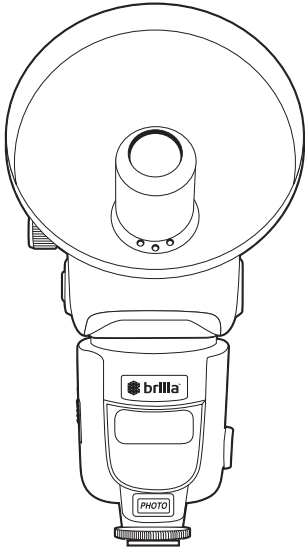




BB-110C/BB-110N

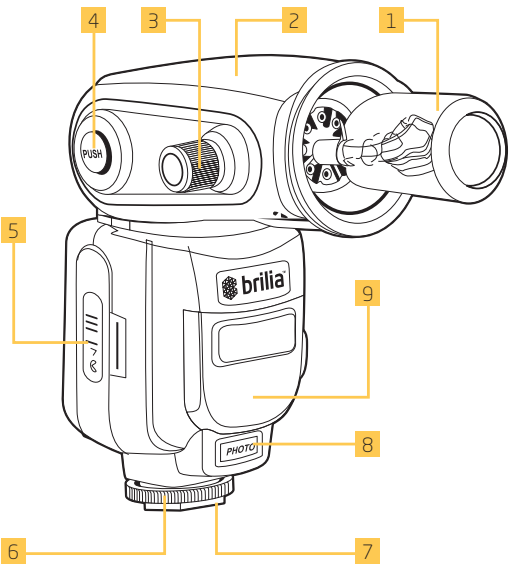
Bare-Bulb TTL FLASH

with HSS for Canon/Nikon



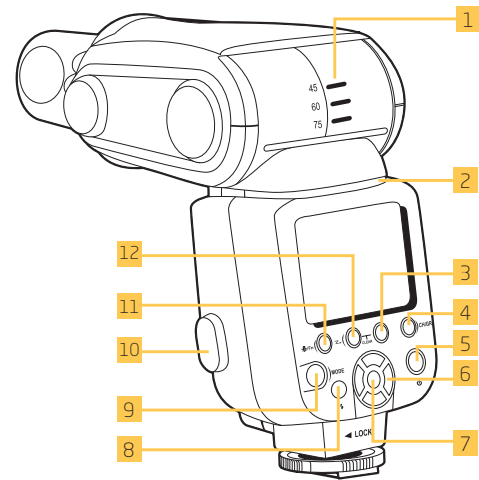
PRODUCT MANUAL

OVERVIEW



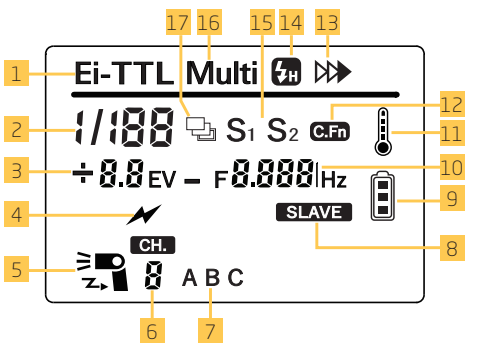
FRONT

- Flash tube
- Flash head
- Accessory locking knob
- Tilt release button
- AA battery compartment
- Locking wheel
- Mounting foot
- External power pocket
- Sensor



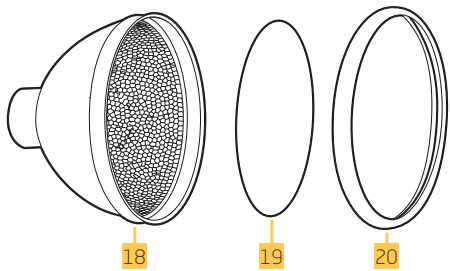
BACK

- Tilt angle scale
- Rotation (swivel) angle scale
- HSS/SCS button
- Channel/group button
- Power on/off button
- Direction
- Set button
- Ready light/Test button
- Mode button
- PC sync socket
- Backlight/custom function button
- Slave mode button



