Overview of the appliance

Front and underside

1. Flash
2. Display for automatic release/autofocus light flashing: Automatic release switched on
3. Camera lens
4. Lens barrel
5. Microphone
6. Tripod socket
7. Loudspeaker
8. USB connection for USB and AV cables supplied
9. Battery compartment
10. Catch for battery compartment
11. Camera on/off switch
12. Briefly press image stabiliser: Switch image stabiliser on
13. Briefly press release button: Set focus range
14. ON indicator, lights up yellow or green depending on operating mode
15. Display
16. **T/W**: Zoom keys; enlarge or reduce selection

17. **►**: Press: Switch back and forward between shooting and playback mode

18. **SET** button: Confirm selection
   - Scroll up in menus/submenus
   - Scroll down in menus/submenus
   - In shooting mode: Choose flash type
     - In playback mode: Show next shot
     - Video playback: Switch fast forward on or off
     - In the menu: Open submenu or select setting
   - In shooting mode: Turn on macro for close-ups
     - In playback mode: Show previous shot
     - Video playback: Switch fast rewind on or off
     - In the menu: Quit submenu or select setting

19. **FUNC/**: Function/trash can
   - In playback mode: Open setting options

20. **M**: Menu button: Open the menu

21. Eye for strap
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Safety instructions

About these instructions
Read the safety instructions carefully before use. Note the warnings on the appliance and in the operating instructions. Always keep the operating instructions close to hand. If you sell the equipment or give it away, make sure you also hand over these instructions and the guarantee card.

Proper use
The camera is intended for taking pictures in digital format. Do not operate the camera either in extreme heat or extreme cold. The camera is not suited to operation in extreme conditions.

Warning
To avoid injury please note the following warnings when using this product:

- Make sure you are not too close to people when using the flash. Otherwise you could damage people’s eyes.
- Keep a distance of at least one metre from children when working with the flash function.
- Do not open up or dismantle the device.
- Dismantling the device could lead to an electric shock. Tests on internal components, modifications and repairs should be carried out by specialists only. Please take the product to an authorised service centre for checks.
- Disconnect the battery charger from the mains when it is not in use.
- The socket must be close to the device and within easy reach.
- If you are not going to use the camera for some time, remove the batteries to prevent leakage.
• The camera and the mains adapter must not be exposed to water in drip or spray form. Do not place any objects filled with liquids (e.g., vases) on the camera.

Instructions for batteries
Your camera may be operated by the li-ion batteries supplied. Charge the battery only in the battery charger supplied. Please heed the following general instructions on handling batteries:

• Keep children away from the rechargeable batteries. Seek medical attention immediately if a battery is swallowed.

• CAUTION! Never try to recharge non-rechargeable batteries. Danger of explosion!

• CAUTION! There is a risk of explosion if batteries are incorrectly replaced. Replace the battery with the same or equivalent type only.

• Before inserting the batteries, check that the contacts in the device and on the batteries are clean, and clean them if necessary.

• You must insert only the battery supplied.

• Note the polarity (+/-) when inserting the battery.

• Store the battery in a cool, dry place. Direct intense heat can damage the battery. Do not expose the device to any sources of intense heat.

• Avoid contact with skin, eyes and mucous membranes. If these areas come into contact with battery acid, rinse them immediately with plenty of clean water and contact a doctor immediately.

• Do not throw the battery into a fire, short-circuit it or dismantle it.
• Never expose the battery to excessive heat, such as from sunshine, fire or similar.
• If the camera is not going to be used for some time, remove the battery.
• If the battery is leaking, remove it from the camera immediately. Clean the contacts before inserting a new battery. There is a risk of skin irritation from battery acid!
• Also remove a flat battery from the camera.

Precautionary measures
Please note the following precautionary measures to avoid damage to your camera and to keep it in good condition.

• Store in a dry place
  This camera is not watertight and will not function properly if it is immersed in water or if liquids penetrate to the inner workings.
• Keep away from damp, salt and dust
  Wipe off salt and dust with a light, damp cloth if you have been using the camera on the beach or at the seaside. Carefully dry the camera afterwards.
• Keep it away from strong magnetic fields
  Never place the camera too close to appliances which generate strong electromagnetic fields, such as electric motors. Strong electromagnetic fields may result in camera malfunctions or disturb the data recording.
• Avoid excessive heat
  Do not use or store the camera in sunlight or at high temperatures. This can cause the battery to leak or the case to become misshapen.
• Avoid high variations in temperature
  If you suddenly take the camera out of a cold environment into a warm one or vice versa, drops of water can form outside and
inside it, possibly resulting in malfunctions and damage to the camera. Wait until the camera temperature has adjusted to the ambient temperature before starting to use the camera. You can provide some protection against varying temperatures by using a bag or a plastic case.

- Do not drop the camera
  Jarring or vibrations resulting from a fall can cause malfunctions. Loop the strap round your wrist when you carry the camera.

- Do not remove battery when data are being processed
  When image data are being recorded to memory cards or deleted, switching off the power supply can result in data loss or damage the internal circuit or the memory.

- Treat lens and all moving parts carefully
  Do not touch the lens or the lens barrel. Take care when handling the memory card and the battery. These parts are not designed for high levels of stress.

- Batteries
  At low temperatures, there can be a sharp drop in battery capacity. If you take photographs at cold temperatures, keep a warm replacement battery in reserve.
  If the contacts on the battery are dirty, clean them with a dry, clean cloth or use an eraser to remove residues.

- Memory cards
  Switch the power supply off before you insert or remove the memory card. Otherwise the memory card may become unstable. Memory cards may become hot during use. Always remove the memory cards carefully from the camera.
At low temperatures the capacity of the battery can drop significantly due to the reduced speed of the chemical reactions. When recording in cold weather keep a second battery pack in reserve in a warm place (e.g. trouser pocket).

This symbol on your camera certifies that the device complies with EU guidelines on electromagnetic interference. CE stands for Conformité Européenne [European Conformity].

The device is intended for private use only and are not designed to be used in a heavy industrial business.
Start of operation

Contents of package
Please check your purchase to ensure all items are included and contact us within 14 days of purchase if any of the following components are missing:
The following items are supplied with the product:
• Camera
• 2 Li-ion batteries
• 2 GB SD memory card
• Battery charger with mains cable
• USB cable
• AV cable
• Carrying strap
• Carrying case
• Software on CD-ROM

Charging batteries in the battery charger
The battery charger supplied may only be used to charge the lithium-ion battery supplied with the camera.
• CAUTION! Never try to recharge non-rechargeable batteries. Danger of explosion!
• Use only the battery charger supplied to charge the battery.
• Avoid covering the battery charger with items such as newspapers, tablecloths, curtains, etc. to prevent heat build-up.
• Do not place naked flames, such as lit candles, on or near the unit.
1. Insert the battery in the tray [c], positioning the indented corner on the left. The battery contacts must be flush with the contacts on the charger.

2. Push the battery forwards against the spring contacts [a]. Ensure that the battery is positioned properly below the guide edge [b] in the tray.

3. Now press the battery down. The battery must be in contact with the base of the tray [c].

4. Attach the supplied power cable to the battery charger and connect it to a 230 V ~ 50 Hz power source. The orange LED indicator will light up.

