default) 1280 x 720, 60 frame/sec
VIDEO COMPRESSION	H.264
AUDIO	Microphone and Buzzer
MEMORY	Micro SD Card up to 64GB
G SENSOR	Built-in 3-Axis G-Sensor
BUTTON	Driver Event Button
OPERATING TEMPERATURE	-4°F to +149°F (-20°C to +65°C)
STORAGE TEMPERATURE	-40°F to +149°F (-40°C to +65°C)
POWER	-12 Volt DC

DIMENSIONS	Recorder only: W 1.7" x L 3.7" x H 1.5" Recorder with bracket: W 2.4" x L 4.1" x H 2.5"
WEIGHT	Recorder unit only: 2.9 oz. (83 g) Power Cable & Bracket with lock: 9.9 oz. (280 g)
OPERATING CURRENT	Standby 80mA, Operating 220mA @ 12.8VDC
STANDARD COMPLIANCE	FCC CERTIFIED Part 15 Subpart B (Class A) EMC ANSI C63.4-2009

NOTES

NOTES

NOTES

COMMERCIAL WARRANTY

We warrant that all ROSCO mirror, camera, sun visor, and electronic vision products are free from defects in workmanship and materials for a period of ONE (1) YEAR from the date of receipt of the product. During the warranty period, we agree to provide a replacement for (or at our option, repair) the ROSCO product and/or any one or more component parts of a ROSCO product which malfunctions under normal use and service.

Upon discovering a defect, the customer must contact ROSCO for a return authorization and then must return the product, and/or component part, together with proof of date of receipt of the product, to ROSCO INC. 144-31 91st Ave. Jamaica, New York 11435. The customer and not ROSCO will be responsible for the payment of all removal, installation and transportation charges for return of defective products or components to ROSCO. Transportation charges for such return must be prepaid. The repaired or replaced equipment will be returned to the customer with transportation charges prepaid by ROSCO. Replacement (or repaired) products and/or component parts are warranted only for the unexpired term of the original warranty.

This warranty does not cover defects caused by neglect, misuse, incorrect application, incorrect installation, water damage, vehicle wash facilities, alteration or repair in any manner outside ROSCO's factory. Damage caused by the return shipment due to inadequate packaging or mishandling will not be covered. If the alleged defect is due to any of these causes, the customer will be advised of the findings and asked what action is to be taken. If ROSCO is requested to repair the product, a repair charge estimate will be prepared and the customer's written permission (purchase order, repair, etc.) will be necessary to proceed with the repair of the product and/or component part. Transportation charges for such returns will be the responsibility of the customer.

This warranty may not be expanded by oral representation, written sales information, and drawings or otherwise. Repair or replacement is the exclusive remedy for defective products under this warranty. This warranty is expressly in lieu of all other warranties, including any implied warranty of merchantability or any implied warranty of fitness for a particular purpose on any ROSCO product. ROSCO shall not be liable for any consequential or incidental damages for breach of any express or implied warranty on any ROSCO product.

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VISION SYSTEMS

A CENTURY OF AUTOMOTIVE VISION SAFETY

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