

Nikon D3200 User Guide

Summary

This user guide was prepared for the Technical Writing class at Algonquin College. I redesigned Nikon's lengthy user manual for the D3200 DSLR camera into a short guide for new users.

Audience

The Nikon D3200 is mainly used by amateur and hobby photographers, though this manual is targeted at novice users who are using a DSLR camera for the very first time. This group is comprised of many different audiences. Photographers can be of any age, any educational background, any gender, any occupation, and any cultural background. Most users will come from a middle class background and live in North America. Here is an example user persona:

Betty has recently retired and has decided to pick up a new hobby: photography. She has some experience using a point and shoot camera and the camera on her iPad, but she has never operated a DSLR camera before. She wouldn't normally spend \$500 on herself; this was a birthday gift from her husband. She is often hesitant to try new technology and devices because she is afraid of feeling stupid in front of her children and grandchildren. She primarily uses the Internet to check her email and the weather forecast. She does not use social media. She is mainly interested in taking pictures of her gardens and her family for personal use.

Context

This manual will be used as a reference to guide users through the initial steps with their new camera. It will be available as a pdf on the Nikon website and as a soft cover print.

Purpose

This manual will teach first time users how to safely and effectively operate a Nikon D3200. It will focus on improving user experience, making users feel confident and in control, and reduce frustrations with using the product.



Nikon D3200

Help Guide for Beginners



Help Guide

for Beginners

Nikon D3200 Help Guide for Beginners
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For more help:

- Use the camera's on-board help feature for help on menu items and other topics.
- Use the camera's official reference manual to learn more about a variety of topics – available at:
http://cdn-10.nikon-cdn.com/pdf/manuals/dslr/D3200_EN.pdf
- Use "Digitutor," a series of "watch and learn" manuals in movie form, – available at:
http://www.nikondigitutor.com/index_eng.html

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Overview

Getting Started

Welcome

Thank you for purchasing the Nikon D3200 digital single lens reflex (DSLR) camera. To get the most from your camera, please read through the instructions and store them with the camera. This manual was designed to guide brand new users through taking their first photographs and give them information on more advanced settings,

Symbols and Conventions

The following symbols and conventions are used throughout the manual:



This icon indicates **WARNING** – read this information before operating the camera to prevent damage



This icon indicates **TIP** – this note will help you understand how to use the camera



This icon indicates **REFERENCE** – it will list pages with information on similar topics.



WARNING: Before using the camera for the first time, please read the **Safety Warnings** (p.6-7).

Safety Warnings

To prevent damage to your Nikon product or injury to yourself or to others, read the following safety precautions in their entirety before using this equipment. Keep these safety instructions where all those who use the product will read them.

**Keep the sun out of the frame**

Keep the sun well out of the frame when shooting backlit subjects. Sunlight focused into the camera when the sun is in or close to the frame could cause a fire.

**Do not look at the sun through the viewfinder**

Viewing the sun or other strong light source through the viewfinder could cause permanent visual impairment.

**Using the viewfinder diopter adjustment control**

When operating the viewfinder diopter adjustment control with your eye to the viewfinder, care should be taken not to put your finger in your eye accidentally.

**Turn off immediately in the event of malfunction**

Should you notice smoke or an unusual smell coming from the equipment or AC adapter (available separately), unplug the AC adapter and remove the battery immediately, taking care to avoid burns. Continued operation could result in injury. After removing the battery, take the equipment to a Nikon-authorized service center for inspection.

**Do not use in the presence of flammable gas**

Do not use electronic equipment in the presence of flammable gas, as this could result in explosion or fire.

**Keep out of reach of children**

Failure to observe this precaution could result in injury. In addition, note that small parts constitute a choking hazard. Should a child swallow any part of this equipment, consult a physician immediately.

**Do not aim a flash at the operator of a motor vehicle**

Failure to observe this precaution could result in accidents.

