

Motorcycle Digital Video Recorder

User Guide

Model MCDV2



Congratulations on your purchase of the MCDV2 DVR kit.

With careful installation and use, the MCDV2 should offer trouble-free traffic video recording and memories of your motorcycling journeys.



Before you start, please read the following advice:

- Chipatronic recommends professional installation by an auto-electrician, motorcycle repairer or other suitably qualified person.
- The owner may do installation, but will require a good understanding of auto-electrical systems. If in doubt, have a professional installer make the final (2 amp fused) connection to the motorcycle's accessory power. We accept no responsibility for damage caused by incorrect installation.
- This kit includes a handlebar mounted controller which if fitted, requires the rider to operate the buttons with their thumb. This controller should not be used for novice riders or any rider not fully capable of operating this without taking their hands off the hand grips. The handlebar controller is not required for standard operation and if there is any question on the ability of the rider to use this safely it should not be fitted.
- The kit includes a GPS antenna which can be fitted to provide additional data which is saved into the video file. This data will show the location (GPS coordinates) and vehicle speed. The accuracy of this data is based upon the GPS system and is not guaranteed by any external reference. Once the GPS data has been received by the device it is embedded into the saved files and cannot be altered or removed.

Recording and storage of your video

- Before you can properly use the device you need to purchase and install a micro-SD card, Class 10 or better (max 32GB).
- To playback your video, it is best to insert the card into a card reader attached to your computer or other device. Note that additional hardware may be required to import video from any SD card to devices such as tablets.
- It is recommended that you purchase at least two micro-SD cards, if you plan to review your videos regularly. Remove the current card and insert the second one to ensure that video recording is not inadvertently stopped due to the card not being put back into the DVR.

- It is recommended that you reformat the micro-SD card, at least once every three (3) months to ensure best use.
- The device is designed to record and store important data. It should be installed safely and securely under the motorcycle's seat (recommended), where it will be out of the weather (rain and dust) and is protected from tampering or theft.

Carefully check the parts of the MCDV2 dashcam kit, as you remove them from the box:

- The MCDV2 itself ("the device"), which is the core of the kit
- A mounting bracket for the device
- Two (2) video cameras, each with extension cables and mounts
- A handlebar controller (large red buttons), designed to be mounted on the handlebars using touch-tape (Velcro™), with input splitter cable to connect the controller to the main power unit
- A GPS receiver (to record location and time)
- A power supply cable
- USB test and charge cable
- USB to micro-SD card adaptor

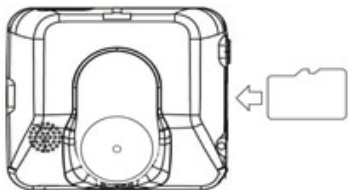
It is highly recommended that the kit is assembled and tested in the workshop prior to installation on the motorcycle to ensure a clear understanding of the layout, connections and functions.

Your new micro-SD card should come formatted ready for use in the device. The card may be formatted in the device if required. (Note: To preserve the

correct operation of the micro-SD card we strongly recommend that the card is reformatted on a regular (three (3) month) basis.

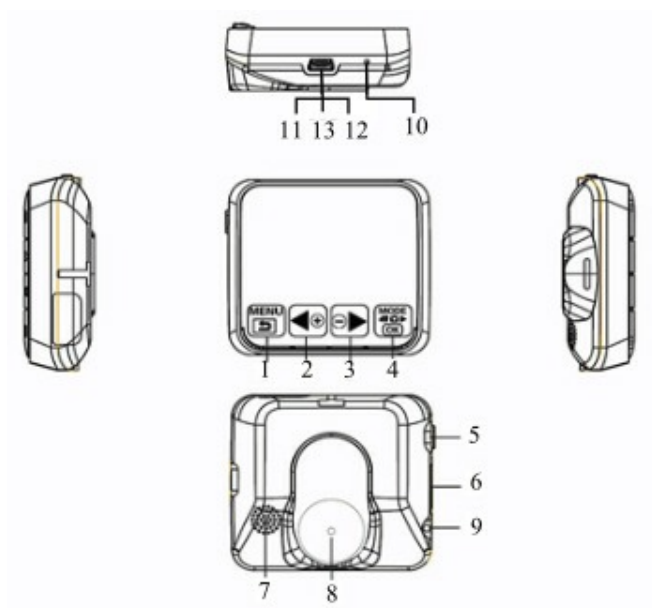
Hold the device the right way around, and carefully insert the micro SD card as shown.

