MINOLTA®

SHOWTIME
MN5KGP1

5K ULTRA HD

MN5KGP1 User Manual

About this Manual

Congratulations on purchasing the Minolta MN5KGP1 Camcorder!
The contents of this manual are subject to change without notice. Note that the example screens and product illustrations shown in this User's Guide may differ somewhat from the screens and configuration of the actual camcorder.

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FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)   This device may not cause harmful interference and
(2)   This device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Warning

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated in accordance with provided instructions and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating

conditions for satisfying RF exposure compliance.
FCC: SAR standard Value: 1.6 W/Kg, Maximal Measure: 0.4 W/kg

CE Mark Warning
This is a Class B product, in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Safety and Handling Precautions

Camcorder Information
- Do not disassemble or attempt to service the camcorder yourself.
- Do not expose the camcorder to moisture, or extreme temperatures.
- Allow the camcorder to warm up when moving from cold to warm temperatures.
- Do not touch and put pressure on the camcorder lens.
- Do not expose the lens to direct sunlight for extended periods.
- Do not use abrasive chemicals, cleaning solvents or strong detergents to clean the product. Wipe the product with a slightly damp soft cloth.
- Do not use the flash or LED Light near a person's eyes to prevent possible eye injury.
- To prevent you from falling over or resulting in traffic accident, please do not use the camcorder while you are walking, driving or riding a vehicle.
- Please handle the camcorder strap with care, and never place the strap around the neck of an infant or child. Wrapping the strap around a neck may cause suffocation.
- Do not subject the LCD screen to impact.
- To prevent the risk of fire or electric shock, do not expose the inside of this product to rain or moisture.

USB adapter Information
- Do not expose the adapter to high temperatures or moisture places. Otherwise, it may cause fire or electric shock.
- Do not attempt to repair, disassemble, change or transform the adapter.
- Avoid sudden changes in temperature, which may cause condensation on the adapter's internal surfaces. Please do not use it immediately in this situation.
- Do not touch the plug with wet hands. Otherwise, it may cause electric shock.
- Do not use the travel voltage converter or AC/DC power inverter. Otherwise, it may cause damage, overheating, malfunction or fire to the camcorder.

Precautions When Cleaning
- Do not puncture the microphone or speaker openings with a sharp implement.
- If the inside of the camcorder is damaged, the waterproof performance will

deteriorate.
- Do not use soap, natural detergents, or chemicals such as benzene for cleaning.

Do Not Apply Strong Impact to the Camcorder
The product may malfunction if subjected to strong shock or vibration. In addition, do not touch or apply force to the lens.

Avoid Sudden Changes in Temperature
Sudden changes in temperature, such as when entering or leaving a heated building on a cold day, can cause condensation to form inside the device. To prevent condensation, place the device in a carrying case or a plastic bag before exposing it to sudden changes in temperature.

Keep Away from Strong Magnetic Fields
Do not use or store this device in the vicinity of equipment that generates strong electromagnetic radiation or magnetic fields. Doing so could result in loss of data or camcorder malfunction.

Do Not Point the Lens at Strong Light Sources for Extended Periods
Avoid pointing the lens at the sun or other strong light source light sources for extended periods when using or storing the camcorder. Intense light may cause the image sensor to deteriorate or produce a white blur effect in photographs.

Turn the Product Off before Removing or Disconnecting the Power Source or Memory Card
Do not remove the battery while the product is on, or while images are being saved or deleted. Forcibly cutting power in these circumstances could result in loss of data or cause damage to the memory card or internal circuitry.
Notes about the LCD Screen
- The LCD Screens are constructed with extremely high precision; At least 99.99% of pixels are effective, with no more than 0.01% being missing or defective. Hence, while these displays may contain pixels that are always lit (white, red, blue or green) or always off (black), this is not a malfunction and has no effect on images recorded with the device.
- Images viewed on the LCD screen may be difficult to see under certain lighting.
- Do not apply pressure to the LCD screen, as this could cause damage or malfunction.

Charging the Battery
Check the battery level before using the camcorder and charge the battery if necessary.

- Charge the battery indoors with an ambient temperature of 5°C (41°F) to 35°C (95°F) before use.
- A high battery temperature may prevent the battery from charging properly or completely, and may reduce battery performance. Note that the battery may become hot after use; wait for the battery to cool before charging. When charging the battery inserted into this camcorder using the Charging AC Adapter or a computer, the battery is not charged at battery temperature below 5°C (41°F) or above 55°C (131°F).
- When the battery is between 45°C (113°F) - 55°C (131°F), the chargeable capacity may decrease.
- Do not continue charging once the battery is fully charged as this will result in reduce battery performance.
- The battery temperature may increase during charging. However, this is not a malfunction.

Using the Battery When Cold
On cold days, the capacity of batteries tends to decrease. If an exhausted battery is used at a low temperature, the camcorder may not turn on.

Cleaning After Using the Camcorder
Use a blower to remove any dust or lint that adheres to the lens, monitor or camcorder body. To remove fingerprints or other stains that cannot be removed with a blower, gently wipe the parts with a soft dry cloth. If you wipe with too much pressure or with a rough cloth, it may damage the camcorder or cause a malfunction.

Storage
If you do not intend to use the camcorder for an extended period avoid storing the camcorder in any of the following types of locations:
- Places that are poorly ventilated or subject to humidity of over 60%
- Place exposed to temperatures above 50°C (122°F) or below -10°C (14°F).
- Place next to equipment that produces strong electromagnetic field, such as television or radios.

To prevent mold or mildew, take the camcorder out of storage at least once a month, and turn it on and release the shutter a few times before putting it away again.

1.1 Camcorder Interface

1. Camcorder Lens
2. IR LEDs
3. LCD Screen
4. Reset Pinhole
5. IR Light Button
6. AEL Button
7. LED Indicator
8. USB Charging & Mic Port Door
9. OK / MENU / Zoom / Lens Rotate Slide Button
10. Shutter Button
11. Power / Mode Button
12. HDMI & Memory Card Door

1.2 Button Function Description

Function	Description
Power | Mode	Press and hold for 3 seconds to power on or off. **In Video or Photo:** Press once to enter mode selection, press again to enter Playback mode and press a third time to reenter to change modes.
OK | Menu | Zoom | Lens Rotation	**In Settings:** Press to enter menus and confirm selected setting. **Default in Video or Photo:** Slide up to rotate the lens up and slide down to rotate the lens down. **Secondary function in Video or Photo:** Press the button to activate the zoom function, then slide up to zoom in and slide down to zoom out. **In Playback:** Press to play and pause recorded videos. Slide up to increase playback volume and slide down to decrease playback volume.
IR Light	**In Video or Photo:** Press to activate the IR LEDs and press again to deactivate IR LEDs.
AEL (Auto Exposure Lock)	Press to lock the auto exposure press again to unlock the auto exposure.
Shutter	**In Photo:** Press to capture a photo. **In Video:** Press to start recording and press again to stop recording.
USB Charging & Mic Door	Door to cover the USB C charging port and external microphone port.
HDMI & Memory Card Door	Door to cover the HDMI port and memory card slot.
Lens	Front capture device for all video and photo.
Tripod Mount	Mount port for attaching to a tripod nut.
Speaker	Built-in speaker output for playback of video files when audio recording is enabled.

1.1 Installing the Memory Card

Insert the included MicroSD memory card to record and store your videos and photos. When the battery is low, media stored on the memory card will not be erased. Please insert the MicroSD memory card by following the steps below:

1. Open the memory card door by pulling down at the top of the door with your finger or a pointy object.
2. Insert the memory card. Ensure that the metal contacts are inserted first. Push the memory card down until you hear an audible click.
   The memory card can only be inserted in one way. Do not force the card in if it will not go in smoothly.

3. Close the memory card door by pushing it back into position until it is flush with the camcorder body.
4. To remove the memory card, simply push in and the card will eject back out.

NOTE:
- Please format the memory card before using the camcorder (Caution, this will erase all data on the card).

- Do not remove or insert the memory card when recording. It may damage the card or cause data loss.

- Memory card rating must be Class U3 or above.

1.2 Charging the Battery

Connect your camcorder to the included AC adaptor with the USB cable provided for charging. Insert the small end of the USB plug into the camcorder's port under the USB port door, and the larger end in to the included AC adaptor. While charging the LED indicator light will light up solid red, when finished charging the light will turn off.

1.3 Powering the Camcorder On/Off

Hold the **POWER/MODE** button for 3 seconds to power the camcorder on. To power the camcorder off, press and hold the **POWER/MODE** button for a further 3 seconds. If the camcorder's battery is low, a icon will display on the screen and it will automatically shut down within a few seconds to prevent memory corruption or loss.

1.4 Switching Modes

Press the **POWER/MODE** button to see the eight Photo and Video modes. Use the **UP** or **DOWN** buttons to select your desired mode, then press the **OK** button to enter that mode. The corresponding mode will be displayed in the top left corner of the screen. To enter Playback mode, press the **POWER/MODE** button to enter the mode selection screen, then press the **POWER/MODE** button again. You can also tap the current mode icon on the screen and the mode options will be displayed then tap the mode you wish to enter.

1.5 Connecting to a Computer

Your camcorder can connect to a computer to transfer photo and video files for viewing and editing, or to use the camcorder as a web cam. To connect the camcorder to your computer, open the USB charging port door on the side of the camcorder to access the USB port. Insert the small end of the USB plug into the camcorder's port, and the larger end into the USB port on your computer. Once connected and powered on, the camcorder's screen will show two options, "MSDC" where you are able to access the files on the memory car from your computer and "PC Camera" where the camcorder will function as a web cam. Use the **UP** or **DOWN** buttons to select your desired mode and press the **OK** button to enter into that mode. You can also tap the option you wish to select on the screen.