**Do not disassemble**

Touching the product's internal parts could result in injury. In the event of malfunction, the product should be repaired only by a qualified technician. Should the product break open as the result of a fall or other accident, remove the battery and/or AC adapter and then take the product to a Nikon-authorized service center for inspection.

**Do not place the strap around the neck of an infant or child**

Placing the camera strap around the neck of an infant or child could result in strangulation.

**Do not remain in contact with the camera, battery, or charger for extended periods while the devices are on or in use**

Parts of the device become hot. Leaving the device in direct contact with the skin for extended periods may result in low temperature burns.

**Observe caution when using the flash**

- Using the camera with the flash in close contact with the skin or other objects could cause burns.
- Using the flash close to the subject's eyes could cause temporary visual impairment. Particular care should be observed when photographing infants, when the flash should be no less than one meter (39 in.) from the subject.

**Avoid contact with liquid crystal**

Should the monitor break, care should be taken to avoid injury due to broken glass and to prevent the liquid crystal from the monitor touching the skin or entering the eyes or mouth.

**Observe proper precautions when handling batteries**

- Batteries may leak or explode if improperly handled.
- Use only batteries approved for use in this equipment.
- Do not short or disassemble the battery.
- Be sure the product is off before replacing the battery. If you are using an AC adapter, be sure it is unplugged.
- When the battery is not in use, attach the terminal cover and store in a cool, dry place.

**Use appropriate cables**

When connecting cables to the input and output jacks, use only the cables provided or sold by Nikon for the purpose of maintaining compliance with product regulations.

Caring for your Camera

Tips

To prolong the life of your camera:

- Do not drop the camera
- Keep the camera clean and dry
- Avoid rapid temperature fluctuations (to prevent condensation)
- Do not point the lens at the sun (the intense light may deteriorate the sensor and affect the photo quality)
- Follow the cleaning and storage guidelines.
- Use only accessories that have been approved for use with this camera

Cleaning

Be gentle when cleaning the camera as it can be easily damaged. Follow the guidelines in the table below.

Camera body	<ul style="list-style-type: none">• Blow away dust and other foreign particles• Wipe with a soft, dry cloth
Lens, mirror, viewfinder, monitor	<ul style="list-style-type: none">• Blow away dust and other foreign particles• Wipe with a soft cloth and lens cleaner



To prevent damage, do not apply pressure when wiping and do not use volatile chemicals such as alcohol.

Storage

Store the camera in a cool, dry place. Keep the lens cover on and remove the battery. Avoid areas that are

- Poorly ventilated
- Extremely hot or cold

Using the Camera

This section will take you through your first steps using the camera. You will learn

- How to set-up and adjust settings
- About the battery
- How to begin taking photographs
- How to view photographs
- How to export photographs.

First take a few moments to familiarize yourself with camera controls and displays in the diagrams below (Figure 1 and Figure 2). You may find it helpful to bookmark this section and refer to it as you read through the rest of the manual.