You can do that now.

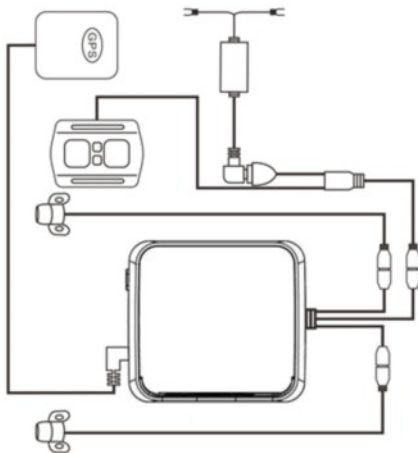


Get to know the Parts of the MCDV2: Hold the device. Turn it around to identify each of the buttons and the ports that you will use to operate and connect it.

- | | | |
|--------------------|-------------------|---------------------|
| 1. Menu Button | 5. Power ON / OFF | 10. Reset |
| 2. Up Button | 6. Micro SD Slot | 11. Camera 1 Socket |
| 3. Down Button | 7. Speaker | 12. Camera 2 Socket |
| 4. Mode / REC / OK | 8. LED Light | 13. Power Supply |
| | 9. GPS Socket | |



Wiring Diagram - Layout



- Video plugs are small and delicate. Rough handling or dirt can damage them. During assembly the video plugs should be clean and carefully aligned, then gently, but firmly pushed together. After installation (not now) they can be taped to seal or use heat-shrink prior to assembly.
- The above drawing shows where each of the parts of the kit attaches to the device. You may wish to use the extensions supplied to reach handlebar button and camera locations or ensure the GPS device can “see” the sky.
- Attach each of the parts to the device now, but not the main power supply.
- Using a USB power supply, we recommend that you set up the system on a table or bench before installing on the motorcycle.
- A USB cable is provided to charge the internal battery prior to installation.
- Once you are familiar with the parts, setting up and operation, you should find it simple and easy to use.
- All connections are done with miniature, multi-pin connectors.



All cables are included and should be sufficiently long for standard motorcycles. Excess cable should be coiled and held in place. **Do not cut or crush cables!**

If you have not already done it, assemble all of the parts as per these instructions and diagrams.

Advice on fitting the device to the motorcycle is at the end of the document. You should now charge the internal battery, preferably using a power supply with USB output.

Next you will follow the operating instructions using buttons 1- 4, to set your preferences

Operating instructions

Video Recording Mode

When the cameras and power supply are attached and the device is turned on, video will be visible on the screen. This is the “video recording” mode.

The following icons may be visible on the screen also. These icons show the current status of the device (what it is doing). They will change, depending on which settings you choose

SCREEN ICON WHAT THEY MEAN



Battery Status (this shows full)



Camera (Input)



Micro SD Card is inserted correctly



Micro SD Card is missing or not inserted correctly



D1 is a video resolution standard. In the NTSC system FULL D1 is 720 x 480 pixels



Exposure Value - Affects brightness of the video or photo



Microphone is active



PBP - Picture by Picture displays 2 cameras on 1 screen



Video Recording. The device is recording



To start your setup:

From the Video Recording Mode, press and hold the “Menu” button (1) to enter the first part of the SETUP interface. You will see a menu. To select specific parameters, press the “UP” or “DOWN” buttons, then press “OK” to confirm. Press “Menu” to Exit. It is highly recommended to take a few minutes to become familiar with changing to a different mode, selecting a parameter, setting it and confirming OK. These are the steps that you will repeat for each of the parameters. As long as the device is working properly, you only have to set these parameters once. It is easier to do this setup on the bench, than with the device installed under the motorcycle seat!