LCD PANEL

- E-TTL (Canon TTL mode)/i-TTL (Nikon TTL mode)
- Power selector
- Power trimming (EV)/multi frequency setting/TTL exposure compensation (EV)
- Light induction mode
- Flash mode
- Channel
- Group
- Slave
- Battery power display
- Aperture value /FEB indicator
- Overheating protection
- Custom function
- Second-curtain sync (SCS)
- High-speed sync (HSS)
- Optical slave 1/Optical slave 2 mode
- M (manual flash)/Multi (multi mode)
- Flash exposure bracketing (FEB)
- Reflector
- Diffuser
- Diffuser ring



THANK YOU FOR CHOOSING BRILIA.

WARNINGS

- Do not fire at close range directly into the eyes of people or animals. This can cause damage to the retina and may even lead to blindness.
- To avoid overheating and damaging your flash unit, please wait for at least 10 minutes after 20 continuous flashes at full power.
- Do not disassemble or attempt to repair this protect yourself. High-voltage components inside can produce a hazardous electric shock.
- Keep this product and its batteries out of the reach of children.
- Use only the power sources specified in this manual.
- Always switch the flash off before changing the batteries.
- Always install AA batteries of the same type, brand, and age. Do not combine different types or brands, or old and new batteries. This could cause batteries to leak, overheat, or explode.
- Install batteries in the proper orientation, according to the indicator in the battery chamber. Installing batteries in the reverse orientation could cause them to leak, overheat, or explode.
- Do not use or store your BB-series TTL Bare-Bulb Flash in flammable conditions (such as environments containing flammable gases or liquid chemicals). This can damage the flash, start a fire, or cause an electric shock.
- Do not clean the unit with agents containing corrosive or flammable substances such as paint thinner, benzene, or nail polish remover.
- This product is not water resistant. Keep it away from rain, snow, humidity, and general moisture.
- Should the unit sustain physical damage, do not touch any exposed interior metal parts. If touched, they may generate an electric shock or cause a malfunction. Promptly remove the batteries and take the product to an authorized service center for repair.
- If you detect excessive heat, smoke, or a burning smell coming from the flash, immediately stop operation and remove the power source to prevent the product from igniting or melting. Take the product to an authorized service center for repair.
- Do not drop or otherwise cause a strong physical impact to the unit, as this can cause a malfunction that may cause it to explode or ignite.
- Remove all batteries from the BB-110 before long-term storage in order to prevent the product from igniting or leaking corrosive liquids.
- Do not store or use the product at temperatures above 104°F (40°C).
- Keep the power socket clean and free of corrosion and dirt. Do not touch it with your fingers. Corrosive elements on the contacts can damage the unit and prevent it from functioning properly. The power socket may be cleaned with isopropyl alcohol on a cotton swab.
- Dispose of used batteries properly. Never heat them or throw them into a fire, as this could cause the batteries to leak corrosive liquids, generate heat, or explode.
- All images are for illustrative purposes only.

GETTING STARTED

INSTALLING THE FLASH TUBE

Before installing the flash tube, make sure the device is switched off. Remove all accessories from the accessory mount.

- Using cotton gloves or a clean cloth, align the key on the base stem of the flash tube with the notch in the socket.
- With the flash tube aligned with the socket, insert the flash tube into the flash tube socket. Press in firmly until secure.

REPLACING THE FLASH TUBE

Make sure the device is switched off and that all accessories are removed from the accessory mount.

- Use white cotton gloves or a clean cloth to firmly grasp the flashtube and pull it from the socket.
- To install the new bulb, follow the *Installing the Flashtube* instructions above.

ATTACHING THE REFLECTOR AND DIFFUSER

- Loosen the accessory locking knob by turning it counterclockwise.
- Fit the reflector into the accessory mount and tighten the accessory locking knob by turning it clockwise.
- Place the diffuser over the reflector and attach it with the diffuser ring.

