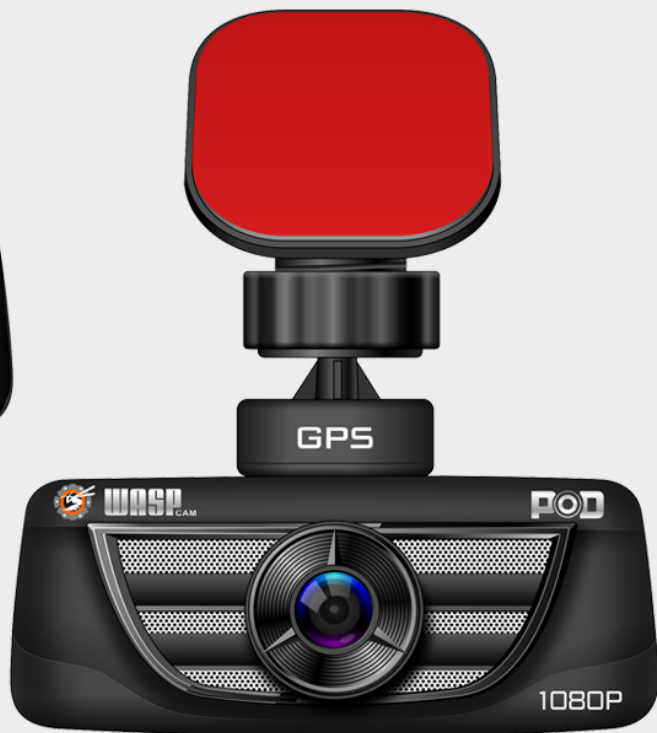




# WASP CAM

OBD Checking / GPS Car DVR

# 9401 **POD**



## USER MANUAL

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# Safety Precautions

- \* DO NOT install the product in high humidity environments
- \* DO NOT drop the product on hard surfaces and avoid direct hits impacting the camera
- \* DO NOT leave the product in direct sunlight for extended periods of time as this decreases the life span of the product and may cause the camera to malfunction
- \* DO NOT operate this product while driving – only operate your product after you have parked your vehicle in a safe place.
- \* DO NOT install the product in a location that interferes with or obstructs the driver's view
- \* **A somewhat higher temperature is normal while operating the product; however, immediately turn off the power if the product is melting and burning.**

## Power Supply

- \* DO NOT use any other power supply with this product other than the one provided with the DVR – it may cause the product to malfunction and will void your warranty
- \* DO NOT connect or disconnect the power supply multiple times or it may also cause the product to malfunction
- \* DO NOT use the power supply in a humid environment or touch the power supply with wet hands
- \* **The power supply needs to be connected to a proper power source – please read the voltage requirements described in the power supply package**
- \* The power supply should be replaced immediately if damaged – DO NOT tamper / alter the power supply

