

■ DIGITAL CAMERA

User manual and service information



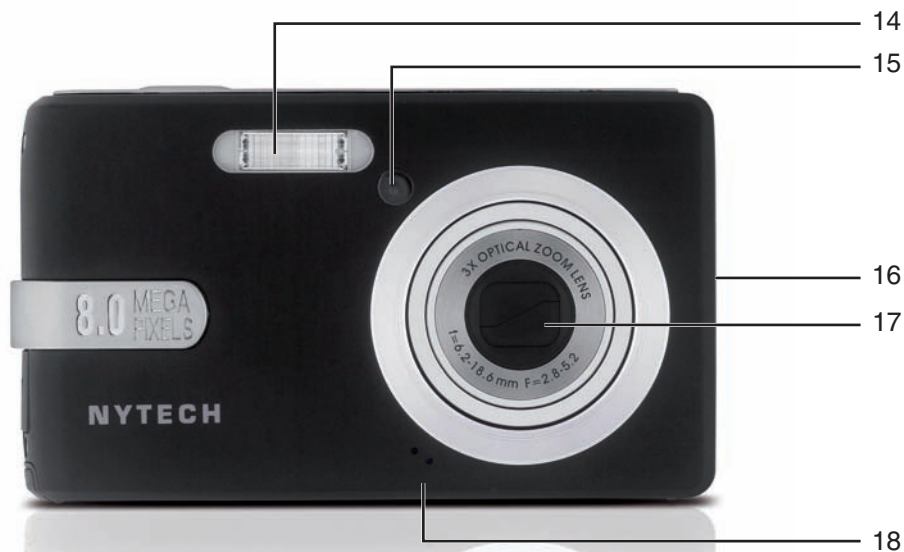
TARGA GmbH
Lange Wende 41
D-59494 Soest
Germany
www.nytech.de



Mat.-No.: 1382866



www.nytech.de



Nytech DS-8310

Table of Contents

IMPORTANT NOTICE **1**

SAFETY INSTRUCTIONS	1
CHILDREN	3
CHARGER AND RECHARGEABLE BATTERIES	3
CABLES	4
MAINTENANCE AND CARE	4
INTENDED USE	5
CONFORMITY	5
DISPOSAL OF OLD DEVICES	6
NOTE ON THIS MANUAL	6

INTRODUCTION **7**

PACKAGE CONTENTS	7
CONTROLS AND BUTTONS	8
GETTING STARTED	9
CHARGING THE BATTERY	9
INSERTING THE BATTERY	10
INSERTING AN SD CARD	11
WRITE-PROTECTING THE MEMORY CARD	12
SWITCHING THE CAMERA ON AND OFF	13
POWER-SAVING FUNCTION	13
TOGGLING BETWEEN RECORDING AND PLAYBACK MODE	13
LCD DISPLAY	14
PLAYBACK MODE	14
RECORDING MODE	15
CHANGING THE DISPLAYED INFORMATION	16
SETTING THE MENU LANGUAGE	17
SETTING DATE AND TIME	17

CAPTURING PICTURES	18
QUICK GUIDE	18
USING THE ZOOM FUNCTION	19
USING THE FLASH	20
HISTOGRAM	21
STABILIZER	21
RECORD MENU	22
RESOLUTION	23
QUALITY	23
METERING	24
WHITE BALANCE	24
ISO	26
EXPOSURE	27
DRIVE MODE	28
AEB (AUTOMATIC EXPOSURE BRACKETING)	29
HIGHLIGHT	29
SHARPNESS	30
EFFECT	30
DATE STAMP	31
DIGITAL ZOOM	31
FACE TRACKING	32
PHOTO FRAME	32
AF LAMP	32
SETUP	32
RECORD PROGRAMMES	33
Q MODE	35
MACRO MODE	36
ASM MODE	37
APERTURE	37
SHUTTER SPEED	37
APERTURE AND SHUTTER SPEED	38

RECORDING VIDEO CLIPS	39
QUICK GUIDE	39
VIDEO MENU	40
MOVIE SIZE	41
METERING	41
WHITE BALANCE	41
SETUP	41
PLAYING BACK IMAGES AND VIDEO CLIPS	42
QUICK GUIDE	42
PLAYBACK MENU	43
PROTECT	44
DELETE	45
SLIDE SHOW	46
DPOF	47
COPY TO CARD	48
EFFECT	48
ROTATE	48
RESIZE	49
VOICE MEMO	49
START-UP IMAGE	50
SETUP	50
USING THE THUMBNAIL VIEW	51
TRIMMING PICTURES	52
AUDIO RECORDING AND PLAYBACK	53
AUDIO RECORDING	53
AUDIO PLAYBACK	54
ADVANCED SETTINGS	55
SETUP MENU	55
SOUNDS	56

AUTO REVIEW	56
POWER-SAVING FUNCTION	57
FILE NUMBER	57
TV OUT	57
USB	58
START-UP IMAGE	58
FORMAT	58
RESET ALL	59
CONNECTORS	60
VIEWING PICTURES ON A TELEVISION SCREEN	60
COPYING PICTURES TO A COMPUTER	61
USING THE USB CABLE	61
USING A CARD READER	63
INSTALLING THE SOFTWARE	64
SYSTEM REQUIREMENTS	64
SUPPLIED SOFTWARE	64
APPENDIX	65
TIPS FOR TAKING BETTER PICTURES	65
SUBJECT	65
BACKGROUND	65
CAMERA ANGLE	65
GOLDEN SECTION	65
LIGHTING	65
TROUBLESHOOTING	66
TECHNICAL SPECIFICATIONS	68
DETAILS OF GUARANTEE	70

Important Notice

Safety Instructions

- Before you use this device for the first time, please read the following notes in this manual and heed all warnings, even if you are familiar with handling electronic devices. Always check the camera works correctly.
- Keep this manual with the instructions in a safe place for future reference.
- If you sell or pass this device on to another person, it is imperative that you also hand over this manual.
- Do not try to open the camera housing or reassemble the camera. Inside there are components and high voltage. You are at risk of receiving an electric shock. Maintenance and repairs should only be carried out by qualified technicians.
- Do not look at the sun or other sources of intense light. Doing so may damage your eyesight.
- Never activate the flash near the eyes of persons or animals. This is especially dangerous for children. The flash is dangerous to your eyesight. When using the flash, stand at least one meter (3 feet) away from your subject.
- Keep the Nytech DS-8310 away from water and other liquids. Do not operate the camera with wet hands. Do not use the camera in rain or snow. Dampness can cause danger through fire or electric shock.
- Keep the Nytech DS-8310 out of the reach of children and animals to avoid accidents or damage to the camera.
- Switch the Nytech DS-8310 off immediately if you notice it emitting smoke or strange noises. Contact the Nytech customer service. Never try to repair the camera yourself.
- Only use the supplied Ktec KSAA0600050W1UK power adapter and the supplied charger cradle AB-4330 to recharge the Nytech DS-8310 rechargeable batteries.
- Only use this device with the supplied rechargeable batteries (BYD DM6331) in order to avoid overheating, deformation of the cover, fire, electric shocks, explosion and other dangers.

- Unplug the power adapter from the mains outlet before you remove the rechargeable batteries from the charger or separate the charger from the power adapter.
- In case of defect of the Nytech DS-8310 or its accessories, unplug the power adapter from the mains immediately.
- Also, when there is the possibility of thunderstorms, pull the power adapter from the wall outlet.
- Never try to heat, disassemble or short-circuit the rechargeable batteries. Do not throw the rechargeable batteries in fire.

Warning: Notice concerning separation from the mains

In order to completely disconnect the device from the mains, pull the power adapter out from the wall outlet. The wall outlet where the device is connected must be easy to access so that the power adapter can be pulled out quickly in case of emergency. Pull the power adapter out from the mains when you will not be using it for a long while (e.g. when going on holiday) in order to avoid the danger of fire. Do not hold the power adapter with wet hands.

The device is not for use in rooms with a high temperature or humidity and must be kept free of dust. Position the Nytech DS-8310 on a stable, flat surface and do not place any objects on the device.

Always make sure that:

- no direct heat sources (e.g. heating) can affect the device;
- no direct sunlight or bright artificial light reaches the device;
- contact with spray and dripping water and abrasive liquids must be avoided and the device should never be operated near water, and it must especially never be immersed (do not place any objects filled with liquids such as vases or drinks near the device);
- no fire sources (e.g. burning candles) are placed on or near the device;
- no foreign bodies are introduced into the device;
- the device must not be subject to any great temperature changes as this may cause moisture through condensation;
- the device should not be subject to excessive shock and vibrations.

Children

Electrical appliances do not belong in the hands of children. Do not allow children to play with electrical devices when not under supervision. Children may not be able to comprehend the presence of potential risks. Rechargeable batteries and small parts represent potential choking hazards. Keep batteries out of reach of children. If a rechargeable battery is swallowed, seek medical help immediately. Keep all packaging away from children as this can cause suffocation.

Charger and Rechargeable Batteries

Insert the rechargeable batteries with the correct polarity. Never throw a rechargeable battery into fire. Remove the rechargeable batteries from the Nytech DS-8310 when the device is not to be used for a long time.

Danger of Explosion!

