



SmartWitness SVC400GPS



Installation Guide

v.1.2

WARNING: SmartWitness installations should be performed by a qualified individual or installation professional only. Working with a vehicle's power system can be dangerous to both you and your vehicle. This installation is intended only to be a guide since vehicle designs and power/input sources can vary significantly from vehicle to vehicle.

1. Overview

The SmartWitness SVC400GPS is the world's smallest 4 channel vehicle data recorder. SVC400GPS, an in-vehicle drive recorder, offers commercial vehicle owners an effective risk reducing means to aid in the investigation process, decrease collateral damages associated with car accidents, encourage safe driving, monitor driving behaviors, and enhance the overall safety on the road.

SVC400GPS features 4 camera inputs for connecting 1, 2, 3, or 4 cameras. A 3-Axis G-Sensor, Microphone, SD card storage (up to 64GB capacity), panic button, & GPS receiver are included. SVC400GPS is powered on/off with vehicle ignition and automatically starts/stops recording. Various camera options are available, making the amount of possible SVC400GPS system combinations nearly endless. SVC400GPS is installed in nearly 50,000 thousand vehicles around the world, including school buses, taxis, semi-trucks, tow trucks, fork-lifts, ambulances, garbage trucks, concrete trucks, and more. An LCD display can be connected to SVC400GPS, making it double as a rearview/360° view system to increase the driver's visibility.

2. Package Contents





SmartWitness
SVC400 recorder



GPS Antenna
module



Remote / Panic
Switch



SD Card
(PC Viewer software is
on the provided SD card.)



Audio/Video
output cable



Power Cable



RCA to 2.5mm
stereo adaptor (3ea)



3M Adhesive Pad



Wire clips
(5pcs)



User Manual



Velcro Sticker
(1pc)



Microphone



3. Features

❖ **Recording**

- D1 recording (720x480) on all four camera channels.
- Various camera options: wide angle, weatherproof, infrared, dome, side view, rugged, reverse cameras, etc.
- Dual Record mode (Continuous + Event).
- Optional Audio Recording.
- Connects directly to vehicle ignition power, automated operation.
- Tamper-Resistant locking case available; Key required to access SD card Data.
- GPS data records full time to provide location data, vehicle speed, and accurate time/date.
- Adjustable Resolution & Frame Rate.
- Built-in G-Shock Sensor (adjustable sensitivity)
- Two 12V alarm input triggers for advanced event recording. One 5V alarm output for 3rd party systems integration.
- Wired remote control & Emergency/Panic button for driver activated event recording.
- Auto SD card format feature. SVC400 automatically detects SD error/corruption and auto-formats itself and begins recording again.

❖ **Playback and Analysis**

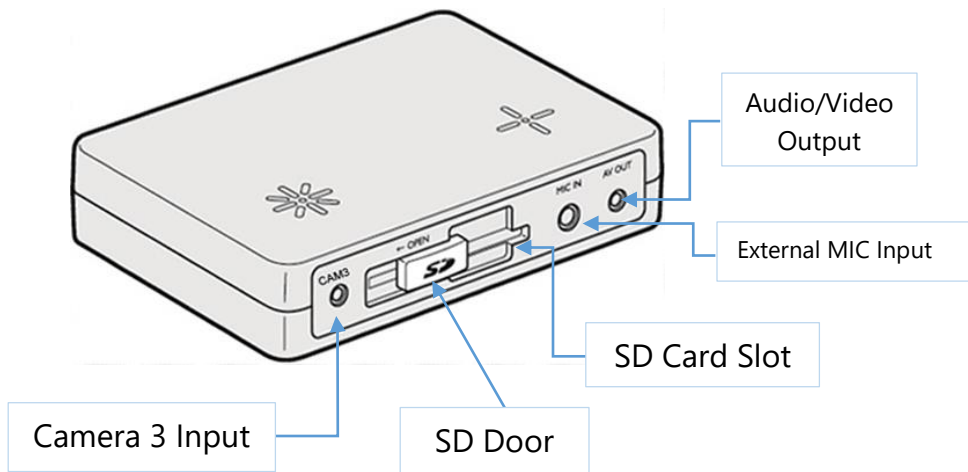
- PC Analysis Software Included.
- Filter Data Search by Time/Date, Event, Vehicle Speed, G-Force level.
- AVI Conversion Tool. Data Remains Watermarked.
- Google Maps Integration for Route Tracking.
- Google Earth Export Tool for Advanced Route Tracking and Archiving.
- 31-day Vehicle Tracking History, showing vehicle location, speed and driving style regardless if event video was recorded or not.
- Save/Print Event Reports.
- Free Software & Firmware Updates.
- With optional LCD monitor connected, view all four cameras at once or playback recorded videos in the vehicle.