These are the choices that you will make in SETUP

1. To choose **Video Resolution**, select one of the following. **VGA** is recommended for longer journeys as the video files are smaller, therefore more video data can be recorded before the disk is overwritten. **HD** provides the best quality and is recommended for playback on larger displays.

HD 1280*720

D1 720*480

VGA 640*480

2. **To Time Stamp** the video file, select one of the following. **Date and Time** is recommended as this provides the best information for future use.

Off Video file will not display either date or time

Date Only Video file will only display the date

Date and Time Video file will display both the date & time

3. **To record Sound**

Off Leave this off. Sound recording is not supported on this device, with the current software.

4. **G-sensitivity**

The device is designed to be **sensitive to shocks**, such as vehicle impacts. However, if the sensitivity is set too high, the device may be triggered by

minor events, such as hitting small bumps and pot-holes in the road. When the device receives a shock, it automatically saves the video in a file that will not be overwritten. Under normal circumstances, each video file will be saved as type **REC.XXXX.AVI**. Think of REC as being normal REcording. The REC files will be overwritten by looping recording as the micro-SD card becomes full. That is, these REC files are not protected.

Upon impact the video file name will be saved as **EVE.XXXX.AVI**. **Think of EVE as being an EVENT.**

G-sensor sensitivity may be set to either, Off, High, Medium or Low.

We recommend that you start with Medium sensitivity, and see whether your local road conditions are triggering the writing of EVE.XXXX.AVI files. Reducing the sensitivity of the G-sensor, should prevent too many EVE files being written.

5. **Parking Mode** is only available on some devices. If the motorcycle is parked for long periods, the device may drain the battery and as such Parking Mode is DISABLED on this device.
Off Please ensure that Parking Mode is left off.

6. Brightness

Chipatronic recommends leaving the camera brightness at the factory setting of 16. Selecting this option will enable you to change Camera Brightness.

SETUP Mode – the next menu

From the VIDEO Mode, Press and hold the “Menu” button **again** to enter Setup interface (the next menu). As in the previous screen, press either UP or DOWN buttons to select specific parameters then Press “OK” (button 4) to confirm. Press “Menu” to Exit.

1. Format

Caution: Use FORMAT with care. Selecting this option will **delete all of the**

files by reformatting the micro-SD card.

However, after regular use, it is recommended that the micro-SD is reformatted at least every three (3) months. Ensure that any important videos have been copied or downloaded to your computer before reformatting.

2. Screensaver

The device will save battery energy by turning off the LCD (liquid crystal display) screen. Under normal operating conditions, the device (and screen) will be concealed under the seat (so you can't see them anyway).

Off Screensaver off, so LCD will remain on

1 Min LCD will enter screensaver mode after 1min (recommended)

3 Min Camera will enter screensaver mode after 3min without operation

5 Min Camera will enter screensaver mode after 5min without operation

Note: When the device is in Screensaver mode, simply press any button to restore the screen.

3. Beep

We recommend leaving the beep on. This helps you know when a signal has been received from the button.

On Selecting this option will be turn on operation button sound

Off Selecting this option will be turn off operation button sound

4. Language

The factory default setting is English. Chipatronic does not have a separate user guide for languages other than English. Options are English, French, Deutsch, Italian, Spanish, Portuguese, T-Chinese, S-Chinese, Russian ,Turkish, Korean, Japanese

5. Auto off

When the motorcycle's power supply is switched off, the device will keep recording video on auxiliary (internal battery) power. We recommend that Auto off is turned to "Off" initially **during setup procedure.**

a) Off Camera will remain on

b) 1 Min Camera will auto Power off after 1min without any operation

c) 3 Min Camera will auto Power off after 3min without any operation

d) 5 Min Camera will auto Power off after 5min without any operation

6. Sys (System) Reset

Do not use unless necessary! Should a system error occur, selecting this option will allow the MCDV2 to be **restored to the factory settings**. Please note that if this option is selected, you will need to go back through the steps above to select your preferences.