5. The charging time is approx. 2 hours. The green LED indicator will light up when the battery is fully charged.

6. Unplug the power cable from the mains. The charger is set up to prevent overcharging. Nonetheless, unplug the charger from the mains to avoid unnecessary power consumption.

7. Insert the battery in the camera, as described below.

This battery charge indicator on the display shows you the charging status. Charge the battery as soon as it becomes flat.
Instructions on using the battery
The battery capacity is reduced in cold conditions (-10°C or below). Warm up the battery (e.g. in your pocket) before using it in cold conditions.

Inserting the battery
The li-ion battery supplied is required for operating the camera.
1. Switch the camera off.
2. Move the battery compartment catch in the direction shown by the arrow. The battery compartment opens.
3. Insert the battery in the compartment so that the battery contacts are touching the contacts in the compartment.
4. Close the compartment and move the catch back to its original position.
Inserting and removing SD cards

If no memory card is inserted, photos will be stored in the internal memory. Please note that the capacity of the internal memory is limited.

Use an SD memory card to increase the memory capacity. If a memory card is inserted, your photos will be stored on the card.

**Insert card**

1. Switch the camera off.
2. To open the battery compartment, push the compartment cover outwards.
3. Insert the card in the slot with the contacts facing down.
4. Close the compartment and move the catch back to its original position.

To remove the card, press it down briefly to release it. The card will then protrude slightly and may be removed.
Fitting the strap
For ease of handling and increased security attach the strap to the camera.

1. Feed the strap through the eye, as shown in the diagram.

2. Pull the other end of the carrying strap through the thin loop of the strap and pull tight.

If you carry the camera by the carrying strap ensure that the camera does not bang into anything.
While you are attaching the carrying strap place the camera on a stable surface so it cannot fall down and get broken.
First Steps

Switching on the camera
1. Press the ON/OFF button (1) for 1 to 2 seconds to turn the camera on.
   The lens comes out, the green light appears on the operating display and the display is switched on. The camera is in shooting mode.

   If the camera does not switch on, check whether the battery has been inserted properly and whether it is charged.

Switching off the camera
Hold the ON/OFF button down for a little longer to switch the camera off.

Energy-saving function
If the camera has not been used for 60 seconds, it will switch off automatically. You can also set the automatic switch-off period to three or five minutes; see page 2.

The energy-saving function is not enabled in the following circumstances:
- While recording audio and video clips;
- During playback of images, video clips or audio recordings;
- While the camera is connected to another device via the USB socket.
Setting the language, date and time
Before using the camera for the first time, select your preferred language from the menu and set the current date and time. Both settings are performed in the Settings menu:
1. With the camera switched on, press the M button to open the menus.
2. Use the left and right arrow keys to select the Settings menu.

Setting the language
1. Use the up and down arrow keys to select "LANGUAGE" (English Language) in the “Settings” menu and press SET. The language selection menu opens.
2. Select the preferred language using the up and down arrow keys and press SET.

Setting the date and time
1. Use the up and down arrow keys 5 6 to select "DATE/TIME" in the “Settings” menu and press SET. The Settings menu opens.
As well as the date and time, you can also set the date format. You have the following options:
- YY/MM/DD  (year/month/day);
- MM/DD/YY  (month/day/year);
- DD/MM/YY  (day/month/year)
2. Use the left and right arrow keys  to choose the entry which you would like to change.
3. Use the up and down arrow keys  to select the entry.
   Hold down the keys to fast forward through the digits
4. When the required entry has been selected, use the right arrow key ▶ to take you to the next entry, e.g. month, etc.

5. Finally, press SET to confirm the settings.

The camera can only display the date and time in playback mode. This information cannot be printed.

The time setting is saved by the internal battery. It is lost, however, if the battery is removed from the camera for more than 48 hours.

**Shooting and playback mode**

The shooting mode is enabled after the camera has been switched on therefore you may take photos directly. You can also take audio and video clips.

In playback mode, you can play, edit and delete photos, audio clips and video clips.

1. To set playback mode, press this button: ▶ The playback icon appears in the top left of the display. The last picture taken is displayed.

2. To go back to shooting mode, press this key again: ▶.
Displays

Displays for shooting

The following displays are possible in shooting mode:

1. You may set various types of recording (FUNC button); the current type of recording is displayed here.
2. Flash setting
3. Self-timer/burst
4. Zoom setting
5. Shots still available (at current resolution)
6. Battery status
7. Memory location (IN internal memory or card)
8. Date stamp
9. Image stabiliser switched on

22
10. Saturation display
11. Contrast display
12. Histogram for the selected ISO settings
13. Setting
14. Focus range
15. Warning: Risk of blurring!
16. Shutter speed display
17. Aperture setting
18. Exposure setting
19. Automatic exposure
20. Macro setting
21. Face recognition
22. Automatic white balance
23. Exposure correction
24. AF range (autofocus range (portrait, distance and centre)
25. Definition
26. Quality
27. Resolution
28. Autofocus light switched on
Displays for playback
The following displays are possible in playback mode:

1. Mode display (shooting or playback)
2. Image is protected
3. Sound recording
4. Current recording/total number of recordings
5. Battery status
6. Memory location ("IN" internal memory or card)
7. Recording information
8. Recording control
9. DPOF enabled
10. Resolution of image currently displayed
Displays for video playback
The following displays for video clips are possible in playback mode:

1. Mode display (shooting or playback)
2. Picture is protected
3. Recording videos
4. Current recording/total number of recordings
5. Battery status
6. Memory location (“IN” internal memory or card)
7. Recording information
8. Recording control
9. Playback time
10. Button display:
   Tells you which button has to be pressed to execute the
   required playback function.
11. Indicates the playback status (playback/pause/stop)
12. Volume setting
Displays for sound playback

The following displays for sound recordings are possible in playback mode:

1. Mode display (shooting or playback)
2. Picture is protected
3. Sound recording
4. Current recording/total number of recordings
5. Battery status
6. Memory location (“IN” internal memory or card)
7. Recording information (date and time)
8. Recording control
9. Playback time
10. Button display:
    Tells you which button has to be pressed to execute the
    required playback function.
11. Indicates the playback status (playback/pause/stop)
12. Volume setting
Switching the displays on and off

Press the SET button repeatedly to turn the displays on and off and change them.

In shooting mode

With the most important displays

With all the displays

With dividing lines to divide the image more easily

With no displays

The screen displays may vary with the shooting mode.
In playback mode

With the most important displays

With all the displays

With no displays

The displays cannot be changed in the following circumstances:

- While recording and playing back audio and video clips;
- During a slideshow or thumbnail display;
- While a photo is being cropped (in editing mode).
Taking your first shoots

Setting shooting mode
When the camera is switched on, it automatically switches into shooting mode. Auto appears in the top left of the display in basic status to indicate automatic shooting mode. You can find out more about shooting modes and the icons on page 60.

If playback mode is enabled instead of shooting mode, press this button [ recall] to select shooting mode.