POWERING THE FLASH

INSTALLING THE BATTERIES

The BB-110 can be powered by four AA batteries of several types.

- Lithium (1.5 V)
- Nickel-metal hydride (NiMH) (1.2 V)
- Alkaline (1.5 V)

Note: For the fastest recycle times and longest battery life, lithium or NiMH batteries are recommended.

To install the batteries, make sure the BB-110 is turned off and follow these steps:

- Press on the battery compartment door and slide it in the direction of the arrow to open it.
- Insert the AA batteries into the compartment. Be careful to align the polarity of the batteries according to the diagram in each battery slot.
- Close the battery compartment door by pressing down and sliding it into place in the opposite direction of the arrow.

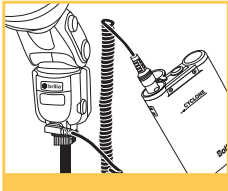
Important! Replace all four batteries at the same time. Do not mix battery types or brands, or use old and new batteries together.

CONNECTING TO AN EXTERNAL POWER PACK

Note: When the BB-110 is connected to an external power source, the AA batteries must still be in the flash in order to operate.

To connect the flash to an external power pack, follow these steps:

- Make sure the battery pack and flash unit are turned off.
- Remove the rubber cover of the external power socket to expose it.
- Plug the high-voltage power cable into the output socket of the power pack and the flash's power socket.
- Turn on the battery pack and then turn on the flash.



MOUNTING THE FLASH

To mount the flash on your camera, make sure the BB-110 is turned off and follow these steps:

- Rotate the locking wheel counterclockwise to loosen it.
- Slide the mounting foot all the way into the camera's hot shoe.
- Rotate the locking wheel clockwise until snug. Do not overtighten.

To dismount the flash from your camera, make sure the BB-110 is turned off and follow these steps:

- Turn the mounting foot lock counterclockwise to loosen it.
- Slide the mounting foot out of the camera's hot shoe.

Tripod or Light Stand Mounting

- Screw the tripod/light stand mounting plate onto the mounting stud of the tripod or light stand until secure.
- Loosen the locking wheel and mount the flash onto the shoe mount of the tripod/light stand plate.
- Secure the flash by tightening the locking wheel.

Note: The mounting plate is designed so that the flash can stand independently on a desk, table top, or other flat surface when creative lighting effects are desired.

SETTING THE FLASH'S TILT AND ROTATION

To tilt the flash head, press and hold the Tilt Release and move the flash head to the desired position.

To rotate the flash head, swivel the flash to the desired position.

BASIC
OPERATION

TURNING ON THE FLASH AND FIRING A TEST

BB-110N (NIKON) ONLY

Set your Nikon camera to Single Shot mode.
Set your camera's Automatic Focus (AF) to On.

Note: Refer to your camera's instruction manual for details on how to set your camera.

Press and hold the On/Off button for 2 seconds to turn the flash on.

When the flash is ready to fire, the Ready light will glow blue. If the flash is mounted on your camera, a flash icon [⚡] will also appear in the camera's viewfinder. To fire a test flash, press the Ready light/Test button.

Automatic power-saving function: After 60 seconds of inactivity, the flash will automatically enter power-saving mode to conserve battery life. Pushing any button or tapping on the camera's shutter release button reactivates the flash to the screen and setting that were last used.

- After 30 minutes of inactivity, the flash's CPU automatically shuts down. Restart the flash using the On/Off button.
- The battery indicator display will appear when the battery power is low.
- During extended periods of inactivity, it is recommended that you use the power button to turn the flash off, and remove the batteries.

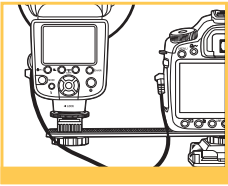
LCD illumination: Pressing the Backlight/Custom Function button will illuminate the LCD screen for 15 seconds.

MOUNTING TO A BRACKET

Note: The PC sync socket on the BB-110 is only for synchronous signal input, and not output.

