

**DBPower**

**Car Video Recorder**

**W20**

**Our Perfection is Your Peace of Mind**

## Welcome

Thank you for buying the W20 Camcorder from DBPower. You have made a wise decision to fit a dashcam in your car, considering increased insurance premiums and deliberate attempts to scam motorists.

With our device scanning the road ahead, you can feel more secure that in the unfortunate situation another motorist pedestrian, animal or UFO involves you in an accident, you will have the video footage to provide you with the best witness you could ever hope for.

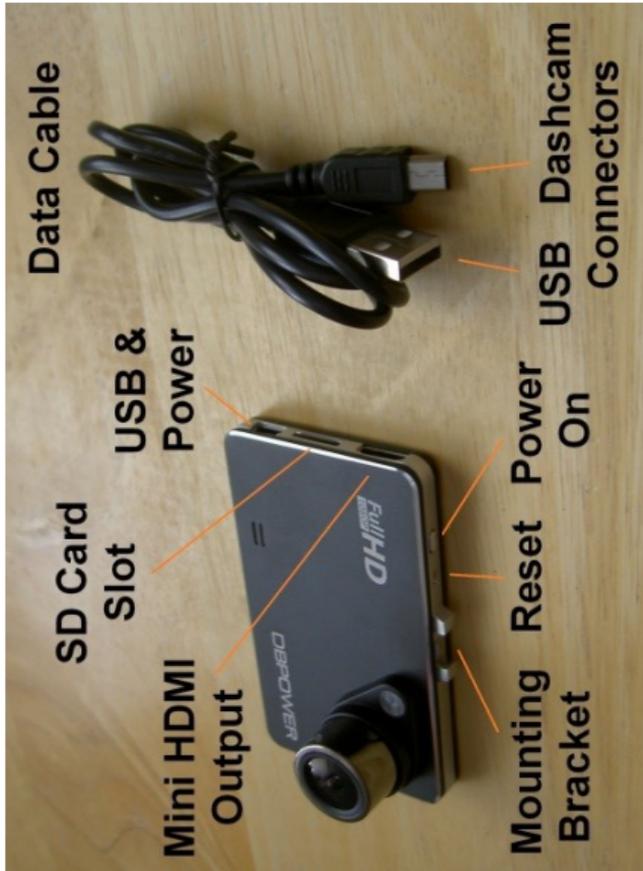
You might like to consider fitting another W20 to the rear window as well. With this monitoring the road behind, you will notice a significant reduction in other road users driving too close, tailgating as it likes to be known, and therefore further increasing your safety whilst in the car.

The manual has been written with you in mind, to inform and advise you as you get to grips with the future of safety in motoring.

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## Camera and Data Cable



## Power Cable and Suction Cup



**Fixing Assembly** - suction lever shown unlocked



**Fixing Assembly** - Suction lever shown locked

## The Controls



Let's look first at the buttons on the back of the camera. You will be impressed just how simple the controls are:

**Menu** – as you would expect calls the setup menus

**Up** – selects the menu item above

**OK** – Selects the highlighted item

**Down** – selects the menu below

**Mode** – Changes from recording mode to camera, amongst other things

Everything you do on the device can be controlled from here.

## Getting Started

It is important to fit the Micro-SD card before you power the device. Once you have inserted the card (see the 'How To' section if in doubt) and removed the safety plastic protector from the camera lens, you are good to go. Ideally, you should charge the device for anything up to 90 minutes before starting, but we know you want to use it right away, so let's get straight to fitting the unit in your car, and going for a drive to record your first videos.

- Clip the W20 into the mounting bracket from the side with the locking tab
- Plug the car charger power lead into the USB socket
- Use the suction cup to attach the assembly to the front windscreen of the car, either behind the rear-view mirror or slightly to the passenger's side of the mirror. Fit it in place and then push the lever forward to lock the cup firmly to the windscreen. Note, you will need to make sure your glass is clean and smooth to ensure a permanent fixing.
- Plug the power connector into your 12V auxiliary power outlet – this used to be called the cigar lighter before it wasn't cool to smoke whilst driving, but it still provides the power to run your dashcam. Try to run the cable so that it doesn't interfere with your driving.
- Switch on the engine. The device will power up automatically and start recording.
- Use the 2.7" large screen to adjust the viewing angle so that you can see both sides of the road. Lock the camera in place by turning the locking ring.
- Forget about the camera and enjoy your motoring.