1.6 Using the Zoom Function

This camcorder has a digital zoom function. To operate the zoom function, press the **OK** button to activate zoom mode, a magnifying glass icon will show at the top of the screen indicating zoom mode is active. Then slide the **ZOOM** button up to zoom in closer to the subject and slide the **ZOOM** button down to zoom away from the subject.

1.7 IR Night Vision

Your camcorder is equipped with an Infrared LED light that can be activated to help light dark scenes. In Photo or Video mode, press the **IR** button once to enable the IR LED light. When the IR LED light is enabled, the images on the screen will appear in black and white.

To disable the IR light, press the **IR** button again. The images on the screen will now appear in color.

> **Note:**
> **The photos and videos taken while the IR LED is enabled will be recorded in black and white.**
>
> **The IR LED can also be enabled or disabled during a recording**.

1.8 Auto Exposure Lock (AEL)

The camcorder's exposure adjusts automatically based on the lighting of the scene you are shooting. To lock the exposure, press the AEL button on the left side of the camcorder. Press the button again to turn exposure lock off.

1.9 Lens Rotation

Your camcorder lens can be rotated 180 degrees vertically. To rotate the lens simply slide the lens rotation button up to rotate the lens forward and slide the lens rotation button down to rotate the lens backwards.

1.10 Touch Screen

The LCD screen on your camcorder is a touch screen. You can tap the screen to perform most of the functions of the camcorder, such as accessing and changing settings, reviewing recorded media, changing the mode and more.
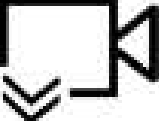
1.11 Rotating the LCD Screen

Your camcorder LCD screen can be rotated 90 degrees, this allows you to capture a different image ratio. To rotate the LCD screen, simply push the bottom right corner of the screen to the left until the screen flips into the rotated position. To rotate the lens back into the original position, push down on the top edge of the screen until it flips back into the original position.

1.12 Mode Icons

The meaning of the icons shown on the LCD screen in each mode can be found below.

Icon	Description
	Photo Mode
	Self Timer Mode
	Burst Photo Mode
	Time Lapse Photo Mode
	Video Mode
	Slow Motion Mode
	Loop Recording Mode
	Time Lapse Video Mode

2. Using the Camcorder
2.1 Video Recording
Power the camcorder on and the camcorder will be ready to record videos right away.

1. Line up your shot by looking at the LCD screen to see what is in view.
2. Hold the camcorder steady and press the **SHUTTER** button to begin recording.
3. When recording begins, a rolling timer will display in red in the bottom right corner of the screen. This indicates the recorded video time elapsed.
4. Press the **SHUTTER** button again to stop recording.
5. The recorded video files will automatically save onto the inserted memory card.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.1.1 Resolution (Movie Size)
Your camcorder has a number of preset resolutions and frames per second rates.
1. In Video Mode press and hold the **OK** button.
2. Select *'Resolution'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected resolution *(5K 30fps, 4K 60fps, 4K 30fps, 2.7K 60fps, 2.7K 30fps, 1080P 120fps, 1080P 60fps, 1080P 30fps, 720P 240fps, 720P 120fps, 720P 60fps, 720P 30fps)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.1.2 Image Stabilization
This function enables photo capture in high speed and low-light by

electronically minimizing motion blur and reducing camcorder shake.
  1. In Video Mode press and hold the **OK** button.
  2. Select *'Image Stabilization'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Image Stabilization submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**
     button to confirm your selected option *(Off, On)*.
  5. Press the **MENU** button twice to exit the settings menu.

NOTE: Image Stabilization can only be enabled when the LCD is in landscape position, and with Lens Distortion Correction disabled. Image Stabilization is not accessible under the following video recording resolutions: 4K 60fps, 1080P 120fps, 720P 120fps/240fps.

2.1.3 Exposure

This function adjusts the frame brightness in your photograph.

  1. In Video Mode press and hold the **OK** button.
  2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Exposure submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**
     button to confirm your selected option.
  5. Press the **SHUTTER** button to exit the settings menu.

2.1.4 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.
  1. In Video Mode press and hold the **OK** button.
  2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Date & Time Stamp submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**
     button to confirm your selected option *(Off, Date, Date & Time)*.
  5. Press the **SHUTTER** button to exit the settings menu.

2.1.5 Metering

Metering mode refers to the way in which a camcorder determines the appropriate exposure (quantity of light reaching the camcorder lens). Spot metering will only base the exposure setting on a very small area of the scene. Center metering will use the light from the center of the LCD and the Multi

setting measures the light at several points on the screen.
1. In Video Mode press and hold the **OK** button.
2. Select *'Metering'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Metering submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Multi, Center, Spot)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.1.6 White Balance

White Balance changes the color of light in your pictures, making it seem warmer or cooler depending on how the light you're shooting in affects the frame.
1. In Video Mode press and hold the **OK** button.
2. Select *'White Balance'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the White Balance submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.1.7 Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting conditions where both bright and dim areas are present in the field of view.
1. In Video Mode press and hold the **OK** button.
2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the WDR submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.1.8 Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by straightening the image.
1. In Video Mode press and hold the **OK** button.

2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Lens Distortion Correction submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: Image Stabilization and Lens Distortion Correction options cannot be active at the same time.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.2 Slow Motion Recording

Videos recorded in slow motion are recorded at a much higher frames per second and when played back, the videos show movement at a much slower rate.

To enter Slow Motion mode, power the camcorder on and press the **POWER/MODE** button to access the mode selection screen and use the **UP** or **DOWN** buttons to select the slow motion icon and press the **OK** button to enter that mode.

1. Line up your shot by looking at the LCD screen to see what is in view.
2. Hold the camcorder steady and press the **SHUTTER** button to begin recording.
3. When recording begins, a rolling timer will display in red in the top left corner of the screen. This indicates the recorded video time elapsed.
4. Press the **SHUTTER** button to stop recording.
5. The recorded video files will automatically save onto the inserted memory card.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.2.1 Resolution and Rate (Slow Motion Rate)

This function allows you to set the rate that the video is recorded in. If you choose 1080P 4X, your video will playback at ¼ speed and if you choose 720P 8X, then your video will playback at 1/8 speed.

Your camcorder has a number of preset resolutions and frames per second rates.

1. In Slow Motion Mode press and hold the **OK** button.
2. Select *'Resolution and Rate'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution and Rate submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**

button to confirm your selected resolution *(1080P 4X, 720P 8X, 720P 4X)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.2.2 Exposure

This function adjusts the frame brightness in your photograph.
 1. In Slow Motion Mode press and hold the **OK** button.
 2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Exposure submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option.
 5. Press the **SHUTTER** button to exit the settings menu.

2.2.3 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.
 1. In Slow Motion Mode press and hold the **OK** button.
 2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Date & Time Stamp submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, Date, Date & Time)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.2.4 Metering

Metering mode refers to the way in which a camcorder determines the appropriate exposure (quantity of light reaching the camcorder lens). Spot metering will only base the exposure setting on a very small area of the scene. Center metering will use the light from the center of the LCD and the Multi setting measures the light at several points on the screen.
 1. In Slow Motion Mode press and hold the **OK** button.
 2. Select *'Metering'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Metering submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Multi, Center, Spot)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.2.5 White Balance

White Balance changes the color of light in your pictures, making it seem warmer or cooler depending on how the light you're shooting in affects the frame.

1. In Slow Motion Mode press and hold the **OK** button.
2. Select *'White Balance'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the White Balance submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.2.6 Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting conditions where both bright and dim areas are present in the field of view.

1. In Slow Motion Mode press and hold the OK button.
2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Wide Dynamic Range submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.2.7 Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by straightening the image.

1. In Slow Motion Mode press and hold the **OK** button.
2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Lens Distortion Correction submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: Image Stabilization and Lens Distortion Correction options cannot be active at the same time.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.3 Loop Recording

This function allows you to set a maximum duration for each video clip recorded.

To enter Loop Recording mode, power the camcorder on and press the **POWER/MODE** button to access the mode selection screen and use the **UP** or **DOWN** buttons to select Loop Record icon and press the **OK** button to enter that mode.

1. Line up your shot by looking at the LCD screen to see what is in view.
2. Hold the camcorder steady and press the **SHUTTER** button to begin recording.
3. When recording begins, a rolling timer will display in red in the top left corner of the screen. This indicates the recorded video time elapsed.
4. After the set amount of time has elapsed, the recording will end and a new recording will start.
5. Press the **SHUTTER** button to stop recording.
6. The recorded video files will automatically save onto the inserted memory card.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.3.1 Video File Length (Loop Duration)

This function allows you to set a maximum duration for each video clip recorded.
1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Video File Length'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Video File Length submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(1 Minute, 3 Minutes, 5 Minutes)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.3.2 Resolution (Movie Size)

Your camcorder has a number of preset resolutions and frames per second rates.

1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Resolution'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected resolution *(5K 30fps, 4K 60fps, 4K 30fps, 2.7K 60fps, 2.7K 30fps, 1080P 120fps, 1080P 60fps, 1080P 30fps, 720P 240fps, 720P 120fps, 720P 60fps, 720P 30fps)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.3.3 Image Stabilization

This function enables photo capture in high speed and low-light by electronically minimizing motion blur and reducing camcorder shake.

1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Image Stabilization'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Image Stabilization submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **MENU** button twice to exit the settings menu.