Non-intended use may cause explosion and danger to life. Only replace the rechargeable battery with an equivalent or a type recommended by the manufacturer. Never replace any batteries in an explosion-sensitive environment. While inserting or removing the batteries a spark may be produced causing an explosion. Explosion-sensitive areas will normally (but not always) be labelled. These include any fuel storage areas such as below deck on a boat, fuel line or tank areas, environments where the air contains inflammable substances (e.g. cereals, metal dust or powder, etc.) and any areas where you should normally switch off your car engine.

Respect the environment. Old rechargeable batteries do not belong in with the domestic waste. They must be handed in to a collection point for old batteries.

Cables

Always hold cables by the plug and never pull on the cable itself. Never hold the power cord with wet hands as this may cause a short circuit or electric shock. Never place the device, heavy objects or furniture on the cable and take care that the cord does not become trapped, especially at the plug and sockets. Never make knots in the cable and do not tie it together with other cords. All cables should be positioned so that nobody can trip over them or be obstructed by them. A damaged power cord can cause a fire or an electric shock. Inspect the power cord from time to time. Do not use any adapter plug or extension cable that does not meet the required safety standards.

Maintenance and Care

Servicing is required when this device has been damaged in any way, for example, when the power adapter or the housing of the Nytech DS-8310 is damaged, when liquid or objects have entered the device, when the product has been exposed to rain or moisture, when the product does not work normally or if the product has been dropped. If you notice any smoke, unusual noise or strange smells, switch off the device immediately and pull the power adapter from the power supply. In this case the device should not be used further and should be inspected by authorized service personnel. Please contact qualified personnel when servicing is needed.

Intended Use

This is a consumer electronics device. It may only be used for private use, not industrial or commercial purposes. In its default configuration, this product has not been designed for medical, lifesaving, rescue or life-maintaining purposes. Only connection cables and external devices may be used that comply with safety standards and the electromagnetic compatibility and shielding quality of this device.

This device fulfils all that relates to CE Conformity, relevant standards and Directives. Any changes to the equipment other than the recommended changes by the manufacturer may lead to the result that these directives are not met any more. Only use accessories recommended by the manufacturer. If you are not using the device within the Republic of Germany, you must observe the regulations and laws in the country of use.

Conformity



The Nytech DS-8310 and the supplied accessories have been tested and approved for compliance with the basic and other relevant requirements of the EMC Directive 2004/108/EC, as well as the Low-voltage Directive 2006/95/EC.

Disposal of Old Devices



Devices marked with this symbol are subject to the European Directive 2002/96/EC. All electric and electronic devices must be disposed of separately from household waste at established bodies.

Avoid hazards to the environment and dangers to your personal health by disposing of the device properly. For further information about proper disposal, contact your local government, disposal bodies or the shop where you bought the device.

Respect the environment. Old rechargeable batteries do not belong in with the domestic waste. They must be handed in to a collection point for old batteries.

Note on this Manual



This symbol denotes further information on the topic.



This symbol denotes important notes.

On page 8 of this manual you can find the meanings of the controls and buttons illustrated on the inside of the cover.

Introduction

Firstly, many thanks for having chosen this high-end Nytech DS-8310 digital camera. Please check that delivery contents are complete using the list below.

Package contents

- Nytech DS-8310 camera
- BYD DM6331 rechargeable batteries (2 pieces)



- SD memory card, 1 GB



- Charger cradle Nytech AB-4330
- Power adapter Ktec KSAA0600050W1EU or Ktec KSAA0600050W1UK (model depends on the local region)



- USB cable



- AV cable



- Pouch



- Carrying strap



- CD-ROM (not shown)
- User's manual (not shown)

Controls and buttons

This User manual has a fold-out cover. On the inside of the cover the camera is shown with the meanings of the controls and buttons.

Figure of back

- 1 Stabilizer
- 2 On/Off button (Power)
- 3 Shutter
- 4 Zoom button
- 5 Playback button (Play)
- 6 Menu button
- 7 Four-way button for Menu navigation (see right)
- 8 Eyelet for carrying strap
- 9 SET button
- 10 USB and AV port
- 11 Camera mode button
- 12 Delete/ASM
- 13 Display

Figure: Four-way button

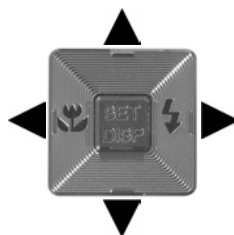
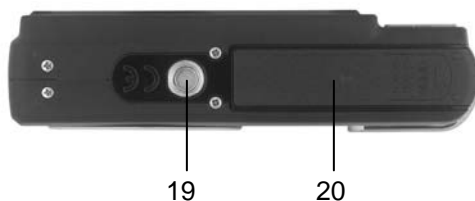


Figure of front

- 14 Flash
- 15 Self-timer lamp and auto focus lamp
- 16 Speaker
- 17 Lens
- 18 Microphone

Bottom

- 19 Tripod mount
- 20 Battery compartment cover and memory card slot



Getting Started

The camera functions with a rechargeable Lithium-Ion (BYD DM6331) battery. On delivery, the battery is not charged. Please charge the battery before first use of the camera.

Charging the Battery

Insert the rechargeable battery in the charging cradle Nytech AB-4330 so that the contacts [+] and [-] correspond to the rechargeable battery and charging cradle markings. Next connect the power adapter to the charging cradle and plug the power adapter into a wall outlet.



To operate the camera, use only the BYD DM6331 rechargeable Lithium-Ion battery.

Remove the rechargeable battery from the camera when the device is not to be used for a long time.

During charging, the rechargeable battery and charging device will become warm. This is not a malfunction.



The above picture shows the power adapter Ktec KSAA0600050W1EU that is different from the model Ktec KSAA0600050W1UK. However, the procedure is identical.

The status indicator of the charging cradle will light orange whilst the battery is charging. When the charging process is completed, the status indicator will light green. You can then insert the rechargeable battery into the Nytech DS-8310. Depending on the charge level, the charging cycle can take up to 4 hours.

If, after inserting the rechargeable battery, the indicator remains green, this means the rechargeable battery is already charged or it is not correctly inserted. In this case, check the polarity.

Inserting the Battery

When the battery is fully charged, insert it into the Nytech DS-8310 as below.

- Open the Nytech DS-8310 battery compartment by pushing the cover gently outwards. The cover will spring up by a spring mechanism.
- Move the unlock button (see the figure below) to the side and then place the rechargeable battery with the marking orientated towards the camera front panel into the battery compartment. Insert the battery fully into the housing. The rechargeable battery should be inserted gently and without offering resistance.
- Close the battery compartment cover by pressing down the flap on the housing of the camera and then by pushing it inwards till it locks. The cover clicks into place.



To remove the rechargeable battery push the unlock button outwards. The rechargeable battery will protrude a little so that you can get a hold of it and remove it.



*If the rechargeable battery is empty, the message **Replace battery** will appear on the display [13] and a beep can be heard. Make sure that the camera is switched off before you remove the rechargeable battery.*

Remove the rechargeable battery from the camera when the device is not to be used for a long time.

Inserting an SD Card

By using the SD memory card (included in the package) you can increase the Nytech DS-8310 storage capacity for saving your photos, videos and voice recordings.

When the memory card is inserted, all the photos and videos you take will be saved onto it. If there is no memory card inserted, your photos and videos will be saved to the internal memory of the camera.



Power off the camera using the switch [2] before you insert or remove a memory card.

- Open the Nytech DS-8310 battery compartment by pushing the cover gently outwards. The cover will spring up by a spring mechanism.
- Insert the memory card with the contacts towards the rear of the camera into the card compartment and push it into the housing. The memory card clicks into place.



- Close the battery compartment cover by pressing down the flap on the housing of the camera and then by pushing it inwards till it locks. The cover clicks into place.
- To remove the memory card, open the battery compartment cover and gently press on the inserted card. This will protrude a little so that you can get a hold of it and remove it.



*If the memory card or the internal memory is exhausted, the message **Memory full** will appear on the display [13].*

Write-Protecting the Memory Card

The supplied memory card features a write-protection tab. When the write protection is enabled (see the right figure below) you will only be able to view existing pictures, not delete or edit them. Also, it will not be possible to record any new pictures onto the memory card.



Write protection disabled



Write protection enabled



*If you attempt to take a picture while the write protection is enabled, when pressing the shutter button [3] the message **Card locked** will appear on the display [13].*

Switching the Camera On and Off

Press the Power button [2] and keep it pressed down for approximately 1 second to turn it on in Recording mode. Or you can press the Play button [5] and keep it pressed down for approximately 1 second to turn the camera on in Playback mode.

Press the Power [2] button to switch off the camera.

Power-Saving Function

The Nytech DS-8310 is equipped with an automatic power-saving function to extend the rechargeable battery life. By default, the LCD display [13] powers off after one minute if the camera is not being used. Press any button to power on the LCD display once again.

You can alter the preset timeout for the energy-saving function. To do this, read page 57 – Power-Saving Function.

The Nytech DS-8310 powers itself off if the LCD screen has been switched off for longer than one minute. Press the Power button [2] to switch the camera on again.

