

Nikon SB-20

Nikon SB-20 Speedlight Electronic Camera Flash User Manual

Model: SB-20

INTRODUCTION

The Nikon SB-20 Speedlight is a versatile electronic camera flash designed to provide enhanced lighting for your photography. This manual provides detailed instructions for the setup, operation, and maintenance of your SB-20 Speedlight, ensuring optimal performance and longevity.

Key features include automatic TTL flash output control with compatible Nikon AF SLR cameras, manual control options (full, 1/2, 1/4, 1/8, and 1/16 output), and a tilting flash head for flexible lighting angles. It is compatible with various Nikon SLR cameras, including those requiring Flash Unit Couplers like AS-4, AS-7, or AS-17 for the Nikon F3.

SETUP

1. Battery Installation

The Nikon SB-20 Speedlight operates on four AA-size batteries. Ensure the batteries are inserted with the correct polarity as indicated inside the battery compartment.



Figure 1: Open battery compartment of the SB-20 Speedlight, showing the slots for four AA batteries and the removable battery tray.

To install batteries:

1. Locate the battery compartment cover on the side of the flash unit.
2. Slide or open the cover to reveal the battery tray.
3. Insert four AA batteries into the tray, matching the positive (+) and negative (-) terminals with the markings.
4. Carefully slide the battery tray back into the compartment until it clicks securely into place. Ensure the cover is fully closed to prevent accidental dislodgement.

2. Mounting the Speedlight

The SB-20 Speedlight features a standard hot shoe mount for attachment to compatible cameras.

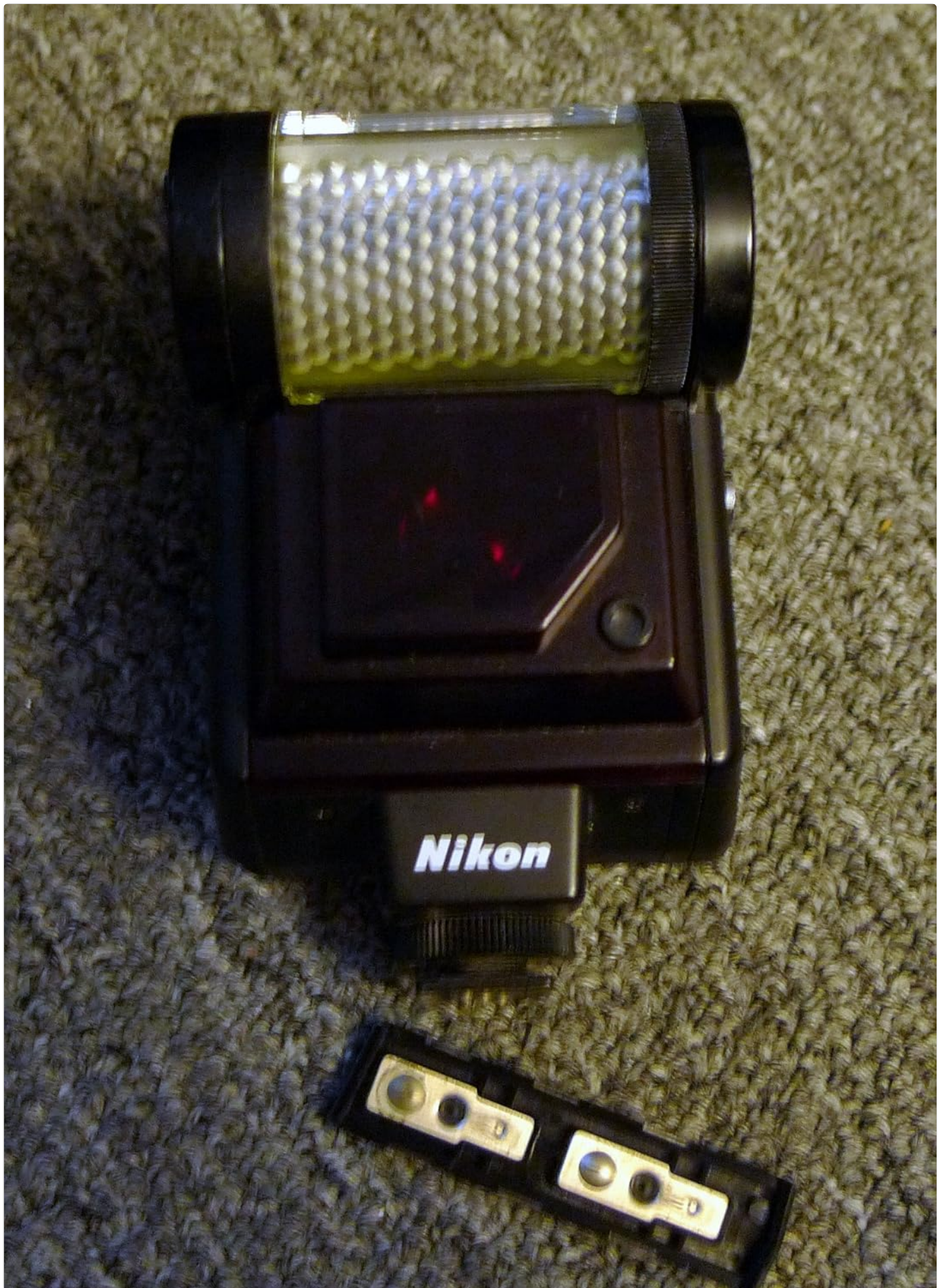


Figure 2: Front view of the Nikon SB-20 Speedlight, highlighting the hot shoe mount at its base.