NOTE: Image Stabilization can only be enabled when the LCD is in landscape position, and with Lens Distortion Correction disabled. Image Stabilization is not accessible under the following video recording resolutions: 4K 60fps, 1080P 120fps, 720P 120fps/240fps.

2.3.4 Exposure

This function adjusts the frame brightness in your photograph.

1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Exposure submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option.
5. Press the **SHUTTER** button to exit the settings menu.

2.3.5 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.

1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Date & Time Stamp submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, Date, Date & Time)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.3.6 Metering

Metering mode refers to the way in which a camcorder determines the appropriate exposure (quantity of light reaching the camcorder lens). Spot metering will only base the exposure setting on a very small area of the scene. Center metering will use the light from the center of the LCD and the Multi setting measures the light at several points on the screen.

1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Metering'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Metering submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Multi, Center, Spot)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.3.7 White Balance

White Balance changes the color of light in your pictures, making it seem warmer or cooler depending on how the light you're shooting in affects the frame.

1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'White Balance'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the White Balance submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.3.8 Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting

conditions where both bright and dim areas are present in the field of view.
1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Wide Dynamic Range submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.3.9 Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by straightening the image.
1. In Loop Recording Mode press and hold the **OK** button.
2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Lens Distortion Correction submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: Image Stabilization and Lens Distortion Correction options cannot be active at the same time.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.4   Time-Lapse Video

This feature allows you to capture long sequences of events in a much shorter time period.

To enter Time Lapse mode, power the camcorder on and press the **POWER/MODE** button to access the mode selection screen and use the **UP** or **DOWN** buttons to select the Time-Lapse Video icon and press the **OK** button to enter that mode.

1. Line up your shot by looking at the LCD screen to see what is in view.
2. Hold the camcorder steady and press the **SHUTTER** button to begin recording.
3. When recording begins, a rolling timer will display in red in the top left corner of the screen. This indicates the recorded video time elapsed.
4. Press the **SHUTTER** button to stop recording.
5. The recorded video files will automatically save onto the inserted memory card.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.4.1 Interval

This function allows you to set the amount of time in between images.
1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Interval'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Interval submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected interval *(1 Second, 3 Seconds, 5 Seconds, 10 Seconds, 30 Seconds, 1 Minute)*.
5. Press the **SHUTTER** button to exit the settings menu.
NOTE: By selecting '10 Sec' the camcorder will capture a single frame

every 10 seconds and create a video combining all of the captured images. See the table below for how long it will take to record 1 second of video for each option at 30fps, the length of time will be double what is shown in the chart for 60fps;

Interval Option	Length of time to record 1 second of video at 30fps
1 Second	30 Seconds
3 Seconds	90 Seconds
5 Seconds	150 Seconds
10 Seconds	300 Seconds
30 Seconds	900 Seconds
1 Minute	1,800 Seconds

2.4.2 Duration

This function allows you to set the length of the final time lapse video.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Duration'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Duration submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected duration *(Unlimited, 5 Minutes, 10 Minutes, 15 Minutes, 20 Minutes, 30 Minutes, 60 Minutes)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: By selecting '5 Min' the time lapse will automatically stop recording when the final video is 5 minutes long. The actual length of time that it will take to record the 10 second video will depend on the interval duration, see section 2.4.1.

2.4.3 Resolution (Movie Size)

Your camcorder has a number of preset resolutions and frames per second rates.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Resolution'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected resolution *(5K 30fps, 4K 60fps, 4K 30fps,*

2.7K 60fps, 2.7K 30fps, 1080P 120fps, 1080P 60fps, 1080P 30fps, 720P 240fps, 720P 120fps, 720P 60fps, 720P 30fps).

5. Press the **SHUTTER** button to exit the settings menu.

2.4.4 Image Stabilization

This function enables photo capture in high speed and low-light by electronically minimizing motion blur and reducing camcorder shake.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Image Stabilization'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Image Stabilization submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **MENU** button twice to exit the settings menu.

NOTE: Image Stabilization can only be enabled when the LCD is in landscape position, and with Lens Distortion Correction disabled. Image Stabilization is not accessible under the following video recording resolutions: 4K 60fps, 1080P 120fps, 720P 120fps/240fps.

2.4.5 Exposure

This function adjusts the frame brightness in your photograph.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Exposure submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option.
5. Press the **SHUTTER** button to exit the settings menu.

2.4.6 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Date & Time Stamp submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, Date, Date & Time)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.4.7 Metering

Metering mode refers to the way in which a camcorder determines the appropriate exposure (quantity of light reaching the camcorder lens). Spot metering will only base the exposure setting on a very small area of the scene. Center metering will use the light from the center of the LCD and the Multi setting measures the light at several points on the screen.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Metering'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Metering submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Multi, Center, Spot)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.4.8 White Balance

White Balance changes the color of light in your pictures, making it seem warmer or cooler depending on how the light you're shooting in affects the frame.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'White Balance'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the White Balance submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.4.9 Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting conditions where both bright and dim areas are present in the field of view.

1. In Time Lapse Video Mode press and hold the **OK** button.
2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Wide Dynamic Range submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.4.10   Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by straightening the image.
 1. In Time Lapse Video Mode press and hold the **OK** button.
 2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Lens Distortion Correction submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
 5. Press the **SHUTTER** button to exit the settings menu.

NOTE: Image Stabilization and Lens Distortion Correction options cannot be active at the same time.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.5   Photo Shooting

To enter Photo mode, power the camcorder on and press the **POWER/MODE** button to access the mode selection screen and use the **UP** or **DOWN** buttons to select the Photo icon and press the **OK** button to enter that mode.

1. Line up your shot by looking at the LCD screen to see what is in the shot.
2. Hold the camcorder steady and press the **SHUTTER** button to capture a photo.
3. The number of photos that can be captured at a particular resolution will be displayed in the bottom right corner of the screen.
4. The number of pictures remaining will be 0 if there is no memory card inserted in the camcorder's memory card slot. A "Memory Full" message will be shown at the screen when the memory card is full.
5. The number of remaining photos is determined by the selected photo resolution. The higher the photo resolution, the lower the number of photos you are able to be save to the memory card. Before capturing any photos, you can select a preferred photo resolution.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.5.1 Resolution (Photo Size)

This function sets the photo resolution. The higher the resolution, the greater the photo quality and the larger the file size of the photo.
1. In Photo Mode press and hold the **OK** button.
2. Select *'Resolution'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected resolution *(20MP, 14MP, 10MP, 8MP, 5MP, 3MP, 2MP)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.5.2 Photo Ratio

This function allows you to set the size ratio of the image.
  1. In Photo Mode press and hold the **OK** button.
  2. Select *'Photo Ratio'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Photo Ratio submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(4:3, 16:9)*.
  5. Press the **SHUTTER** button to exit the settings menu.

2.5.3 ISO

This function adjusts the light sensitivity in your photograph.
  1. In Photo Mode press and hold the **OK** button.
  2. Select *'ISO'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the ISO submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, 100, 200, 400, 800, 1600, 3200)*.
  5. Press the **SHUTTER** button to exit the settings menu.

2.5.4 Exposure

This function adjusts the frame brightness in your photograph.
  1. In Photo Mode press and hold the **OK** button.
  2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Exposure submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option.
  5. Press the **SHUTTER** button to exit the settings menu.

2.5.5 Photo Quality

The Quality function determines the level of compression the camcorder uses when saving photos to a memory card.
  1. In Photo Mode press and hold the **OK** button.
  2. Select *'Photo Quality'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Photo Quality submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**

button to confirm your selected option *(Super Fine, Fine, Normal)*, Super Fine uses the least amount of compression for saving, and as a result produces a higher photo quality.

5. Press the **SHUTTER** button to exit the settings menu.

2.5.6 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.

1. In Photo Mode press and hold the **OK** button.
2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Date & Time Stamp submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, Date, Date & Time)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.5.7 Long Exposure

This function allows you to set the amount of time that the camcorder 's shutter is left open. The resulting image captures the trail of moving objects in front of the camcorder, while showing still elements razor sharp.

1. In Photo Mode press and hold the **OK** button.
2. Select *'Long Exposure'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Long Exposure submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, 1 Second, 2 Seconds, 3 Seconds, 4 Seconds, 5 Seconds, 6 Seconds, 7 Seconds)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.5.8 Metering

Metering mode refers to the way in which a camcorder determines the appropriate exposure (quantity of light reaching the camcorder lens). Spot metering will only base the exposure setting on a very small area of the scene. Center metering will use the light from the center of the LCD and the Multi setting measures the light at several points on the screen.

1. In Photo Mode press and hold the **OK** button.

2. Select *'Metering'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Metering submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Multi, Center, Spot)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.5.9 White Balance

White Balance changes the color of light in your pictures, making it seem warmer or cooler depending on how the light you're shooting in affects the frame.
1. In Photo Mode press and hold the **OK** button.
2. Select *'White Balance'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the White Balance submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.5.10   Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting conditions where both bright and dim areas are present in the field of view.
1. In Photo Mode press and hold the **OK** button.
2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Wide Dynamic Range submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.5.11   Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by straightening the image.
1. In Photo Mode press and hold the **OK** button.
2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Lens Distortion Correction submenu.

4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: Image Stabilization and Lens Distortion Correction options cannot be active at the same time.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.6   Self Timer

In Self Timer mode, the camcorder will take a single picture after a set amount of time has elapsed with each press of the **SHUTTER** button.

To enter Self Timer mode, power the camcorder on and press the **POWER/MODE** button to access the mode selection screen and use the **UP** or **DOWN** buttons to select the self timer icon and press the **OK** button to enter that mode.