### Important

**Please do not look at the camera as you are driving.** It records automatically, and it is dangerous to watch what's happening on the screen as you go along. It will work. Trust us. We know what we are doing!

## How To

We hope that everything you need to know about operating the device is in this section, but if there is anything else you would like to see, please contact us at [www.dbpower.co.uk](http://www.dbpower.co.uk). We can advise and will add details to the manual as we go.

### Switching On

After connecting the USB power lead, the device will power automatically and begin recording as soon as you switch your engine on. If you are using it without external power, which is the best way to set all the options, **press and hold the power switch** until you see the DBPower and backlight operate.

### Inserting the Micro SD Card

The Micro-SD is a tiny little beast. We recommend a 32Gb from any of the mainstream manufacturers (Kingston, Samsung etc). We say 'mainstream', because there are some devices on the market that may be counterfeit. Be wary of cut-price deals.

Now you have a reliable card, it is a simple process to fit.

- Carefully remove the card from its packaging. This is the hardest part, as most come extremely well sealed. Try not to touch the gold contacts if possible.
- Hold the camera in your left hand with the lens facing away from you and to the left
- With your right hand, hold the card by the top corner with the gold contacts facing away from you
- Push the card gently into the middle slot on the camera. You will hear a satisfying click as it locks into place

## Setting the Time and Date

It is a good idea to set these as accurately as possible. In the event of you needing to refer to the recordings, it will be easier if the file timestamps (as they call them) are correct.

With the device charged and running on the internal battery

- Press **Menu twice**
- Press **Down** to select the **Date** option and then **OK**
- Press **Down twice** to get to the **Set Date** option and then **OK**
- Press Up or Down arrows to set the year
- Press **Mode** to select and cycle to the next setting, The Hour
- Repeat the process with Minute, Second, DD/MM/YY (this sets the way the date is presented, and then the date and the month.
- When you are satisfied with your settings, press Menu three times to return to the camera screen

## Saving the Recordings

Connect the data cable between the data/power port on the camera and a USB port on your favourite device. The camera will power up and show the message “**Mass Storage**”

You can now treat the device as any other external drive, and explore into the DCIM folder. You will find all your recordings to be viewed or copied as you require.

Don't worry about deleting the folders manually. The camera will overwrite the oldest files, unless you have set them to be protected.

This protection will happen automatically in the unfortunate instance that you are brought suddenly to a halt.

The videos are in AVI format, so you can play them back with any media player

## Formatting the SD card

We recommend formatting the card before use. Sometimes they are set up for a different file system, and even though they might work, there may be problems.

Remember though, that this will **erase all data on your SD card**. If it is brand new, no problem, but if you have already made recordings, make sure you have backed them up to another device first.

- With the device powered, press **Menu twice** to bring up the second set of options
- Press the **Down** arrow until you come to the **Format** option
- Press **OK** to select
- Press the **Down** arrow again to select **OK**
- Press **OK** to confirm
- When the operation has completed, press **Menu twice** to return to the normal screen.

## Switching between modes and taking Stills

The DVR, as well as automatically going into record mode when you power it from the vehicle, can also act as a static camera.

To set into camera mode and use

- Optionally remove the power from the DVR and the DVR from the suction cup
- If necessary, press the **Power** button to switch it on
- Press the **Mode** button and a camera icon will replace the video icon
- Press the **OK** button to take the still picture

## Playback

- With the device powered, press the **MODE** button once or twice to enter

playback mode for Videos or Still images respectively. There will be a 'playback' icon in the upper left corner of the screen

- Use the **Up** or **Down** button to select the desired file
- Press **OK** to view

## Removing the Camera from the Vehicle

Once you have returned safely to your home and stopped your engine, the camera will have switched itself off. Carefully remove it by pushing up the locking lever on the suction unit and ease the camera forward. To begin with, the fixing will be stiff, and you may have to remove the entire suction cup from the windscreen in order to see the operation closely, but after practise, you will be able to remove it easily.