Tips for good shots
• Move the camera slowly so that the photos do not become fuzzy. The camera should not move when pressing the shutter release. Do not move the camera directly after pressing the shutter release.
• View the subject on the display before you press the shutter release.
• Check the angle if the subject is lit from behind. Change your position to reduce the background lighting.
• In order to create good video clips, move the camera round slowly. If you pan too quickly, the video pictures will be fuzzy and blurred.
Taking photos

1. When you can see the image in the viewer, press the shutter release down slightly.
   The green image section markers turn red and the power light flashes if the autofocus cannot operate.
   The display features the shutter speed values, the aperture and the ISO value, providing that an ISO value is set.

2. Press the shutter release down fully to take the picture. A bleep indicates that the photo has been taken.
   The photos are saved as JPEG files.
   If there is a risk that the shot will be blurred, this icon also appears: 📸. In this case, you should hold the camera still or use a tripod.
   Use the Functions menu to vary the shooting settings (see page 41).

Using the image stabiliser
The stabiliser enables you to take better shots in poor lighting conditions. Select faster shutter speeds to avoid pictures that are blurred or too dark.

Press this button on the top of the camera: 📸. The function switches on and an icon appears in the display.
The function remains enabled until you switch off the stabiliser by pressing the button again.
This function is only available if the ISO setting is in automatic mode.
Using the flash

If the light is insufficient to taking a photo the integrated flash will provide the required extra light.

Press the flash button $\ddagger$ repeatedly to select the following flash settings:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\ddagger$</td>
<td>AUTO: The flash is automatically enabled if shooting conditions require additional lighting.</td>
</tr>
<tr>
<td>$\ddagger$</td>
<td>Flash is triggered before the actual flash; used to prevent “red-eye” effect. The camera detects the brightness and only flashes if necessary.</td>
</tr>
<tr>
<td>$\ddagger$</td>
<td>Permanent flash</td>
</tr>
<tr>
<td>$\ddagger$SL</td>
<td>“Slow Sync”: The flash is synchronised with slow shutter speed.</td>
</tr>
<tr>
<td>$\ddagger$</td>
<td>Permanent flash</td>
</tr>
</tbody>
</table>

The flash only works in single shot and self-timer mode. It cannot be used for bursts and video recordings.

Using the flash increases battery usage. If the battery is almost flat, the flash requires a longer time for charging.

Do not use the flash to take close-ups of people and animals. Maintain a distance of at least one metre from the subject.

Zoom function – enlarging or reducing

The camera has an optical and a digital zoom. Use the lens to set the optical zoom and use the Settings menu to enable the digital zoom.

Press the $W$ – $T$ button. The bar appears which indicates the zoom setting: $W$ $T$.

$W$ The image is zoomed out (wide angle); you can capture a larger section.
The image is zoomed in (“telephoto”); you can capture a smaller section.

| T: | If the left side of the bar is filled in, the optical zoom is in use. |
| T: | If you press T again, the digital zoom will switch off automatically. You can continue to zoom in four stages. |
| T: | To do this, the digital zoom must be switched on in the Settings menu! |

The digital zoom is not available for video recordings.

With the digital zoom, the image section is enlarged by interpolation; the image quality may suffer somewhat as a result.

**Setting the focus mode**

You can use this function to define the focus type when taking a photo or recording a video.

- Press the macro button repeatedly until the icon for the required focus mode is displayed in the bottom left LCD.

Your camera has four different focus modes, as follows:

- **Normal**
  With normal focus, the focus range starts at 40 cm. If the camera is set to normal mode, no icon is displayed.

- **Macro**
  This mode is ideal for close-ups. In this mode, you can capture details by means of a fixed focus and sharpen the image even at a short distance.

- **PF Multifocus**
  If the multifocus is enabled, the camera sharpens every subject.
INF Infinity
When the Infinity setting is enabled, the camera can focus on subjects which are very far away.

Recording video clips
1. Under the shooting mode setting in the Recording menu, select the Video menu item.
2. Press the shutter release to start recording. The recording bar appears in the display.
3. You can change the image section by zooming in and out using the T–W button.
4. Press the up arrow key ▲ if you wish to stop the recording.
5. Press the shutter release again to stop recording.

Note:
The digital zoom is not available for recording video clips.
While the zoom button is held down, no sound is recorded.
During the video recording, the microphone is simultaneously enabled and the sound is also recorded.
The video recordings are saved with the sound as an AVI file.

Recording audio clips
The microphone is on the front left of the camera underneath the lens. Take care not to touch the microphone during the recording.

1. Under the shooting mode setting in the Recording menu, select the speech recording menu item.
2. Press the shutter release to start recording. The recording bar appears in the display.
3. Press the shutter release again to stop recording.

**Note:**
The speech recordings are saved as WAV files.
Using the Functions menu

The Functions menu allows you to perform the essential settings for recording.

In the menu bar on the left, the functions available for setting the camera are displayed. The lower bar displays the possible settings for the particular function.

- Press the **FUNC/** button to open the menu. The Functions menu appears on the display.
- Use the up and down arrow keys (↑, ↓) to select the function you would like to change.
- Use the or button (← or →) to select the required setting, such as resolution 12M.
- Press the **SET** key to save this setting.
My Mode

The last six shooting modes used are listed here.

Each shooting mode has other setting options. If you change the shooting mode using the or ( or ) button, the setting options change accordingly.

Resolution - photos

The resolution basically determines the image quality. The higher the resolution, the more memory a shot requires. The highest resolutions are generally recommended for large prints (larger than A4).

<table>
<thead>
<tr>
<th>Setting</th>
<th>Size in pixels</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 M</td>
<td>4000 x 3000</td>
</tr>
<tr>
<td>3:2</td>
<td>4000 x 2672</td>
</tr>
<tr>
<td>8 M</td>
<td>3264 x 2448</td>
</tr>
<tr>
<td>5 M</td>
<td>2592 x 1944</td>
</tr>
<tr>
<td>3 M</td>
<td>2048 x 1536</td>
</tr>
<tr>
<td>16:9 HD</td>
<td>1920 x 1080</td>
</tr>
<tr>
<td>VGA*</td>
<td>640 x 480</td>
</tr>
</tbody>
</table>

The VGA setting is recommended for sending images by email for example.
Quality
The quality determines the compression required for the recorded data. The higher the quality, the more memory space the images require.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superfine</td>
<td>Highest quality.</td>
</tr>
<tr>
<td>Fine</td>
<td>Medium quality.</td>
</tr>
<tr>
<td>Normal</td>
<td>Normal quality.</td>
</tr>
</tbody>
</table>

Exposure correction (EV)
By correcting the exposure values (EV, exposure value) you can adjust pictures that are too dark or too light.

You can set the value in nine stages between +2.0 EV and -2.0 EV.
The following bar chart appears on the display:

Use a positive value when light conditions are poor and a negative value in strong light.