1. Line up your shot by looking at the LCD screen to see what is in the shot.
2. Hold the camcorder steady and press the **SHUTTER** button to start a countdown, when the countdown ends, a picture is captured.
3. The number of photos that can be captured at a particular resolution will be displayed at the bottom right corner of the screen.
4. The number of pictures remaining will be 0 if there is no memory card inserted in the camcorder's memory card slot. A "Memory Full" message will be shown on the screen when the memory card is full.
5. The number of remaining photos is determined by the selected photo resolution. The higher the photo resolution, the lower the number of photos you are able to be save to the memory card. Before capturing any photos, you can select a preferred photo resolution.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.6.1 Self Timer

This function determines the time delay before a photograph is captured. This setting can be used by photographers to take photographs of themselves.
1. In Self Timer Mode press and hold the **OK** button.
2. Select *'Self Timer'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Self Timer submenu.

4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(2 Seconds, 5 Seconds, 10 Seconds)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.6.2 Resolution (Photo Size)

This function sets the photo resolution. The higher the resolution, the greater the photo quality and the larger the file size of the photo.
1. In Self Timer Mode press and hold the **OK** button.
2. Select *'Resolution'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected resolution *(20MP, 14MP, 10MP, 8MP, 5MP, 3MP, 2MP)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.6.3 Photo Ratio

This function allows you to set the size ratio of the image.
1. In Self Timer Mode press and hold the **OK** button.
2. Select *'Photo Ratio'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Photo Ratio submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(4:3, 16:9)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.6.4 ISO

This function adjusts the light sensitivity in your photograph.
1. In Self Timer Mode press and hold the **OK** button.
2. Select *'ISO'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the ISO submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, 100, 200, 400, 800, 1600, 3200)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.6.5 Exposure

This function adjusts the frame brightness in your photograph.
1. In Self Timer Mode press and hold the **OK** button.
2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Exposure submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option.
5. Press the **SHUTTER** button to exit the settings menu.

2.6.6 Photo Quality

The Quality function determines the level of compression the camcorder uses when saving photos to a memory card.
1. In Self Timer Mode press and hold the **OK** button.
2. Select *'Photo Quality'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Photo Quality submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Super Fine, Fine, Normal)*, Super Fine uses the least amount of compression for saving, and as a result produces a higher photo quality.
5. Press the **SHUTTER** button to exit the settings menu.

2.6.7 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.
1. In Self Timer Mode press and hold the **OK** button.
2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Date & Time Stamp submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, Date, Date & Time)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.6.8 Long Exposure

This function allows you to set the amount of time that the camcorder 's shutter is left open. The resulting image captures the trail of moving objects in

front of the camcorder, while showing still elements razor sharp.
 1. In Self Timer Mode press and hold the **OK** button.
 2. Select *'Long Exposure'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Long Exposure submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**
    button to confirm your selected option *(Off, 1 Second, 2 Seconds, 3
    Seconds, 4 Seconds, 5 Seconds, 6 Seconds, 7 Seconds)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.6.9 Metering

Metering mode refers to the way in which a camcorder determines the
appropriate exposure (quantity of light reaching the camcorder lens). Spot
metering will only base the exposure setting on a very small area of the scene.
Center metering will use the light from the center of the LCD and the Multi
setting measures the light at several points on the screen.
 1. In Self Timer Mode press and hold the **OK** button.
 2. Select *'Metering'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Metering submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**
    button to confirm your selected option *(Multi, Center, Spot)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.6.10   White Balance

White Balance changes the color of light in your pictures, making it seem
warmer or cooler depending on how the light you're shooting in affects the
frame.
 1. In Self Timer Mode press and hold the **OK** button.
 2. Select *'White Balance'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the White Balance submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**
    button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten
    Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.6.11   Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting conditions where both bright and dim areas are present in the field of view.

  1. In Self Timer Mode press and hold the **OK** button.
  2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Wide Dynamic Range submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
  5. Press the **SHUTTER** button to exit the settings menu.

2.6.12   Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by straightening the image.

  1. In Self Timer Mode press and hold the **OK** button.
  2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
  3. Press the **OK** button to enter the Lens Distortion Correction submenu.
  4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
  5. Press the **SHUTTER** button to exit the settings menu.

NOTE: **Image Stabilization and Lens Distortion Correction options cannot be active at the same time.**

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.7   Photo Burst

In photo burst mode, the camcorder will take a set number of images with each press of the **SHUTTER** button.

To enter Photo Burst mode, power the camcorder on and press the **POWER/MODE** button to access the mode selection screen and use the **UP** or **DOWN** buttons to select Photo Burst icon and press the **OK** button to enter that mode.

1. Line up your shot by looking at the LCD screen to see what is in the shot.
2. Hold the camcorder steady and press the **SHUTTER** button to capture a photo.
3. The number of photos that can be captured at a particular resolution will be displayed in the bottom right corner of the screen.
4. The number of pictures remaining will be 0 if there is no memory card inserted in the camcorder's memory card slot. A "Memory Full" message will be shown at the screen when the memory card is full.
5. The number of remaining photos is determined by the selected photo resolution. The higher the photo resolution, the lower the number of photos you are able to be save to the memory card. Before capturing any photos, you can select a preferred photo resolution.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.7.1 Photo Burst

This function lets you set the number of photos captured with each photo burst.

1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'Photo Burst'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Photo Burst submenu.

4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(3 Shots, 5 Shots, 10 Shots)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.7.2 Resolution (Photo Size)

This function sets the photo resolution. The higher the resolution, the greater the photo quality and the larger the file size of the photo.
1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'Resolution'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected resolution *(20MP, 14MP, 10MP, 8MP, 5MP, 3MP, 2MP)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.7.3 Photo Ratio

This function allows you to set the size ratio of the image.
1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'Photo Ratio'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Photo Ratio submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(4:3, 16:9)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.7.4 ISO

This function adjusts the light sensitivity in your photograph.
1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'ISO'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the ISO submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, 100, 200, 400, 800, 1600, 3200)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.7.5 Exposure

This function adjusts the frame brightness in your photograph.
 1. In Photo Burst Mode press and hold the **OK** button.
 2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Exposure submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option.
 5. Press the **SHUTTER** button to exit the settings menu.

2.7.6 Photo Quality

The Quality function determines the level of compression the camcorder uses when saving photos to a memory card.
 1. In Photo Burst Mode press and hold the **OK** button.
 2. Select *'Photo Quality'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Photo Quality submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Super Fine, Fine, Normal)*, Super Fine uses the least amount of compression for saving, and as a result produces a higher photo quality.
 5. Press the **SHUTTER** button to exit the settings menu.

2.7.7 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.
 1. In Photo Burst Mode press and hold the **OK** button.
 2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Date & Time Stamp submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, Date, Date & Time)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.7.8 Metering

Metering mode refers to the way in which a camcorder determines the appropriate exposure (quantity of light reaching the camcorder lens). Spot

metering will only base the exposure setting on a very small area of the scene. Center metering will use the light from the center of the LCD and the Multi setting measures the light at several points on the screen.

1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'Metering'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Metering submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Multi, Center, Spot)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.7.9 White Balance

White Balance changes the color of light in your pictures, making it seem warmer or cooler depending on how the light you're shooting in affects the frame.

1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'White Balance'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the White Balance submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.7.10   Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting conditions where both bright and dim areas are present in the field of view.

1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Wide Dynamic Range submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.7.11   Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by

straightening the image.

1. In Photo Burst Mode press and hold the **OK** button.
2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Lens Distortion Correction submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: Image Stabilization and Lens Distortion Correction options cannot be active at the same time.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.8   Interval Photo

In the Interval Photo mode, the camcorder will take a single photo at a set time interval until stopped.

To enter Interval Photo mode, power the camcorder on and press the **POWER/MODE** button to access the mode selection screen and use the **UP** or **DOWN** buttons to select Time-Lapse Photo icon and press the **OK** button to enter that mode.

1. Line up your shot by looking at the LCD screen to see what is in the shot.
2. Hold the camcorder steady and press the **SHUTTER** button to capture a photo and start the countdown.
3. At the end of each countdown, a new photo will be captured, each captured photo will be saved as an individual file.
4. To stop the camcorder from capturing any additional images, press the **SHUTTER** button.
5. The number of photos that can be captured at a particular resolution will be displayed at the bottom right corner of the screen.
6. The number of pictures remaining will be 0 if there is no memory card inserted in the camcorder's memory card slot. A "Memory Full" message will be shown on the screen when the memory card is full.
7. The number of remaining photos is determined by the selected photo resolution. The higher the photo resolution, the lower the number of photos you are able to be save to the memory card. Before capturing any photos, you can select a preferred photo resolution.

Your camcorder comes preset with some user-adjustable settings to fine tune and customize how you would like your videos to be captured. The settings are already optimized and preset for the easiest experience.

From the main screen, press and hold the **OK** button until you see the settings menu on the screen. You can also tap the screen and then select the gear icon that shows on the screen to access the settings.

2.8.1 Interval

This function allows you to set the amount of time in between images.

1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'Interval'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Interval submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(3 Seconds, 5 Seconds, 10 Seconds, 30 Seconds, 1 Minute)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: By selecting '10 Seconds' the camcorder will capture a single photo every 10 seconds.

2.8.2 Duration

This function allows you to set the length of time that the camcorder will capture images for.
1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'Duration'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Duration submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Unlimited, 5 Minutes, 10 Minutes, 15 Minutes, 20 Minutes, 30 Minutes, 60 Minutes)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: By selecting '5 Min' the camcorder will automatically stop capturing photos after 5 minutes.