To access the PC sync socket, follow these steps:

1. Pull back the contact cover on the side of the flash.
2. Use a PC sync cord (available separately) to connect your camera's PC sync socket to the one in the flash.



USING AUTOMATIC TTL FLASH MODE

1. Press the Mode button repeatedly to cycle through the flash modes until the LCD displays TTL.
2. Make sure your camera is set to programmed, automatic, shutter, or aperture priority mode.
3. Press the shutter release button on your camera halfway to ensure that the camera is communicating with the flash. The flash's LCD will display the camera's aperture setting, and a flash icon [⚡] will appear in the camera's viewfinder.

ADJUSTING THE EXPOSURE VALUE (EV)

In i-TTL (Nikon)/E-TTL (Canon) mode, press the Right/Left buttons to raise or lower the EV. Press the center button to set.

Note: Pressing the Up button activates FEB (Flash Exposure Bracketing) settings. For more information on FEB settings, see *Flash Exposure Bracketing (FEB)* below. To leave FEB settings, press the Down button until the FEB screen disappears. You will be returned to the i-TTL/E-TTL screen.

USING THE MANUAL FLASH MODE

1. To enter Manual Mode, press the Mode button repeatedly to cycle through the modes until M (Manual Mode) is displayed at the top of the screen.
2. Press the Right/Left buttons to select the desired power setting.
3. Press the Up/Down buttons to fine-tune the power setting by increments of 1/3-stop.
4. Press Set to confirm.

Note: To avoid overheating the flash and damaging it, wait at least 10 minutes after 10 continuous flashes at full power. The flash will automatically enter thermal protection mode if it overheats. The LCD will display [!], and flash firing will be disabled until the unit has cooled.

USING MULTI (STROBOSCOPIC) MODE

1. Press the Mode button repeatedly until Multi is displayed at the top of the screen.
2. Press the Set button, and the Hz value will blink. Press the Right/Left buttons to adjust the frequency of the flashes.
3. Press the Set button again, and the number of flashes will blink. Use the Right/Left buttons to adjust the number of flashes.
4. Press the Set button, and the power level will flash. Use the Right/Left buttons to adjust the power level.
5. Press the Set button to confirm your settings.

MULTI (STROBOSCOPIC) MODE REFERENCE CHART

This chart shows the maximum number of flashes possible for any given frequency/flash output combination.

FREQUENCY	FLASH OUTPUT LEVEL						
	1/1, 1/2	1/4	1/8	1/16	1/32	1/64	1/128
1	1	30	50	70	80	99	99
2	1	2	4	70	80	99	99
3	1	2	2	7	80	99	99
4	1	2	2	4	16	99	99
5	1	2	2	3	8	99	99
6	1	2	2	3	6	99	99
7	1	1	2	3	5	25	99
8	1	1	2	2	5	15	99
9	1	1	2	2	4	10	99
10-11	1	1	2	2	4	6	99
12-13	1	1	2	2	3	6	99
13-15	1	1	2	2	3	5	99
15-19	1	1	2	2	3	5	36
20-99	1	1	2	2	3	5	20

USING YOUR BB-110 AS A WIRELESS SLAVE

TTL SLAVE TRIGGERING MODE

The BB-110 features compatibility with both Canon's E-TTL and Nikon's i-TTL systems.

To select Canon or Nikon modes:

Press the Slave Mode button repeatedly to cycle through the slave modes until E-TTL (Canon) or i-TTL (Nikon) appears on the LCD.

Push Set button to confirm.

Setting the Channel and Group:

1. Press the Channel/Group (CH/GR) button, and the channel indicator will blink.
2. Adjust the channel number by pressing the Right/Left buttons.
3. Press the Channel/Group (CH/GR) button to make the group indicator blink.
4. Adjust the group letter by pressing the Right/Left buttons.
5. Press Set to confirm the group selection.

