

parkmate **HD**

4.5" REAR VIEW MIRROR MONITOR WITH BUILT-IN FULL HD DASH CAM DVR



RVM-045DVRHD User Manual

Thank you for purchasing Parkmate's **RVM-045DVRHD** rear view mirror monitor with integrated HD Dash Cam DVR. This state of the art Parkmate product is packed with features including a front facing dash cam that can be coupled with an optional rear facing camera.

The DVR can record both video feeds simultaneously to capture incidents and accidents that may happen in front of, or behind your vehicle. The **RVM-045DVRHD** will also automatically display the rear view camera feed in your mirror monitor when reverse gear is selected.

This product uses the most advanced technology and components to provide you with a long service life and integrates perfectly with the factory look of your vehicle to add a high level of safety and security to your driving experience.

Please note: Although this product will allow you to view and record driving footage, and reduce blind spots, it does not remove the responsibility of driving the vehicle from the driver. The legal responsibility and safe driving practice remains with the driver at all times.

You have purchased this Parkmate product with the understanding that its use is intended as an aid only. We highly recommend that you have this product professionally installed to ensure that it will provide the functions it is set out to perform.

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Chapter One: Product Introduction

1.1 Product Overview

Parkmate's **RVM-045DVRHD** rear view mirror monitor with integrated HD Dash Cam DVR is an invaluable accessory that not only acts as your eyewitness on the road, it also offers potentially life saving safety features to protect you and your family.

This product is equipped with a 120° degree wide angle camera and the integrated DVR can record high definition video and still images from two separate camera inputs simultaneously at 30 frames per second. The 4.5 inch screen automatically adjusts to ambient lighting conditions and is equipped with a dedicated remote control for convenient operation. Also featuring G-Sensor and Motion Detection automatically triggered recording, the **RVM-045DVRHD** is a powerful, convenient and simple to use device that will enhance your driving experience.

1.2 Package Contents

Package contents:

- 1 x 4.5" Rear-view Mirror Monitor with integrated HD Dash Cam DVR
- 1 x Rear view camera connector
- 1 x Video extension cable
- 1 x Manual
- 1 x Remote Control
- 1 x Generic Mounting Bracket

1.3 Product Features

- Factory Replacement Mirror Monitor
- In-built Digital Video Recorder
- Automatic Start Up Record & Shut Down
- Continuous Loop Recording
- Park Mode Capable
- Motion detection
- 4.5" Colour LCD Mirror Monitor
- In-built Full HD Front Camera
- Time & Date Stamped Recorded Files
- Reverse Camera Ready
- G-sensor auto file save
- Single or Dual Camera Display & Record

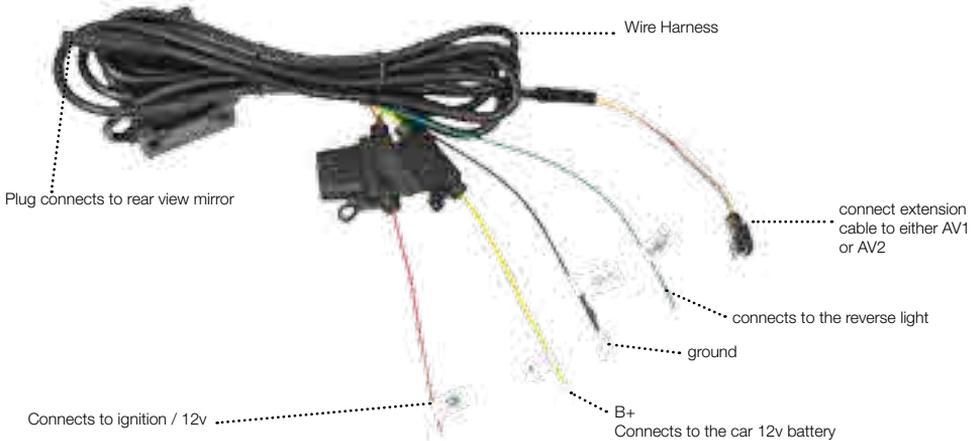
1.4 Product Specifications

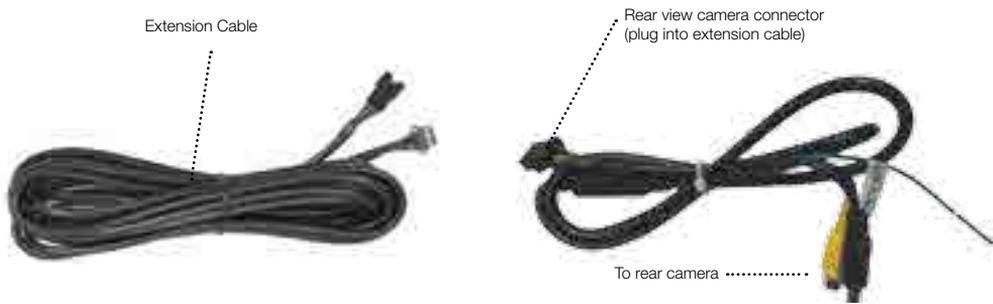
Micro SD Card	32GB (Class 6 or higher)
Image Sensor	High Definition
Front Camera Image Quality	Full HD (1920 x 1080)
Display Resolution	720 x 526
Memory Storage	Micro SD Card
Focus Range	12m - Infinite
Photo Format	JPEG
Video format	MOV
Audio	Built In - Microphone & Speaker
Working temperature	-20° - 70°C
Language	English, Spanish, Dutch, Chinese , Korean, Japanese, Russian

1.5 Introduction to Button Function



1.6 Introduction to Cables





1.7 Mounting Bracket/Arm

The **RVM-045DVRHD** comes with a generic mounting bracket suitable for most vehicles. If your vehicle's mounting plate is not compatible with the generic bracket provided, Parkmate has a range of vehicle specific mounting brackets available at www.parkmate.com.au or from your local Parkmate dealer.