2.8.3 Resolution (Photo Size)

This function sets the photo resolution. The higher the resolution, the greater the photo quality and the larger the file size of the photo.
1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'Resolution'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Resolution submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected resolution *(20MP, 14MP, 10MP, 8MP, 5MP, 3MP, 2MP)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.8.4 Photo Ratio

This function allows you to set the size ratio of the image.
 1. In Interval Photo Mode press and hold the **OK** button.
 2. Select *'Photo Ratio'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Photo Ratio submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(4:3, 16:9)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.8.5 ISO

This function adjusts the light sensitivity in your photograph.
 1. In Interval Photo Mode press and hold the **OK** button.
 2. Select *'ISO'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the ISO submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, 100, 200, 400, 800, 1600, 3200)*.
 5. Press the **SHUTTER** button to exit the settings menu.

2.8.6 Exposure

This function adjusts the frame brightness in your photograph.
 1. In Interval Photo Mode press and hold the **OK** button.
 2. Select *'Exposure'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Exposure submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option.
 5. Press the **SHUTTER** button to exit the settings menu.

2.8.7 Photo Quality

The Quality function determines the level of compression the camcorder uses when saving photos to a memory card.
 1. In Interval Photo Mode press and hold the **OK** button.
 2. Select *'Photo Quality'* using the **UP** or **DOWN** buttons.
 3. Press the **OK** button to enter the Photo Quality submenu.
 4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**

button to confirm your selected option *(Super Fine, Fine, Normal)*, Super Fine uses the least amount of compression for saving, and as a result produces a higher photo quality.

5. Press the **SHUTTER** button to exit the settings menu.

2.8.8 Date & Time Stamp

This setting allows you to imprint a date & time onto your captured image files. Once an image file is captured with the imprint, the imprint cannot be removed.

1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'Date & Time Stamp'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Date & Time Stamp submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, Date, Date & Time)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.8.9 Metering

Metering mode refers to the way in which a camcorder determines the appropriate exposure (quantity of light reaching the camcorder lens). Spot metering will only base the exposure setting on a very small area of the scene. Center metering will use the light from the center of the LCD and the Multi setting measures the light at several points on the screen.

1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'Metering'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Metering submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Multi, Center, Spot)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.8.10   White Balance

White Balance changes the color of light in your pictures, making it seem warmer or cooler depending on how the light you're shooting in affects the frame.

1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'White Balance'* using the **UP** or **DOWN** buttons.

3. Press the **OK** button to enter the White Balance submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Auto, Daylight, Cloudy, Tungsten Light, Fluorescent(H), Fluorescent(L), Color Temperature)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.8.11   Wide Dynamic Range (WDR)

This function allows you to turn Wide Dynamic Range on and off. Wide Dynamic Range improves the image quality in high-contrast lighting conditions where both bright and dim areas are present in the field of view.

1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'Wide Dynamic Range'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Wide Dynamic Range submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.8.12   Lens Distortion Correction (LDC)

This function enables the camcorder to correct slight image distortions by straightening the image.

1. In Interval Photo Mode press and hold the **OK** button.
2. Select *'Lens Distortion Correction'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Lens Distortion Correction submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
5. Press the **SHUTTER** button to exit the settings menu.

NOTE: Image Stabilization and Lens Distortion Correction options cannot be active at the same time.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.9   Camcorder Settings

Basic settings can be changed in the Settings menu. These include date & time, language and sound options. Power the camcorder on and press and hold the **OK** button. Press the **POWER/MODE** button so the gear icon is highlighted then use the **UP** or **DOWN** buttons to navigate the camcorder settings.

2.9.1 Wi-Fi

This function allows you activate the Wi-Fi on the camcorder.
 1. In all Photo and Video Modes press and hold the **OK** button.
 2. Press the **POWER/MODE** button so the gear icon is highlighted.
 3. Select *'Wi-Fi'* using the **UP** or **DOWN** buttons.
 4. Press the **OK** button to enter the Wi-Fi submenu.
 5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*.
 6. After turning on the Wi-Fi, the Wi-Fi network and password will be displayed on the screen. Tap the **EXIT** button on the screen to turn Wi-Fi off.
 7. Press the **SHUTTER** button to exit the settings menu.

2.9.2 Effect

This function sets the color filter effect of a photograph.
 1. In all Photo and Video Modes press and hold the **OK** button.
 2. Press the **POWER/MODE** button so the gear icon is highlighted.
 3. Select *'Effect'* using the **UP** or **DOWN** buttons.
 4. Press the **OK** button to enter the Effect submenu.
 5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Normal, Black & White, Natural, Negative, Warm, Contrast(H))*.
 6. Press the **SHUTTER** button to exit the settings menu.

2.9.3 Frequency

This function sets the frequency of the camcorder from 50Hz to 60Hz. Please check the frequency of your location and set accordingly.
 1. In all Photo and Video Modes press and hold the **OK** button.
 2. Press the **POWER/MODE** button so the gear icon is highlighted.

3. Select *'Frequency'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Frequency submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the OK button to confirm your selected option *(50 Hz, 60 Hz)* the default frequency for the United States is 60Hz.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.4 Sounds

This function allows you to control the sounds of the camcorder.
1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Sounds'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Sounds submenu.
5. You can change the following sounds from this submenu;
   a. **Shutter –** This is the sound made when an image is captured or a video recorded.
   b. **Power-On –** this is the sound made when the camcorder is powered on and off.
   c. **Button –** this is the sound made when any button is pressed.
   d. **Volume –** this controls the volume of all sounds on the camcorder.
6. Press the **UP** or **DOWN** buttons to navigate the menu, and press the OK button to confirm your selected option.
7. Press the **SHUTTER** button to exit the settings menu.

2.9.5 Mic Sensitivity

This function allows you to set the sensitivity of the microphone during video recording.
1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Mic Sensitivity'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Mic Sensitivity submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Low, Middle, High)*.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.6 Date & Time Setup

This function allows you to set the current date and time on the camcorder.
  1. In all Photo and Video Modes press and hold the **OK** button.
  2. Press the **POWER/MODE** button so the gear icon is highlighted.
  3. Select *'Date & Time Setup'* using the **UP** or **DOWN** buttons.
  4. Press the **OK** button to enter the Date Set submenu.
  5. Press the **UP** or **DOWN** buttons to change the highlighted value and press the **OK** button to switch the highlighted value.
  6. Press the **OK** button until you exit the Date & Time Setup menu to save the settings.
  7. Press the **SHUTTER** button to exit the settings menu.

2.9.7 Screen Brightness

This function allows you to set the brightness of your camcorder's LCD screen.
  1. In all Photo and Video Modes press and hold the **OK** button.
  2. Press the **POWER/MODE** button so the gear icon is highlighted.
  3. Select *'Screen Brightness'* using the **UP** or **DOWN** buttons.
  4. Press the **OK** button to enter the Screen Brightness submenu.
  5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Low, Middle, High)*.
  6. Press the **SHUTTER** button to exit the settings menu.

2.9.8 Screen Saver

This function sets the duration of time in which the camcorder will wait with no user input before automatically turning off the LCD screen. Note: even while the screen is off, the camcorder will still be powered on.
  1. In all Photo and Video Modes press and hold the **OK** button.
  2. Press the **POWER/MODE** button so the gear icon is highlighted.
  3. Select *'Screen Saver'* using the **UP** or **DOWN** buttons.
  4. Press the **OK** button to enter the Screen Saver submenu.
  5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, 1 Minute, 2 Minutes, 3 Minutes)*.
  6. Press the **SHUTTER** button to exit the settings menu.

2.9.9 Auto Power Off

This function sets the duration of time in which the camcorder will wait with no user input before automatically powering off.

1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Auto Power Off'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Auto Power Off submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, 5 Minutes, 10 Minutes)*.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.10   Lens Position

This function allows you to set the position of the camcorder lens when it is powered on.

1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Lens Position'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Lens Position submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(0°, 180°)*. When 0° is selected, the lens will point towards you when the camcorder is powered on. When 180° is selected, the lens will point away from you when the camcorder is powered on.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.11   Rec Lens Control

This function allows you to control whether the lens can rotate while recording a video. Note: the lens can only be rotated 90° while recording, from either 0° to 90° or from 90° to 180° depending on the starting position of the lens.

1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Rec Lens Control'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Rec Lens Control submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*. When Off is selected, the lens will not rotate while recording a video. When On is selected, the lens

can be rotated while recording a video.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.12   Shutter on LCD

This function allows you to control if you can capture and image or record a video from the touch screen.
1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Shutter on LCD'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Shutter on LCD submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Off, On)*. When Off is selected, you cannot capture an image or record a video from the touch screen. When On is selected, you can capture an image or record a video from the touch screen.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.13   Language

This function allows you to set the camcorder's interface language.
1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Language'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Language submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected language.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.14   Format Card

The format setting erases all photos, videos and data stored on your memory card.
1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Format Card'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Format Card submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK**

button to confirm your selected option *(YES, NO)*.
6. Press the **SHUTTER** button to exit the settings menu.
NOTE: This will delete all of your media and cannot be undone.

2.9.15   Factory Reset

Factory default settings can be restored in this menu. This function will not delete the media stored on the memory card, and will only restore all of the menu's setting back to factory default settings.
1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Factory Reset'* using the **UP** or **DOWN** buttons.
4. Press the **OK** button to enter the Factory Reset submenu.
5. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(YES, NO)*.
6. Press the **SHUTTER** button to exit the settings menu.