The energy-saving function is not enabled when:

- the camera is connected via a USB cable to a computer or printer
- a slideshow is being played back
- a video or audio file is being recorded
- a video or audio file is being played

Toggling Between Recording and Playback Mode

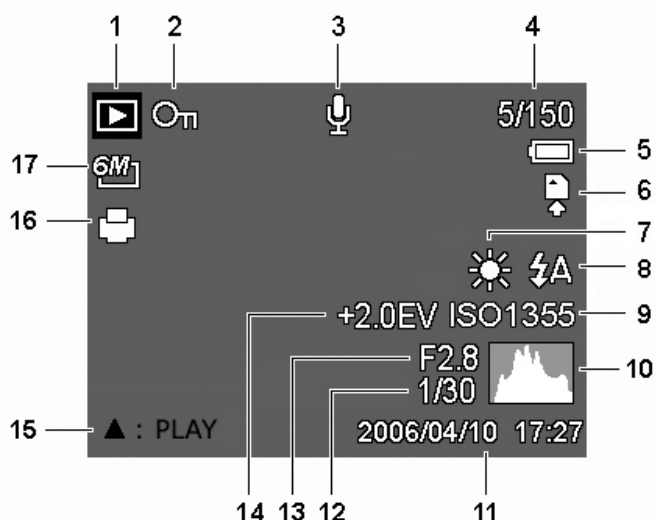
The Nytech DS-8310 is ready to record videos or audio files in Recording mode. In Playback mode the recorded files can be seen on the display [13].

- Press the Play button [5] to toggle between Recording and Playback mode.

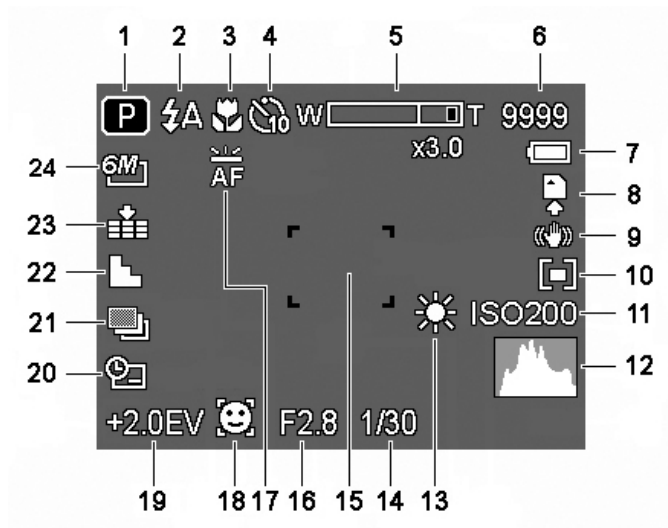
LCD Display

The LCD display [13] of your Nytech DS-8310 is used to configure the shooting parameters, to check and adjust the camera settings and to display your captured images. In Recording mode, on-screen icons inform you of the current camera settings, while in Playback mode information on the recorded image is displayed.

Playback Mode



- | | |
|---|------------------------|
| 1 Mode icon | 10 Histogram |
| 2 File protection | 11 Date and time |
| 3 Voice memo | 12 Shutter speed |
| 4 Current file number/total number of files | 13 Aperture value |
| 5 Battery status | 14 Exposure correction |
| 6 Storage media | 15 Voice Memo |
| 7 White balance | 16 DPOF |
| 8 Flash mode | 17 Resolution |
| 9 ISO setting | |

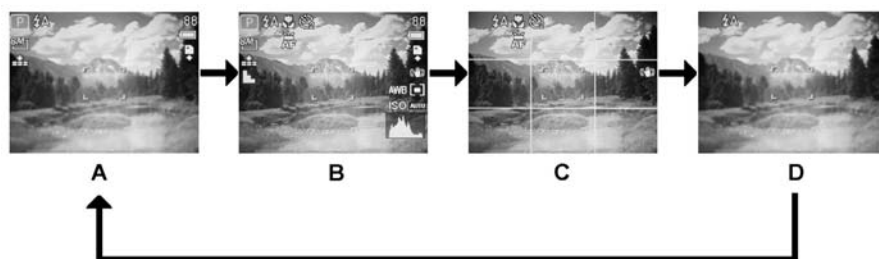
Recording Mode

- | | | | |
|----|--------------------|----|-----------------------|
| 1 | Recording mode | 13 | White balance |
| 2 | Flash mode | 14 | Shutter speed |
| 3 | Macro mode | 15 | Focus area |
| 4 | Self timer | 16 | Aperture value |
| 5 | Zoom bar | 17 | Auto-focus |
| 6 | Remaining pictures | 18 | Face tracking |
| 7 | Battery status | 19 | Exposure correction |
| 8 | Storage media | 20 | Date stamp |
| 9 | Stabilizer | 21 | Exposure compensation |
| 10 | Measure area | 22 | Sharpness |
| 11 | ISO setting | 23 | Quality |
| 12 | Histogram | 24 | Resolution |

Changing the Displayed Information

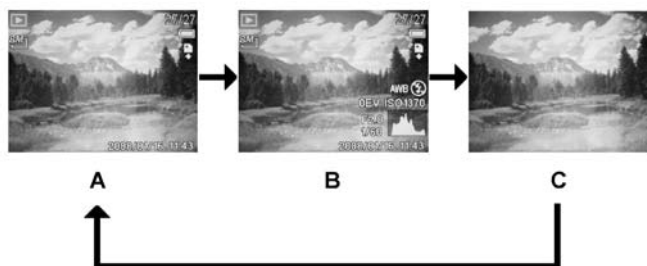
Press the SET button [9] to change the display mode of the LCD [13] as follows:

In Recording mode:





- (A) Standard display
- (B) Full display
- (C) Grid on
- (D) Minimum display

In Playback mode:





- (A) Reduced icon display
- (B) Full icon display
- (C) All information off

Setting the Menu Language

1. Power the Nytech DS-8310 on by pressing and holding the Power button [2] for approx. 1 second.
2. Press the Menu button [6] to display the Settings menu.
3. Press ◀ or ▶ on the four-way button to select **Setup** (icon ) and then press the Set button [9] to open the Setup menu.
4. Press ▲ or ▼ on the four-way button to select **Language** (icon ) and then press the Set button [9].
5. Press ▲ or ▼ on the four-way button to move the highlighted bar through the different languages and select the desired language by pressing the Set button [9].
6. Press the Menu button [6] to exit the Setup menu.

Setting Date and Time

1. Power the Nytech DS-8310 on by pressing and holding the Power button [2] for approx. 1 second.
2. Press the Menu button [6] to display the Settings menu.
3. Press ◀ or ▶ on the four-way button to select **Setup** (icon ) and then press the Set button [9] to open the Setup menu.
4. Press ▲ or ▼ on the four-way button to select **Date & Time** (icon ) and then press the Set button [9].
5. Press ◀ or ▶ on the four-way button to move the highlighted bar through the different options and change the entries by pressing the four-way button (▲ or ▼).
6. Press the Set button [9] to save the selected settings.
7. Press the Menu button [6] to exit the Setup menu.

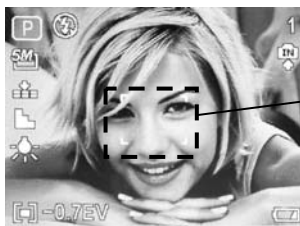
Capturing Pictures

Quick Guide

1. Power the Nytech DS-8310 on in Recording mode by pressing and holding the Power button [2] for approx. 1 second.
2. Point the camera at the subject and check the composition of your picture on the display [13].
3. If necessary, press the Zoom button [4] to zoom in (T - Tele) or zoom out (W - Wide) on the subject.
4. Press the shutter button [3] halfway down. This will enable the auto-focus.



The Nytech DS-8310 will try to focus the area contained within the focus area. This will depend on the lighting conditions and the distance to the subject. After the subject has been focused successfully, the focus frame will turn green.



Focus area

5. Now press the shutter button fully down to take the picture. A shutter sound can be heard.

Read the chapters from page 33 to learn how to use preset programmes.

Using the Zoom Function

Your Nytech DS-8310 features a combination of optical and digital zoom allowing you to zoom in on distant subjects or to zoom out for wide-angle shots.

The optical zoom adjusts the camera lens mechanically. The digital zoom enlarges or reduces the picture via software control.

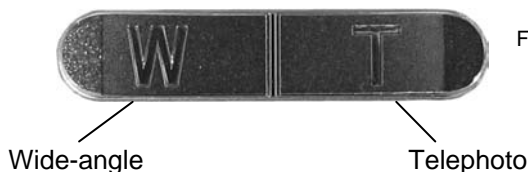


Figure: Zoom control [5] on the camera back panel

In Recording mode, select the desired subject area by pressing the zoom buttons.

- Press [W] to reduce the zoom factor and obtain a wide-angle shot.
- Press [T] to increase the zoom factor and obtain a telephoto shot.

When pressing any of the zoom buttons the zoom bar (see page 15 – item 5) will appear on the display [13].

When the maximum optical zoom factor has been reached, zooming will pause. Press the [T] button again. The camera switches to digital zoom mode and will continue zooming in.

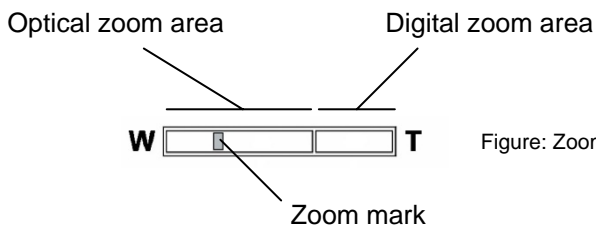


Figure: Zoom bar [5] on display [13]



Before you can use the digital zoom, you must enable it (see page 31, Digital Zoom).

Using the Flash

The flash [14] doesn't only enhance the brightness under bad lighting conditions, but you can also use it for backlight shots or when the subject is located in shadow. In Recording mode, press the flash button (see the figure below) to toggle through the different flash modes of your Nytech DS-8310.