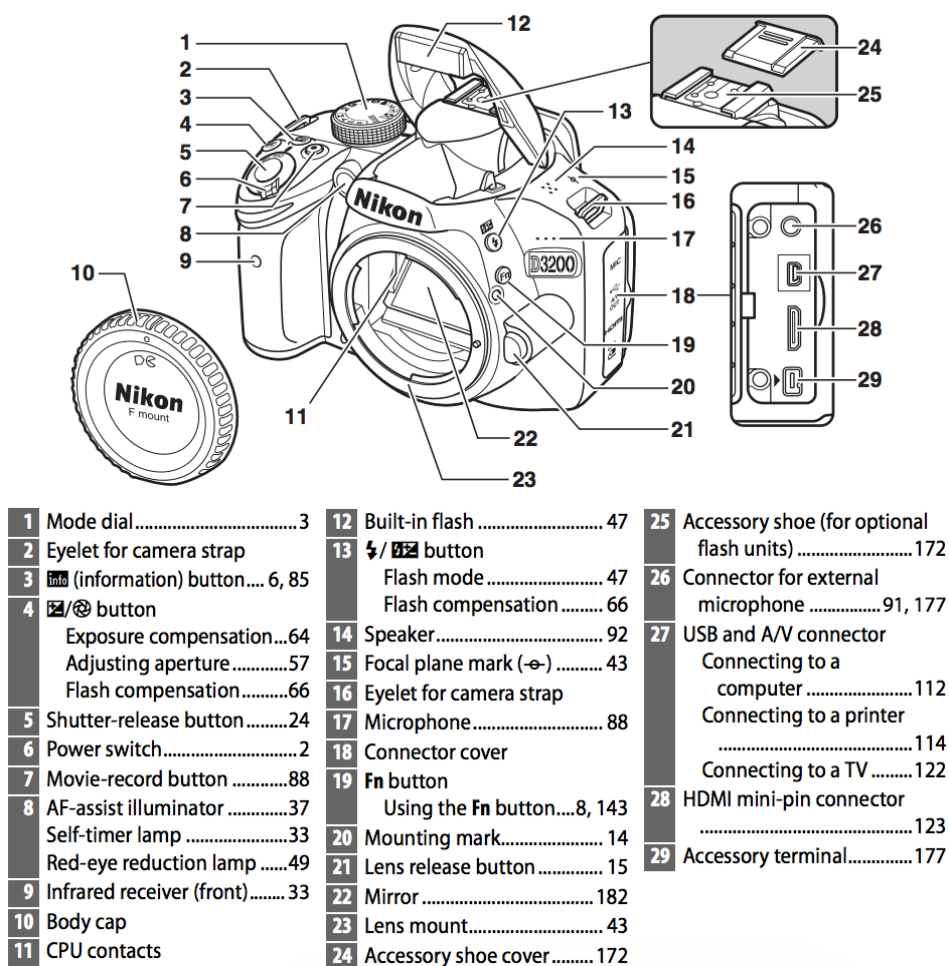
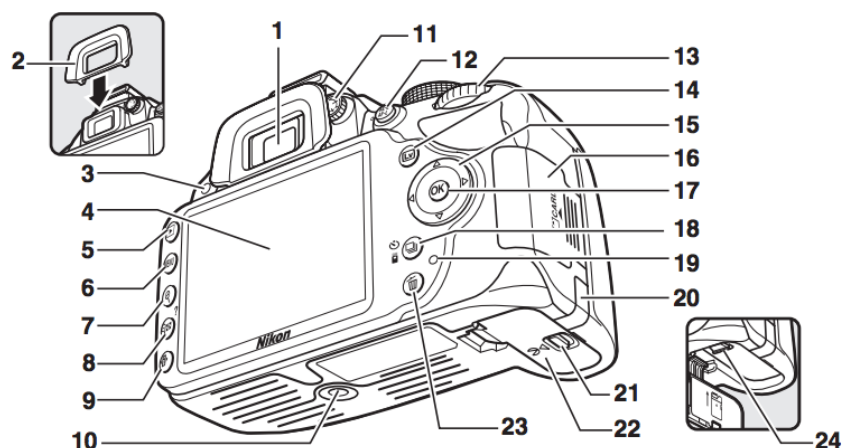


Figure 1: Front view



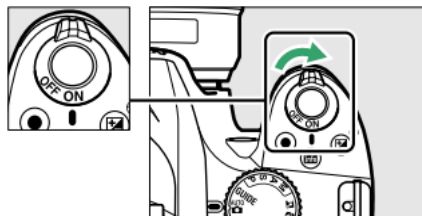
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9 (information edit) button 5	18 button Release mode 31 Self-timer 33 Remote control 33	

Figure 2: Back view

Adjusting the Settings

A basic setup menu will pop up the first time the camera is turned on. You will not be able to take photographs until you have set the language, date, and time.

To begin, rotate the power switch as shown in the image on the right to turn the camera on.



Language

A language must be selected before you can use the camera. To set the language:

1. Once the camera is turned on, a dialog box will pop up on the screen.
2. Select the desired language by using the arrow keys to scroll.
3. Press OK.