4. SVC400-GPS Structure

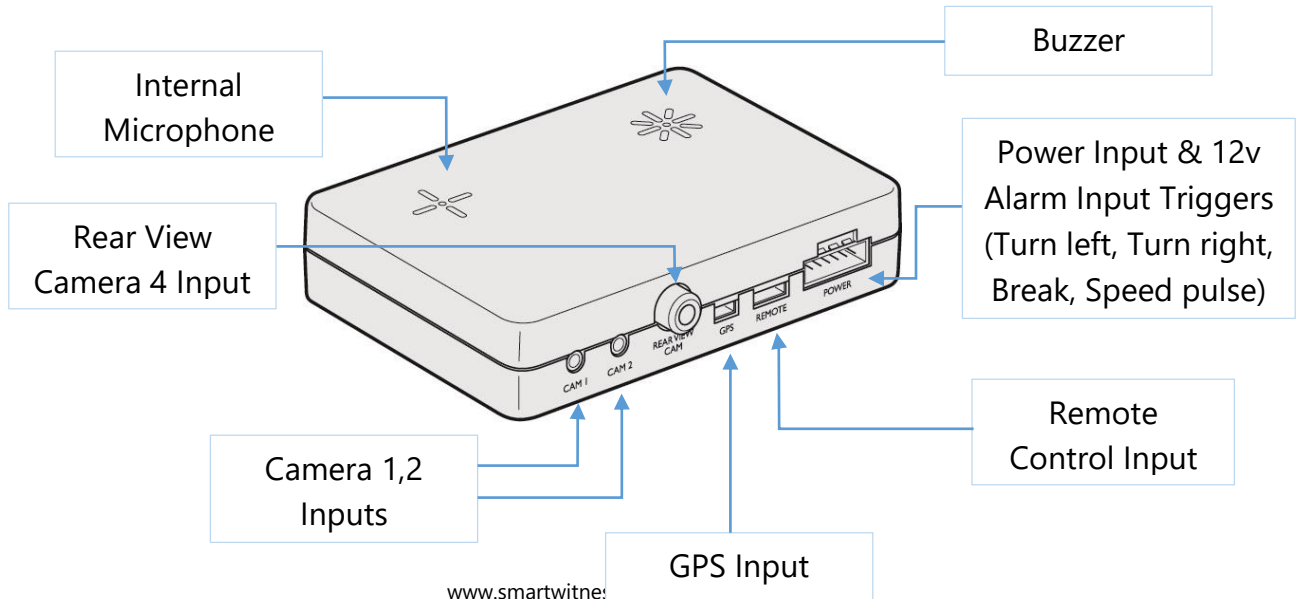
➤ Dimensions



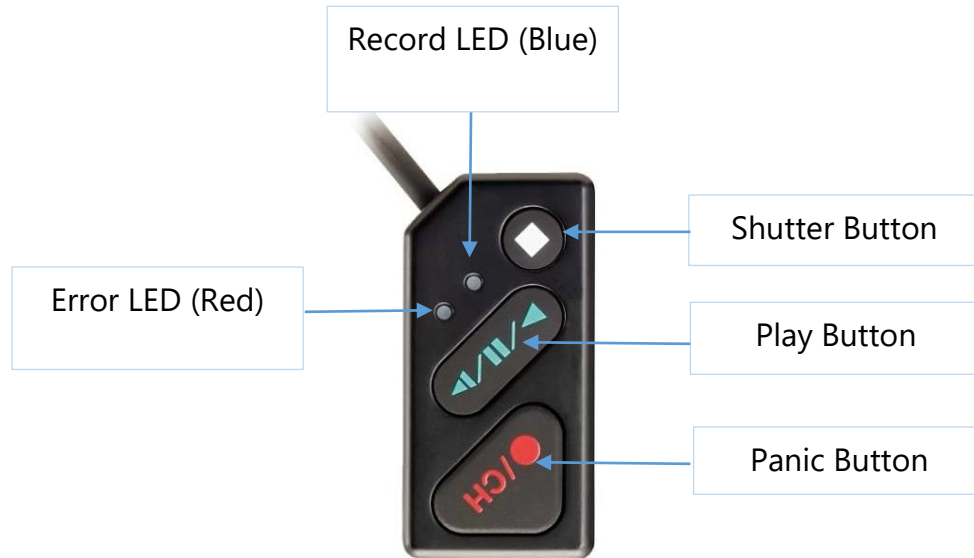
➤ Front View



➤ Rear View

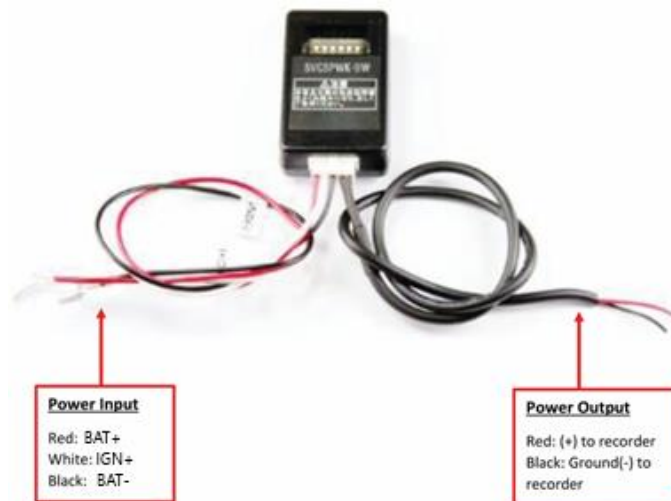


➤ Remote Controller Design



➤ Advanced Power Adaptor Accessory (Optional)

- For recording after ignition, such as security/surveillance purposes, the SVCSPWK-BW2 device provides a 3-wire connection between the SVC400 recorder and the vehicle (IGN +, BAT+, and BAT-)