The flash button can be found on the four-way button:



Figure: Four-way button [7]

Flash button

With each press of the flash button the flash mode will change. This will be displayed on the LCD [13] (see page 15 – item 2). The flash must be charged before it can be used. During recharging, a red point will appear on the display [13] under the flash icon.

The following flash settings are available:

Icon	Description
	The flash will fire automatically whenever the shooting conditions require extra lighting.
	A pre-flash will be sent in order for people's eyes to adapt to the flash. This will reduce the red-eye effect in your pictures. The flash will fire again to take the photo, but only when necessary.
	The flash will fire always.
	The flash will fire for lower shutter speeds (soft flash), keeping a darker background.
	The flash will never fire, even in total darkness.

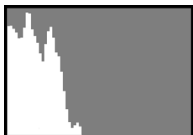


For burst captures (see the chapters from page 28 - Drive Mode, Burst) and for movies the flash is not available.

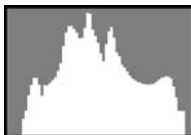
Histogram

The histogram shows the brightness distribution of the picture in recording menu (see page 15, item 12) and in playback menu (see page 14, item 10). If the graphic is accentuated on the left, the picture is very dark; if it is accentuated on the right, the picture will be very bright.

Histogram examples:



Dark picture



Average picture




Bright picture

In recording mode you can optimise the brightness distribution before capturing the picture. If the picture is too dark you can set a positive value for exposure correction. If the picture is too bright you can set a negative value for exposure correction (see page 27 – Exposure).

You can also vary the picture exposure by means of the aperture and shutter speed (see page 37 – ASM mode) as well as by means of the ISO value (see page 26 –ISO).

Stabilizer

Via smart electronics, the stabilizer helps you to obtain a higher sensitivity and, if necessary, faster shutter speed for non-shaky/blurred pictures. You can use the stabilizer if no tripod is available or when attempting to capture a subject in motion.

Press the Stabilizer [1] button to switch the stabilizer on or off. When enabling this function, the icon  will be displayed on the LCD (see page 15 – item 9).

Record Menu

In the Quick Guide on page 18 you have learned to capture a picture by using the default settings. In this case, your Nytech DS-8310 will adjust many settings automatically to allow you to take a quick snapshot. In the Record menu, however, you may adjust many settings manually in order to meet special conditions.

All settings made here will prevail until you change them again. This will also be the case after changing the battery.

How to open the Record menu:

1. Power the Nytech DS-8310 on in Recording mode by pressing and holding the Power button [2].
2. Press the Menu button [6] to display the Record menu.
3. Press ◀ or ▶ on the four-way button to choose an item.
4. Press ▲ or ▼ on the four-way button to change the setting for the chosen item.
5. Press the Menu button [6] or the Set button [9] to save the setting and to close the menu.










The Record menu contains the following items: Resolution, Quality, Metering, White Balance, ISO, Exposure, Drive Mode, AEB (Automatic Exposure Bracketing), Highlight, Sharpness, Effect, Date Stamp, Digital Zoom, Face Tracking, Photo Frame, AF Lamp (auto-focus lamp) and Setup.

For more information on the different Record menu items, see the following pages.

Resolution

The resolution determines the picture quality. The corresponding icon from the table will be displayed on the LCD (see page 15 – item 24). The following settings are available:




Icon	Picture size in pixel	Notes
	3264 x 2448	Optimum picture quality
	3264 x 2176	3:2 aspect ratio (the typical format for paper prints)
	3264 x 1836	Wide-format aspect ratio
	2816 x 2112	Enhanced quality
	2272 x 1704	Average quality
	1600 x 1200	Standard PC screen
	640 x 480	Suitable for e-mails



As a general rule: The higher the resolution, the larger the picture size and the higher the storage size requirements. The lower the resolution, the more pictures can be stored. Please note that the Quality setting also influences the storage capacity requirements.




Quality

The Quality setting determines the compression ratio of the captured photo when saved onto the memory card. The higher the compression, the more pictures can be stored. The corresponding icon from the table will be displayed on the LCD (see page 15 – item 23). The following settings are available:

Icon	Compression	Quality
 Super Fine	Very low	High quality
 Fine	Low	Normal quality (default)
 Normal	High	Low quality

Metering


Your Nytech DS-8310 offers three metering modes to measure the environmental lighting conditions. The corresponding icon from the table will be displayed on the LCD (see page 15 – item 10).








Icon		Description
	Center	The light is measured in the entire capture area but is weighted more in the centre of the picture.
	Multi	Selects an exposure according to the metering at different places in the capture area.
	Spot	Selects an exposure based on a single measurement in the picture centre.

White balance


White balance is used in photography to determine a colour temperature suitable for the current lighting conditions. The human eye has this ability, but a digital camera needs a reference value to be entered first. The corresponding icon from the table will be displayed on the LCD (see page 15 – item 13).

The following settings are available:

Icon		Description
AWB	Automatic	White balance is done automatically. This setting is recommended for generic photography.
	Daylight	Adjusts the white balance for bright sunlight and normal daylight conditions.


	Cloudy	Adjusts the white balance for cloudy days and twilight.
	Tungsten	Adjusts the white balance for artificial light. Corrects the orange tint of normal bulb lamps.
	Fluor_H	Adjusts the white balance for fluorescent light. Try also the  setting.
	Fluor_L	Adjusts the white balance for fluorescent light. Try also the  setting.
	Shutter	Manual white balance (to enable, press the shutter button [3], see blow for a detailed description).

Manual White Balance

Select **Shutter** with the icon  from the **White Balance** menu (see above) and press the shutter [3] halfway down. In the centre of the display [13] a frame will appear.

The following options are available:

Button	Description
Shutter	Adjust Focus the displayed frame onto a white surface near the subject and then press the (Shutter) button [3] halfway down again.
Menu	Exit Exits the manual white balance without changes.

When manually adjusting the White Balance, the white surface within the frame will be used as reference for the colour temperature. If the metering was successful and the colour temperature has been determined correctly, confirm the message **Custom WB?** on the display by pressing the Set button [9]. To repeat the calibration, press ▼ on the four-way button and confirm the Back option (icon ) by pressing the Set button [9]. You can now perform a new metering.

ISO

ISO is a unit derived from traditional photography that determines the sensitivity of the photographic material (film). Equivalent to these values, the sensitivity of the sensor of your Nytech DS-8310 can be set. Use a smaller value for a lower sensitivity, or select a higher value to obtain a higher sensitivity to light. The corresponding icon from the table will be displayed on the LCD (see page 15 – item 11).



A higher ISO value allows it to take pictures under bad lighting conditions. However, the picture will result more grainy. A grainy or noisy picture is the result of a technical restriction resulting in colour distortion for single pixels or pixel groups.

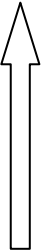
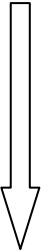
The following settings are available:

Option	Description
Automatic	Sets the ISO sensitivity automatically
50	Equivalent to ISO 50
100	Equivalent to ISO 100
200	Equivalent to ISO 200
400	Equivalent to ISO 400
800	Equivalent to ISO 800
1600	Equivalent to ISO 1600

Exposure

You can set the exposure value manually. This setting depends on the lighting conditions around the subject. Select a positive value between +0.3EV and +2.0EV if you want to capture a subject located in a dark area. Select a negative value between -0.3EV and -2.0EV if the subject is very bright or shiny (e.g. a computer or a television screen) or when photographing in backlight (e.g. frontal sunlight) conditions. If you are unsure about the proper exposure setting for each case, experiment a little to find the proper value. The set value will be displayed on the LCD (see page 15 – item 19).





The following settings are available:

Option	Description
+2.0 EV	 <p>Sensitive exposure setting. Recommended for subject in dark environment.</p>
+1.7 EV	
+1.3 EV	
+1.0 EV	
+0.7 EV	
+0.3 EV	
0 EV *	No exposure correction.
-0.3 EV	 <p>Less sensitive exposure setting. Recommended for bright subjects or for backlight photography.</p>
-0.7 EV	
-1.0 EV	
-1.3 EV	
-1.7 EV	
-2.0 EV	


* will not appear on the display.

Drive Mode

The functions in the Drive Mode menu allow you to programme the self-timer or to enable the burst capture. The corresponding icon from the table will be displayed on the LCD (see page 15 – item 4). The following settings are available:

Option	Icon	Description
Off		Normal single shot without any further modes.
2 sec.		Captures the photo with a 2-second delay after pressing the shutter button [3].
10 sec.		Captures the photo with a 10-second delay after pressing the shutter button [3].
Double		Captures the photo with a 10-second delay after pressing the shutter button [3], plus a second photo after a few seconds.
Burst		After enabling this function you can capture a picture sequence. The camera will shoot one picture per second while you keep the shutter button [3] pressed. The shutter sound will be generated only for the first capture.

AEB (Automatic Exposure Bracketing)




This function will capture an exposure sequence. Three pictures with different exposure settings will be captured in series: normal exposure, underexposed and overexposed. This is a useful function when shooting under lighting conditions that are difficult to evaluate a priori, allowing you to obtain the correct setting without experimenting. When enabling this function, the icon  will be displayed on the LCD (see page 15 – item 21).