Date

After the language has been set, another dialog box will pop up on the screen to set the date. To set the date:

1. Choose a date format by using the arrow keys to scroll up and down.
2. Press OK.
3. Set the year, month, and day by using the arrow keys to scroll.
4. Press OK.

Time

After the date has been set, another dialog box will pop up on the screen to set the time. To set the time:

1. Choose a time zone by using the arrow keys to scroll.
2. Press OK.
3. Toggle daylight savings time ON or OFF with the arrow keys.
4. Press OK.
5. Set the time by using the arrow keys to scroll.
6. Press OK.

The Battery

The camera uses a EN-EL14 rechargeable Li-ion battery (included).

Charge the Battery

Charge the battery in the supplied MH-24 battery charger. It will take ninety minutes to fully charge the battery.

To charge:

1. Remove the terminal cover from the battery.
2. Insert the battery into the charger as shown in Figure 1.



Charge the battery indoors at ambient temperatures between 5–35°C (41–95°F). The battery will not charge if its temperature is below 0 °C (32 °F) or above 60 °C (140 °F).

Insert the Battery

The battery should only be inserted when the camera is powered off.

To insert:

1. Open the battery cover.
2. Insert the battery until it is secured by the orange latch.
3. Close the battery cover.

Battery and Charger Specifications

EN-EL14 rechargeable Li-ion battery

- Type: Rechargeable lithium-ion battery
- Rated capacity: 7.4 V/1030 mAh
- Operating temperature: 0–40 °C (+32–104 °F)
- Dimensions(W×H×D):38×53×14mm(1.5×2.1×0.6in.)
- Weight: 48 g (1.7 oz), excluding terminal cover



If the battery no longer holds a charge, please see p.20

Taking Photos

This section will show you the basic set-ups for taking photographs. You will learn how to use two beginner-friendly camera modes (Auto and Guide), and how to use focus, flash, zoom, and the self-timer.

Auto Mode

The Auto mode enables the user to take “point-and-shoot” photography, meaning that the user needs to press the shutter button to capture a photograph. In this mode, the majority of settings are controlled by the camera in response to shooting conditions.

To take a photograph in Auto:

1. Remove the lens cap and turn the camera on.
2. Turn the mode dial to select Auto mode.
3. Ready the camera. When framing photographs in the viewfinder, hold the handgrip in your right hand and cradle the camera body or lens with your left.
4. Frame a photograph in the viewfinder with the main subject in focus.
5. Press the shutter-release button halfway to focus. The camera will select the focus points automatically.
6. Shoot. Smoothly press the shutter-release button the rest of the way down to release the shutter and record the photograph.

Guide Mode

Guide mode gives access to a variety of frequently-used and useful functions.

To take a photograph in Guide:

1. Remove the lens cap and turn the camera on.
2. Turn the mode dial to select Guide mode.
3. Follow the instructions on the screen.



For a comparison of camera modes, see p.24.

Focus

The camera has two focus modes: autofocus and manual focus.

Autofocus

When in Auto mode, the camera will focus automatically. In all others modes, the autofocus can be toggled on and off.



For optimal results with auto-focus:

- Ensure there is enough contrast between the subject and background
- Ensure the subject is not in an area of sharply contrasting brightness
- Ensure the focus point contains objects at the same distance from the camera
- Ensure the subject is not dominated by geometric patterns or large objects

Manual Focus

To focus manually, adjust the lens focus ring until the image displayed on the clear matte field in the viewfinder is in focus.



Photographs can be taken at any time, even when the image is not in focus.



If you have trouble with the focus, see p.21 for troubleshooting.

Flash

The camera supports a variety of flash modes for photographing poorly lit or backlit subjects. The flash will pop up as required when the shutter-release button is pressed halfway (see image below), and fire when a photograph is taken.