Do not use the exposure correction when the subject is in a very bright or very dark area or if you are using the flash. In that case, use the automatic setting.
**White balance**
The white balance can correct certain light conditions.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWB</td>
<td>Auto White balance is automatically adapted.</td>
</tr>
<tr>
<td>Sun</td>
<td>Daylight Suitable for shots in bright daylight.</td>
</tr>
<tr>
<td>Cloudy</td>
<td>Suitable for shots under cloudy skies, at dusk or in the shade.</td>
</tr>
<tr>
<td>Tungsten</td>
<td>For shots taken in electric light.</td>
</tr>
<tr>
<td>Fluorescent_1</td>
<td>Suitable for shots in fluorescent light. Corrects the green cast from fluorescent lamp light and can save the flash in this case.</td>
</tr>
<tr>
<td>Fluorescent_2</td>
<td>For more precise adjustment or if the light source cannot be categorised.</td>
</tr>
<tr>
<td>Custom</td>
<td>For more precise adjustment or if the light source cannot be categorised.</td>
</tr>
</tbody>
</table>

In order to find the correct setting, point the camera at a sheet of white paper or a similar item under the lighting conditions for which you wish to set a white balance, and take a trial shot.
**ISO (light sensitivity)**

This setting changes the light sensitivity according to the brightness of the subject. A higher value reduces the image sharpness. A lower value results in clearer images in good lighting conditions.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic</td>
<td>Automatic ISO value.</td>
</tr>
<tr>
<td>ISO 50</td>
<td>Sets the sensitivity to ISO 50.</td>
</tr>
<tr>
<td>ISO 100</td>
<td>Sets the sensitivity to ISO 100.</td>
</tr>
<tr>
<td>ISO 200</td>
<td>Sets the sensitivity to ISO 200.</td>
</tr>
<tr>
<td>ISO 400</td>
<td>Sets the sensitivity to ISO 400.</td>
</tr>
<tr>
<td>ISO 800</td>
<td>Sets the sensitivity to ISO 800.</td>
</tr>
<tr>
<td>ISO 1600</td>
<td>Sets the sensitivity to ISO 1600.</td>
</tr>
<tr>
<td>ISO 3200</td>
<td>Sets the sensitivity to ISO 3200 (3M resolution only)</td>
</tr>
</tbody>
</table>
**Measurement—light measurement procedure**

This function allows you to determine the range for measuring light for the photos or video recordings.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MULTI PLE</td>
<td>Selects an exposure on the basis of the measurements in several places within the shooting range.</td>
</tr>
<tr>
<td>CENTER</td>
<td>The light for the entire shooting range is measured but there is higher weighting for the values near the center.</td>
</tr>
<tr>
<td>SPOT</td>
<td>Selects an exposure on the basis of one single measurement in the centre of the image.</td>
</tr>
</tbody>
</table>

**Colour-effect**

You can use the photo effects in the shooting and playback modes in order to lend various tones or aesthetic effects to images.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>No photo effect set.</td>
</tr>
<tr>
<td>Vivid</td>
<td>The image is produced with higher contrast and higher saturation to emphasise the bright colours.</td>
</tr>
<tr>
<td>Sepia</td>
<td>The image is produced in nostalgic brown tones.</td>
</tr>
<tr>
<td>Black/white</td>
<td>The image is produced in black and white.</td>
</tr>
<tr>
<td>Vivid Red</td>
<td>The image takes on a red tone.</td>
</tr>
<tr>
<td>Vivid Green</td>
<td>The image takes on a green tone.</td>
</tr>
<tr>
<td>Vivid Blue</td>
<td>The image takes on a blue tone.</td>
</tr>
</tbody>
</table>
**Video size (resolution - videos)**

The video size setting is only available for recording video clips.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Resolution</th>
<th>Picture quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>🎥 640</td>
<td>848 x 480</td>
<td>HDTV</td>
</tr>
<tr>
<td>🎥 640</td>
<td>640 x 480</td>
<td>High quality</td>
</tr>
<tr>
<td>🎥 320</td>
<td>320 x 240</td>
<td>Normal</td>
</tr>
<tr>
<td>🎥 640</td>
<td>640 x 480</td>
<td>Web quality Quality for internet display</td>
</tr>
</tbody>
</table>

- In the 🎥 setting, the video clip recording is optimised for internet display.

Since the file size is restricted on the internet, the camera switches off automatically when the file reaches 100 MB.

The files are saved in the “101UTUBE” directory in DCF standard).

**Using the recording menu**

You can also select the settings for the recordings via the Recording menu.

You can find more detailed information on navigating through the menus and on the various settings of the section entitled “Recording menu”.

---

43
Watching and listening to recordings

Individual playback of recordings
You can play back your most recent recordings in sequence in display mode.
1. Press the button to enable this playback mode.
The most recent recording appears on the display and the following display modes are possible, depending on the type:

2. Press the or button ( or ) in order to see the previous recording or the next one.
Playing back images as thumbnails

1. In playback mode, press the W zoom button for a thumbnail display of up to nine small preview images.

2. You may select any desired file, using the ▲ ▼ ◀ or ▶.

3. Press the SET button in order to display the image in full size.

4. You can also use the T zoom button to return to full size view. Some thumbnails contain icons which specify the file type.

<table>
<thead>
<tr>
<th>Icon</th>
<th>File type</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice message</td>
<td>Displays a video clip. The start-up picture is shown on the display</td>
<td></td>
</tr>
<tr>
<td>Protected file</td>
<td>The file is protected. It cannot be deleted or edited.</td>
<td></td>
</tr>
<tr>
<td>Voice recording</td>
<td>Indicates a voice recording.</td>
<td></td>
</tr>
<tr>
<td>Defective file</td>
<td>Indicates a defective file.</td>
<td></td>
</tr>
</tbody>
</table>
Zooming within photos

With photographic shots you can look at individual image sections.

1. Press the T button repeatedly in full size view to enlarge the image section up to 12 times.
2. The four arrows at the edges indicate that the image section is enlarged.
3. Use the ≥ ≤ ▲ ▼ to change the image section within the image.
4. Press the SET button to return to the full size image.
Playing back video/audio clips and voice messages

1. Select the required recording.
2. Press the , to start playback.
3. When playing back video clips, press the  or  button (← or →), to fast forward or rewind.
4. Press the T button to increase the volume.
5. Press the W button to reduce the volume.
6. If you wish to pause playback, press the up arrow key ▲.
7. Press the button  again to continue the playback.
8. If you wish to end playback, press the .

Making a screenshot of a video clip

While replaying a video clip, press the up arrow button S to pause the replay.

Press the shutter release to save the image as a screenshot. The shutter release symbol is displayed on the screen ☑.

The camera terminates the playback automatically and switches to display mode.

This function is only available if there is sufficient memory. Otherwise the shutter release function does not appear.
Deleting photos

You may delete shots in playback mode or via the playback menu (see page 35).

1. Select the shot in playback mode and press the `FUNC/EXIT` button.
2. The “DELETE” query appears on the screen. Select YES using the navigation buttons.
3. Press SET to confirm the query. To cancel the function, select “CANCEL” and confirm again by pressing SET.
4. The next shot is shown on the display.