*This function is available only if you have set the **Drive Mode** function (see page 28) to **Off**.*




Highlight

This will accentuate the subject in front of its surrounding environment. Within the preset frame, the picture contents will be saved with its normal focus while the area outside the frame will result slightly blurred. The following options can be selected:

Icon	Description
Off	The function is disabled.
	A squared picture area will be highlighted.
	Accentuation for a portrait in landscape orientation.
	Accentuation for a portrait in portrait orientation.

Sharpness

You can select whether you want your pictures to have soft or hard contours. The corresponding icon from the table will be displayed on the LCD (see page 15 – item 22). The contour sharpness can be set in the following three levels:


Icon	Description
 Normal	The contours are sharpened, but a slight noise can be perceived in the captured image.
 Hard	The contours are sharpened, but the image will contain more picture noise. This setting is suitable for prints.
 Soft	The contours are softened.

Effect

You can already apply different effects to your images during recording. The following settings are available:

Option	Description
Off	No effects will be added.
B&W	Converts your images to black and white pictures.
Sepia	Captured images will be saved in sepia tones (giving it a vintage look).
Negative	The image will be converted to a negative (the colours are inverted).
Red	The image is tinted red.
Green	The image is tinted green.
Blue	The image is tinted blue.

Date stamp

This feature allows you to insert a stamp with the current date and time on to the picture. With full icon view in recording mode, when enabling this function the icon  will be displayed on the LCD (see page 15 – item 20). The following options are available:

Option	Description
Off	The capture date and time will not be displayed on the pictures.
Date	The date of the capture will be added to the images.
Date & Time	The date and time of the capture will be added to the images.

Digital Zoom

Besides the 3x optical zoom, your Nytech DS-8310 features a 4x digital zoom. You can enable it here, if desired. Digital zoom is an electronic enlargement of a portion of the image and will cause a lower picture quality than the optical zoom.



Please make sure you hold the camera completely still and stable in order to avoid shaky captures. We recommend using a tripod.

Face tracking


With the Face Tracking function enabled, your DS-8310 will fix the focused main person automatically and readjust the different parameters automatically as soon as the person moves (e.g. from a bright to a dark background or vice-versa). When enabling this function, the icon  will be displayed on the LCD (see page 15 – item 18).

Photo Frame

This function offers you ten different frames that you can add to your pictures, if required.



This feature is not available when the Face Tracking function has been enabled and/or the resolution has been set to 3:2 or 16:9.

AF Lamp

The autofocus lamp helps you to take sharp pictures even under dark lighting conditions. The auxiliary light allows the camera to focus the subject properly whenever the environmental light is not sufficient.

The following options are available:

Option	Description
Off	The auto-focus lamp is disabled.
Automatic	If required (e.g. under adverse lighting conditions), the auto-focus lamp will be used automatically.

Setup

A detailed description of this menu can be found on page 55.

Record Programmes








The record programmes give quick and easy access to preset shooting parameters for different photography conditions. Furthermore, here you can also access the video and voice recording features.















How to use the record programmes:

1. Power the camera on in Record mode (see page 13 - Switching the Camera On and Off).
2. Press the camera mode button [11] to open the Program menu (see figure).
3. Press ◀, ▶, ▲ or ▼ on the four-way button [7] to select the desired scene mode and then press the Set button [9] to confirm the selection.

When enabling a record programme, the corresponding icon will be displayed on the LCD (see page 15 – item 1).

You can choose from the following preset programmes:

Icon	Description
 Program	The camera will adjust automatically to the shooting conditions and performs the required settings.
 Video	To record video clips.
 Voice REC	To record voice (dictaphone).
 Q Mode	Facilitates beginners in capturing photos (see page 35 – Q Mode).
 Portrait	The background will result slightly blurred while the focus is on the subject.
 Landscape	For panoramic shots.
 Sunset	Emphasizes the red tones for capturing sunset images.

	Backlight	To capture a subject with backlight by changing the metering.
	Night Scene	The subject will be accentuated while the background will be kept as a night environment.
	Sports	For capturing fast-moving subjects.
	Party	Colours rich in contrast under artificial light.
	Snow	Suitable for beach and snow captures.
	Kids	Suitable for pictures of moving children.
	Candlelight	Expressive pictures with white flash.
	Fireworks	For fireworks scenes.
	Night Scene/Portrait	Portrait against dark background by reducing the red-eye effect.
	Soft Skin	Matching colours for obtaining natural skin tints by reducing the red-eye effect.
	Soft Flowing Water	Slow shutter speed for flowing movements.
	Food	A higher colour saturation improves the look of food.
	Building	Enhances the contours of the subject.
	Text	Enhances the black and white contrast.

Q Mode

Q mode allows you to control the camera more easily. Larger icons and fewer operating controls let newcomers and older people capture snapshots quickly.

The following settings will become fixed and will not be available or adjustable any more:

Function	Fixed setting
Quality	Super Fine
Metering	Multi
White balance	Automatic
ISO	Automatic
AEB	No adjustment
Sharpness	Normal
Effect	Off
Date stamp	Date & Time
Digital Zoom	Off
AF Lamp	Automatic

Macro Mode

Your Nytech DS-8310 features a macro function allowing you to focus on very close subjects. The Macro mode allows you to focus on subjects from 15cm from the lens in maximum wide-angle setting (lowest zoom factor) up to 40cm in maximum telephoto setting (highest zoom factor).

The macro button can be found on the four-way button:

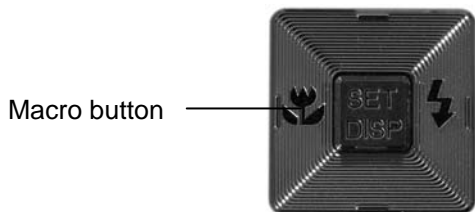




Figure: Four-way button [7]

1. Power the camera on in Record mode.
2. Press the Macro button (icon ) located on the four-way button [7] (see the above figure). The macro mode icon will be displayed on the LCD (see page 15 – item 3).
3. Press the shutter button [3] to take the picture.
4. To exit the macro mode, press the Macro button (icon ) again.

ASM Mode

In ASM mode you can set the aperture value and/or the shutter speed manually. The enabled ASM mode is indicated by the icons **A**, **S** or **M** on the LCD (see page 15 – Recording Mode, item 1). To disable the ASM mode, enable the record programme mode **P** by pressing the camera mode button [11] and confirm by pressing the Set button [9] (see also page 33 – Record Programmes).

While in Recording mode press the ASM button [12] several times to cycle between the following options.

Aperture

Mode: A

With a higher aperture setting, the lens opening will be smaller so less light will incide onto the image sensor. By means of a circular shading distribution, a better depth of field can be achieved. A smaller aperture value will reduce the depth of field, softening the distant background and sharpening the foreground (e.g. when taking a portrait picture).

Press ▲ or ▼ on the four-way button to select an aperture value between 2.8 (low aperture) and 5.6 (high aperture).

Shutter speed

Mode: S

The shutter speed determines the exposure time. The lens exposure mechanism will be opened for a very short time when using a high shutter speed, and less light will incide onto the sensor. For a lower shutter speed, more light will incide onto the sensor causing a highly-exposed image. Therefore, a high shutter speed requires a brightly-lit environment (e.g. daylight or a bright flash). The advantage of the high shutter speed is that any moving subject will be captured more sharply. The shutter speed value is given in 1/n seconds.

Press ▲ or ▼ on the four-way button to select a shutter speed between 8s (slow shutter speed) and 1/2000s (high shutter speed).



A slow shutter speed is suitable for ambience photography without any flash and under poor lighting conditions (for instance candlelight). However, make sure to hold the camera still in order to avoid any shaky results.

Aperture and Shutter Speed


Mode: M

By combining individual settings for aperture and shutter speed you can take advantage of both parameters. Press the Set button [9] to switch between aperture and shutter speed setting and press ▲ or ▼ to set the desired value.

Recording Video Clips

Quick Guide

Your Nytech DS-8310 allows you to record video clips.

1. Press the Power button [2] to power the camera on.
2. Press the camera mode button [11] to open the Program menu.
3. Press ◀, ▶, ▲ or ▼ on the four-way button [7] to choose the option **Movie** (icon ) .
4. Press the SET button [9].
5. Focus the desired subject area by using the LCD [13]. The remaining recording time will be shown on the display (see figure).



6. Press the shutter button [3] to start recording.
7. To stop recording, press the shutter button [3] again. To pause the recording, press ▲ on the four-way button. To resume a paused recording, press ▲ on the four-way button again.



While recording a video clip you can press the zoom buttons [4]. However, while pressing the zoom buttons no sound will be recorded.

In automatic mode, white balance will be fixed to the value for the first frame.

The digital zoom is not available during video clip recording.




The current recording time will appear on the display [13] during recording. The remaining recording time will be indicated in Stop mode.

Video Menu

In Video menu you can adjust settings specific to video clip recording.

How to open the Video menu:

1. Press the Power button [2] to power the camera on.
2. Press the camera mode button [11] to open the Program menu.
3. Press ◀, ▶, ▲ or ▼ on the four-way button [7] to choose the option **Movie** (icon .
4. Press the SET button [9].
5. Press the Menu button [6].
6. Press ◀ or ▶ on the four-way button to choose an item.
7. Press ▲ or ▼ on the four-way button to change the setting for the chosen item.
8. Press the Menu button [6] or the Set button [9] to save the setting and to close the menu.



The Video menu contains the following items: Movie Size, Metering, White Balance and Setup.

For more information about the different Video menu items, see the following pages.