## Battery Info

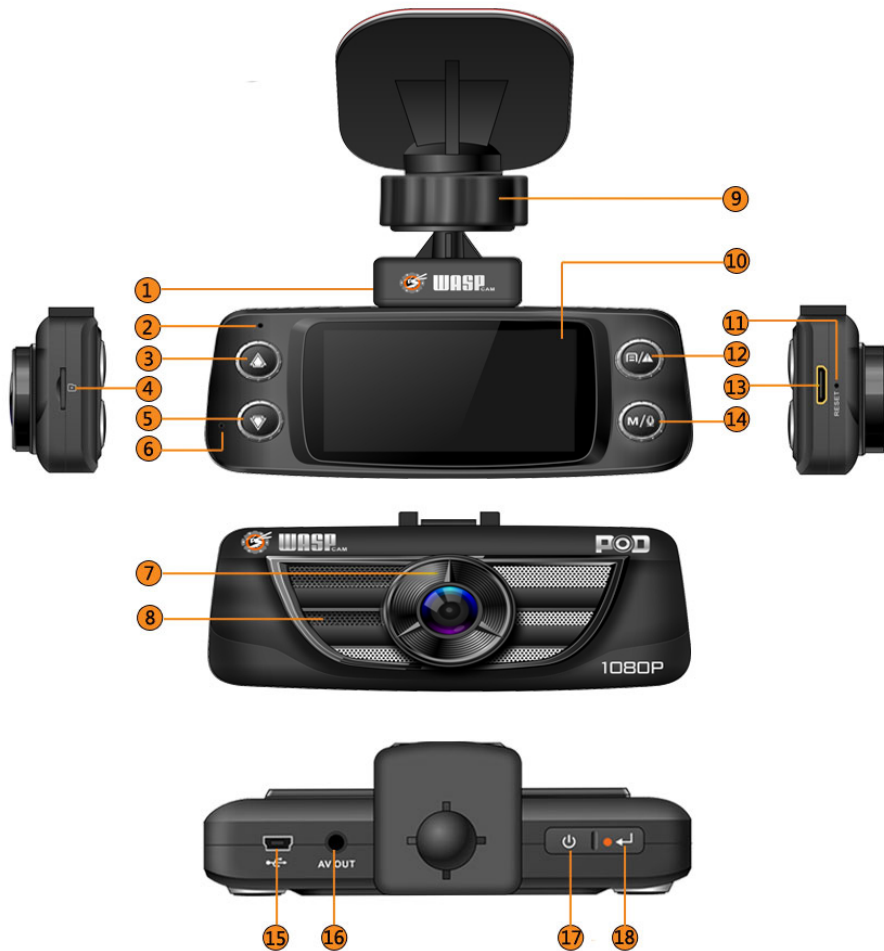
- \* Only use the power supply approved by the manufacturer
- \* This product has an internal battery that requires a power supply when recording
- \* The battery voltage is 5V when recording
- \* The POD DVR internal battery will remember the parameters you set

## Package Contents

Please check to make sure all accessories are complete in the package; if anything is missing or damaged, please contact WASPcam.

- WASPcam POD DVR Camera
- Suction Cup Mount & 3M Mount
- OBD Charger
- USB Cable
- HDMI Cable
- Micro SD Card Reader
- User's Manual & Warranty Card

# POD DVR Quick Guide



Component	Description	Component	Description
1. GPS Module	Built-in GPS antenna	10. Display	2.7" TFT LCD Screen
2. Indicator Light	Displaying current operation of the POD DVR	11. Reset	RESET Button
3. Up Button	Select Up	12. Menu Button	Menu interface/SOS emergency file lock
4. Memory Card Slot	Insert SD card for video recording	13. HDMI Port	Connects external video equipment
5. Down Button	Select Down	14. Mode Button	Function shortcut key
6. MIC	Records Sound	15. SV Power Port	Connect power supply/read disk
7. Camera Lens	Records Video	16. AV Port	Connects external video equipment
8. Speaker	Playback Sound	17. Power Button	ON/OFF Button
9. Bracket	Attaches to car	18. Enter Button	Confirms Selection

# Installation



1. Attach the 3M bracket or the suction cup bracket to the WASPcam DVR
2. Clean the mounting area well, remove the 3M sticker backing and place the DVR in the desired location
3. Connect the OBD power supply
4. Turn OBD power switch on
5. Set up the parameters
6. The product is now ready to use

# Video Screen Quick Guide



1. Record Mode	8. Loop recording / 3mins	15. Time Stamp
2. Cycle Recording Resolution 1920*1080P	9. Exposure Compensation / 0	16. Date Stamp
3. Wide Dynamic Range	10. Parking Monitor / 2FPS	17. Driver Fatigue Warning
4. Auto White Balance	11. Save Emergency File	18. Speed Warning
5. Sound Recording On	12. SD Card Normal Condition	19. Motion Detection ON
6. Recording	13. Power ON	20. GPS Screen Saver
7. Recording Time	14. Parking Guard	21. Display GPS Satellite Status Flashing: Locating

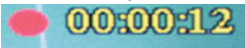
# Getting Started

Please plug into the power supply of the car and start the engine after the POD DVR has been installed, and turned on. The POD DVR will auto-save the file and turn off 10 minutes after the engine stops or the power supply of car has been disconnected.



You can remove the power supply or press the reset button if the POD DVR is not operating normally or if it malfunctions for any other reason.