Protected data cannot be deleted. In this case, the “File protected” message appears on the display.
The Menus

Navigating in the menus

- If you would like to open the playback menu, press this button: 
- Press the M button to open the menus.
- Use the or button ( or ) to select the required menu, recording/playback or setting.
- Use the up and down arrow keys to select the setting you would like to change.
- Press SET and the relevant submenu will open.
- Use the up and down arrow keys to select the required option and confirm by pressing SET.
- Press M to return to the previous level every time.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD MODE</td>
<td>Here you can select 20 different recording modes.</td>
</tr>
<tr>
<td>DRIVE MODE</td>
<td>Here you can adjust the automatic release or select the burst. 10 SEC - The image is recorded 10 seconds after pressing the shutter release 2 SEC - The image is recorded 2 seconds after pressing the shutter release 2 SHOTS - Two shots are taken. The first and second shots are taken 10 seconds and 12 seconds respectively after the shutter release has been pressed BURST - With this setting three photos are taken one after the other after shutter release: one correctly exposed, one underexposed and one overexposed OFF - Recording without automatic shutter release or burst</td>
</tr>
<tr>
<td>AEB</td>
<td>Here you can switch the automatic exposure function on or off.</td>
</tr>
<tr>
<td>AF AREA</td>
<td>Here you can select the autofocus range (AF). FACE TRACKING - The camera automatically detects the position of a face and puts it in focus WIDE - A wide area is put in focus CENTRE - The centre is put in focus</td>
</tr>
<tr>
<td>Setting</td>
<td>Explanation</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| **AF LAMP** | The autofocus light is located on the front of the camera. If the shutter release is pressed halfway it emits a red light making it easier to focus.  
AUTOM. - Helps the camera to focus in the dark.  
OFF - Switched off |
| **SHARPNESS** | Here you can make the details of an image appear sharper or softer.  
HIGH - Sharpens the image  
NORMAL - Normal image sharpness  
LOW - Softens the image |
| **SATURATION** | Here you can select the colour saturation.  
Select the high saturation level for strong colours and the low level for more natural tones.  
HIGH - Strong colours  
NORMAL  
LOW - Natural colour tones |
| **CONTRAST** | Here you can select the contrast.  
HIGH - Increases the contrast  
NORMAL - Normal contrast  
LOW - Reduces the contrast |
<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGITAL ZOOM</td>
<td>Here you can select the digital zoom for some operating modes.</td>
</tr>
<tr>
<td></td>
<td>INTELLIG. ZOOM - Enlarges the image digitally and optimises it</td>
</tr>
<tr>
<td></td>
<td>STANDARD ZOOM - Enlarges all sizes up to 12 times but produces poorer image quality</td>
</tr>
<tr>
<td></td>
<td>OFF - Use the optical zoom only</td>
</tr>
<tr>
<td>DATE STAMP</td>
<td>Here you can choose the date and time stamp for the pictures.</td>
</tr>
<tr>
<td></td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td>DATE &amp; TIME</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
</tr>
<tr>
<td>AUTO-REVIEW</td>
<td>After the shot, the photo is displayed for a few seconds. You may switch this function on or off</td>
</tr>
<tr>
<td>ACTIVE Z-LIGHTING</td>
<td>AUTOM.: The exposure is automatically adapted to the shooting conditions. This function is only available for photos Exposure correction</td>
</tr>
</tbody>
</table>
Shooting mode

For certain shooting situations or subjects, you can use the preset shooting modes. This eliminates the necessity for manual setting.

After you have made your selection, the selected mode (with the exception of voice recording mode) is added in the top position on “My Mode” in the Functions menu.

The following shooting modes are available:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>Auto</td>
<td>For inexperienced photographers. All the settings are automatically selected by the camera.</td>
</tr>
<tr>
<td>P</td>
<td>Program</td>
<td>The camera automatically selects the right shooting settings for exposure time and shutter f-stop value.</td>
</tr>
<tr>
<td>Av</td>
<td>Aperture Priority</td>
<td>The camera automatically adjusts the shutter f-stop value to the brightness.</td>
</tr>
<tr>
<td>Tv</td>
<td>Shutter Priority</td>
<td>The camera sets the shutter exposure automatically.</td>
</tr>
<tr>
<td>M</td>
<td>Manual Exposure</td>
<td>You can adjust the shutter f-stop value and the shutter time manually.</td>
</tr>
</tbody>
</table>

For the following special types of shot, certain settings cannot be changed (e.g. flash and macro) as they are preset for the type of shot.
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>📸</td>
<td>Intelligent Scene</td>
<td>The camera analyses the shot conditions and automatically switches to the right scene mode.</td>
</tr>
<tr>
<td>👨‍打压</td>
<td>Portrait</td>
<td>Reduces background focus and focuses on the centre.</td>
</tr>
<tr>
<td>🏞️</td>
<td>Landscape</td>
<td>Suitable for wide landscape views.</td>
</tr>
<tr>
<td>🌅</td>
<td>Sunset</td>
<td>Emphasises the colour red when taking sunsets.</td>
</tr>
<tr>
<td>☀️</td>
<td>Backlight</td>
<td>Adjusts the “Measurement” setting to the backlight.</td>
</tr>
<tr>
<td>🤪</td>
<td>Smile capture</td>
<td>Utilises the face recognition function to take a sequence of six images and thus capture a smile.</td>
</tr>
<tr>
<td>👶🏻</td>
<td>Kids</td>
<td>Suitable for capturing people in motion.</td>
</tr>
<tr>
<td>🌃</td>
<td>Night scene</td>
<td>Achieves the effect of night in the background.</td>
</tr>
<tr>
<td>🎆</td>
<td>Firework</td>
<td>Reduces the shutter speed for capturing fireworks.</td>
</tr>
<tr>
<td>🌨️</td>
<td>Snow</td>
<td>Suitable for beach and snow shots.</td>
</tr>
<tr>
<td>🏃‍♂️</td>
<td>Sport</td>
<td>Suitable for creating images with fast movements.</td>
</tr>
<tr>
<td>Symbol</td>
<td>Setting</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>🎉</td>
<td>Party</td>
<td>Suitable for indoor shots and parties.</td>
</tr>
<tr>
<td>🛋️</td>
<td>Candlelight</td>
<td>Creates shots in warm light</td>
</tr>
<tr>
<td>🕯️</td>
<td>Night Portrait</td>
<td>Suitable for portrait shots with a dark background.</td>
</tr>
<tr>
<td>🧡</td>
<td>Soft Skin</td>
<td>Creates images with soft transition areas and delicate colours.</td>
</tr>
<tr>
<td>🌟</td>
<td>Soft Flowing Water</td>
<td>Creates a delicate effect with fast movements.</td>
</tr>
<tr>
<td>🍽️</td>
<td>Food</td>
<td>Increases the colour saturation.</td>
</tr>
<tr>
<td>🏙️</td>
<td>Building</td>
<td>Emphasises the border (outline) of the subject more.</td>
</tr>
<tr>
<td>🔊</td>
<td>Text</td>
<td>Emphasises the black &amp; white contrast</td>
</tr>
<tr>
<td>🔔</td>
<td>Auction</td>
<td>Optimises the images for internet playback (auctions), e.g. VGA resolution. The images are automatically saved to the “_AUCT” directory (see page 55).</td>
</tr>
<tr>
<td>🕳️</td>
<td>Blink Detection</td>
<td>The camera detects whether the subject’s eyes were closed and asks if you wish to save the picture.</td>
</tr>
<tr>
<td>Symbol</td>
<td>Setting</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
<td>----------------------</td>
</tr>
<tr>
<td>🎥</td>
<td>Movie</td>
<td>Recording a video clip.</td>
</tr>
<tr>
<td>🎤 Voice Rec</td>
<td>Recording an audio clip.</td>
<td></td>
</tr>
</tbody>
</table>
Using the "Smile capture" mode

The “Smile capture” mode automatically takes photos as soon as it detects a smile. When you press the shutter release, the camera takes photos continuously as soon as it detects a smile. This function is particularly helpful when shooting from different angles and when trying to capture a smile on moving subjects.