## Infra-Red LED

With the device in either Video or Still mode, give the power button a short press to light the IR. Images can be recorded in total darkness using the IR sensor.

Press the power button a second time to switch the LED back off

You may find you get reflection from the windscreen if you try to use IR at night, so it is worth experimenting as to the best position to fit the device to minimise.

## Switching Off

Disconnect the power, or if required, press and hold the power switch for more than 5 seconds.

## Reset Button

A tiny button next to the power switch. If necessary, we recommend you use a paper clip to operate. It reboots the device in the unlikely event of problems. Worry not, Your data will not be erased

## Menu Options

This section will talk you through all the settings on the menu in order, and what each does. You will find that you cannot select menu options when connected via the USB data cable. You will need to change settings on battery power, or when connected inside the car – of course, please don't do this while you are driving along; pull into a lay-by or get a trusted passenger to fiddle with it.

### The Information Screen

Most of the settings below will appear as icons on the information screen once you have set up your camera. It is perfectly fine to run it without any changes at all, and if you do get totally lost, feel free to work your way to the '**Default**' setting and return to the device to factory settings.

Most of the important settings will appear on the information screen, and you will see how those look as you change the menu options. They are really there as a reminder.

### Opening the Menus

Press the **Menu** key to select basic functions. Press the **DOWN** key to choose the option and **OK** to open up any sub menus. Once you have these, use **OK** to select and the **UP** or **DOWN** keys to cycle between the options.

### First Menu Set

**Size:** 1080Full HD – gives you the highest quality of recording, but also takes the most memory space. To reduce memory usage and alas, picture quality, select lower resolutions. Press the **OK** key to confirm.

**Exposure:** If you find your files are consistently too bright or dark, try different settings here.

**White Balance:** For those who are interested, this selects the colour temperature of the images depending on your environment. As it is a rare occurrence you would drive your vehicle into an area using fluorescent lights (like your kitchen), I would suggest leaving it on **Auto**.

**Anti-shake:** This isn't in case you've had one too many, but is for compensating for the vibrations of the car. Set it to **ON** if you want to read number plates.

**Loop Recording:** This decides on the length of each recording and therefore file size. Set to OFF, you get one huge file, so we recommend you choose either **3 or 5 minutes** if you are recording at higher resolutions. The DVR automatically overwrites the oldest files if your memory card fills up.

**Motion Detection:** If set to ON, this will detect any movement in its field of view and record a short video of what it sees. Best set to **OFF** while you are driving, but set it **ON** if you leave the vehicle and need to watch what goes on, say with those awful people who can't steer supermarket trolleys correctly.

**Record Audio:** The internal microphone will pick up conversations inside your vehicle. Set to ON if you need to do this, or OFF if you would rather your significant other doesn't listen to your mutterings whilst driving.

**Date Stamp:** Set to **ON** to record date and time on your files – we would recommend this, in case you need the data later.

## Second Menu Set

Press the **Menu** key twice from the normal screen

**Date:** Set date and time here as previously described

**Auto Power Off:** Saves your battery if you are not powered from the USB cables. You can set the delay on this.

**G-Sensor:** If you have to stop suddenly, this saves and locks the current recording to prevent it from being overwritten. Level 0 is off, level 1 is for a serious impact and levels 2 or 3 are for lighter braking. You may have to experiment to find the optimum setting, but set to **Level 1** at least

**License number Set:** Here you can set in your own number plate, or anything else you like. Use the **Up** and **Down** keys to cycle through each letter. The **OK** key saves and moves to the next letter. You can set blanks too. Press OK repeatedly until to return to the top menu.