1. Slide the hot shoe mount of the SB-20 into the camera's hot shoe slot.
2. Tighten the locking wheel or lever on the flash unit (if present) to secure it firmly to the camera.

3. For certain Nikon SLR models (e.g., F3), a Flash Unit Coupler (AS-4, AS-7, or AS-17) may be required for proper connection and automatic exposure control.

OPERATING INSTRUCTIONS

1. Power On/Off

Locate the power switch on the control panel of the Speedlight. Slide it to the "ON" position to power on the unit. Slide to "OFF" to power off. The "STBY" (Standby) mode conserves battery life when the flash is not actively being used.



Figure 3: Detailed view of the SB-20 Speedlight's control panel, including the power switch and mode settings.

2. Flash Modes

The SB-20 offers several flash modes:

- **TTL (Through-The-Lens) Automatic:** Provides automatic flash output control with compatible Nikon AF SLR cameras. This mode uses the camera's metering system to determine the correct flash exposure. TTL Balance filled-flash is possible with capable Nikon AF bodies.
- **Manual Control:** Allows you to manually set the flash output. Options include Full, 1/2, 1/4, 1/8, and 1/16 power. Use the control dial or switch on the unit to select the desired power level.
- **Automatic Exposure Control:** For other Nikon SLRs with an ISO-type accessory shoe (e.g., F301, FA, FE2, FG), automatic exposure control is available.

3. Tilting Flash Head and Zoom

The flash head can be tilted from -7° to 90° to allow for bounce flash photography, directing light off a ceiling or wall for softer illumination. The zoom head can be set to 'N' (Normal) for a standard angle of coverage (45° horizontal, 60° vertical) or adjusted for telephoto (T) and wide-angle (W) settings to match your lens's focal length.



Figure 4: Side profile of the SB-20 Speedlight, illustrating the tilting mechanism of the flash head.

4. Guide Number and ISO Settings

The guide number for the SB-20 is 100 (ASA/ISO 100 in feet) with the zoom head set at 'N'. The flash supports an ASA/ISO film speed range of 25-1600. Adjust the ISO setting on the flash unit to match your camera's ISO for accurate exposure calculations in manual or automatic modes.

MAINTENANCE

Cleaning

To clean the Speedlight, use a soft, lint-free cloth. For stubborn dirt, slightly dampen the cloth with water or a mild cleaning solution. Avoid using harsh chemicals or abrasive materials, which can damage the finish or electronic components. Keep the flash tube and sensor clean for optimal performance.

Battery Care and Storage

Remove batteries from the unit if it will not be used for an extended period to prevent leakage and potential damage. Store the Speedlight in a cool, dry place, away from direct sunlight and extreme temperatures. The product comes with a pouch for protection during storage and transport.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Flash does not fire.	- Batteries are dead or incorrectly inserted. - Power switch is OFF or in STBY. - Flash is not fully charged (READY light not on). - Poor contact with camera hot shoe.	- Replace batteries or ensure correct polarity. - Slide power switch to ON. - Wait for the READY light to illuminate. - Re-mount the flash securely on the camera hot shoe.
Flash output is too weak or too strong.	- Incorrect flash mode selected. - ISO setting on flash does not match camera. - Subject distance is outside flash range. - Manual power setting is incorrect.	- Ensure TTL mode is selected for automatic exposure, or adjust manual power. - Verify flash ISO setting matches camera ISO. - Adjust distance or use a higher power setting. - Adjust manual power output.
Battery door does not secure batteries properly.	- Worn battery compartment mechanism. - Incorrect battery size or type.	- Ensure batteries are standard AA size. - Gently adjust the battery tray or contacts to ensure firm connection. If the mechanism is physically damaged, professional repair may be needed.

SPECIFICATIONS

Feature	Detail
Model Number	SB-20
Guide Number (ASA/ISO 100)	100 (feet, with zoom head set at N)
ASA/ISO Film Speed Range	25-1600
Recycling Time	Approx. 6-7 seconds
Angle of Coverage	45° horizontal, 60° vertical (with zoom head set at N)
Tilting Flash Head	-7° to 90° adjustment

Manual Control Output	Full, 1/2, 1/4, 1/8, 1/16
Power Source	4 x AA batteries
Item Weight	12 ounces
Package Dimensions	7 x 4.5 x 3.5 inches
Compatible Mountings	Nikon 1, Nikon F
Included Components	Pouch

WARRANTY AND SUPPORT

This product is often sold as a used item. For used products, warranty terms are typically provided by the seller at the time of purchase. Please refer to your purchase documentation for specific warranty information.

For general product information or support regarding Nikon products, please visit the official [Nikon Store on Amazon](#) or the Nikon official website.

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Question

Example: How do I reset this device or fix this error?

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Model number, symptoms, what you tried, or the section of the manual you are using.

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