FITTING VEHICLE SPECIFIC MOUNTING BRACKETS (sold separately)

<p>1. Unscrew the screw on the underside of the attached bracket.</p>	
<p>2. Remove the generic bracket from the mounting arm.</p>	
<p>If your replacement bracket includes a mounting arm continue onto step 3. If your replacement bracket DOES NOT include a mounting arm please go to step 6.</p>	
<p>Please note that this step is only required if the replacement bracket includes a mounting arm.</p> <p>3. Remove the screw from the barrel of the mounting arm by inserting a Philips head screwdriver into the opening at the base of the arm and unscrewing the screw securing the mounting arm to the mirror monitor's ball joint.</p>	
<p>Please note that this step is only required if the replacement bracket includes a mounting arm.</p> <p>4. Remove the mounting arm from the mirror monitor's ball joint.</p>	
<p>Please note that this step is only required if the replacement bracket includes a mounting arm.</p> <p>5. Insert the replacement arm and fix to the mirror monitor's ball joint using the included screw.</p>	
<p>6. Fix your replacement bracket to the mounting arm using the included screw.</p>	

Chapter Two: Product Installation

2.1 How to Install RVM-045DVRHD Rear View Mirror



Different vehicles use different mounting brackets depending on the manufacturer.

Note: While the mirror in some vehicles is easy to remove, in some it may be a difficult process. If you find it difficult to remove your factory installed rear-view mirror, please do not force it as you could break your windshield. In the case of difficult mirror removal, we recommend you seek a professional to dismantle the original rear view mirror.



Line up the mounting bracket with the universal mount



Insert the bracket into the top of the mount aligning both edges

Slide the bracket into position in the direction specified



Fix the bracket in place by tightening the screw in the direction specified with a hex/allen key

It is highly recommended that you seek the professional help of an auto installer before removing your original windshield mirror base and fitting the **RVM-045DVRHD**.

2.2 How to install the (optional) rear view camera

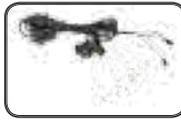
The rear view camera is usually installed above the middle of the license plate frame.



If your vehicle does not already have a reverse camera installed it is recommended you install a camera above the rear number plate as close to the centre of the vehicle as possible. Installing a rear camera will allow for both front and rear simultaneous recording and rear view blind spot viewing when the reverse gear is selected. The optional rear view camera is sold separately.



DVR rear view mirror monitor



Cable



Extension cable



Rearview camera connector (to optional camera)



1. Tuck the RVM-045DVRHD's cable into your vehicle's headliner.



2. Connect the included wire harness to the RVM-045DVRHD.



3. Ensure that the connection is secure.



4. Carefully remove the clips from your vehicle's headliner..



5. Carefully remove the clips from your vehicles pillar panel.



6. Run the cable along the roof and down the pillar replacing the liner and panel.



7. Run the cable to your vehicle's internal fuse box.



8. Connect the red wire to the 12V ignition power, and the yellow cable to the 12V Battery power.



9. To install a rear view camera, connect the extension cable the wire harness.



10. Unclip and lift your vehicle's floor liner.



11. Run the extension cable to the rear of your vehicle.



12. Connect your rear view camera (not included) to the extension cable.



13. Run the rear camera to the desired installation location.



14. Install the camera following the rear view camera instructions.

If you install an optional rear view camera, please ensure you select a high quality camera as it will be functional at all times while the vehicle is operational and recording to the DVR. We also recommend you select a wide angle camera that clearly captures both rear view traffic and reverse parking viewing angles. To view the complete range of Parkmate rear view cameras, visit www.parkmate.com.au

Chapter Three: Functions

3.1 Optional Rear View Camera

When you select reverse gear, the rear-view monitor will automatically display the (optional) reverse camera.



Not in reverse



In reverse

3.2 Start-Up & Shut Down

Once your vehicle has powered up, your mirror monitor will start-up within 3 seconds and the DVR (digital video recorder) will automatically start recording.

Once your vehicle is powered off, your rear view mirror will shut-down within 12 seconds.

While your vehicle is powered, you can turn off the screen by pressing the power button in the centre bottom of the mirror or press it again to turn the screen back on.

3.3 Inserting a Micro SD Card

With the mirrored face of the monitor facing toward you insert the memory card into the slot on the top of the Rear-view Mirror DVR with the text on the Micro SD Card facing away from you.

Using the edge of your fingernail push the Micro SD Card down until a click sound is heard and the Micro SD card locks into place.



Please Note:

- It is recommended that you format your Micro SD Card before use.
- The optimum Micro SD Card class and capacity is Class 6 or higher, class 10 recommended, 32GB.
- Using Micro SD Cards with a lower class number or higher capacity will affect the quality of the recordings.