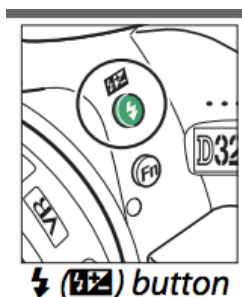


To use flash in Auto mode:

1. Take photographs as you normally would. Flash will go off automatically if the camera detects darkness.

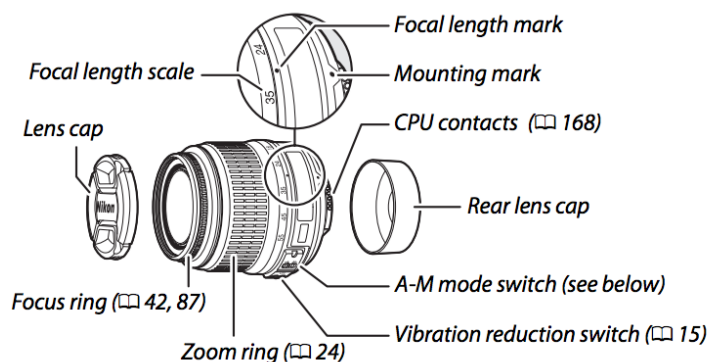
To use flash in all other modes:

1. Choose a flash mode (as shown in the image below).
2. Take photographs as you normally would.



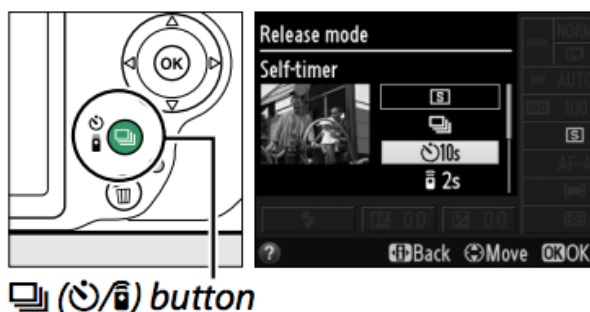
Zoom

Use the zoom ring (see image below) to zoom in on the subject so that it fills a larger area of the frame, or zoom out to increase the area visible in the final photograph (select longer focal lengths on the lens focal length scale to zoom in, shorter focal lengths to zoom out).



Using the self-timer

The self-timer creates a delay between pressing the shutter release button and the shutter firing. This function enables the photographer to capture a photograph while being away from the camera. The user will most likely use the self-timer function when he or she wishes to be in the photo (e.g., family photograph).



To use the self-timer:

1. Set up the camera on a tripod or a stable, flat surface.
2. Press the self-timer button (see image above).
3. Three options will appear on the screen:
 - 2s (the photo will be taken two seconds after the shutter button is pressed)
 - 10s (the photo will be taken ten seconds after the shutter button is pressed)
 - Continuous (the camera will automatically take a set number of pictures).
4. Select an option (10s is recommended).
5. Frame the photograph; ensure the subject is in focus.
6. When you are ready to take the picture, press the shutter button. The camera will beep and the self-timer light will flash until two seconds before the picture is taken. For the final two seconds, the flashing will stop but the beeps will be continuous until the photo is captured.




To cancel the self-timer, turn the camera off. Turn the camera back on when you are ready to resume taking photographs manually.

Viewing Photos

In this section, you will learn how to view and delete photos directly on the camera.




Playback

For photo playback on the camera screen:

- To view photographs, press the playback button . The most recent photograph will be displayed in the monitor.
- To view additional photographs, use the arrow keys to scroll.
- To return to shooting mode, press the shutter button down halfway.

Deletion

To delete photographs:

1. Open the playback by pressing the playback button .
2. Select an image to delete.
3. Press the delete button .
4. A confirmation dialogue will be displayed. Press the delete button  again to delete the photograph.



To exit without deleting the photograph, press the playback button .



Warning: Once deleted, photographs can not be recovered.

Exporting Photos

Photographs can be exported through memory cards or through cables. This sections will only talk about memory cards.

Memory Cards

A memory card is an electronic flash data storage device used for storing digital information (as shown in the figure below). Memory cards must be purchased separately and do not come with the camera.