- It will automatically cut off the battery power when battery voltage drops below 12v or 24v, or via timed delay shutoff (times are adjustable via dip switch setting on the adaptor)

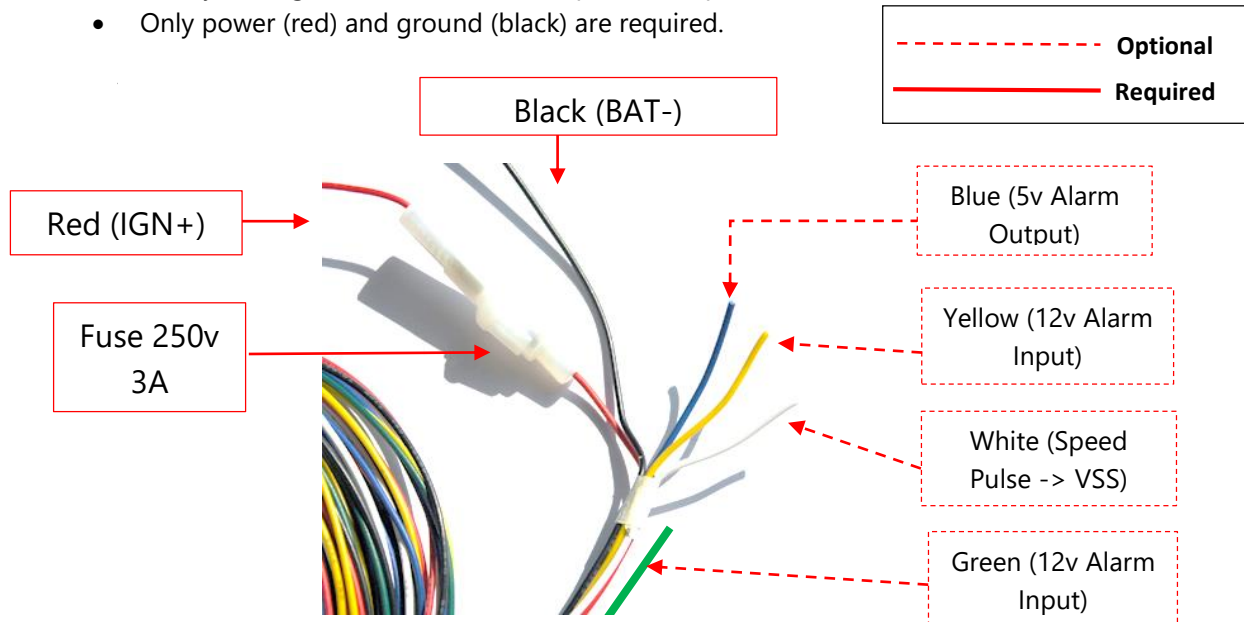


SmartWitness Model # **SVCSPWK-BW2**

5. Wiring Connectivity

➤ Power and Car Signal Input

- Blue, yellow, green, and white cables pulse are optional.
- Only power (red) and ground (black) are required.