Movie Size

The movie size determines the size of the recording in pixels. As a general rule: The higher the resolution, the more storage space is required. The frame rate of 30 frames per second will remain constant. The following settings are available:

Setup	Resolution in pixels	Description
640	640 x 480	Highest quality
320	320 x 240	Average quality
160	160 x 128	Low quality

Metering

For the settings available for Metering, please see the Record menu (page 24 – Metering).

White balance

For the settings available for White Balance, please see the Record menu (page 24 – White Balance).

Setup

A detailed description of this menu can be found on page 55.

Playing Back Images and Video Clips

Quick Guide

You can use the display [13] of your Nytech DS-8310 to view captured pictures and videos.

1. Power the Nytech DS-8310 on in Playback mode by pressing and holding the Play button [5] for approx. 1 second. The last recorded picture will appear on the display [13] (if the memory is empty, the message **No image** will appear).
2. Press ◀ or ▶ on the four-way button [7] to scroll along the recorded photos, video clips or voice recordings.



Keep the buttons ◀ or ▶ pressed for fast scrolling.

3. If the file is a video clip or a voice recording, or if the picture contains a voice note, the icon [▲ : Play] will appear. Press ▲ on the four-way button [7] to play the recording.

During playback, you can use the four-way button [7] for the following:

- ▲ Pauses playback.
- ▼ Stops playback
- ▶ Fast forward playback (only for video clips)
Press ▲ to return to playback mode.
- ◀ Fast backward playback (only for video clips)
Press ▲ to return to playback mode.

The zoom button [4] lets you adjust the sound volume during playback.



*During video clip playback you can freeze the image and capture it as a photo. To do so, press ▲ on the four-way button [7] to pause the playback at the desired frame. The message **SHUTTER** will appear on the LCD. Next press the shutter button [3]. The picture will be captured and displayed in playback mode.*

Playback Menu

The Playback menu offers different ways to edit your recordings.

How to open the Playback menu:


1. Power the Nytech DS-8310 on in Playback mode by pressing and holding the Play button [5] for approx. 1 second.
2. Press the Menu button [6] to display the Playback menu.
3. Press ◀, ▶, ▲ or ▼ on the four-way button [7] to choose an item.
4. Press the SET button [9] to change or enable the selected setting.
5. Press the Menu button [6] again to return to Playback mode.





The Playback menu contains the following items: Protect, Delete, Slide Show, DPOF, Copy to card, Effect, Rotate, Resize, Voice Memo, Start-up Image, Photo Frame and Setup.


For more information about the different Playback menu items, see the following pages.

Protect


This feature allows you to protect your recordings (pictures, video clips or voice recordings) against accidental erasure or unwanted editing. To enable it, select the  icon from the Playback menu and press the SET button [9]. The subsequent menu contains the following options:

Option	Description
Single	Protects the currently selected recording.
Lock all	Protects all saved recordings.
Unlock all	Unlocks all the previously protected recordings.
	Back to Playback menu.


In any case, a safety prompt will appear that you have to confirm by pressing the SET button [9] otherwise the action will not be executed. If you made a mistake, you can cancel the dialogue by selecting the  icon.

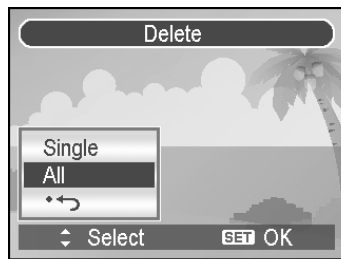


To unlock a single recording, repeat the steps for locking a single picture. Press the SET button [9] to confirm the Unlock message.


When playing back protected pictures or videos, the icon  will be displayed on the LCD (see page 14 – item 2).


Delete


You can delete any undesired recordings or those that don't match your expectations in order to make more space available on the memory card. To enable it, select the  icon from the Playback menu and press the SET button [9].




The subsequent menu contains the following options:


Option	Description
Single	Deletes the currently selected recording.
All	Deletes all saved recordings.
	Back to Playback menu.

In both cases, a safety prompt will appear that you have to confirm by pressing the SET button [9] otherwise the deletion will not be executed. If you made a mistake, you can cancel the dialogue by selecting the  icon.

You can also delete the currently displayed picture in playback mode by pressing the **Delete** [12] button. Press the SET button [9] to confirm the security prompt that appears. If you made a mistake, you can cancel the dialogue by selecting the  icon.


After deleting a single picture, the next image will be shown. Select  to quit this dialogue or continue erasing more pictures by pressing the SET button [9] again.



*Locked pictures cannot be deleted. The message **File locked** will appear and the icon  blinks.*





If you want to delete the entire memory card, please also see page 58 – Format.

Slide Show

The slide show will play back all saved recordings in sequence. For video clips, the first frame will be shown and voice recordings are skipped. To launch a slide show, select the  icon from the Playback menu and press the SET button [9].

From the menu that appears, if necessary, select more options by pressing ▲ or ▼ on the four-way button [7] (see below) and start the slide show by pressing the SET button [9].




Option	Description
 Interval	Sets the display time for each picture (1s to 15s).
 Effect	Select a specific transition effect or select Mix for random effects.
 Repeat	Specify whether you want the slide show to restart from the beginning once completed.
Start	Launches the slide show with the selected options.
	Back to Playback menu.

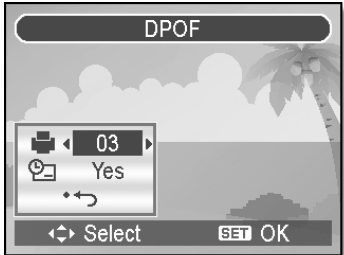


During playback, press the SET button [9] to pause the slide show. Press the SET button again to resume playback. Or press ▼ to select Exit and press the SET button [9].

DPOF


DPOF (Digital Print Order Format) allows you to embed printing information on your memory card. By using DPOF, you can select an image to be printed and then specify how many prints or which image you would like. This is extremely convenient for sending the images to a photo developing service or for printing on a direct print function compatible printer.


To enable it, select the  icon from the Playback menu and press the SET button [9].

1. Press **▲** or **▼** on the four-way button [7] to choose if you want to include one picture (**Single**) or all pictures (**All**). You can also select **Reset** to delete any previous settings.
2. Only if you have selected **Single**: Confirm the next option **Set up** by pressing the Set button [9]. Or press **▼** and then the Set button [9] to cancel the process (you will return to step 1).
3. In the menu that appears (see figure), press **◀** or **▶** to set the number of copies to print (1 to 30).
4. Next press **▼** and then **◀** or **▶** to specify whether to print a date stamp on the picture or not.
5. Press the SET button [9] to apply the settings.
6. Press the Menu button [6] to return to Playback mode.

Copy to card

You can copy pictures stored in the internal memory of your Nytech DS-8310 onto the SD card.

To enable it, select the  icon from the Playback menu and press the SET button [9].

1. Press ▲ or ▼ on the four-way button [7] to choose if you want to copy one picture (**Single**) or all pictures (**All**). Press  to go back to the Playback menu without making any changes.
2. Press the SET button [9] to confirm your selection.
3. Press the SET button [9] to confirm the message.
4. If you selected **Single** in step 1, you can press ◀ or ▶ to select more pictures and then repeat step 3.
5. Press the Menu button [6] to return to Playback mode.

Effect


For the settings available for Effect, please see the Record menu (page 30 – Effect). Additionally, in playback mode there will be the option “Mosaic”. This option is not available in record mode, as only one picture can be recorded at a time.




Using this editing function will not change the original picture but the edited image will be saved as a new file.

Rotate

You can rotate recorded images in 90-degree steps. This is a very useful function if you have captured pictures in portrait format.


To enable it, select the  icon from the Playback menu and press the SET button [9].

The following options are available:

Option	Description
Rotate	Each press of the SET button [9] will rotate the image 90° clockwise.
OK	Saves the rotated image.
	Back to Playback menu without saving any changes.

Resize

You can reduce the resolution of a saved picture to free up some memory on the memory card or to convert the image to send it via e-mail.

To enable it, select the  icon from the Playback menu and press the SET button [9].


1. In the following menu, press ▲ or ▼ on the four-way button to select the desired resolution (see also page 23 – Resolution).
2. Press the SET button [9] to confirm. The picture will be saved with the new resolution.




It is only possible to resize pictures with a high resolution into pictures with a lower resolution. It is not possible the other way round.

Voice Memo

After recording a picture you can attach a voice memo.

To enable it, select the  icon from the Playback menu and press the SET button [9].

1. If there is already a voice memo attached to the picture, the  icon is displayed (see page 14 – item 3). Recording a new voice recording will delete an existing one.

2. Press the SET button [9] to start a maximum 30-second recording.
3. Press SET again to stop recording.




It is not possible to attach a voice memo to video clips or locked images.

When deleting a picture with an attached voice memo, the voice memo will also be deleted.

Start-up Image

You can configure any picture as a start-up image. This will appear when powering on your Nytech DS-8310. Select the start-up image from this menu. In the Setup menu (see page 58 – Setup - Start-up Image) you can enable the image.

To enable it, select the  icon from the Playback menu and press the SET button [9].

1. If required, press ◀ or ▶ on the four-way button to select the picture you want to use as a start-up image.
2. Press the SET button [9] to confirm. The new start-up image will be copied. After a few seconds, the message “**Image saved**” will appear.
Or press ▼ and then the SET button [9] to cancel the process.
3. Enable the start-up image in the setup menu (see page 58 – Setup - Start-up Image).