The following memory cards have been tested and approved for use with the camera:

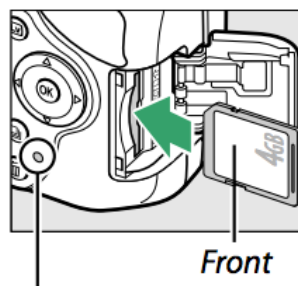
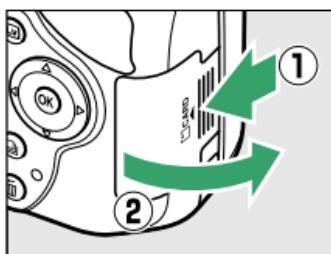
	SD memory cards	SDHC memory cards ²	SDXC memory cards ³
SanDisk	2 GB ¹	4 GB, 8 GB, 16 GB, 32 GB	64 GB
Toshiba		4 GB, 6 GB, 8 GB, 12 GB, 16 GB, 24 GB, 32 GB	48 GB, 64 GB
Panasonic		4 GB, 8 GB, 16 GB, 32 GB	—
Lexar Media		4 GB, 8 GB, 16 GB, 32 GB, 64 GB, 128 GB	
Platinum II		4 GB, 8 GB, 16 GB	
Professional	—	4 GB, 8 GB, 16 GB	
Full-HD Video			

¹ Check that any card readers or other devices with which the card will be used support 2 GB cards.
² Check that any card readers or other devices with which the card will be used are SDHC-compliant. The camera supports UHS-1.
³ Check that any card readers or other devices with which the card will be used are SDXC-compliant. The camera supports UHS-1.



To insert a memory card:

1. Turn the camera off.
2. Open the card slot cover by sliding the card slot cover out (see image below on left).
3. Slide the memory card into the slot until it clicks into place (see image below on right).
4. Close the memory card slot cover.



Inserting memory cards upside down or backwards could damage the camera or the card. Check to be sure the card is in the correct orientation.

To remove a memory card:

1. Turn the camera off.
2. Open the card slot cover by sliding the card slot cover out.
3. Gently press the memory card and it will pop out.
4. Close the memory card slot cover.



Memory cards may be hot after use. Observe due caution when removing memory cards from the camera.

To transfer photographs from a memory card to a personal computer (PC):

1. Insert the memory card into your PC's memory card reader.
2. A window will automatically pop up and guide you through the process.

Problem Solving

This section will help you troubleshoot issues that you may encounter.

Battery does not Hold Charge

Replace the battery.



To prolong battery life:

- Do not expose the battery to extreme temperatures
- Turn off the camera before inserting or removing the battery
- Avoid repeatedly turning the camera on and off to prolong battery life
- Stop charging the battery after it is full for optimal battery performance
- Be sure the battery is full before taking photos in cold weather
- Replace the battery when it can no longer hold its charge
- Recycle used batteries (be sure to follow your local regulations)

Monitor is Unresponsive

If the monitor is unresponsive:

- Turn on/off
- Ensure battery is charged
- Get camera serviced at a reputable Nikon retailer

Pictures are too Dark

If photographs are too dark:

- Ensure that the lens cap is removed
- Use a higher ISO sensitivity
- Use flash
- If in S mode: lower the shutter speed
- If in A mode: choose a larger aperture (lower f-number)

Pictures are out of focus

If photographs are out of focus:

- In autofocus: use manual focus or focus lock
- In manual focus mode: focus manually
- Get camera serviced at a reputable Nikon retailer

If a focus point cannot be selected:

- Auto-area AF selected for AF-area mode > Viewfinder: choose another mode
- Press shutter-release button halfway to turn monitor off or start standby timer

Frequently Asked Questions

This section will answer several frequently asked questions that beginner users have. You do not need to apply these concepts when you are first getting started, but many users ask these questions to learn about their next steps in photography.

What does “shooting in RAW” mean?

RAW photographs are minimally processed by the camera, so settings such as white balance and contrast can be adjusted after shooting. RAW photography is typically used by photographers who retouch their photographs.