**Beep sound:** you can set this to OFF if it drives you nuts

**Backlight:** Helps if you are trying to take pictures in the dark, but normally set it to OFF

**Language:** The default is English, but please feel free to change this as required.

**Frequency: 50 or 60Hz.** This depends on what device you are connected to through the mini-HDMI for playback. Normally leave at the default 50Hz

**TV Mode: PAL or NTSC.** Again this is for playback mode. Try both to see which is best for your own playback device

**Image rotation:** This will automatically set the image in the correct plane if you are mounting the device on its side for example. Normally leave it at **OFF**

**Format:** This clears the SD card and sets it in the correct state for recording. We would normally recommend formatting a new card before use. Note that this will **erase all data**, even locked files, so think carefully before using.

**Default Setting:** If you get in a total mess with the settings, select this to return to factory defaults.

**FW Version:** The firmware is the internal program. There will be occasional firmware updates. By reading the number here, you will know if you need one. Details of updating the firmware will be covered with any new release.

Press **Menu** twice to return to recording mode

## Camera Options

While the DVR is perfect for using as a dashcam, it can also be used as a camera.

To set camera mode, power up the device and press the MODE key. A camera icon will appear on the screen.

You have approximately 5 minutes of charge from a fully charged battery, so it would mainly be used for recording the scene of an accident, although you will find the images captured are on a par with normal hand-held communication devices.

Settings for white balance, exposure etc. are detailed in the previous section, but all the controls and settings are standard for a normal digital camera.

You will find that the infra-red LED can also be used in camera mode.

Exposure time is variable depending on the ambient light settings.

## Troubleshooting Guide

Symptom	Resolution
Images foggy or indistinct	Check you have removed the protective plastic cover on the lens
“Battery Low” message and device switches off	The battery needs to be charged for at least 15 minutes before operation in the vehicle. Full charge is achieved in 60 minutes, but can vary depending on the output from your USB port.
Mass Storage message	You are connected to a reading device via the USB data cable. You can read the memory contents but not perform any of the settings. Remove from the USB data cable to change the settings
Red LED above the control keys	Battery is charging – not a fault
Blue flashing LED above the control keys	Device is recording – not a fault
Device not charging	<ol style="list-style-type: none"> <li>1. Check that the USB connector is inserted properly and that the light on the car power connection is on.</li> <li>2. Plug the USB cable directly into your PC or reading device to take the power from there.</li> </ol> <p>If neither rectifies the problem, please return the device to DBPower for replacement. Remember to remove your MicroSD card.</p>
INT icon in bottom right of screen	<ol style="list-style-type: none"> <li>1. Problem with your MicroSD card. Try reseating this as per the instructions.</li> <li>2. Wrong card fitted or card missing – replace the card with a Class 10 from a reputable supplier</li> </ol>
Playback image not smooth	This is not a fault, but ensure that you have a branded Class10 MicroSD fitted.

## Product Specifications

Image sensor	HD CMOS
Display	2.7" Colour
Lens	Fixed 120 degrees
Night Vision	One Infra-Red LED
Storage Media	Micro-SD 32Gb Max
Photo format	JPEG
Video format	AVI
Languages	Most common languages supported
Recording Sizes	1080FHD - 1920x1080 @ 25fps - 16:9 widescreen 1080P - 1440x1080 @ 30fps - 4:3 full frame 720P - 1280x720 @ 30fps - 16:9 widescreen VGA - 640x480 @ 30fps - 4:3 full frame QVGA - 320x240 @ 30fps - 4:3 full frame
G-Sensor	Four levels of sensitivity
White balance	Auto/Daylight/cloudy/Tungsten/Fluorescent
Exposure	-2 EV to +2 EV
Saturation	High/Medium/Low
Sharpness	Strong/Normal/Soft
Auto Power-off	0/1/3/5 minutes
Battery	Polymer Lithium 180mAH 5V DC
System Support	Windows ME to 10/MAC OS/Linux
Time and Date	Supported
Power lead length	3 metres
Data Lead Length	60 Centimetres
Sound	512Kbps 32KHz 16 bit single channel PCM audio stream