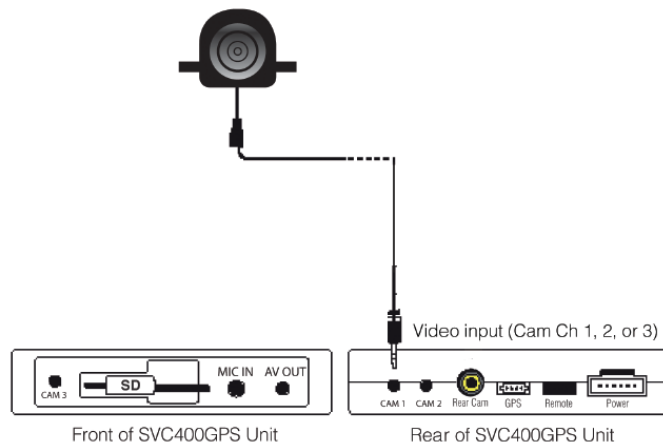


➤ Connecting Cameras 1, 2, & 3 (5V, 2.5mm stereo)

1. All SmartWitness 5V cameras can plug n play into camera channels 1, 2, & 3 on SVC400
2. Compatible camera models end in "-S", such as the SVA033-S
3. All "-S" cameras have a 1ft. lead from the camera lens and include a 16ft. extension cable (33ft cable also available)
4. Simply plug the 2.5mm stereo cable into the desired camera input.
 - Camera ch1 must be used with a camera, otherwise SVC400 will have an error (for example, you can connect cameras to ch1 & ch4 only, but NOT to ch2 & ch4)

NOTE: You can use any analog camera with Ch 1,2, & 3, but you will need to use the provided RCA adaptors

SmartWitness "-S" cameras are powered from the SVC400 recorder cam inputs 1, 2, & 3 only



➤ Connecting Camera 4: (RCA input)

1. Rear backup camera (any SmartWitness camera ending in "-C", (i.e. SVA036-C)
2. 20M extension cable for rear backup camera.
3. RCA adaptor cable.
4. 12v power and ground for rear backup camera connect to IGN (+) and Bat (-).
5. RCA input on SVC400 recorder.
6. SVC400 recorder.
7. Video output cable (Inside SVC400 package).
8. Video output, connect LCD monitor.



➤ Connecting LCD monitor with Video Output Cable (Optional):

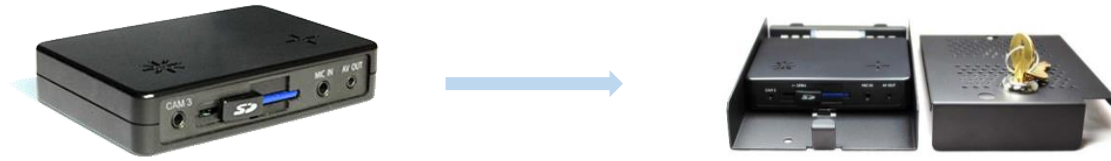


- 1) Rear backup cam input into SVC400
- 2) A/V output from SVC400 into V1 input on
- 3) LCD monitor installed in cab
- 4) 12V power to vehicle IGN(+)
- 5) Ground to Battery(-)

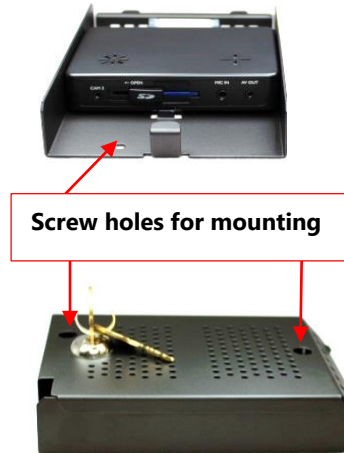
1. Rear backup cam input into SVC400.
2. A/V output from SVC400 into V1 input on LCD Monitor.
3. LCD monitor installed in cab.
4. 12v power to vehicle IGN (+).
5. Ground to battery (-).