## Start Video Recording

The POD DVR will auto power on and be functional when the engine starts (it is necessary to insert a Micro SD card). The red indicator light will start flashing when video is recording, and the time icon  will appear in the upper right corner of the screen indicating that video recording is in progress.



If the POD DVR is not on after you start the engine, please check the power supply connection. If the screen warning appears and the POD DVR is not running normally, please go to Menu, Format, then press the enter ↵ button on top of the camera to resolve the possible compatibility issue between the POD DVR and the SD card. **NOTE: This will erase all video and re-format the SD card.**

## Indicator Light Status

Colour and status of the indicator light identifies current mode of the POD DVR.



Indicator Light Colour	Status	Mode
Red	Steady	Screen is on – unit ready
Red	Flashing	Video is Recording
Blue	Steady	POD DVR power is on
Purple	Steady	POD DVR is transitioning between modes

Note: If the indicator light is still active when the POD DVR enters screen saver mode, it means that it is running

# Button Functions

This page lists the function(s) of each button on the POD DVR and what status the POD DVR is in

## Power Button (#17 on page 2)

Operation	Function	Status
Press power button	Turns Power On / Off	POD DVR is recording when on and charging when off

## MENU Button (#12 on Page 2)

Operation	Function	Status
Press menu button once	Enter Options Menu	While the camera is on standby
Press menu button twice	Enter Set-Up Menu	While the camera is on standby
Press menu button three times	Exits the Menu	While the camera is on standby

## UP Arrow Button (#3 on Page 2)

Operation	Function	Status
Press the Up Arrow	Digital Zoom Magnification Working	While the camera is recording
Press the Up Arrow	Highlights which option you wish to modify	While the camera is on standby in the menu screen

## Enter Button (#18 on Page 2)

Operation	Function	Status
Press the enter button	Start / Stop Recording	On standby / Recording
Press the enter button	Selects the menu option	While the camera is on standby in the menu screen

## DOWN Arrow Button (#5 on Page 2)

Operation	Function	Status
Press the Down Arrow	Digital Zoom Reverse Magnification	While the camera is recording
Press the Down Arrow	Highlights which option you wish to modify	While the camera is on standby in the menu screen

## MODE Button (#14 on page 2)

Operation	Function	Status
Press mode button	Switches between screens for photo and video playback	While the camera is on standby
Press and hold mode button	Turns mic on /off	While the camera is on standby



The function keys are operational while the POD DVR is charging



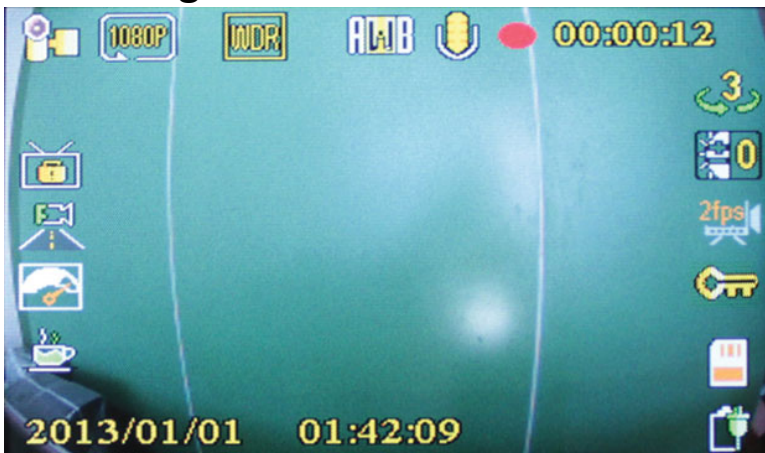
# Video Display Screen

This product should be connected to the power supply to operate the POD DVR properly. The POD DVR will start recording automatically if there is a MicroSD card inserted when powered on, otherwise it enter standby mode.

## Standby Screen





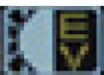
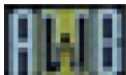




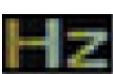
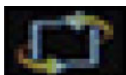

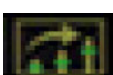

## Recording Screen



If the POD DVR shows “memory card error” when powered on, format the SD card. If the product still does not work, the SD card could be corrupt or the wrong class and size – try using a different SD card.