Note: When you activate one of the wireless slave modes, the slave sensor will pulse red to indicate that it is in receiving mode.

Tip: The Mode button is deactivated in Wireless Slave mode. When you are ready to leave Wireless Slave mode, press the Slave Mode button until manual mode (M) appears on the LCD. Once in manual mode, you can use the Mode button to select TTL, Manual, or Multi modes.

MANUAL SLAVE TRIGGERING MODE

S1 AND S2 MODES

In order to ensure that the BB-110 fires in sync, there are two different slave modes available: S1 and S2.

The S1 mode indicates that the slave flash unit will fire on the first burst of light. Use this mode when the master flash is set to manual mode.

The S2 setting indicates that the slave flash unit will ignore the preflash and will fire on the second burst of light. Use this mode when the master flash is set to manual mode.

To select S1 or S2 modes:

Press the Slave Mode button to cycle through the slave modes until S1 or S2 appears on the LCD.

Adjusting the flash power:

1. Press the Right/Left buttons to adjust the flash power in whole increments from 1/1 to 1/128.
2. Press the Up button to fine-tune the power in 1/3-stop increments.
3. Press Set to confirm.

ADVANCED
FEATURES

FLASH EXPOSURE BRACKETING (FEB)

BB-110C (CANON) ONLY

1. In TTL mode, press the Up button to activate the FEB function.
2. Press the Up/Down buttons to adjust the EV bracketing value from 0.3 to 3 in 1/3 increments.
3. Press the Right/Left buttons to adjust the exposure value (EV) that is added to or subtracted from the EV value determined by the camera. EV value ranges from -3.0 to +3.0 in 1/3-stop increments.
4. Before each of the three shots, the FEB indicator will display the current shot number. After the third shot, FEB automatically shuts off.

Note: To prevent the FEB function from automatically shutting off, set custom function 03 to "1" (off). See *Setting Custom Functions* below for more information on this feature.

FLASH EXPOSURE LOCK (FEL)

BB-110N (NIKON)

1. On your camera's menu, set the Function (Fn) button to FV Lock. Make sure live view is disabled.
2. Frame your image so the subject that you want to be correctly exposed is in the center of your viewfinder.
3. Press the Fn button on your camera to enable FV Lock. The flash will fire a test shot and lock its output level, and the FEL indicator will appear in your camera's viewfinder.
4. Reframe your image as desired and take the shot.

For more information about the flash exposure lock feature, consult your camera's manual.

BB-110C (CANON)

1. Make sure live view is disabled on your camera.
2. Frame your image so the subject that you want to be correctly exposed is in the center of your viewfinder. Press and hold the * button.
3. The flash will fire a test shot and lock its output level.
4. Reframe your image as desired and take the shot.

For more information about the flash exposure lock feature, consult your camera's manual.

USING HIGH-SPEED SYNC (HSS)

BB-110N (NIKON)

For Nikon cameras that offer FP (high-speed sync), it must be set in the camera's menu. Refer to your camera's user manual to set the camera to FP. Once selected, the HSS icon will appear on the flash's LCD.

BB-110C (CANON)

The BB-110C supports HSS on Canon cameras that offer the setting. Select HSS by pressing the HSS/SCS button repeatedly until the HSS icon appears on the LCD.

SECOND-CURTAIN SYNC (SCS)

BB-110N (NIKON)

The BB-110N supports SCS modes on cameras that offer the setting. Consult your camera's manual to activate it. There is no SCS icon on the BB-110N LCD.

BB-110C (CANON)

The BB-110C supports SCS modes on cameras that offer the setting. Select SCS by pressing the HSS/SCS button repeatedly until the SCS icon appears on the LCD.

AUTOFOCUS (AF) ASSIST MODE

Autofocus assist will work only in Single-Shot Mode, with AF on, and Custom Function 08 set to 0 (on). See *Setting Custom Functions* below for more information on this feature.

RESETTING FACTORY DEFAULTS

To reset to the factory defaults, simultaneously press the Slave Mode button and HSS/SCS buttons. The main i-TTL/E-TTL screen will appear on the LCD.