3.4 Removing the Micro SD Card

Using the edge of your fingernail push the Micro SD Card down until a click sound is heard and the Micro SD card ejects.

Please note:

- Do not remove or insert a memory card while the **RVM-045DVRHD** is powered on. This may damage the memory card or the stored files.
- Please format the Micro SD card before initial use.
- When removing the memory card, be careful as the card may eject quickly.

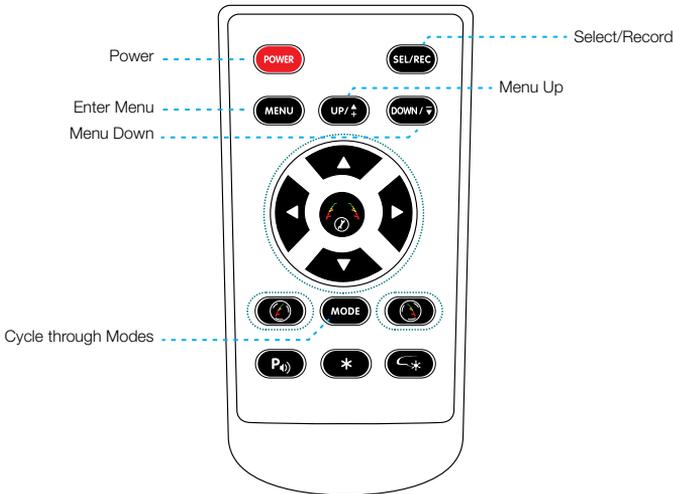
3.5 LED Indicator

The LED indicator on the front of the Rear-view DVR gives indication of operation even when the monitor is in sleep mode. While recording the LED indicator will blink red.



3.6 Remote Control

The included remote control can be used to navigate the menus and settings, cycle through the rear-view mirror DVR's modes, view videos and photos, and manually trigger recordings and photos.



Chapter Four: Adjust the Settings

4.1 Using the Menu

You can customise the settings of your **RVM-045DVRHD** by using the included remote control.

To use the controller to customise settings:

1. Activate your car's ACC power, the **RVM-045DVRHD** should automatically power up and start recording.
2. Press the **SEL/REC** button on the remote control to stop recording.
3. Use the **MODE** button to cycle through the modes (**VIDEO, PHOTO, PLAYBACK**). Each mode has its own menu which is accessed by pressing the **MENU** button in the corresponding mode.
4. When in the **VIDEO, PHOTO, and PLAYBACK** menus the general **SETTINGS** menu can be accessed by pressing the **MENU** button again. Pressing the **MENU** button in the **SETTINGS** menu will exit the menu screen.
5. Use the **UP/▲** and **DOWN/▼** buttons on the remote control to navigate the menu and the **SEL/REC** button is used to select and confirm.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.
- Only the buttons outlined above are used to operate the **RVM-045DVRHD**. The menu cannot be navigated using the arrow buttons.
- The optimum operating distance for the remote control is 1 metre, when altering the menus ensure that the remote control is pointed towards the IR sensor and is a reasonable distance from the device.
- **DO NOT** attempt to modify the settings of this device while you are driving. When using this device please keep in mind your local road laws.

4.2 Initial Settings

Before using the **RVM-045DVRHD** it is recommended that you enable the **DATE STAMP** and **PLATE NUMBER**.

4.2.1 Setting the Time & Date

Once set, the time and date can then be stamped onto Videos and photos.

To set the internal clock on the **RVM-045DVRHD** please follow the instructions below.

1. Ensure that the Rear-view Mirror DVR is not recording and press the **MENU** button to enter the **VIDEO** menu and then press the **MENU** button again to enter the **SETTING** menu.



2. Use the **UP/+** and **DOWN/-** buttons on the remote control to highlight the **DATE/TIME** setting and press **SEL/REC** to enter the date and time entry screen.
3. Use the **UP/+** and **DOWN/-** buttons to change the highlighted number, and press **SEL/REC** to confirm and proceed to the next number.
4. The final customisable field is the date format which you can change using the **UP/+** and **DOWN/-** buttons.
5. Pressing **SEL/REC** after selecting your preferred date format will return you to the setting menu.

Please Note:

- Setting the time will not automatically stamp the time on the footage. To stamp the time and date on the footage please follow the instructions outlined in the **DATE STAMP (VIDEO)** section.
- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.

4.2.2 Date Stamp

To stamp your recorded videos with the time and date please follow the instructions below.

1. Using the **MODE** button select the **VIDEO** mode (the **VIDEO** icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the **MENU** button to enter the **VIDEO** menu.



3. Use the **UP/+** and **DOWN/-** buttons to highlight **DATE STAMP** and press **SEL/REC** to enter the date stamp menu
4. Select **ON** and press **SEL/REC** to confirm. You will now be returned to the **VIDEO** menu.

Please Note:

- If you decide that you no longer want to have the date stamped onto your footage you can remove this by entering the **DATE STAMP** menu and selecting **OFF**.
- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.

4.2.3 Plate Number and Video Stamp

To set your vehicles' number plate and have it appear on your recorded videos please follow the instructions below.

1. Ensure that your rear-view mirror monitor is in video mode. To select video mode use the **MODE** button the **VIDEO** mode (the **VIDEO** icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the **MENU** button to enter the **VIDEO** menu.
3. Use the **UP/↓** and **DOWN/↑** buttons to highlight the **PLATE NUMBER** setting.
4. Press **SEL/REC** to enter the **PLATE NUMBER** menu. Highlight **ON** and press **SEL/REC** to enter the plate entry screen.