# Menu Icons

Icon	Name	Description
	Resolution	Sets recording resolution
	Cycle Recording	Sets file recording time
	WDR	Wide Dynamic Range
	Motion Detection	Launches Motion Detection Function
	Plate number stamp	Input vehicle plate number so it shows on recorded footage
	Voice	Launches voice recording
	Date Watermark	Input date for watermark on recorded footage
	G-sensor	Sets gravity sensor sensitivity
	Parking Monitor	Launches Parking Monitor Function & sets FPS
	Anti-Fatigue Driving	Launches Anti-Fatigue Driving Function & sets driving time
	Speeding Alert	Launches Speed Alert Function and sets driving speed
	Speed Settings	Sets the speed of the unit to KM/H or MPH
	Parking Guard	Sets the Parking Guard Function ON/OFF


Icon	Name	Description
	OBD Clear	Removes the car engine OBD fault error display code
	Screen Saver	Set the screen saver mode: GPS screen saver / OBD / backlight / Choose whether to launch the time so it shows on display
	EV	Adjust the brightness of the screen
	White Balance	Adjust the ambient light
	Date/Time	Current date and time can be set here
	Button Sounds	Turn button beeps ON/OFF
	Language	Change the display language
	TV Mode	AV-Out mode PAL/NTSC setting
	Light Frequency	Adjust Light Frequency
	Video Rotation	Rotate video image here
	Format	Format the Memory Card
	Default	Reset to factory default
	Version	View product version

# Menu Functions

The following explains all the POD DVR functions

## Motion Detection Mode



Enter Menu mode – select the Motion Detection Icon. The POD DVR will start recording automatically after going back to the menu screen. This icon  will show in the right corner when recording in Motion Detection Mode. You must stop recording and turn off Motion Detection to operate any other functions Press the mode button to go to standby)

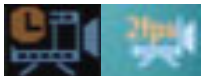
## Plate Number Stamp



Enter Menu mode – select the Plate Number Stamp and use the UP/DOWN arrow buttons to choose the letters and numbers of your vehicle's license plate. Press the enter button ↵ to confirm each character. Click Ok to save and exit.



## Parking Monitor

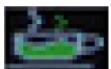


The icon will show 2FPS when your select the Parking Monitor Icon and also can be operated when in standby mode, press OK key for 2 seconds to switch on Parking Mode, the icon will start flashing slowly when video is recording. Press OK Key to save the recorded file.



Parking Monitor Mode takes the least storage space, you can choose 1fps/2fps/5fps to record video. The file will be saved when the video reaches 30 frames.

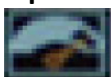
## Driver Fatigue Warning



Enter Menu mode – select the Fatigue Driving Warning. Then you set how often you want the warning to sound. Can be set at 1 / 2 / 3 / 4 hour intervals.



## Speed Warning



This function requires GPS to work. Enter Menu mode – select the Speeding Warning Icon. A voice will warn you when go over the speed limit you set. Can be set at speeds of 40 / 60 / 80 / 100 / 120 KM/H.



## Parking Guard



This function requires device to be connected to OBD car charger. Enter Menu mode – select – vibration recording ON, this function still performs after the car engine shuts off.



Tip: Each icon will show on the display after turning on the function as shown above. When turning on these functions, video recording will be affected. Turn off functions when recording.

# OBD Function

The 9401 POD DVR has an OBD fault detection function, which can detect vehicle error codes and clear them. OBD information can be displayed on the screen, seeing how the vehicle engine is running.

## Remove OBD Error Code



Please ensure that your POD DVR is connected to the OBD port with the OBD plug that is supplied with your kit. Enter Menu mode and select the OBD Clear Trouble Code Icon. This function will be based on the OBD detection fault error code number and it eliminates false alarms.



**OBD information**

OBD Information Display:

1. Engine Load
2. Coolant Temperature
3. Current Fault Code Number
4. Driving Speed
5. Current Mileage
6. Battery Voltage
7. Throttle Percentage



NOTE: This function only removes false alarms. If you cannot eliminate the error code, seek professional help at a licensed repair facility.

## OBD Screen Saver



This function needs the support of the OBD connector. Enter Menu mode and select Screen saver, then select OBD. The screen saver will turn on after 1 minute and look like Image 1 below. To get out of the Screen Saver - press any button to return to the main screen.