How to enable the “Smile capture” mode

1. Select this function: 😊 in shooting mode.
2. Focus the camera on the subject.
3. Then press the shutter release to start the detection process.
   The 😊 icon then flashes, the camera operates and takes the first picture.

   Symbol: 😊 As soon as the camera detects a smile an icon is shown on the screen.

   The camera continues to take pictures as long as a smile is detected.
4. You can interrupt the shots by pressing the shutter release again. The 😊 icon then stops flashing.

   When several faces are being photographed, the face detection function initially requires more time to detect the faces.
### The settings menu

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOUNDS</strong></td>
<td>Here you can switch the start tone off or choose from three tones, switch on the beep and the shutter-released tone, and you can also set the volume for all the tones.</td>
</tr>
</tbody>
</table>
| **POWER SAVE** | Save power  
To save the battery charge, the camera switches off automatically after the selected period. Select  
**1 min, 3 min or 5 min.**  
The energy-saving function is not enabled in the following circumstances:  
- While recording audio and video clips;  
- During playback of images, video clips or audio recordings;  
- While the camera is connected to another device via the USB socket. |
<p>| <strong>DATE &amp; TIME</strong> | Here you can select the date, time and display format. |
| <strong>LANGUAGE</strong>   | Here you can select the language for the menu. |</p>
<table>
<thead>
<tr>
<th><strong>Setting</strong></th>
<th><strong>Explanation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>FILE NUMBERING</td>
<td>File numbering  &lt;br&gt;Here you can set the numbering for the files.  &lt;br&gt;SERIES: The files are numbered from 0001.  &lt;br&gt;RESET: Resets the numbering to 0001.  &lt;br&gt;This function is advisable, for example, after the memory card has been changed.</td>
</tr>
<tr>
<td>TV OUT</td>
<td>Using the TV cable supplied, you can transfer the images to your television set.  &lt;br&gt;Choose the image format for your area.  &lt;br&gt;NTSC: For America, Japan, Taiwan, etc.  &lt;br&gt;PAL: For Europe, Australia, etc.</td>
</tr>
<tr>
<td>LCD BRIGHTNESS</td>
<td>Here you can set the display brightness.  &lt;br&gt;BRIGHT: Display is brightened  &lt;br&gt;NORMAL: Standard brightness</td>
</tr>
<tr>
<td>LCD SAVE</td>
<td>When you set this function to ON, the display is darkened after a short period out of use.</td>
</tr>
<tr>
<td>Setting</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MEMORY KIT</td>
<td>Here you can organise the data in the internal memory. Formatting: Formats the current memory, i.e. memory card or internal memory. This deletes all the shots. Copying onto Card: Copies shots from the internal memory onto an inserted memory card. Select yes with the up and down arrow keys 56 and press SET if you would like to execute the selected function.</td>
</tr>
</tbody>
</table>
| RESET ALL    | Here you can reset all the individual settings to the factory settings. In this case, answer the query with Yes. The following settings are not reset:  
- Date & Time  
- Language  
- TV system |
## The playback menu

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLIDESHOW</td>
<td>You can run the shots (photos only) as a slideshow.</td>
</tr>
<tr>
<td>DELETE</td>
<td>This function can be used to delete files no longer required on the internal memory or the memory card.</td>
</tr>
<tr>
<td></td>
<td>The following options are available:</td>
</tr>
<tr>
<td></td>
<td>SINGLE: Delete one shot</td>
</tr>
<tr>
<td></td>
<td>MULTI: Delete multiple shots selected in the thumbnail view.</td>
</tr>
<tr>
<td></td>
<td>ALL: Delete all the shots</td>
</tr>
<tr>
<td>PROTECT</td>
<td>This function can be used to protect shots from accidental deletion.</td>
</tr>
<tr>
<td></td>
<td>The following options are available:</td>
</tr>
<tr>
<td></td>
<td>SINGLE: Protect one shot</td>
</tr>
<tr>
<td></td>
<td>MULTI: Protect multiple shots selected in the thumbnail view.</td>
</tr>
<tr>
<td></td>
<td>LOCK ALL: Protect all the shots</td>
</tr>
<tr>
<td></td>
<td>UNLOCK ALL: Remove protection for all the shots.</td>
</tr>
<tr>
<td>RED-EYE CORRECTION</td>
<td>Here you can correct shots which were not taken using the pre-flash function.</td>
</tr>
<tr>
<td></td>
<td>You can either save the corrected file under a new name or you can overwrite the original file.</td>
</tr>
</tbody>
</table>
### Setting | Explanation
--- | ---
**VOICE MEMO** | You can save a voice message for each photo taken. The maximum length of voice message is 30 seconds. The time remaining is shown on the display. If there is already a voice message for the selected photo, it is overwritten.

**PHOTO EDIT** | In completed shots you can also create colour or aesthetic effects at a later stage.

**Z-LIGHTING** | Exposure correction
If shots were taken in poor lighting conditions, you can adapt the photos manually here (see page 60). The edited image is saved as a new file.

**ROTATE** | With this function you can rotate photos. The rotated photo will be saved with a new name.

**TRIM** | This function can be used to choose an image section and crop the image to this size. The border not visible on the display is deleted (see page 61). You can either save the corrected file under a new name or you can overwrite the original file.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESIZE</td>
<td>You can reduce the resolution of photos and thus reduce the file size. You can either save the corrected file under a new name or you can overwrite the original file. The resolution of photos in VGA cannot be changed.</td>
</tr>
<tr>
<td>STARTUP IMAGE</td>
<td>You can select a start screen that appears on the screen after the camera has been switched on. You can choose between the following: SYSTEM: The standard system screen is displayed. MY PHOTO: The selected photo is displayed. OFF: No photo is displayed.</td>
</tr>
<tr>
<td></td>
<td>• Use the up and down arrow keys 56 to select MY PHOTO. • Use the left and right arrow keys 34 to make your selection.</td>
</tr>
</tbody>
</table>
**Setting** | **Explanation**
---|---
DPOF | DPOF stands for “Digital Print Order Format”.
Here you can specify print settings if you wish to have pictures published by a photo studio or a DPOF-compatible printer. With a DPOF-compatible printer you can print the pictures directly without transferring them to the computer beforehand.
You can print all the photos or just one, or reset the DPOF settings.
- Use the up and down arrow keys ▲ ▼ to set the number of prints for each photo.
- Use the FUNC/ button to switch the date stamp on or off.
With the DPOF function you can specify up to 99 copies. If you select 0 copies, the DPOF setting is automatically disabled for this image.

P1 CT- BRI DGE | If you wish to publish photos directly on a printer, you must switch on this function.
Show slideshow
You can run the photos and video clips (Start screen) as a slideshow.