RAW files are extremely large (approximately 31.9 MB, whereas a small JPEG basic photo is about 1.0 MB), which means they take up a lot of storage space and they reduce battery life.

What other camera modes can I use?



You learned about Auto and Guide on p.13. There are several other camera modes that you can access by spinning the mode dial (as shown in Figure 3 below).

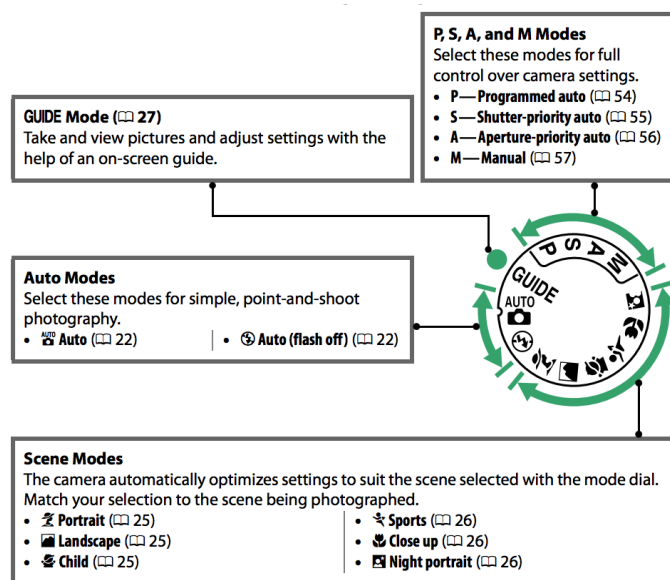


Figure 3: Available shooting modes

Creative Modes

The following chart lists and explains the six creative modes.

Mode	Suggested Usage
Child	Use for snapshots of children. Clothing and background details are vividly rendered, while skin tones remain soft and natural.
Landscape	Use for vivid landscape shots in daylight. The built-in flash and AF-assist illuminator turn off; use of a tripod is recommended to prevent blur when lighting is poor.
Portrait	Use for portraits with soft, natural-looking skin tones. If the subject is far from the background or a telephoto lens is used, background details will be softened to lend the composition a sense of depth.
Sports	Fast shutter speeds freeze motion for dynamic sports shots in which the main subject stands out clearly. The built-in flash and AF-assist illuminator turn off.
Night	Use for a natural balance between the main subject and the background in portraits taken under low light. Use of a tripod is recommended to prevent blur.
Close-up	Use for close-up shots of flowers, insects, and other small objects (a macro lens can be used to focus at very close ranges). Use of a tripod is recommended to prevent blur.

P, S, A, M Modes

The following chart lists and explains the P, S, A, M modes.

Mode	Suggested Usage
Aperture-priority auto	User chooses aperture; camera selects shutter speed for best results. Use to blur background or bring both foreground and background into focus.
Programmed-auto	Camera sets shutter speed and aperture for optimal exposure. Recommended for snapshots and in other situations in which there is little time to adjust camera settings.
Shutter-priority auto	User chooses shutter speed; camera selects aperture for best results. Use to freeze or blur motion.
Manual	User controls both shutter speed and aperture. Set shutter speed to “Bulb” or “Time” for long time-exposures.

How do I know which camera mode to use?

Deciding which camera mode to use depends on your experience and your photography needs.

Level of experience:

- Auto is recommended for absolute beginners.
- Guide and Programmed Auto (P) are recommended for beginners who feel comfortable using the camera in Auto mode.
- All six Creative modes (Portrait, Landscape, Child, Sports, Close-up, and Night), Shutter-priority auto (S), and Aperture-priority (A) are recommended for intermediate-level users who are comfortable using the camera interface.
- Manual is recommended for experienced photographers who have a strong understanding of shooting settings (e.g., aperture, exposure, shutter speed).

The following chart lists when each mode should be used.