2.9.16   Version

This setting displays the current firmware version of your camcorder.
1. In all Photo and Video Modes press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted.
3. Select *'Version'* using the **UP** or **DOWN** buttons.
4. Press the **SHUTTER** button to exit the settings menu.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.10 Playback Mode
Videos and photos captured on your camcorder can be easily played back.

1. In All Photo and Video Modes press the **POWER/MODE** button to enter the mode selection screen, then press the **POWER/MODE** again to enter Playback mode.
2. Press the **UP** or **DOWN** buttons to cycle through the captured videos and photos stored on the memory card.
3. While viewing a recorded video, press the **OK** button to start the video, and press the **OK** button again to pause the video.

Press and hold the **OK** button to access the Playback mode settings. These settings can be found below.

2.10.1   Delete
This function allows you to delete the current or all of the recorded media.
1. In Playback Mode press and hold the **OK** button.
2. Select *'Delete'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Delete submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Current, All)*.
5. Press the **SHUTTER** button to exit the settings menu.
NOTE: Deleted media cannot be recovered.

2.10.2   Protect
This function protects the photo/video file. The file will be protected from being deleted accidentally. Files must be unprotected to be deleted.
1. In Playback Mode press and hold the **OK** button.
2. Select *'Protect'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Protect submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(Protect This File, Unprotect This File, Protect All, Unprotect All)*.
5. Press the **SHUTTER** button to exit the settings menu.

2.10.3   Slide Show

Photographs can be viewed as a slideshow on the camcorder.

1. In Playback Mode press and hold the **OK** button.
2. Select *'Slide Show'* using the **UP** or **DOWN** buttons.
3. Press the **OK** button to enter the Slide Show submenu.
4. Press the **UP** or **DOWN** buttons to navigate the menu, and press the **OK** button to confirm your selected option *(2 Seconds, 5 Seconds)*.
5. To stop the slide show, tap the stop icon on the screen or press the **SHUTTER** or **POWER** buttons.
6. Press the **SHUTTER** button to exit the settings menu.

Alternatively, your camcorder's menus can be navigated via the touch screen. Press the gear icon on the right side of the screen to access the settings.

2.11 Wireless Connectivity

2.11.1   Connecting to the OD Cam App

To wirelessly operate the MN5KGP1 camcorder you will need to install the "OD Cam" app on your Android or iOS device. To download the app, search for "OD Cam" in the Apple App Store or Google Play Store. You can also scan the QR code below to find the app.

The camcorder can be operated remotely by following the steps below:
1. Turn the camcorder on and press and hold the **OK** button.
2. Press the **POWER/MODE** button so the gear icon is highlighted and press the **OK** button to enter the camcorder settings. Then press the **UP** or **DOWN** buttons to select Wi-Fi and press the **OK** button to enter the Wi-Fi submenu.
3. Press the **UP** or **DOWN** buttons to navigate the submenu and highlight the "*On*" option and press the **OK** button to activate the Wi-Fi. The Network Name (SSID) and the password will be displayed on the screen.
4. Open your phone's wireless menu, turn all wireless settings on and connect to the network named "M3-XXXXXX" then join the network, password is 12345678.

5. Exit the wireless menu on your smartphone and open the "OD Cam" app to launch remote operation of the camcorder.
6. Select "Connecting device" to connect to the camcorder.
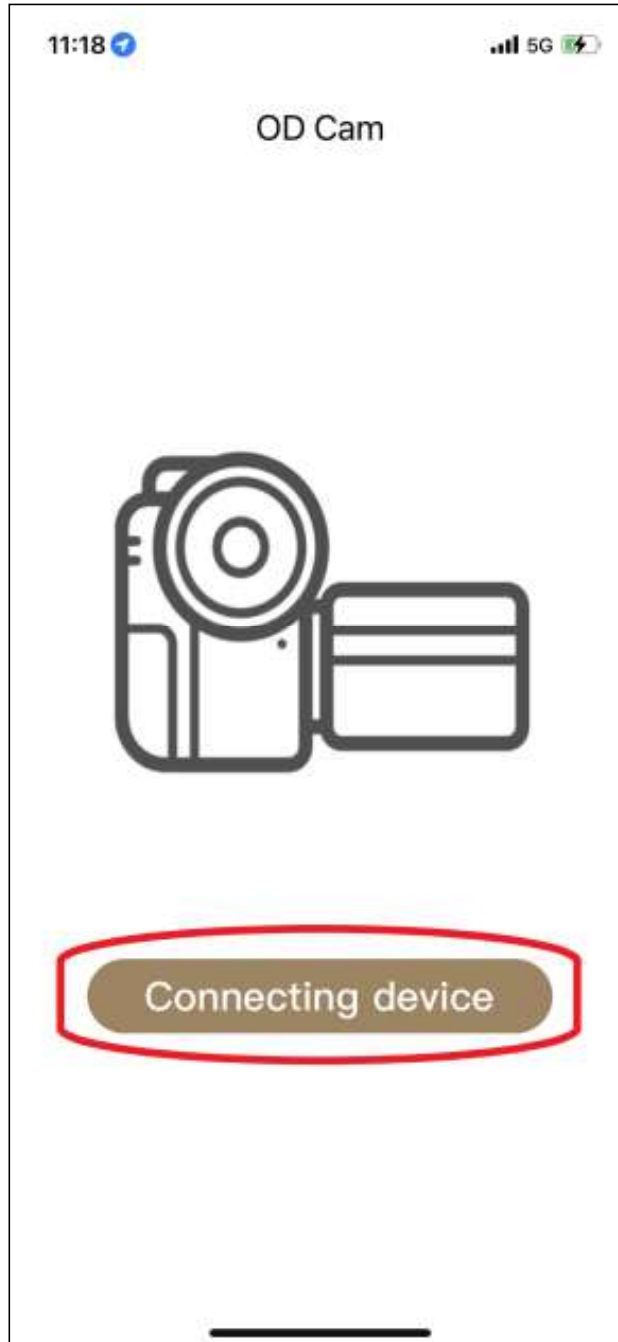
2.11.2   Operating the OD Cam App

Your MN5KGP1 will now be operable via your smartphone. It will initially default to the video recording function. To change to Photo Mode, press the camera icon in the middle of your smartphone's screen. While in video mode, a record icon will be shown and while in photo mode, a shutter icon will be shown.
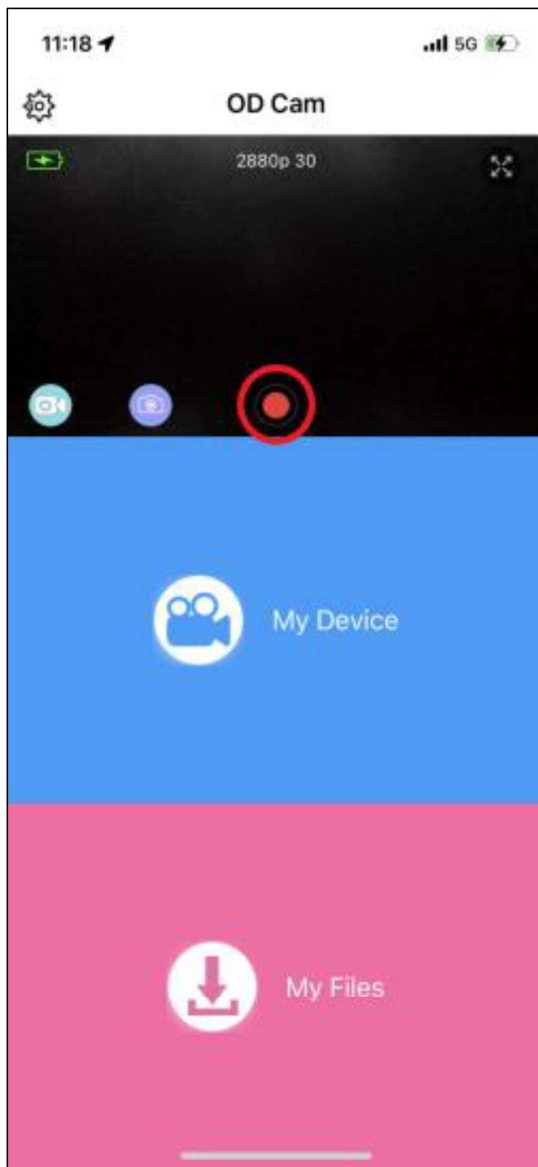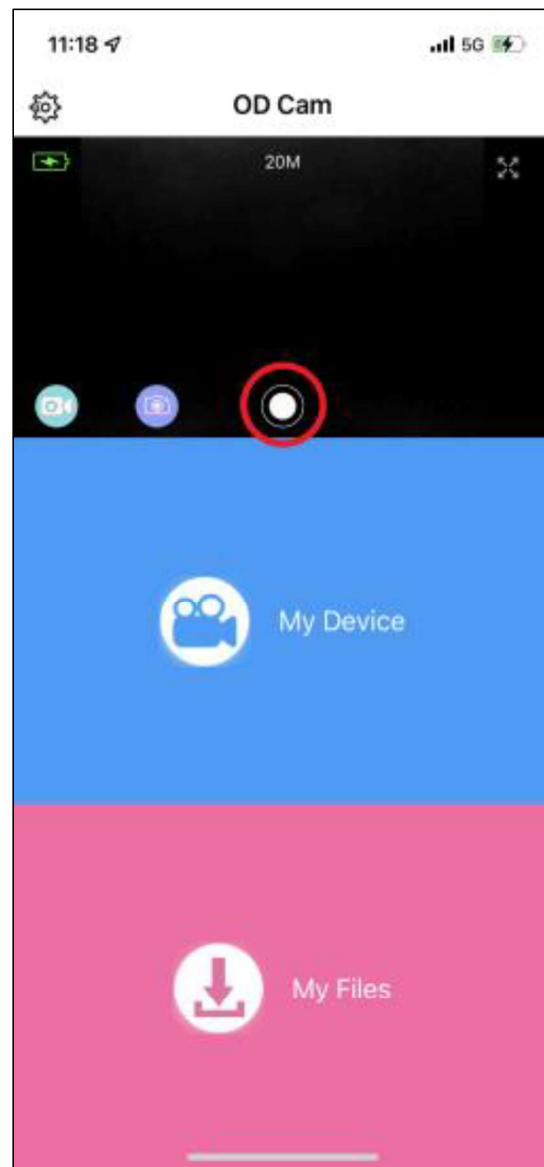
Video Mode   **Photo Mode**