SETTING CUSTOM FUNCTIONS

1. Press and hold the Backlight/Custom Function button to activate the custom function menu.
2. Scroll to the desired custom function by pressing the Up or Down buttons.
3. Change the setting of the functions by pressing the Right or Left buttons.
4. Press the Set button to confirm and exit the menu.

CUSTOM FUNCTION NO.	FUNCTION	SET ID	SETTING AND DESCRIPTIONS
C. Fn-01	Auto power off	0	On
		1	Off
C. Fn-03	Flash exposure bracketing auto cancel	0	On
		1	Off
C. Fn-04	Flash exposure bracketing sequence	0	0, -, +
		1	-, 0, +
C. Fn-08	AF-assist beam firing	0	On
		1	Off
C. Fn-014	Audio alert	0	On
		1	Off

SPECIFICATIONS

Dimensions	11" × 2.9" × 2.2" (28 × 7.5 × 5.7 cm)
Weight	1.1 lb. (0.5 kg)
Head rotation	360° (180° right, 180° left)
Head tilt	-7°-90°
Guide number	56 (ISO 100, 28 mm)
Flash coverage	28 mm (18 mm APS-C) with reflector
Flash duration	1/200-1/10,000 sec.
Recycle time	2.9 sec. (AA NiMH) 0.05-2.6 sec. (Bolt PP-400DR)
Manual mode power output	1/1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/64, 1/128
Slaves timing modes	Instant Sync (S1), Skip Preflash (S2)
Slave sensor range	Approx. 33' (10 m)
Power source	AA batteries (×4), Optional external power pack

TROUBLESHOOTING

PROBLEM	SOLUTION
The flash isn't being triggered in slave mode, or the flash is not noticeable in the picture.	• Be sure the main flash is within transmission range (33' or 10 m) and that the wireless sensor has a clear line of sight with the master flash. • The ambient light may be too high. • Make sure that the flash is set to the appropriate slave mode.
The bottom of the image looks dark.	• Ensure that the proper sync speed has been selected. • Make sure that HSS is enabled. • See your camera manual for sync speed and HSS options.
There's a whining sound coming from the flash.	• This is normal and does not indicate a malfunction. When the flash heats up from continuous use, vibrations inside the unit may cause this sound. It will dissipate as the unit cools.
The flash is stuck in a hot shoe.	• Turn the locking wheel counterclockwise until loose.
The flash is turned on but won't fire.	• Check that the flash is connected to a power source, the power source is turned on, and the cables are properly connected. • If connected via hot shoe, make sure the pin at the bottom, as well as the hot shoe, are clean and free of debris. • If the flash has overheated, it will need 10 to 15 minutes to cool down before it can fire again.

One-Year Limited Warranty

This Brilia product is warranted to the original purchaser to be free from defects in materials and workmanship under normal consumer use for a period of one (1) year from the original purchase date or thirty (30) days after replacement, whichever occurs later. The warranty provider's responsibility with respect to this limited warranty shall be limited solely to repair or replacement, at the provider's discretion, of any product that fails during normal use of this product in its intended manner and in its intended environment. Inoperability of the product or part(s) shall be determined by the warranty provider. If the product has been discontinued, the warranty provider reserves the right to replace it with a model of equivalent quality and function.

This warranty does not cover damage or defect caused by misuse, neglect, accident, alteration, abuse, improper installation or maintenance. EXCEPT AS PROVIDED HEREIN, THE WARRANTY PROVIDER MAKES NEITHER ANY EXPRESS WARRANTIES NOR ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty provides you with specific legal rights, and you may also have additional rights that vary from state to state.

To obtain warranty coverage, contact the Brilia Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to Brilia along with the RMA number and proof of purchase. Shipment of the defective product is at the purchaser's own risk and expense.

For more information or to arrange service, visit www.briliaflashes.com or call Customer Service at 212-594-2353.



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