Setup

A detailed description of this menu can be found on page 55.

Using the Thumbnail View

The thumbnail view allows you to view nine pictures at the same time on the display [13]. This feature helps you find a specific picture faster and to obtain a better overview of your recordings.

1. Power the Nytech DS-8310 on in Playback mode by pressing and holding the Play button [5] for approx. 1 second.
2. Press [W] on the Zoom button [4] to toggle to thumbnail view.
3. Press ◀, ▶, ▲ or ▼ on the four-way button [7] to select the desired picture and then press the [T] on the zoom button [4] or the SET button [9] to view the picture in full size. After this the camera will be in playback mode.

Trimming Pictures

Select a specific portion of an image and save it as a new image.

1. Power the Nytech DS-8310 on in Playback mode by pressing and holding the Play button [5] for approx. 1 second.
2. Press [T] on the Zoom button [4] to toggle to trimming mode.
3. Press [T] on the Zoom button to zoom in the picture, press [W] to zoom out.
4. Press ◀, ▶, ▲ or ▼ on the four-way button to move the enlarged section.
5. Press the SET button [9] to trim the currently displayed image section.
6. Press the SET button [9] again to save the trimmed image.




Using this editing function will not change the original picture but the trimmed image will be saved as a new file.

Audio Recording and Playback

Audio Recording

You can use your Nytech DS-8310 to record voice (dictaphone). To do so, press the Power button [2] to power the camera on.

1. Press the camera mode button [11] to open the Program menu (see also page 33 - Record Programmes).
2. Press ◀, ▶, ▲ or ▼ on the four-way button [7] to choose the option **Voice REC** (icon ) .
3. Press SET [9] to confirm your selection.
4. Press the shutter button [3] to start recording.
5. Press the shutter button [3] to stop recording.



The current recording time will appear on the display [13] during recording. The remaining recording time will be indicated in Stop mode.

Voice recording takes place via the camera's microphone [18]. Make sure that you do not touch the microphone during recording to avoid any noise.

Audio Playback

You can use the Playback mode to listen to your audio recordings.

1. Power the Nytech DS-8310 on in Playback mode by pressing and holding the Play button [5] for approx. 1 second.
2. Press ◀ or ▶ on the four-way button [7] to scroll through the recorded photos, video clips or voice recordings.



Keep the buttons ◀ or ▶ pressed for fast scrolling.

3. If the file is a voice recording (or if the picture contains a voice note), the icon [▲ : Play] will appear. Press ▲ on the four-way button [7] to play the recording.

During playback, you can use the four-way button [7] for the following:

- ▲ Pauses playback.
(Pressing the button ▲ again resumes playback).
- ▼ Stops playback


The zoom button [4] lets you adjust the sound volume during playback.

Advanced Settings

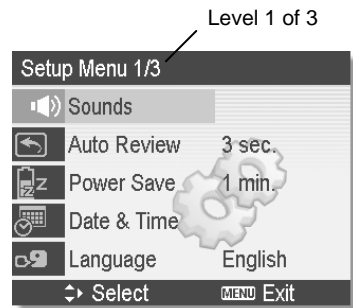
Setup Menu

The Setup menu contains basic control and functional options of your Nytech DS-8310. You can access this menu from any of the main menus (see page 32 – Record Menu - Setup, page 41 Video Menu – Setup and page 50 Playback Menu - Setup).

On the following pages, we will access via the Record menu to go to the Setup menu settings.

1. Power the camera on by pressing and holding the Power button [2] for approx. 1 second.
2. Press the Menu button [6] to toggle to the Record menu.
3. Press ◀ or ▶ on the four-way button [7] to select the **Setup** (icon ) and then press the Set button [9] to open the Setup menu.

The Setup menu consists of three levels. Our example shows the first level. Press ▲ or ▼ on the four-way button to choose any option. When reaching the last option, the next menu level will appear.



4. Press the SET button [9] to select an option.
5. Press ◀, ▶, ▲ or ▼ on the four-way button to choose or change the different menu options. Press the SET button [9] to apply the changes.



The Setup menu contains the following items: Sounds, Auto Review, Power Save, Date & Time, Language, File No., TV Out, USB, Start-up Image, Format and Reset All.

For more information about the different Setup menu items, see the following pages.

Sounds

This menu allows you to perform the following sound settings:

Option	Description
Shutter	Choose whether the Nytech DS-8310 should emit a sound when pressing the shutter button [3].
Start-up	Select one of three available start-up sounds. Or select None to disable the startup sound.
Beep	Choose whether you want to hear a beep when pressing any button.
Volume	Here you can choose from four different volume levels for the acoustic signals.

Auto Review

Here you can choose if you want your Nytech DS-8310 to display a picture immediately after recording. This function will display the recorded picture upon recording for a preset time.

Option	Description
Off	No Auto Review
3 sec.	Display time: 3 seconds
5 sec.	Display time: 5 seconds

Power-Saving Function

When the Nytech DS-8310 is left powered on but not used, it will power off the LCD [13] automatically after the preset time. Press any button to re-activate the LCD display.

If the camera is left unused another minute after the display has powered off, the camera will switch off completely.

Select a power-off time between **1 minute**, **3 minutes** or **5 minutes**.

Date & Time

You have already read about this feature in the Getting Started chapter. Please read page 17 – Setting Date and Time.

Language

You have already read about this feature in the Getting Started chapter. Please read page 17 – Setting the Menu Language.

File Number

Your Nytech DS-8310 will automatically assign a unique name to your recordings. This file name is a combination of the prefix “DSCI” followed by a sequential four-digit number (starting at 0001).

You can select the **Reset** function from this menu to reset the sequential number back to 0001. To avoid double names, your Nytech DS-8310 will automatically create a new folder on the memory card.

TV Out

This menu allows you to select the TV standard of your television set. The standards **PAL** and **NTSC** are available. In Europe, PAL is generally the standard whereas NTSC is the standard on the American continent and in Asia.

USB

Here you can set whether you have connected a computer or a direct printer to the USB port.

Start-up Image

Select a start-up image for your Nytech DS-8310. The following options are available:

Option	Description
Off	No start-up image
System	Built-in start-up image of your camera
My image	Custom start-up image (please read on page 50 how you can set a start-up image to be able to select it here)

Format

This function lets you delete all contents from your memory card and renew the file saving structure on your card (formatting). Select **Yes** to remove all the contents from the memory card or select **No** to go back to the Setup menu without applying any changes.



Warning! Formatting will delete all pictures, video clips and voice recordings from your memory card. Make sure that all recordings that you want to keep have been backed-up on a different media.

Reset All

All camera parameters will be reset to their factory-default values. However, this does not apply to the language settings, the date and the time.

Also all files stored on the memory card or the internal memory will be kept.

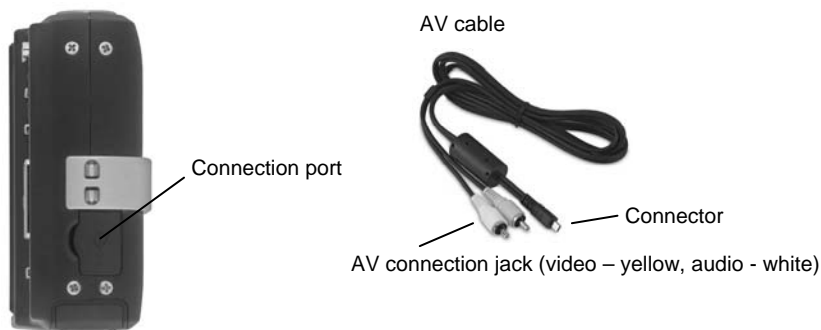
Select **Yes** to reset the settings to the factory defaults or select **No** to go back to the Setup menu without applying any changes.

Connectors

Viewing Pictures on a Television Screen

Any pictures that you can view on the Nytech DS-8310 display [13] can also be played back on a regular TV set. For this, your television set must have an appropriate Video In connector.

Use the supplied AV cable to connect the product to a television set.



1. Power your Nytech DS-8310 off.
2. Open the port cover (see the above figure) and insert the AV cable connector into the connection port of your camera.
3. Insert the AV connector into the corresponding inputs of your TV set (yellow connector to VIDEO IN, white connector to AUDIO IN). Please also consult your TV set's User Manual for more information.
4. Select the AV channel corresponding to the above input connectors on your TV set. This is a device-specific setting. If necessary, read the User Manual of your TV set for more information on how to do this.
5. Power the camera on in Playback mode by pressing and holding the Play button [5] for approx. 1 second.

The display [13] on the Nytech DS-8310 will remain off while the AV cable is connected to the AV port. Instead, the pictures will be played back on your television set. Control the camera as usual, e.g. start a slide show (see page 46 – Slide Show) to play all images automatically.



If the picture is only displayed in black and white on the TV make sure that the TV system setting is correct for your TV (see page 57 – TV Out).



Power the Nytech DS-8310 off prior to connecting or disconnecting the AV cable to/from the camera.