5. Use the **UP/↑** and **DOWN/↓** buttons to cycle through the characters and press **MENU** to confirm and move to the next character.
6. After entering the final character pressing **MENU** one last time will return you to the **VIDEO** menu

Please Note:

- When entering your plate number you can exit the entry screen by pressing the **SEL/REC** button.
- If you decide that you no longer want to have your plate number stamped into your footage you can remove this by entering the **PLATE NUMBER** menu and selecting **OFF**.
- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.

4.3 Video Screen

The **VIDEO** Screen is the default screen when starting up your **RVM-045DVRHD** and displays the footage being recorded while driving.

While in this screen the **UP/↑** button on the remote control is used to cycle through the display modes of the DVR image and the image from an optional installed reverse camera (not included).

The available modes are:

- Picture in picture (DVR large image, Reverse camera small image).
- DVR full screen.
- Picture in picture (Reverse camera large image, DVR small image).
- Reverse camera full screen.

While recording the current recording file can be protected from being recorded over by pressing the **MENU** button. When the **RVM-045DVRHD** is not recording the **MENU** button can be used to enter the **VIDEO** menu.



- | | |
|---------------------------|-------------------------|
| 1. Mode (VIDEO) | 9. Number Plate |
| 2. Loop Duration | 10. Recording Time/Date |
| 3. Exposure | 11. Resolution |
| 4. Motion Detection | 12. Recording Duration |
| 5. Time Lapse | 13. Parking Monitor |
| 6. Mute/Un-mute Recording | 14. Micro SD Card |
| 7. High Dynamic Range | 15. Power |
| 8. Gravity Sensor | |

To cycle through **PHOTO**, and **PLAYBACK** mode ensure that you are not recording and press the **MENU** button on the remote control.

Chapter Five: Video Menu

5.1 Resolution

Your selected resolution will determine the quality and size of your recordings. Higher quality recordings will produce larger file sizes.

To change your resolution:

1. Using the **MODE** button select the **VIDEO** mode ( VIDEO icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the **MENU** button to enter the **VIDEO** menu.



3. Use the **UP/2** and **DOWN/3** buttons to highlight the **RESOLUTION** setting, then press the **SEL/REC** button.
4. Use the **UP/2** and **DOWN/3** buttons to select your required resolution and then press **SEL/REC** to confirm.
5. You will now be returned to the **VIDEO** menu.

Please Note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu
- It is recommended that you use a higher resolution setting to make sure you capture as much detail as possible in the case of an incident.

5.2 Dual Record

DUAL RECORD allows you to activate and deactivate rear view recording simultaneously with the front facing camera.

To activate Dual Recording:

1. Using the **MODE** button select the **VIDEO** mode ( VIDEO icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the **MENU** button to enter the **VIDEO** menu.



3. Use the **UP/2** and **DOWN/3** buttons to highlight the **DUAL RECORD** setting, then press the **SEL/REC** button.
4. Use the **UP/2** and **DOWN/3** buttons to select OFF or ON and then press **SEL/REC** to confirm.
5. You will now be returned to the **VIDEO** menu.

Please Note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.
- The **RVM-045DVRHD** does not include a reverse camera. To buy a Parkmate reverse camera please visit www.parkmate.com.au or contact your local Parkmate dealer.

5.3 Loop Recording

Looping footage will record over the oldest video clip allowing you to keep recording when the memory card is full. The Loop Record setting allows you to set the length of the clip.

To set Loop Record:

1. Using the **MODE** button select the VIDEO mode ( VIDEO icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the **MENU** button to enter the VIDEO menu.



3. Use the **UP** and **DOWN** buttons to highlight the LOOP RECORDING setting, then press the **SEL/REC** button.

4. Use the **UP** and **DOWN** buttons to select the required recording duration and then press **SEL/REC** to confirm.

5. You will now be returned to the VIDEO menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the VIDEO menu.
- Longer video loops will result in larger file sizes.

5.4 Motion Detection

Motion detection scans your camera's field of view for movement, and when it is detected that there is no movement in front of the camera the **RVM-045DVRHD** will enter standby mode.

To activate Motion Detection:

1. Using the **MODE** button select the VIDEO mode ( VIDEO icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the **MENU** button to enter the VIDEO menu.



3. Use the **UP** and **DOWN** buttons to highlight the MOTION DETECTION setting, then press the **SEL/REC** button.

4. Use the **UP** and **DOWN** buttons to select OFF or ON and then press **SEL/REC** to confirm.

5. You will now be returned to the VIDEO menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the VIDEO menu.
- When motion is detected the **RVM-045DVRHD** takes a few moments to start recording which may result in the first moments of activity being missed.

5.5 Gravity Sensing (G-Sensor)

The Gravity Sensor detects vibration that could potentially be an impact to your vehicle. The **GRAVITY SENSOR** setting is used to determine the required vibration to activate the **RVM-045DVRHD**'s protect function. When this function is activated the current recording will be protected from being deleted or recorded over. When a recording is protected the  icon will appear on screen while the camera is recording.

To set Gravity Sensing:

1. Using the  button select the **VIDEO** mode ( VIDEO icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the  button to enter the **VIDEO** menu.