2.11.3   Recording Videos Remotely

1. To start recording a video, press the record button, in the middle of your smartphone's screen.
2. The video recording mode can be changed by selecting the gear icon at the top left corner of your smartphone's screen.
3. The video mode settings can be accessed in the same place.
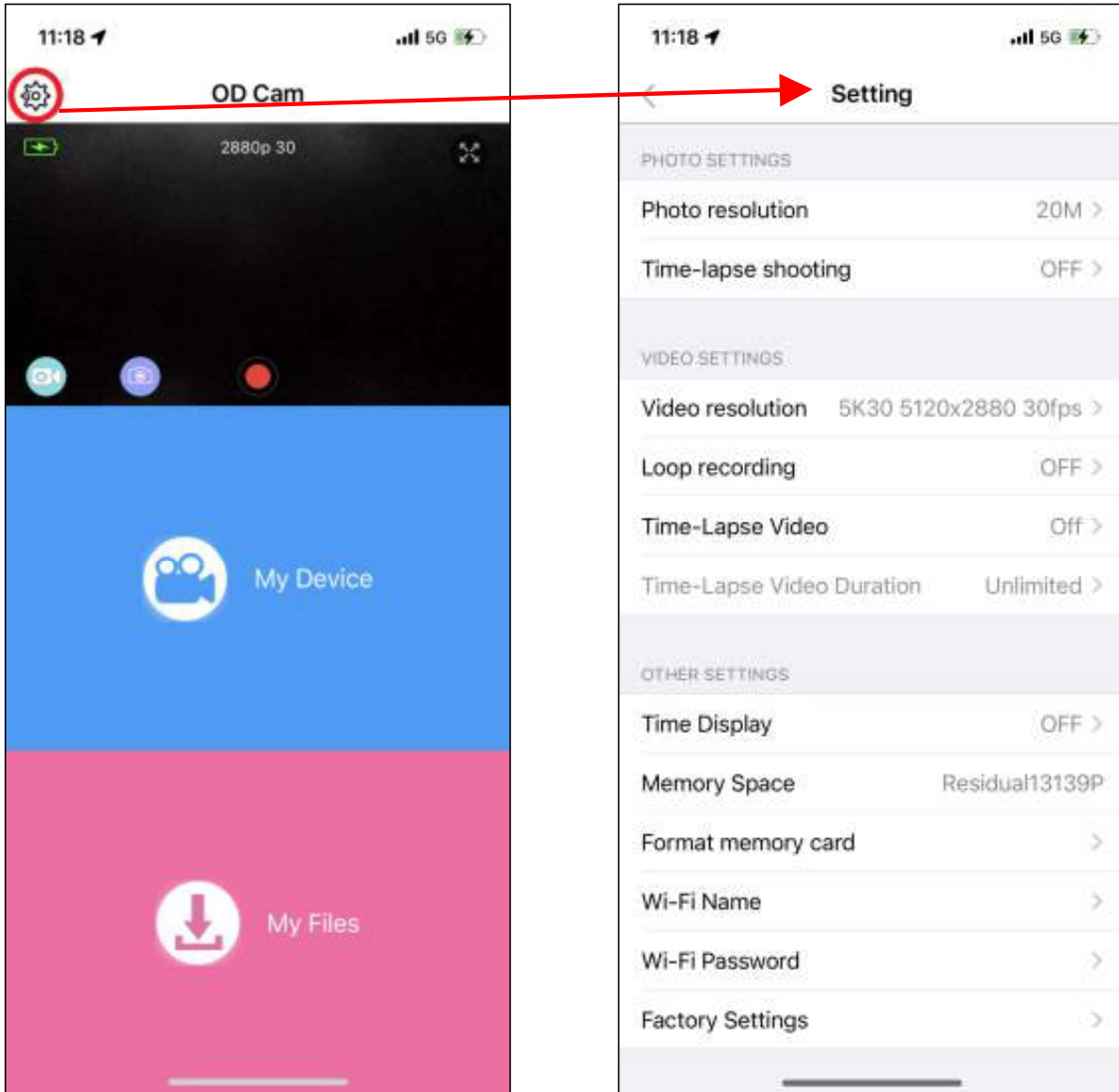
2.11.4 Taking Photos Remotely

1. To capture a photo, press the capture button, in the middle of your smartphone's screen.
2. The photo capture mode can be changed by selecting the gear icon at the top left corner of your smartphone's screen.
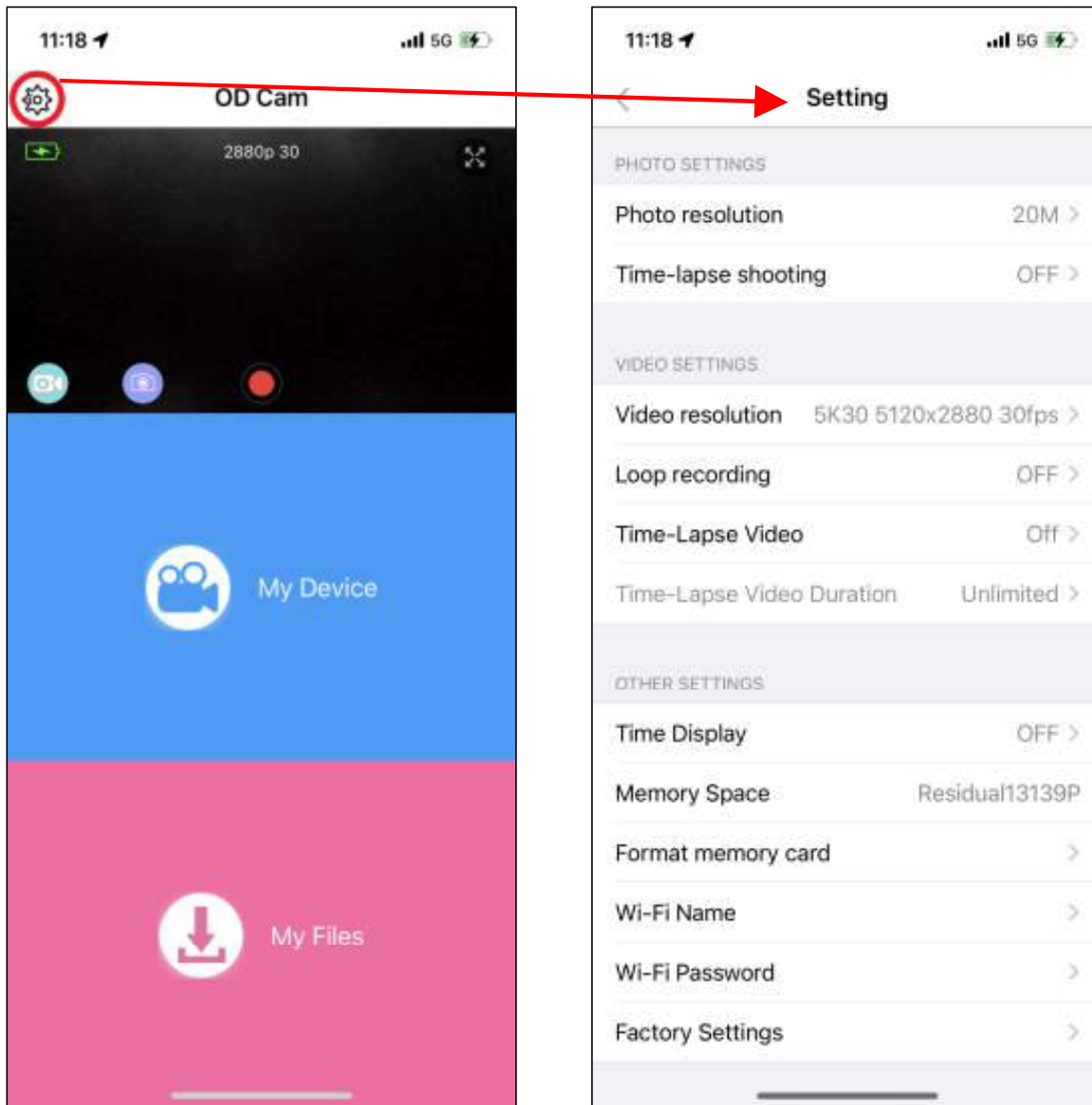3. The photo mode settings can be accessed in the same place.
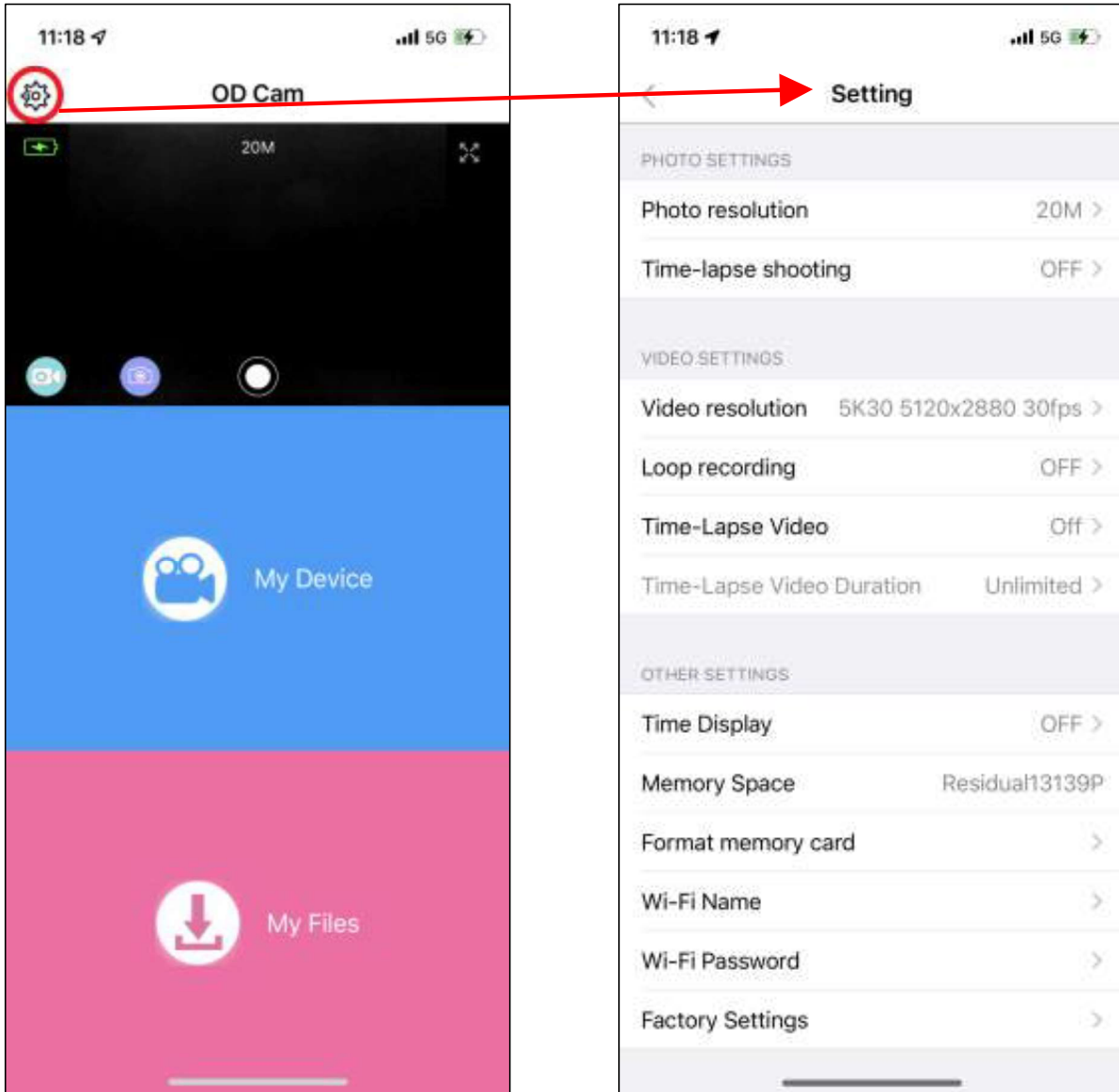
2.11.5 Viewing Media on the App