**Image 1**



# OBD Reporting Parameters

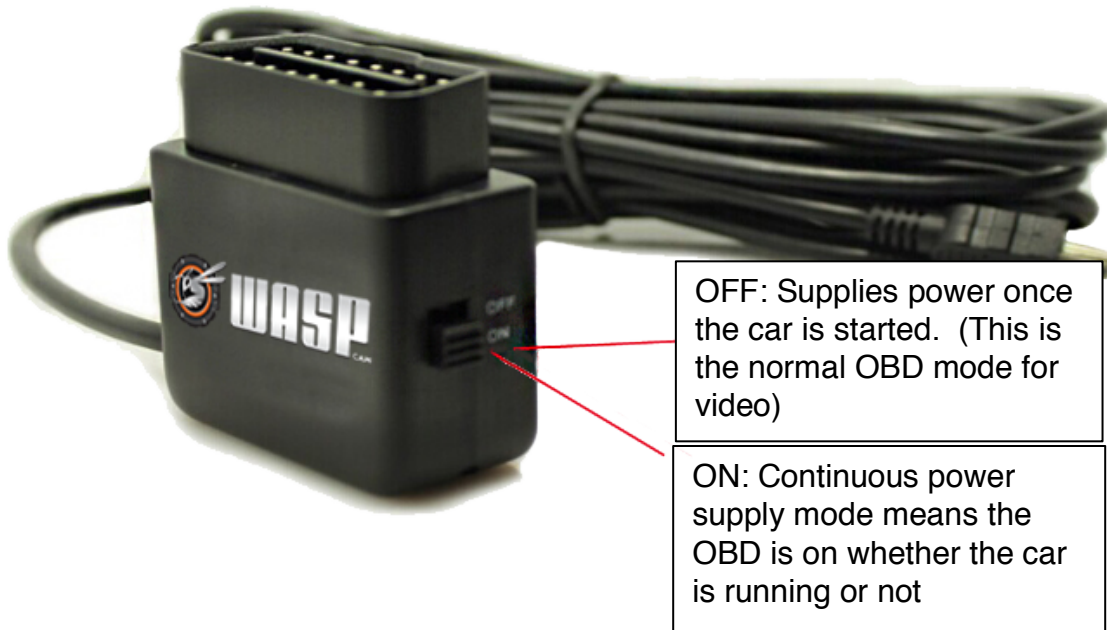
## OBD Screen



The video will display OBD watermark information on the screen and it can show 15 different readings (measurement in brackets):

- A. Voltage (V)
- B. Engine Speed (RPM)
- C. Driving Speed (KM/H)
- D. Throttle percentage (%)
- E. Engine Load (%)
- F. Coolant Temperature (°C)
- G. Fuel consumption (L/H)
- H. Average fuel consumption (L/100KM)
- I. Mileage (KM)
- J. Total mileage (KM)
- K. Fuel consumption (L)
- L. Total fuel consumption (L)
- M. Current fault code number
- N. Number of times of quick acceleration
- O. Number of times of hard braking

# OBD Power Module



## PLEASE NOTE:

When using the ON position (continuous power mode) - if the car battery voltage is lower than 11.6V, low voltage protection is enabled and the power supply will shut down automatically.

This product is OBD - 16 standard interface, support IS09141-2/ISO14230 (KWP)/ ISO15765 (CANBUS) protocol, suitable for most of ECU of cars in current market for diagnostic verification



# Screen Saver

The POD DVR has three screen saver modes:

OBD screen saver (as described below)

GPS screen saver

Backlight screen saver

The GPS screen saver, (Image 2 below), shows direction, GPS coordinates and the current speed.

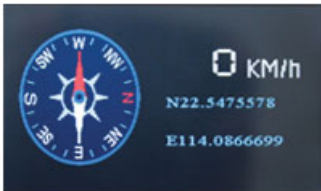


Image 2

Use the backlight screen shows a black screen with no functions


Note: Each icon will show on the display after turning on screen saver. If you turn on the parking monitoring or vibration recording, selecting the backlight screen saver will reduce power consumption.