3. Use the  and  buttons to highlight the **GRAVITY SENSING** setting, then press the  button.
4. Use the  and  buttons to select your required sensitivity and then press  to confirm.
5. You will now be returned to the **VIDEO** menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the  button before attempting to enter the **VIDEO** menu.
- The **PROTECT** function will only lock the recording that is in progress when an impact is detected. If it is required that the footage following the impact also needs to be locked this footage will need to be manually locked by pressing the  button on the remote control.

5.6 Parking Monitor

When activated the **PARKING MONITOR** will detect any impacts to your vehicle and trigger a recording after you have parked and powered off your vehicle.

To enable Parking Monitor:

1. Using the  button select the **VIDEO** mode ( VIDEO icon will be displayed in the top left corner) and make sure the **RVM-045DVRHD** is not currently recording.
2. Press the  button to enter the **VIDEO** menu.



3. Use the  and  buttons to highlight the **PARKING MONITOR** setting, then press the  button.
4. Use the  and  buttons to select OFF or ON and then press  to confirm.
5. You will now be returned to the **VIDEO** menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the  button before attempting to enter the **VIDEO** menu.
- The **PROTECT** function will only lock the recording that is in progress when an impact is detected. If it is required that the footage following the impact also needs to be locked this footage will need to be manually locked by pressing the  button on the remote control.

5.7 Photo Screen

The **PHOTO** screen can be used to capture still images from the **RVM-045DVRHD**'s camera.

To trigger a photo press the **SEL/REC** button on the remote control.

While in photo mode the **UP/↓** and **DOWN/→** buttons can be used to zoom in and out.

The **PHOTO** menu can be accessed by pressing the **MENU** button.



1. Mode (PHOTO)
2. Exposure
3. White Balance
4. ISO
5. Quality
6. Capture Mode (Timer)
7. Anti Shaking
8. Sequence
9. Micro SD Card
10. Power

To cycle through **VIDEO**, and **PLAYBACK** mode ensure that you are not recording and press the **MODE** button on the remote control.

Chapter Six: Photo Menu

6.1 Capture Mode

The **CAPTURE MODE** setting is used to set the delay timer for taking a photo.

When a timer is set the **RVM-045DVRHD** will hold for the specified time after the photo is triggered before activating the shutter.

To set photo timer:

1. Using the **MODE** button select the **PHOTO** mode (📷 **PHOTO** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the **PHOTO** menu.



3. Use the **UP/↑** and **DOWN/↓** buttons to highlight the **CAPTURE MODE** setting, then press the **SEL/REC** button.
4. Use the **UP/↑** and **DOWN/↓** buttons to select your required timer delay and then press **SEL/REC** to confirm.
5. You will now be returned to the **PHOTO** menu.

Please note:

- To access the **PHOTO** menu the **RVM-045DVRHD** needs to be in **PHOTO** mode when the **MENU** button is pressed.

6.2 Photo Resolution

Your selected resolution will determine the quality and size of your photos. Higher quality photos will produce larger file sizes.

To change the resolution size:

1. Using the **MODE** button select the **PHOTO** mode (**PHOTO** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the PHOTO menu.



3. Use the **UP** and **DOWN** buttons to highlight the **RESOLUTION** setting, then press the **SEL/REC** button.
4. Use the **UP** and **DOWN** buttons to select your required resolution and then press **SEL/REC** to confirm.
5. You will now be returned to the **PHOTO** menu.

Please note:

- To access the **PHOTO** menu the RVM-045DVRHD needs to be in **PHOTO** mode when the **SEL/REC** button is pressed.
- It is recommended that you use a higher resolution setting to make sure you capture as much detail as possible in the case of an event.

6.3 Sequence

The **SEQUENCE** setting is used to take a series of three photos when the camera is triggered.

To activate the sequence mode:

1. Using the **MODE** button select the **PHOTO** mode (**PHOTO** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the PHOTO menu.



3. Use the **UP** and **DOWN** buttons highlight the **SEQUENCE** setting then press the **SEL/REC** button.
4. Use the **UP** and **DOWN** buttons to select OFF or ON and then press **SEL/REC** to confirm.
5. You will now be returned to the **PHOTO** menu.

Please note:

- To access the **PHOTO** menu the RVM-045DVRHD needs to be in **PHOTO** mode when the **MENU** button is pressed.

6.4 Anti-shaking

The **ANTISHAKING** setting is used to stabilise the image sensor when you are taking a photo reducing motion blur caused by the camera shaking.

To activate Anti-shaking mode:

1. Using the **MODE** button select the **PHOTO** mode (**PHOTO** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the **PHOTO** menu.



3. Use the **UP/↓** and **DOWN/↑** buttons highlight the **ANTISHAKING** setting then press the **SEL/REC** button.
4. Use the **UP/↓** and **DOWN/↑** buttons to select OFF or ON and then press **SEL/REC** to confirm.
5. You will now be returned to the **PHOTO** menu.

Please note:

- To access the **PHOTO** menu the **RVM-045DVRHD** needs to be in **PHOTO** mode when the **SEL/REC** button is pressed.

6.5 Date Stamp (Photo)

A time and date stamp can be added to the produced photos by enabling the **DATE STAMP** setting.

To activate Date Stamp:

1. Using the **MODE** button select the **PHOTO** mode (**PHOTO** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the **PHOTO** menu.