1. To view the recorded images and videos stored on the memory card on the app, "My Device" in the middle of your smartphone's screen.
2. Tap the photo or video file you wish to view. From this screen media can be saved to your smartphone and deleted. If a photo or video is deleted on the app, it will also be removed from the memory card in the camcorder.
3. Downloaded media can be found in the "My Files" section of the app.
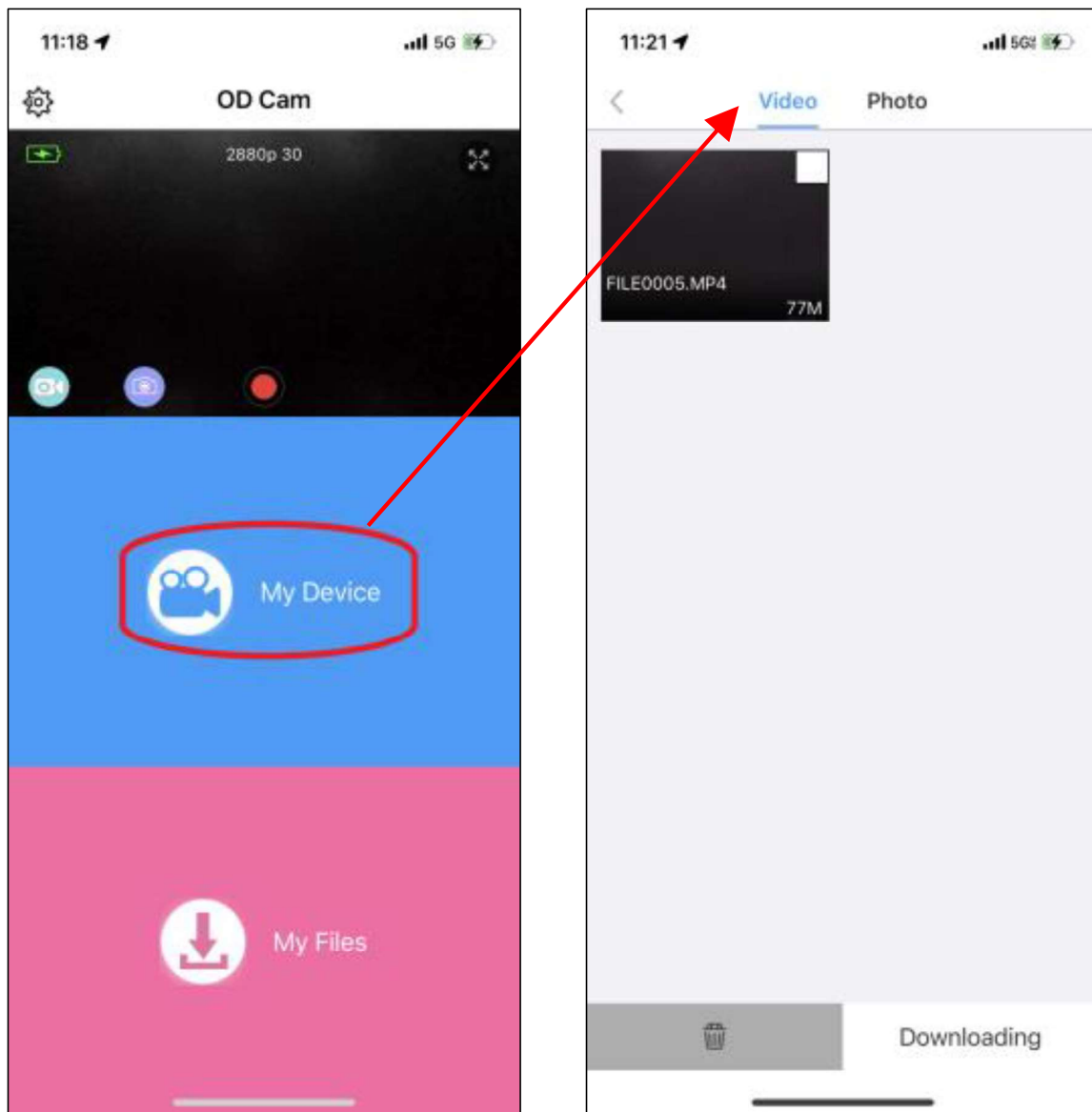
2.11.6   Changing Camcorder Settings on the App

Certain camcorder settings can also be changed on the app. Press the gear icon in the top left corner of your smartphone's screen to launch the settings menu. From here, a number of settings including can be changed.

3.1 Technical Specifications

Model Number	Minolta MN5KGP1
Lens	Fixed Focus • f=4.88mm • F/2.2 • 120º AOV • 180º Motor Driven Rotatable
Zoom	16X Digital Zoom
Image Sensor	IMX 317 8MP Starvis 1/2.5" CMOS Sensor
Shutter	Electronic • Anti-Shake Image Stabilization
Pixels (photo)	JPEG: 20MP • 14MP • 10MP • 8MP • 5MP • 3MP • 2MP
Pixels (video)	MP4: 5K (30fps) • 4K (60fps) • 4K (30fps) • 2.7K (60fps) • 2.7K (30fps) • 1080P (120fps) • 1080P (60fps) • 1080P (30fps) • 720P (240fps) • 720P (120fps) • 720P (60fps) • 720P (30fps)
ISO Sensitivity	Auto • 100 • 200 • 400 • 800 • 1600 • 3200
LCD Screen	3.5" IPS LCD 16:9 720P Touch Screen
Assistive Light	Night Vision Infrared LEDs
Wi-Fi	802.11 b/g/n
Power Saving Mode	OFF • 5 Minutes • 10 Minutes
White Balance Control	Auto • Daylight • Cloudy • Tungsten Light • Fluorescent (H) • Fluorescent (L) • Color Temperature
Recording Media	Micro SD • MicroSDXC; Maximum: 256GB
I/O Ports	USB-C • HDMI-D • 3.5mm Mic Port • Built-in MIC • Speaker
Power	Lithium-Polymer 3.7V, 3,250mAh – non-removable
Dimensions	5.35 x 2.17 x 1.50 in. • 9.2 oz.

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MN5KGP1