1. Select Slideshow in the Playback menu. The “Slideshow” menu opens.

The following settings are available:

- Choose the interval in which the pictures are to be displayed (1 to 10 seconds).
- Choose the effect with which the shots are to be displayed: HORIZONTAL, SHRINK, FADE, VERTICAL, RANDOM.
- Choose whether the burst should be constantly repeated (“YES”) or whether it should end after the last image (“NO”).

2. When all the settings are made, select START and press SET to start the slideshow.

3. During playback you can pause and resume the show by pressing SET.

Protecting / unblocking or deleting an individual file

1. Select SINGLE in the submenu to have the images shown individually on the display.

2. Use the left and right arrows to select an image.

3. Choose Protect / Unblock or Delete as soon as the required file is shown on the screen.

4. Press SET to protect / unblock or delete the file and return to Playback mode.

Protecting / unlocking or deleting several files

1. Select MULTI in the submenu to have the images shown as thumbnails on the display.

2. Use the left and right arrows to select an image.
3. Press SET as soon as the required file appears. This highlights the file or removes the highlighting.

4. Repeat Step 3 until all the pictures which you would like to protect or delete are highlighted.

5. Press the M button. A confirmation prompt appears.

6. Choose YES and press SET to protect or delete the files. The camera returns to Playback mode.

**Protecting/unlocking or deleting all files**

1. In the submenu select LOCK ALL/UNLOCK ALL? or DELETE ALL. A confirmation prompt appears.

2. Choose YES. Press SET to protect / unblock or delete all the files.

**Correcting red-eye effect**

This function is used for reducing red-eye effect on photos. This function is only available for photos. The red-eye effect can be used several times with one picture, but the picture quality can also gradually deteriorate as a result.

How to enable RED-EYE CORRECTION:

1. Select the image in Playback mode.

2. Open the RED-EYE CORRECTION submenu in the Playback menu. The image preview and the input menu appear on the display.

3. Choose the entry and press the button to start the correction process.

4. A menu selection appears after termination of the function. OVERWRITE: The new file is saved by overwriting the old one. CANCEL: The function is cancelled.

5. Press SET to save / cancel the changes.
Recording voice messages
1. Select the required photo in Playback mode. If the photo already contains a voice message, the voice message icon will appear.

2. Open the VOICE MEMO submenu in the Playback menu. The image preview and a selection menu will appear on the display.

3. Choose START and press SET to start recording. The microphone is located underneath the lens.

4. The recording is cancelled automatically after 30 seconds. If you wish to terminate the recording before then, press the SET button again.

You can only add voice messages to photos, not to video clips. You cannot add voice messages to protected images. You can only delete a voice message along with the photo, not separately.
**Editing photos**
The following fields are available:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>No photo effects are added.</td>
</tr>
<tr>
<td></td>
<td>Sepia</td>
<td>The image is produced in nostalgic brown tones.</td>
</tr>
<tr>
<td></td>
<td>Black/white</td>
<td>The image is produced in black &amp; white.</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>The image is produced as a negative.</td>
</tr>
<tr>
<td></td>
<td>Mosaic</td>
<td>The image is produced as a mosaic.</td>
</tr>
<tr>
<td></td>
<td>Vivid Red</td>
<td>The image takes on a red tone.</td>
</tr>
<tr>
<td></td>
<td>Vivid Green</td>
<td>The image takes on a green tone.</td>
</tr>
<tr>
<td></td>
<td>Vivid Blue</td>
<td>The image takes on a blue tone.</td>
</tr>
</tbody>
</table>

1. Select the required photo in Playback mode.
2. In the Playback menu, open the PHOTO EDIT submenu and the menu will open.
3. Use the $\text{ or } \#$ button to select the required effect. The selected effect is applied to the image preview and displayed accordingly.

4. Press SET to save the new file.

**Applying Z-Wave Lighting (exposure correction)**

1. Select the image in Playback mode.
2. Open the Z-LIGHTING submenu in the Playback menu. The image preview and the input menu appear on the display.
3. Use the $\text{ or } \#$ key to reduce or increase the value. The exposure correction is applied to the image preview and displayed accordingly.
4. Press SET to save the new file.

**Rotating photos**

1. Select the required photo in Playback mode.
2. Open the ROTATE submenu in the Playback menu. The image preview and the selection menu appear on the display.
3. Choose Yes and press the SET button. The image is rotated clockwise through 90°. Every time you press the SET button, the image rotates clockwise through 90°.
4. To terminate the function, choose END and press the SET button.

Protected images cannot be rotated.
Cropping photos

1. Choose the required photo in Playback mode.
2. Open the TRIM submenu in the Playback menu. The editing window appears on the display.

3. Press the T zoom button in order to enlarge the image. You can detect the position of the image section in the grey rectangle on the left.
4. During the enlargement process you can use the direction buttons to change the image section.
5. Use T to further enlarge the image or W to reduce it again.
6. A menu selection appears after termination of the function. Choose between:
   - OVERWRITE: The new file is saved by overwriting the old one.
   - SAVE UNDER: The new file is saved under another name without replacing the old file.
   - CANCEL: The function is cancelled.
7. Press the SET button to save / cancel the changes.
Changing the size

1. Choose the required photo in Playback mode.
2. Open the RESIZE submenu in the Playback menu. The Selection menu appears on the display.
3. Choose one of the following resolutions and press the SET button:
   - 8 M
   - 5 M
   - 3 M
   - VGA
   The available resolutions may vary according to the original size of the image. Settings which are not available are greyed out.
4. A menu selection appears after termination of the function. Choose between:
   - OVERWRITE: The new file is saved by overwriting the old one.
   - SAVE UNDER: The new file is saved under another name without replacing the old file.
   - CANCEL: The function is cancelled.
5. Press the SET button to save / cancel the changes.
Connection to TV and PC

Displaying shots on a television set
You can play back the camera shots on a television set.

1. Switch off the camera and television set.
2. Connect the TV cable supplied to the USB socket on the camera and the yellow video socket and white audio socket on the television set.
3. Switch the camera and television set on.
4. Switch the camera to Playback mode (▶) and begin playback as required.
5. If the television set does not detect the camera image by itself, switch on the video input on the television set (usually by means of the AV button).
6. You may have to choose between PAL and NTSC in the camera menu settings, TV output menu selection.
Printing shots on a printer

Using PictBridge, you can print your shots directly on a PictBridge-compatible photo printer.

1. Switch the camera and the photo printer on.
2. Press the [Playback] button and switch to Playback mode.
3. Press M to open the Playback menu.
4. Use the up and down arrow keys ▲▼ to select the PICTBRIDGE option.
   You have the following options:
   - SINGLE - Prints one shot
   - ALL - Prints all the shots
   - PRINT INDEX - Prints the thumbnails of the pictures taken.
5. Connect the camera to your photo printer using the USB cable.
Transferring data to a computer

You can copy the shots to a computer.
Supported operating systems:
- Windows XP
- Windows Vista

Using a USB cable

1. Switch the camera off.
2. With the computer switched on, connect the USB cable supplied to the USB socket on the camera and a USB socket on the PC.
3. Switch the camera on.
   “Connect” appears in the camera’s display.
   The camera is detected by the computer as a mass storage device (removable storage medium).

In Windows XP and Windows Vista you can immediately access the content of the camera memory.
In other Windows versions, open Windows Explorer or double-click on the “Desktop” (in Vista: on “Computer”).