6. Hardware Installation (with optional locking cover)

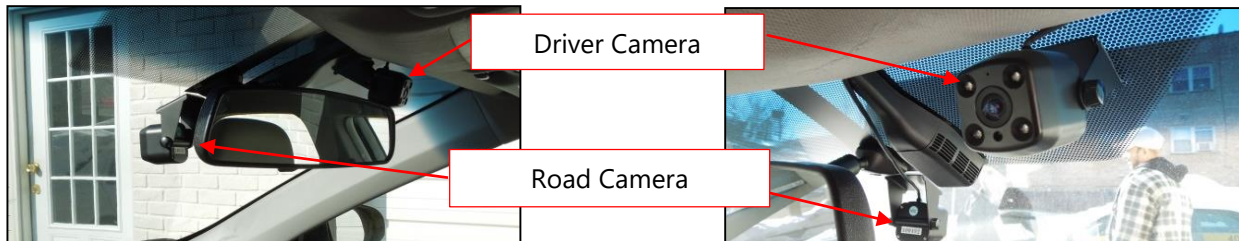
- Insert SVC400 recorder into the locking case. If no locking case, use the provided adhesive.



- Find installation location for recorder and locking case.



- Install all interior and exterior cameras with 3M dual sided adhesive or hard mounting screws (confirm with customer as to the desired installation method). Below is an example:



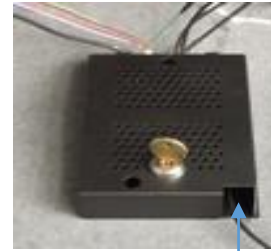
- Install Remote Control onto dash next to the steering wheel and within reach of the driver.



- Run remote & camera cable(s) and secure in headliner and or other area so no cables are exposed. Use provided wire clips if necessary. Cables should enter through rear of the locking case.



Power, GPS, Remote, Camera 1, 2, & 4 cables should go through this opening should go through this opening



Microphone, Video out, and Camera 3 cables should go through the front opening

- Connect all cables to SVC400 Recorder. Secure the windshield mounted camera cables into the headliner and down the A-Pillar. Route the GPS cable up the side panel and on the dashboard, in view of the windshield (so it can have a view of the sky to acquire GPS signal).

7. Final Steps

After installation of the SVC400GPS and accessories into the vehicle you can turn on vehicle ignition and the SVC400 recorder will power on. There will be a sequence of red & blue LED lights on the Remote/Panic Button during boot process. **Once boot up is complete, the red light will turn off and there will be only a blue light on. This indicates proper operation and recording. If the red light is blinking, then there is an error, then contact your supplier or visit support.smartwitness.com to create a support ticket. Please see step 8 for more details on LED status indicators.**

- 1) After you've set the camera angle, locked the cover and removed the key, press the white square button once This will also capture an image from each camera and save to the SD card and confirm camera operation and proper camera field of views to the fleet owner/administrator (the blue LED will flash rapidly for a few seconds when the calibration button is pressed).



- 2) Please visit <http://install.smartwitness.com> to complete the installation form and click submit.
- 3) Give the provided keyset and any extra parts/accessories to the fleet owner/administrator as well as a copy of the installation report.

8. Remote Controller LED status Indicators



Status		Blue LED	Red LED
Initial Power on		ON	ON
Booting		ON/OFF	ON/OFF
Before Overwriting	Pre Event recording	ON	OFF
	Continuous recording	ON/OFF	OFF
	Event recording	Quickly	OFF
	Event recording during continuous recording mode. (5seconds)	Quickly	OFF
	SHUTTER recording	Quickly	OFF
During Overwriting	Pre Event recording	ON	OFF
	Continuous recording	ON/OFF	OFF
	Event recording	Quickly	OFF
	Event recording during continuous recording mode. (5seconds)	Quickly	OFF
	SHUTTER recording	Quickly	OFF
Panic Folder is full		OFF	ON
During Playback OSD menu		ON/OFF	OFF
Camera Failure / Video Loss		ON/OFF Slowly	ON/OFF Slowly
SD Card fail		ON/OFF Slowly	ON/OFF Slowly