3. Use the **UP/↓** and **DOWN/↑** buttons to highlight the **DATE STAMP** setting then press **SEL/REC**.
4. Use the **UP/↓** and **DOWN/↑** buttons to select OFF, **DATE** or **DATE/TIME** and then press **SEL/REC** to confirm.
5. You will now be returned to the **PHOTO** menu.

Please note:

- To access the **PHOTO** menu the **RVM-045DVRHD** needs to be in **PHOTO** mode when the **MENU** button is pressed.
- The time and date cannot be set in this setting. To set the time and date use the **DATE/TIME** setting in the **SETTINGS** menu.

6.6 Playback Screen

The **PLAYBACK** screen is used to review and delete photos and videos.

Playback controls:

- In this screen the **UP/▲** and **DOWN/▼** buttons are used to navigate through the stored videos and photos on the inserted Micro SD Card.
- Videos can be played by highlighting a video and pressing the **SEL/REC** button.

Video controls

- The controls below can be used while a video is being played on the **RVM-045DVRHD**.
- The **MODE** button is used to stop a video while it is playing.
- The **SEL/REC** button is used to pause a video while it is playing.
- The **UP/▲** and **DOWN/▼** buttons can be used to fast forward and rewind a video while it is playing.



1. Mode (PLAYBACK)
2. Play
3. Stop
4. Rewind
5. Fast Forward
6. Duration
7. File Name
8. Resolution
9. Power

To cycle through **VIDEO**, **PHOTO** and **PLAYBACK** modes ensure that you are not recording and press the **MODE** button on the remote control.

Chapter Seven: Playback Menu

7.1 Delete

The **DELETE** menu is used to delete the selected file or all unprotected files.

To Delete one file:

1. Using the **MODE** button select the **PLAYBACK** mode ( **PLAYBACK** icon will be displayed in the top left corner).
2. Use the **UP/▲** and **DOWN/▼** buttons to highlight the photo or video you would like to delete.
3. Press the **MENU** button to enter the **PLAYBACK** menu.



4. Use the **UP/▲** and **DOWN/▼** buttons to highlight the **DELETE** setting and press the **SEL/REC** button to confirm.
5. Use the **UP/▲** and **DOWN/▼** buttons to select **DELETE CURRENT** and press the **SEL/REC** button to confirm.
6. The selected file will now be deleted and you will be returned to the **PLAYBACK** menu.

To Delete all unlocked files :

1. Using the **MODE** button select the **PLAYBACK** mode ( **PLAYBACK** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the **PLAYBACK** menu.



3. Use the **UP/↓** and **DOWN/↑** buttons to highlight the **DELETE** setting and press the **SEL/REC** button to confirm.
4. Use the **UP/↓** and **DOWN/↑** buttons to select **DELETE ALL** setting and press the **SEL/REC** button to confirm.
5. All unlocked files will now be deleted and you will be returned to the **PLAYBACK** menu.

Please note:

- Videos that have been protected by either the user or the gravity sensor cannot be deleted until they have been unprotected. To unprotect a file follow the instructions in the menu labelled **PROTECT**.

7.2 Protect

The **PROTECT** menu is used to lock or unlock the selected file or all files for editing.

To lock or unlock one file:

1. Using the **MODE** button select the **PLAYBACK** mode (**PLAYBACK** icon will be displayed in the top left corner).
2. Use the **UP/↓** and **DOWN/↑** buttons to highlight the photo or video you would like to lock or unlock.
3. Press the **MENU** button to enter the **PLAYBACK** menu.



4. Use the **UP/↓** and **DOWN/↑** buttons to highlight the **PROTECT** setting and press the **SEL/REC** button to confirm.
5. Use the **UP/↓** and **DOWN/↑** buttons to select **LOCK CURRENT** or **UNLOCK CURRENT** setting and press the **SEL/REC** button to confirm.
6. The selected file will now be locked or unlocked and you will be returned to the **PLAYBACK** menu.

To lock or unlock all files:

1. Using the **MODE** button select the **PLAYBACK** mode (**PLAYBACK** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the **PLAYBACK** menu.



3. Use the **UP/↓** and **DOWN/↑** buttons to highlight the **PROTECT** setting and press the **SEL/REC** button to confirm.
4. Use the **UP/↓** and **DOWN/↑** buttons to select **LOCK ALL** or **UNLOCK ALL** setting and press the **SEL/REC** button to confirm.
5. All files will now be locked or unlocked and you will be returned to the **PLAYBACK** menu.

Please note:

- Videos that have been protected by either the user or the gravity sensor cannot be deleted until they have been unprotected.
- When the Micro SD Card fills up with protected footage regular loop recording will stop. To make space on the SD card unlock and delete unimportant files using the instructions in the **DELETE** and **PROTECT** sections of this manual.

7.3 Slideshow

The slide show function can be used to cycle through the photos and video stills taken with the **RVM-045DVRHD**.

To activate slideshow mode:

1. Using the **MODE** button select the **PLAYBACK** mode ( **PLAYBACK** icon will be displayed in the top left corner).
2. Press the **MENU** button to enter the **PLAYBACK** menu.