7. Light Frequency We recommend 50Hz, which is consistent with Australian standards.

50HZ/60HZ

Date Input

1) Press to “Up” or “Down” buttons to select different Day/Month /Year settings.

We suggest DD/MM/YYY

8. 2) Press “Mode” button jump next selection

9. 3) Press “REC” button Exit set

10.

11. Time Zone

The GPS receives time signals as well as location. If the GPS is used, the clock can be set automatically by selecting the GPS time zone. Remember that you may need to alter this for daylight saving time.

12.

Choose either “Cancel” or “Set” We recommend selecting this SET option to set GPS Time Zone





10. Version

Check software version information.

Playback (PLAY) Mode

To view your video files on the device screen, first press the MENU button, followed closely by the “Mode” button to change to Playback (PLAY) mode. Then Press the “OK” button to playback the video file.

You can press the “Up” or “Down” button to select the previous or next video file.

Press “OK” Play/Stop

To make changes to the recorded videos, you will need to press and hold the MENU button. The changes available are: delete, protect, thumbnail execute, file list execute and volume. **Chipatronic recommends that these file options are not used until the user is properly familiar with the controls of the device.** It is much simpler to work on the video files with the micro-SD removed from the device, and inserted in a card reader on a computer. Also, the video files that you create when setting up the device may all look similar, making it difficult to select between them.

1. Delete

Single Delete single file
All Delete all the files
Select Select file to deleted

2. Protect

Single Protect single file (from deletion)
All Protect all the files
Select Select file to be protect

3. Thumbnail /Execute

Select this option to selected thumbnail function

4. File List /Execute

Select this option to enter File List function

5. Volume



Adjust volume 1~8

GPS Function

Check that the GPS module is correctly plugged into the GPS socket (9) on the device. GPS data will be recorded as soon as the module receives a signal. The module needs to be able to “see” the sky. Therefore when you are setting up on a bench indoors, you may not have a signal. The LCD screen will display “GPS” when the device is receiving the GPS signal. If the Time Zone is set, the device’s date & time will be updated automatically.

Playback GPS file

To play back GPS files and video together, Chipatronic recommends the use of Driver Record player software such as DrPlayer which enables video to be played at the same time as showing a base map with location, map coordinates (latitude and longitude) also the direction and speed of travel.

With the DrPlayer software open on your computer, click the button to select a GPS file then click “Play” button to review the video and GPS information together.

Changing Camera Views on Screen

1) Camera 1 / Camera 2 change In the other mode ,Press “ Down “ button to change the Camera 1 to Camera 2

2) Camera 2 / Camera 1 change In the other mode ,Press “ Up “ button to change from Camera 1 to Camera 2

Loop Recording

When the micro-SD card is full, the Camera will auto-delete (overwrite) existing REC.XXXX.AVI files. Upon impact the video file will be protected and saved as type EVE.XXXX.AVI. These EVE files will not be overwritten by normal loop recording

Flashlight function



Pressing the Power button briefly will turn on LED light,
Press it again to turn it off

Wired Controller Function (Optional) A handlebar mounted wired controller is supplied with the kit. The controller is designed to be attached to the handlebar using touch tape (Velcro™).

With the device in any mode (Video recording, Standby or Recording mode, press either button on the wired controller. The device will then automatically save a two minute (2 min) video file with the name (KEY-XXXX.AVI). This is the same file type as EVE.XXXX.AVI. These files **will not be overwritten** automatically. When the micro-SD is full, only the normal files (REC.XXXX.AVI) will be overwritten. This is why we recommend regular reformatting.