## SD Card Requirements

### Inserting Memory Card

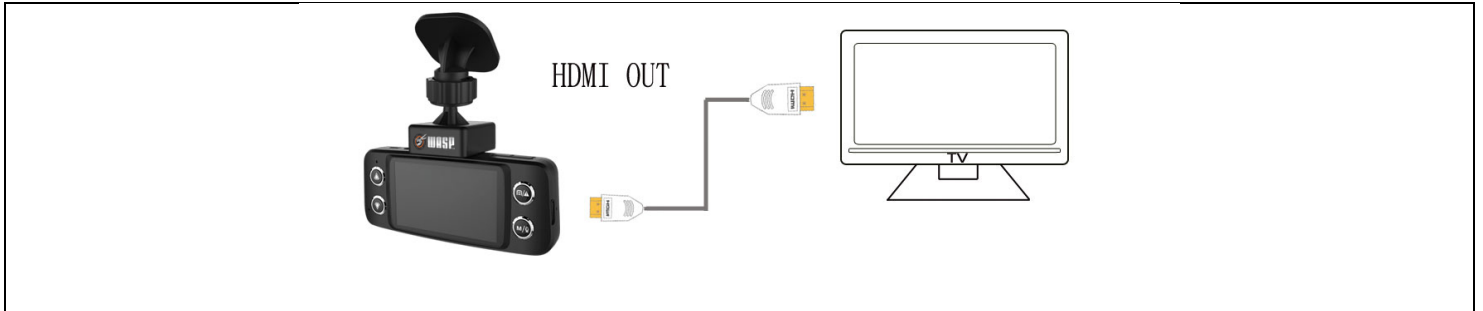
Please insert the memory card in the marked direction on side of the POD DVR.



Recommendations - 8GB min to 32GB max Micro SD cards Class 6 and above.  
The SD card icon  will show on display if the SD card is inserted correctly.

# Video Output

Connect your included HDMI cable to the HDMI Out port on the POD DVR and then connect the other end to a TV that supports video output. Or Plug AV cable (optional) or HDMI cable to the POD DVR and connect the other end to audio / video equipment.



Please adjust PAL/NTSC in TV mode according to the local format of video output. The AV OUT cable is optional.

## Software Upgrade Info

Please go to our WASPcam website [www.waspcam.com/POD](http://www.waspcam.com/POD) to download the latest firmware for the 9401 POD DVR:

1. Unzip the firmware (\*.bin) to the root menu of the SD Card
2. Boot the POD DVR after inserting the SD Card (keep the POD DVR power on)
3. The display will light up automatically about 20 seconds after upgrade is completed
4. Re-format the SD Card after upgrading to avoid it re-running the upgrade next time you use the POD DVR

## POD DVR 9401 Player

Download the 9401 POD DVR Player at [www.waspcam.com/POD](http://www.waspcam.com/POD)

- When you use the POD DVR player, make sure that you also use GPS module at same time
- When the GPS module receives a signal, the GPS tracking will work properly



# Specifications

Model	9401
Image Sensor	1/3" CMOS Sensor
View Angle	148°
LCD Display	2.7" TFT LCD Screen
Aperture Range	F/#1.6
Video Resolution	1920x1080P @30fps    1280x720P @30fps    1280x720P @60fps 848x480P @30fps        640x480P @30fps
G-Sensor	3 Axis, 4G
Video Format	MOV
Connection Port	USB 2.0 / HDMI OUT
GPS	Built-in
OBD	Support
External Memory Card	Micro SDHC Card (Up to 32GB)
Battery	300mAh
Size	113(L)x32(W)x45.5(H)mm
Weight	103g
Operating Humidity	20%-80%
Storage Temperature	-20°C – 85°C

## LIABILITY WARNINGS

636 Distributing Inc. is not responsible for any vehicle collisions, damage or personal injuries resulting from the use of the WASPcam 9401 POD

636 Distributing is not responsible for any legal repercussions from use of the WASPcam 9401 POD or from the sharing of footage

636 Distributing is not responsible for any property damage caused by theft of the WASPcam 9401 POD from your vehicle or for replacing your WASPcam 9401 POD if lost or stolen

# Multi-Function Car DVR



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