

## Nikon D3100

# Nikon D3100 Digital SLR Camera User Manual

Model: D3100

## 1. INTRODUCTION

The Nikon D3100 is an affordable, compact, and lightweight digital SLR camera designed for capturing high-quality photographs and Full HD 1080p movies. It features a 14.2-megapixel CMOS DX sensor and comes equipped with an 18-55mm VR image stabilization zoom lens. The camera includes an intuitive Guide Mode to assist users in achieving optimal results.



Figure 1: Nikon D3100 Digital SLR Camera with attached 18-55mm VR lens.

## 2. WHAT'S IN THE BOX

Upon unboxing your Nikon D3100, ensure all the following components are present:

- D3100 digital SLR camera body
- AF-S DX NIKKOR 18-55mm f/3.5-5.6G VR Lens
- EN-EL14 Rechargeable Li-ion Battery
- MH-24 Battery Charger
- DK-5 Eyepiece Cap
- DK-20 Rubber Eyecap
- AN-DC3 Camera Strap
- BS-1 Accessory Shoe Cover
- BF-1B Body Cap

- ViewNX 2 CD-ROM

## 3. SETUP

### 3.1. Battery Installation and Charging

The EN-EL14 rechargeable Li-ion battery powers the camera. Ensure it is fully charged before first use.

1. Insert the EN-EL14 battery into the MH-24 Battery Charger.
2. Plug the charger into a power outlet. The charge indicator light will illuminate during charging.
3. Once charging is complete, the indicator light will turn off. Remove the battery from the charger.
4. Open the battery chamber cover on the bottom of the camera and insert the charged battery, ensuring correct orientation. Close the cover securely.

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Video: Demonstrates how to install and charge the Nikon D3100 battery using the MH-24 charger.

### 3.2. Lens Attachment

Attach the AF-S DX NIKKOR 18-55mm f/3.5-5.6G VR lens to the camera body.

1. Remove the body cap from the camera and the rear lens cap from the lens.
2. Align the mounting mark on the lens with the mounting mark on the camera body.
3. Rotate the lens counter-clockwise until it clicks into place.

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Video: Shows the process of attaching and detaching the lens from the Nikon D3100 camera body.

### 3.3. Memory Card Insertion

The D3100 supports SD/SDHC/SDXC memory cards. Insert the card into the dedicated slot.

1. Open the memory card slot cover on the side of the camera.
2. Insert the memory card with the label facing the back of the camera until it clicks into place.
3. Close the memory card slot cover securely.

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Video: Demonstrates how to insert an SD card into the Nikon D3100 camera.

## 4. OPERATING THE CAMERA

### 4.1. Power On/Off

To turn the camera on or off, rotate the power switch located around the shutter release button.

### 4.2. Guide Mode

The D3100 features a built-in Guide Mode that provides intuitive on-board assistance. This mode helps you select the best settings for various shooting situations, making it ideal for beginners.

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Video: An introduction to the Nikon D3100, highlighting its features including the Guide Mode.

### 4.3. Scene Modes

The Mode dial allows you to select from 6 Automatic Exposure Scene Modes, optimizing settings for specific conditions:

- **Portrait:** Ideal for capturing people with soft backgrounds.
- **Landscape:** Enhances colors and sharpness for scenic views.
- **Child:** Optimizes settings for capturing moving subjects like children.
- **Sports:** Uses a fast shutter speed to freeze action.
- **Close-up:** Perfect for detailed shots of small objects or flowers.
- **Night Portrait:** Balances flash and ambient light for clear portraits in low light.

### 4.4. Full HD Video Recording

Record cinematic-quality movies in Full 1080p HD format (1920 x 1080 pixels) with sound and full-time autofocus. Simply press the dedicated movie-record button to start and stop recording.

### 4.5. Image Quality and Processing

The 14.2-megapixel DX-format CMOS Image Sensor delivers beautiful photographs suitable for large prints. Nikon's EXPEED 2 image processing engine ensures breathtakingly rich image quality by managing color, contrast, exposure, and noise effectively.

- **ISO Sensitivity:** Range of 100 to 3200, expandable to ISO 12800 equivalent for low-light situations.
- **Active D-Lighting:** Restores detail in shadows and highlights for balanced exposure.
- **Picture Control:** Choose from Standard, Neutral, Vivid, Monochrome, Portrait, or Landscape to apply a personal look and feel.

### 4.6. Flash

A built-in pop-up flash is available for situations with insufficient light. The camera also features a hot shoe for external flash units.

### 4.7. In-camera Image Editing

The D3100 allows for creative freedom with easy editing functions directly on the camera, eliminating the immediate need for a computer.

## 5. LENSES AND COMPATIBILITY

The Nikon D3100 is compatible with a wide range of NIKKOR lenses. Below is a summary of compatibility:

Lens Type	Supported Functions
AF-S and AF-I NIKKOR	All functions supported.
Type G or D AF NIKKOR (without built-in autofocus motor)	All functions except autofocus supported. (IX NIKKOR lenses not supported).

Lens Type	Supported Functions
Other AF NIKKOR	All functions supported except autofocus and 3D color matrix metering II. (Lenses for F3AF not supported).
Type D PC NIKKOR	All functions supported except autofocus and some shooting modes.
AI-P NIKKOR	All functions supported except autofocus and 3D color matrix metering II.
Non-CPU	Autofocus not supported. Can be used in exposure mode M, but exposure meter does not function. Electronic rangefinder can be used if lens has a maximum aperture of f/5.6 or faster.

## 6. MAINTENANCE

### 6.1. Automatic Image Sensor Cleaning

The D3100 features an ultrasonic process and exclusive Airflow Control to combat the accumulation of dust in front of the image sensor, safeguarding image quality shot after shot. This system helps maintain the cleanliness of your sensor automatically.

## 7. TROUBLESHOOTING

This section addresses common issues you might encounter with your Nikon D3100.

### 7.1. Shutter Release Button Stuck / Error Message

If you encounter an "Error. Press shutter release button again." message on your camera's LCD screen, it indicates a potential issue with the shutter mechanism or a temporary system glitch. Try the following steps:

1. Turn the camera off and then back on.
2. Remove and reinsert the battery.
3. Remove and reattach the lens, ensuring it is securely mounted.
4. If the issue persists, consult the full user manual or contact Nikon support.

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Video: A customer demonstrating a "Shutter release button stuck" error on the Nikon D3100.

## 8. SPECIFICATIONS

Feature	Detail
Model Name	Nikon D3100

Feature	Detail
Photo Sensor Resolution	14.2 MP
Photo Sensor Technology	CMOS
Screen Size	3 Inches
Video Resolution	FHD 1080p
Optical Zoom	3 x
Maximum Focal Length	55 Millimeters
Minimum Focal Length	35 Millimeters
ISO Sensitivity	100-3200 (expandable to 12800)
Maximum Shutter Speed	1/4000 seconds
Minimum Shutter Speed	30 seconds
Continuous Shooting	3 fps
Autofocus Points	11
Supported File Format	RAW, JPEG, WAV, MPEG-4 AVC/H.264, AAC
Flash Memory Type	SD/SDHC/SDXC
Item Weight	1.3 Pounds
Color	Black

## 9. WARRANTY AND SUPPORT

This product comes with a 14-day satisfaction guarantee and a 90-day parts and labor warranty. For further support or inquiries, please refer to the official Nikon support channels.