4. Double-click on the media icon for the camera.
5. Navigate to the “DCIM” directory and, where applicable, to the relevant subdirectories in order to display the files (*.jpg = photos; *.avi = sound recordings; *.wav = video recordings).
   See also the directory structure in the memory.
6. Press down the left mouse button and drag the relevant files to the directory provided on the computer, e.g. in the folder "My Files". You can also highlight the files and use the Windows commands "Copy" and "Paste".

The files are transferred to the computer and stored there. You can display and process the files with a suitable application software.

DCF memory standard
The recordings on your camera are managed (saved, named, etc.) as specified by the DCF standard (DCF = Design Rule for Camera File System). Shots on memory cards for other DCF cameras can be played back on your camera.

Card drive
If your PC has a card drive or is connected to a card reader and you have saved the shots on the memory card, you can copy the shots onto the PC.
The card reader is also detected as a removable data medium on the Windows desktop (or in "Computer" if using Vista.)
Directory structure in the memory

The camera saves the pictures, videos and audio files in three different directories in the internal memory or on the memory card. The following directories are created automatically:

**DICAM**: All the pictures, videos and audio files are saved to this folder, with the exception of files which are recorded in auction or internet quality mode.

**_AUC**: Pictures taken in auction mode are saved to this folder.

**_UTUBE**: Pictures taken in internet quality mode are saved to this folder.

Normal shots are located in the “100DICAM” folder and automatically named with “DSCI” and a four-digit number.

When the highest number has been reached - “DSCI9999” - the next folder “101DICAM” is created for the remaining shots.

A maximum of 999 folders can be created. If another recording is made, an error message will appear (“Directory cannot be created”). In this case, proceed as follows:

1. Insert a new memory card.
2. Reset the file numbers in the “Settings” menu, “File reset” menu item. The file count begins at 0001 again in the DSCI1000 folder.

Do not try to change the folders and files in the camera’s own directory structure (renaming, etc.). You might destroy the files by doing so.
Installing the software

On the CD supplied, you will find “Media Impression”, a program for editing your pictures.

1. Insert the CD in the CD-ROM drive of your computer.
2. Usually, the CD is automatically recognised and displayed. If not, select the CD drive in Windows Explorer > My Computer and double-click on the drive name to start the CD.
3. On the start page, you will see the contents of the CD.
4. To install the software, highlight the latter and click INSTALL.
5. Follow the other on-screen instructions.
### Storage capacity

<table>
<thead>
<tr>
<th>Resolution</th>
<th>64 MB</th>
<th>128 MB</th>
<th>256 MB</th>
<th>512 MB</th>
<th>1 GB</th>
<th>2 GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 M</td>
<td>16</td>
<td>33</td>
<td>66</td>
<td>133</td>
<td>260</td>
<td>520</td>
</tr>
<tr>
<td>3:2</td>
<td>21</td>
<td>43</td>
<td>86</td>
<td>173</td>
<td>338</td>
<td>677</td>
</tr>
<tr>
<td>8 M</td>
<td>25</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>390</td>
<td>781</td>
</tr>
<tr>
<td>5 M</td>
<td>40</td>
<td>80</td>
<td>160</td>
<td>320</td>
<td>625</td>
<td>1250</td>
</tr>
<tr>
<td>3 M</td>
<td>66</td>
<td>133</td>
<td>266</td>
<td>533</td>
<td>1041</td>
<td>2083</td>
</tr>
<tr>
<td>VGA</td>
<td>305</td>
<td>611</td>
<td>1223</td>
<td>2466</td>
<td>4778</td>
<td>9557</td>
</tr>
</tbody>
</table>

The table specifies the number of images which you can save at a chosen resolution (e.g. 5 M) on a memory card with a specified size (e.g. 128 MB).

The actual number of photos which can be saved may vary (by up to 30%) depending on the resolution and the number of colours.
Troubleshooting

Use the following checklist if the camera does not function correctly. If the problem persists, consult MEDION Service.

The camera will not switch on.
- The battery is not inserted correctly.
- The battery is flat. Recharge it.
- The battery compartment door is not closed properly.

The camera will not take photos
- The flash is still charging.
- The memory is full.
- The SD card is not correctly formatted or is defective.
- The maximum number of files has been exceeded. Reset the file numbering function.
- Not enough light. Change the angle of the camera to pick up more light or use the flash.

The flash does not go off
- The camera was moved during the shot.
- The flash is switched off.

The image is blurred
- The camera was moved during the shot.
- The subject was outside the camera’s range. Use the Macro mode for close-up pictures if necessary.

The image is not shown on the display
- An SD card has been inserted which took pictures in non-DCF mode on another camera. The camera cannot display that type of image.
The period of time between shots is longer when taking pictures in the dark
• The shutter usually works slower under weak light conditions.
  Change the angle of the camera, or improve the light conditions.

The camera switches itself off.
• After a preset period, the camera switches itself off to save the battery charge. Restart the camera.

The shot has not been saved.
• The camera was switched off before the shot could be saved.

Shots on other memory cards are not displayed.
• The shots on memory cards of other cameras are displayed if the other camera also uses the DCF memory system.

The shots cannot be transferred to the PC via the USB cable.
• The camera is not switched on.

When the camera is connected to the computer for the first time, no new hardware is found
• The USB connection of the computer is deactivated in the BIOS.
• Enable the port in the computer’s BIOS. Refer to the PC manual if necessary.
Maintenance and care

Clean the housing, lens and the display as follows:
Clean the camera housing using a soft, dry cloth.
Do not use thinners or cleaning solutions that contain oil.
Use a lens brush to remove the dust before cleaning the lens or the display. Then wipe them with a soft cloth. Do not apply pressure to the display and do not use hard objects to clean it.
Do not use strong cleaning solutions for the housing and lens (contact your dealer if dirt cannot be removed).

⚠️ When cleaning the lens ring, take care with the crystal ring. It is only stuck on and can fall off if handled carelessly.
Disposal

Packaging
Your camera is packaged to protect it from transportation damage. Packaging is raw material and can be reused or added to the recycling system.

Appliance
At the end of its life, the appliance should not be disposed of with the household rubbish. Dispose of it in an environmentally friendly manner via a local collection point for old devices. Ask your local authority for the location of the collection points.

Batteries
Used batteries do not belong with household rubbish. Batteries must be taken to a collection point for used batteries.
Technical specifications

Pixel: 12 Mega Pixel CCD
Sensor: 1 / 2.3 inch
Aperture: F = 3.1 – 5.6
   Shutter speed: 1/2000 – 15 s
   Focal distance: f = 6.3mm – 18.9 mm
   Optical zoom: 3 times
   Digital zoom: 5 times
LCD Monitor: 3.0 " LC - display
File format: JPEG (EXIF 2.2), DPOF, AVI, WAV
Max. resolution: Camera mode:
   4000 x 3000
   Video mode:
   848 x 480 pixels
Picture memory: Internal: 32 MB flash memory for the
   operating software
   Residual memory of approx. 9 MB free
   External: SD/SDHC card
Port: Mini-USB 2.0 connection
Dimensions: 9,7 x 5,7 x 1,9 cm (B x H x T)