Video Data Backup

Chipatronic strongly recommends that you backup your video data before reformatting the micro-SD card. Remove the micro-SD card from the device, then insert it into a card reader connected to your computer. You may then list, open, view, or backup your video files. You may also choose to delete or protect files or reformat your micro-SD card.

Power on test

Before installing the kit, and for the first-time use of the device, Chipatronic recommends using the USB cable provided in the package instead of the main power supply. Connect the USB cable to a charger DC-5V 1A With power on, test the device for normal recording and other functions. After the device tests normal with power on, it is ready for installation and use.

Charging the battery

The battery in the device needs to be charged before use. For example you can:

- Directly connect to a vehicle cigarette lighter with a USB interface;
- Use a USB cable to connect to a computer;
- Use the USB cable to connect to a USB charger (as above)

The battery level display on the LCD shows the remaining power of the battery:

Micro-SD card installation

Insert the micro-SD Card in the micro-SD slot according to the direction shown above, until it softly clicks into place.

When removing the micro-SD card, push in the card and gently release to eject it.

! Take care when removing as the card may be lost if it falls or springs out un-



Low power



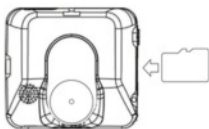
Not fully charged



fully charged

expectedly.

Make sure the micro-SD card is facing the right way, as above. If it is in the



wrong direction, it may damage the device and micro-SD card.

If the micro-SD seems incompatible with the device, check the orientation (right way up), and try to insert again. If the micro-SD card doesn't fit, replace it with one that does.

Notice:

- If the device is “frozen” due to the improper operation, press the reset button to restore the camera to normal.
- The software may be updated by the manufacturer, without prior notice, to improve the device's function.

INSTALLATION

The device (MCDV2) Mounts under the seat or other, dry, protected location. The mount provided is multi-directional, giving many options. With careful mounting, you should be able to flip the device over, to use the built in flashlight. Cables must be able to be run to external cameras, power supply, GPS and



handlebar controller. If that can be done in the shed there will be less glare from the screen.

Power Supply

Connect + (Red) to Accessory power

Connect - GND (Black) to electrical Ground

Device should be fused for protection (2A)



Bullet Cameras x 2

Front and Rear cameras to be mounted where a clear view is possible. Do not obstruct the lens. Check picture on the DVR screen to ensure the camera is aligned correctly and can capture the view required before fixing in place. Aim to minimise vibration.



GPS Receiver

Mount under plastic or in the open, this must not be covered by metal and should not be close to other antennas or high power devices.



Handlebar Controller

Attach to the handlebars using the strap included or you can use cable ties. This should be a position where the rider can use their thumb to operate the buttons safely.



All cables are included and should be sufficiently long for standard motorcycles. Excess cable should be coiled and held in place with cable ties.

! Do not cut the cables

! Do not bend too tightly or crush the cables



The **Main DVR** unit mounts under seat with all connections. Power supply connects to bike electrical system and the device starts after the bike is running.

Handlebar control

LEDs show status
Buttons to Start/Stop
and record events of
significance

GPS antenna

Adds speed
and location data to
video files

Rear Camera

Mounts on guard, rack
or taillight assembly and
must have an un-
obstructed view



Front Camera

Mounts on fairing or
headlight assembly and
must have an clear view

Technical specifications

LCD Screen	2.0" TFT
Camera Lens	120°
Language	English/French/German/Italian/Spanish/Portuguese/T-Chinese/ S-Chinese/ Russian/Turkish/Japan
Video Format	AVI (MJPEG)
Video Resolution	1280*720 max
Memory Card	Micro SD card up to 32GB
Battery	Built-in
G-Sensor	Built-in (Supported)
Wired Controller	Included (Supported)
GPS	Included (Supported)
System	Windows 2000 and above

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