3. Use the **UP/↓** and **DOWN/→** buttons to highlight the **SLIDESHOW** setting and press the **SEL/REC** button to confirm.
4. Use the **UP/↓** and **DOWN/→** buttons to select the duration of time you would like the images to display on screen and press the button to confirm.
5. The slideshow will now begin.

Please note:

- The slideshow will not play through videos stored on the Micro SD Card.

Chapter Eight: Settings Menu

8.1 Date/Time

Once set, the time and date can then be stamped onto Videos and photos.

To set the **RVM-045DVRHD**'s clock please follow the instructions below:

1. Ensure that the **RVM-045DVRHD** is not recording and press the **MENU** button to enter the **VIDEO** menu and then press the **MENU** button again to enter the **SETTING** menu.
2. Use the **UP/↓** and **DOWN/→** buttons on the remote control to highlight the **DATE/TIME** setting and press **SEL/REC** to enter the date and time entry screen.



3. Use the **UP/↓** and **DOWN/→** buttons to change the selected number and press **SEL/REC** to confirm and proceed to the next number.
4. The final customisable field is the date format which you can change using the **UP/↓** and **DOWN/→** buttons.
5. Pressing **SEL/REC** after selecting your preferred date format will return you to the setting menu.

Please note:

- Setting the time will not automatically stamp the time on the footage. To stamp the time and Date on the footage please follow the instructions outlined in the **DATE STAMP (Video)** section.
- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.

8.2 Format

Format is used to completely format the inserted Micro SD Card deleting all stored files.

To format the inserted Micro SD Card:

1. Ensure that the **RVM-045DVRHD** is not recording and press the **MENU** button to enter the **VIDEO** menu and then press the **MENU** button again to enter the **SETTING** menu.



2. Use the **UP/↓** and **DOWN/↵** buttons on the remote control to highlight the **FORMAT** setting and press the **SEL/REC** button.
3. Use the **UP/↓** and **DOWN/↵** buttons to select OK and press **SEL/REC** to confirm.
4. Your Micro SD card will now be formatted and you will be returned to the **SETTINGS** menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.
- The **FORMAT** function will delete all files on the inserted Micro SD card. Before formatting please ensure that your Micro SD Card does not contain any important files.

8.3 Screen Saver

The **SCREEN SAVER** setting is used to determine the length of inactivity required before the display will go into sleep mode.

To set screen saver:

1. Ensure that the **RVM-045DVRHD** is not recording and press the **MENU** button to enter the **VIDEO** menu and then press the **MENU** button again to enter the **SETTING** menu.



2. Use the **UP/↓** and **DOWN/↵** buttons on the remote control to highlight the **SCREEN SAVER** setting and press the **SEL/REC** button.
3. Use the **UP/↓** and **DOWN/↵** buttons to select the required duration of inactivity and press to confirm.
4. Screen Saver will now be activated and you will be returned to the **SETTINGS** menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.
- Recording will continue after the screen goes into sleep mode.

8.4 Delayed Shut down

DELAYED SHUT DOWN allows you to set the amount of time the camera will continue recording after you have turned your vehicle off.

To set the shut down delay:

1. Ensure that the **RVM-045DVRHD** is not recording and press the **MENU** button to enter the **VIDEO** menu and then press the **MENU** button again to enter the **SETTING** menu.



2. Use the **UP** and **DOWN** buttons on the remote control to highlight the **DELAYED SHUT DOWN** setting and press the **SEL/REC** button.
3. Use the **UP** and **DOWN** buttons to select the duration the camera will continue recording after the vehicle has been turned off and press **SEL/REC** to confirm.
4. Delayed Shut down will now be activated and you will be returned to the **SETTINGS** menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.

8.5 Default Settings

Activating the **DEFAULT SETTINGS** menu will restore the factory settings on the **RVM-045DVRHD**.

To restore factory settings:

1. Ensure that the **RVM-045DVRHD** is not recording and press the **MENU** button to enter the **VIDEO** menu and then press the **MENU** button again to enter the **SETTING** menu.



- 2.) Use the **UP** and **DOWN** buttons on the remote control to highlight the **DEFAULT SETTINGS** setting and press the **SEL/REC** button.
3. Use the **UP** and **DOWN** buttons to select **OK** and press **SEL/REC** to confirm.
4. The factory settings on your **RVM-045DVRHD** will be restored and you will be returned to the **SETTINGS** menu.

Please note:

- The **RVM-045DVRHD** will not let you enter the menu while the device is recording. Please make sure recording is stopped by pressing the **SEL/REC** button before attempting to enter the **VIDEO** menu.

Chapter Nine: Menu

9.1 Video Menu

VIDEO	RESOLUTION	1080P 1440 X 1080 720P 1280 X 720	Set recording quality.
	DUAL RECORD	OFF ON	Both the front and rear cameras will record when activated.
	LOOP RECORDING	OFF 3 MINUTES 5 MINUTES 10MINUTES	Loop recording sets the length of time the camera will record before starting a new clip.
	TIMELAPSE RECORD	OFF 100MS 200MS 500MS	Timelapse will capture an image from the camera at the set interval creating a fast forwarded video.
	HDR	OFF ON	Increases the dynamic range of the camera.
	EXPOSURE	+2.0 +5/3 +4.3 +1.0 +2/3 +1/3 +0.0 -1/3 -2/3 -1.0 -4/3 -5/3 -2.0	Exposure defines the camera's sensitivity to light and can be used to set the exposure compensation.
	MOTION DETECTION	OFF ON	Will detect motion in front of the camera and stop recording after 10 seconds of detected inactivity.
	RECORD AUDIO	OFF ON	Mutes or unmutes the audio of the recording.
	DATE STAMP	OFF ON	Stamps the footage with the current time and date.
	PLATE NUMBER	ON (ENTER PLATE NUMBER)	Stamp your vehicles' plate number on to recorded footage. Use UP and DOWN buttons to select characters and menu to confirm. When finished use the mode button to save.
GRAVITY SENSOR	OFF LOW SENSITIVITY MEDIUM SENSITIVITY HIGH SENSITIVITY	Gravity sensor defines the sensitivity of the G sensor and the required vibration to trigger a locked recording.	
PARKING MONITOR	OFF ON	Uses the G sensor to trigger recording after your vehicle is parked.	