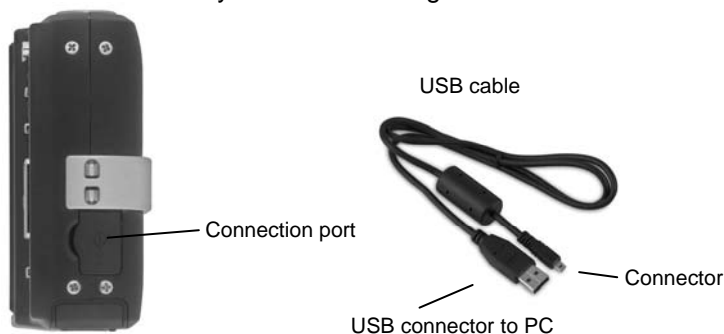
Copying Pictures to a Computer

There are two possible ways to copy pictures from the Nytech DS-8310 to a computer:

1. by connecting the camera to a computer via the USB cable
2. by inserting the SD memory card into a card reader

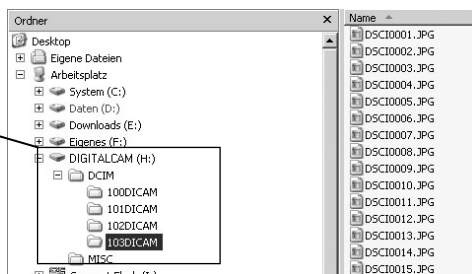
Using the USB Cable

Windows[®] XP and Windows Vista[™] operating systems will detect the camera automatically as a mass storage device.



1. Power your Nytech DS-8310 off.
2. Open the port cover (see the above figure) and insert the USB cable connector into the connection port of your camera.
3. Plug the USB connector into a free USB port on your computer.
4. Press the Power button [2] to power the camera on. The computer will detect the camera as a "DIGITALCAM" and will create a new drive with the next available driver letter. During this process the message "Connecting..." will appear on the display [13].
5. Open My Computer on your PC and double-click on the new "DIGITALCAM" drive.
6. All recorded files can be found in the folder "DCIM" on this disk drive.

Nytech DS-8310 as
"DIGITALCAM"



7. Now you can copy the recorded files from the camera into a folder of your choice of the computer's hard disk.



Be careful when renaming any folders and files. Do NOT try to change the folder or file names stored on the camera from the computer otherwise you may not be able to play back any files contained here with your Nytech DS-8310.

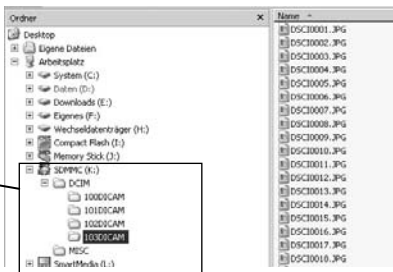
After you have copied your files or folders to the computer, you can rename or edit them on the computer.

Using a Card Reader

If your computer features a card reader supporting SD memory cards, you can read the memory card's contents directly. To do so, power the Nytech DS-8310 off and remove the memory card (see page 11 - Inserting the SD Card).

1. Insert the memory card into the card reader of your computer (normally labelled SD/MMC).
2. The PC will add the memory card contents under the drive letter in My Computer representing the card reader.
3. Open My Computer on your PC and double-click on the disk drive representing the card reader.
4. All recorded files can be found in the folder "DCIM" on this disk drive.

Memory card in PC card reader



5. Now you can copy the recorded files from the memory card into a folder of your choice on the computer's hard disk.



Be careful when renaming any folders and files. Do NOT try to change the folder or file names stored on the memory card from the computer. Otherwise you may not be able to play back any files contained here with your Nytech DS-8310. After you have copied your files or folders to the computer, you can rename or edit them on the computer.

Installing the Software

System Requirements

- Windows Vista™ or Windows® XP
- Free USB port
- CD-ROM drive

Supplied Software

The supplied CD-ROM contains software for your Nytech DS-8310.

Insert the CD-ROM into your CD-ROM drive. The menu should appear automatically.



Note: If the menu isn't displayed automatically after inserting the CD-ROM, you can run the file "setup.exe" from the CD-ROM manually.

The following software will be listed:

- Presto! Mr.Photo
Installs software for organising and editing your pictures.
- Quick Time
Installs a Codec for the playback of videos that have been recorded with the camera.
- Adobe Reader
Installs software to display pdf documents.

Click on the software you want to install and follow the on-screen instructions.

Appendix

Tips for Taking Better Pictures

Camera technology alone is not only responsible for producing good shots. Here you can find some tips for taking better pictures.

Subject

The subject is the main element of the picture, therefore you should pay special attention to it. However, the subject doesn't always need to be spectacular – trivial scenes may also make a great subject and thus a great picture.

Background

The background shouldn't distract from the subject. Make sure that no interfering objects are located in the background.

Camera Angle

Experiment with the angle. Change your position relative to the subject and try both a wide-angle or a telephoto setting.

Golden Section

The Nytech DS-8310 allows you to display a grid while in Record mode (see page 16 - Changing the Displayed Information). Place important subject parts onto the grid lines or on their intersections (e.g. the horizon).

Lighting

Lighting conditions reflect the atmosphere of a scene. Therefore try to avoid using the flash when you are attempting to take pictures under candlelight. When disabling the flash, the Nytech DS-8310 will automatically use a longer exposure time. In this case, place the camera on a stable surface or use a tripod.

Troubleshooting

Problem	Reason	Solution
Unable to power the camera on.	The rechargeable battery isn't inserted properly.	Remove the rechargeable battery and insert it respecting the correct polarity.
	The rechargeable battery is exhausted.	Replace the battery or recharge it.
The camera does not record any pictures.	The flash is still charging (indicator on display).	Wait until the flash has been charged.
	The memory is full.	Insert an empty memory card or delete some recordings.
	The memory card isn't properly formatted.	Format the memory card or try with a different memory card.
	The maximum number of files (9999) has been exceeded).	Reset the file number.
The flash does not fire.	The flash is disabled.	Enable the flash or select a programme with flash.

Troubleshooting (continued)

Problem	Reason	Solution
The picture is distorted or blurred.	The camera has moved during capture.	Hold the camera still.
	The subject was located outside the focus range of the camera.	Change your relative position to the subject. Use the Macro mode when capturing very close subjects.
Recorded images haven't been saved.	The camera has been powered off before any picture could be saved.	Do not power the camera off before the storage process has been completed.

Technical Specifications

Capture sensor	8 megapixels CCD
Lens	Optical zoom: 3x Focus range: $f = 6.2\text{mm} - 18.6\text{mm}$ Aperture: $F = 2.8 - 5.6$
Range	Normal mode: 60cm – infinity Macro mode: Wide-angle 15cm -80cm, Telephoto 50cm -80cm
Colour LCD Display	3-inch TFT LCD display
Shutter speed	1/2000s – 8s
File format	Photo: JPEG, DCF-compatible; supports DPOF Video: MPEG 4 Audio: WAV
Resolution	Photo: 3264x2448, 3264x2176, 3264x1836, 2816x2112, 2272x1704, 1600x1200, 640x480 Video: 640x480, 320x240, 160x128
Scene mode	Auto, Movie, Voice recording, Q Mode, Portrait, Landscape, Sunset, Backlight, Night Scene, Sports, Party, Snow, Kids, Candlelight, Fireworks, Night Portrait, Soft Skin, Soft Flowing Water, Food, Building, Text
Sensitivity	Auto, ISO50, 100, 200, 400, 800, 1600
White balance	Auto, Daylight, Cloudy, Tungsten, Fluorescent H, Fluorescent L, Custom
Exposure compensation	-2.0EV to +2.0EV

Technical Specifications (continued)

Metering	Multi-field, Multi and Spot metering
Self timer	2s, 10s, Double
Flash	Auto, Red-eye reduction, Always on, Slow synchronisation, Always off
Photographic effects	Black and white, Negative, Sepia, Mosaic, Red, Green, Blue
Memory	Internal: 16 MB flash memory (partially used by the operating system) External: SD/MMC memory card
TV Out	PAL, NTSC
Power Supply	2x rechargeable Li-Ion batteries 3.7V, 820 mAh, type: BYD DM6331 with charging cradle Nytech AB-4330. Power adapter KSAA0600050W1EU or KSAA0600050W1UK
Environmental temperature	Operating temperature: 0°C - 35°C Storage temperature: -20°C -60°C
Microphone	Built-in mono capacitor microphone
Speaker	Integrated
Dimensions	98 x 58 x 25 mm (W x H x D)
Weight	Camera case without battery: approx. 126g

Details of Guarantee

**36 month warranty from
date of purchase**



Important warranty information



Dear Customer,

Thank you for purchasing a Nytech product.

Please carefully read through the enclosed documentation or online help before putting your Nytech product into service. If you have a problem, which can't be solved in this way, please contact our hotline.

If the problem cannot be solved over the phone, you will be given a reference number (RMA), which you should enclose together with a copy of the proof of purchase. After you have packaged the unit safe for transport and in plain packaging, please send it for warranty processing, with the RMA noted on the outside of the package, to the address given to you by our hotline employee. After receiving the unit we will correct the manufacturing and material defect free of charge.

Up-to-date information and answers to the most frequently asked questions are available on the internet from:

www.nytech.de

This guarantee is valid in the UK.

Your statutory guarantees from the seller are in addition to this warranty and are not limited by it.



**Hotline number:
0207-3650744**

(Please have your
serial number to hand!)

Manufacturer: Targa GmbH, Postfach 2244,

D-59482 Soest

www.nytech.de

36 month warranty from date of purchase



Important warranty information



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**Hotline number:
01-2421583**

(Please have your
serial number to hand!)

Manufacturer: Targa GmbH, Postfach 2244,

D-59482 Soest

www.nytech.de