Mode	Suggested Usage
Auto	<ul style="list-style-type: none"> • Use for point and shoot photography • Recommended when you are getting used to the camera
Guide	<ul style="list-style-type: none"> • Use for access to a variety of frequently used and useful functions • Recommended once you are comfortable with the camera and want to easily adjust the settings
Portrait	<ul style="list-style-type: none"> • Use for portraits with soft, natural-looking skin tones • The background details will be softened to give a sense of depth
Landscape	<ul style="list-style-type: none"> • Use for vivid landscape shots in daylight • A tripod is recommended to prevent blur
Child	<ul style="list-style-type: none"> • Use for snapshots of children • Clothing and background details are vividly rendered, while skin tones remain soft and natural
Sports	<ul style="list-style-type: none"> • Use for dynamic sports shot or when taking photos of a moving object • The fast shutter speed will capture a clear image of the main subject
Close-up	<ul style="list-style-type: none"> • Use for close-up shots of small objects (e.g., flowers, insects) • A tripod is recommended to prevent blur
Night	<ul style="list-style-type: none"> • Use for a natural balance between the main subject and the background • A tripod is recommended to prevent blur
Programmed auto	<ul style="list-style-type: none"> • Use in situations in which there is little time to adjust the camera settings
Shutter- priority auto	<ul style="list-style-type: none"> • Use to freeze or blur motion
Aperture- priority auto	<ul style="list-style-type: none"> • Use to blur background or bring both foreground and background into focus
Manual	<ul style="list-style-type: none"> • For complete control over shooting settings

Appendix

Glossary

DSLR A DSLR has a single lens (instead of two lenses in smaller cameras), and takes and store pictures in a digital format (e.g., on a memory card).

Exposure Exposure is the amount of light per unit area (the image plane illuminance times the exposure time) reaching a photographic film or electronic image sensor, as determined by shutter speed, lens aperture and scene luminance.

Flash A flash is a device used in photography producing a flash of artificial light (typically 1/1000 to 1/200 of a second) at a color temperature of about 5500 K (Kelvin) to help illuminate a scene. A major purpose of a flash is to illuminate a dark scene.

Focus Adjustment of the distance setting on a lens to define the subject sharply. Generally, the act of adjusting a lens to produce a sharp image. In a camera, this is effected by moving the lens bodily towards or away from the film or by moving the front part of the lens towards or away from the rear part, thus altering its focal length.

ISO The ISO determines how sensitive the camera is to light. A low ISO means the camera isn't very sensitive, which is great for shooting in the daylight. An ISO that is higher means the camera is very sensitive to light, so you can use that higher ISO for getting shots in low light. The trade off is that images at high ISOs appear to be grainy and have less detail. ISO is balanced with aperture and shutter speed to get a proper exposure.

Lens A camera lens (also known as photographic lens or photographic objective) is an optical lens or assembly of lenses used in conjunction with a camera body and mechanism to make images of objects either on photographic film or on other media capable of storing an image chemically or electronically.

Memory card A memory card, flash card or memory cartridge is an electronic flash memory data storage device used for storing digital information.

Point and shoot In point and shoot photography, the user simply needs to press the shutter button to capture a photograph. In this mode, the majority of settings are controlled by the camera in response to shooting conditions.

RAW RAW is a file type (saved as NEF) that gives the photographer more control over photo editing. RAW is considered a digital negative, where the default JPEG file type has already been processed a bit. RAW requires special software to open, however, while JPEG is more universal.

Self-timer A self timer is a device on a camera that gives a delay between pressing the shutter release and the shutter's firing.

Shutter speed The shutter is the part of the camera that opens and closes to let light in and take a picture. The shutter speed is how long that shutter stays open, written in seconds or fractions of a second, like 1/200 s. or 1", with the " symbol often used to designate an entire second. The longer the shutter stays open, the more light that is let in. But, anything that moves while the shutter is open will become a blur, and if the entire camera moves while the shutter is open the whole image will be blurry—that's why tripods are necessary for longer shutter speeds.

Viewfinder The viewfinder is the hole you look through to take the picture.

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