9.2 PHOTO Menu

STILL	CAPTURE MODE	SINGLE 2S TIMER 5S TIMER 10S TIMER	Set the delay between when the photo is triggered and when the photo is taken.
	RESOLUTION	12M 4032 X 3024 10M 3648 X 2736 8M 3264 X 2448 5M 2592 X 1944 3M 2048 X 1536 2MHD 1920 X 1080 VGA 640 X 480 1.3M 1280 X 960	Set the image size and detail.
	SEQUENCE	OFF ON	Will take a sequence of three photos when a photo is triggered.
	QUALITY	FINE NORMAL ECONOMY	Set the overall image quality.
	SHARPNESS	STRONG NORMAL SOFT	Set the sharpness of the image. Sharper images will show crisper lines.
	WHITE BALANCE	AUTO BALANCE DAYLIGHT CLOUDY TUNGSTEN	Choose between the pre-set modes or auto to find a suitable mode for your conditions.
	COLOUR	COLOUR BLACK AND WHITE	Gives you the option to capture images in black and white
	ISO	AUTO 100 200 400	ISO defines the amount of light and movement captured in the image.
	EXPOSURE	+2.0 +5/3 +4.3 +1.0 +2/3 +1/3 +0.0 -1/3 -2/3 -1.0 -4/3 -5/3 -2.0	Exposure defines the camera's sensitivity to light and can be used to set the exposure compensation.
	ANTISHAKING	OFF ON	When activated Anti-shaking will correct small blur caused by movement of the camera.
	QUICK REVIEW	OFF 2 SECONDS 5 SECONDS	Quick Review will display a photo for the set amount of time after it is taken.
	DATE STAMP	OFF DATE DATE/TIME	Stamps the image with either the date, or the time and date that it was taken.

9.3 PLAYBACK Menu

PLAYBACK	DELETE	DELETE CURRENT DELETE ALL	Delete gives the option to delete the selected file or delete all unlocked files (Files protected by the Gravity Sensor cannot be deleted until they have been unlocked).
	PROTECT	LOCK CURRENT UNLOCK CURRENT LOCK ALL UNLOCK ALL	Protect saves the files so they can not be deleted until they have been unlocked.
	SLIDE SHOW	2 SECONDS 5 SECONDS 8 SECONDS	Slideshow cycles through photos and video screens, displaying the image for the duration specified.

9.4 SETTINGS Menu

SETTING	DATE/TIME	*ENTER TIME/DATE*	Set time and date.
	AUTO POWER OFF	OFF 3 MINUTES 5 MINUTES 10 MINUTES	Auto Power Off defines the duration of inactivity before the RVM-045DVRHD goes into standby mode.
	BEEP SOUND	OFF ON	Mutes key beeps.
	LANGUAGE	*SELECT LANGUAGE*	Select Menu Language.
	TV MODE	NTSC PAL	Edit the output display mode.
	FREQUENCY	50Hz 60Hz	Edit the recording frequency (can correct flickering lights).
	FORMAT	CANCEL OK	Formats and deletes all files on the inserted SD card.
	SCREEN SAVER	OFF 30 SECONDS 1 MINUTE 2 MINUTES	Screen Saver defines the duration of inactivity before the screen goes into stand by mode.
	DELAYED SHUT DOWN	5 SECONDS 10 SECONDS 20 SECONDS 30 SECONDS	Set the amount of time that the RVM-045DVRHD records for after your vehicle is powered off.
	DEFAULT SETTING	CANCEL OK	Reset all settings to the factory default configuration.
VERSION	FIRMWARE VERSION	Displays firmware version.	

Warranty Terms & Conditions:

Our goods come with guarantees that cannot be excluded under the Australian & New Zealand Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is provided in addition to your rights under the Australian & New Zealand Consumer Law.

Directed Electronics warrants that this product is free from defects in material and workmanship for a period of 12 months from the date of purchase or for the period stated on the packaging. This warranty is only valid where you have used the product in accordance with any recommendations or instructions provided by Directed Electronics.

This warranty excludes defects resulting from alterations of the product, accident, misuse, abuse or neglect.

In order to claim the warranty, you must return the product to the retailer from which it was purchased or if that retailer is part of a National network, a store within that chain, along with satisfactory proof of purchase. The retailer will then return the goods to Directed Electronics. Directed Electronics will repair, replace or refurbish the product at its discretion. The retailer will contact you when the product is ready for collection. All costs involved in claiming this warranty, including the cost of the retailer sending the product to Directed Electronics, will be borne by you.

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