

Bolt™

Inspiration strikes



VS-570S/SMI for Sony

WIRELESS TTL FLASH

User's Manual



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Introduction

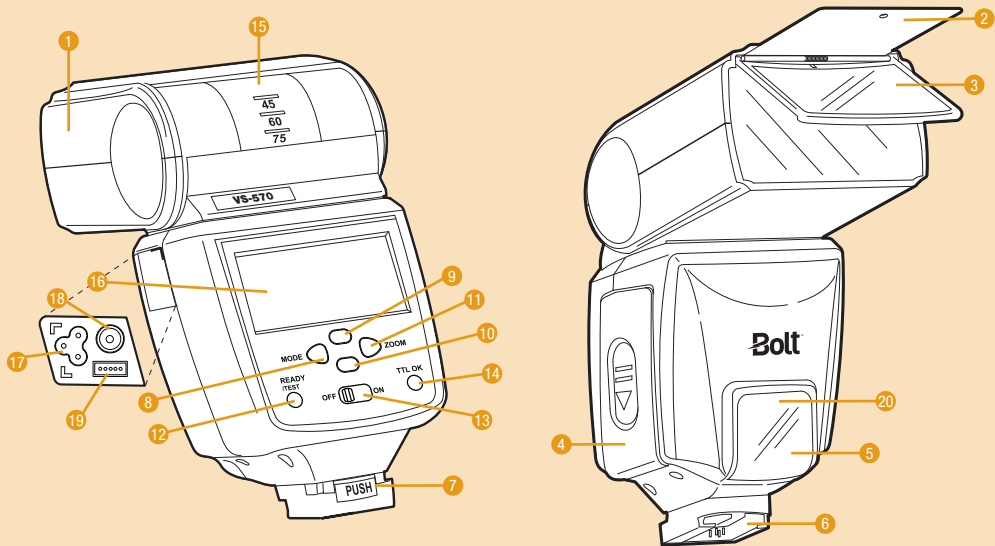
Thank you for choosing the Bolt VS-570 Wireless TTL Flash. This advanced digital flash unit puts creative control in your hands with a broad range of automatic and manual features. It can be used as both an on-camera flash and a wireless slave flash. Among the benefits you'll enjoy:

- Full compatibility with Sony's TTL metering system
- Wireless TTL control with multiple flash units and groups
- Automatic and manual zoom from 24mm to 105mm
- Tilt and swivel head: 90° up, 120° right, and 180° left
- 1.8-inch backlit LCD
- Seven manual flash levels: full to 1/64 power
- Autofocus-assist for low-light photography
- High-speed sync
- Rear-curtain sync
- Built-in reflector and diffuser panels
- Automatic power-saving function
- Upgradeable firmware

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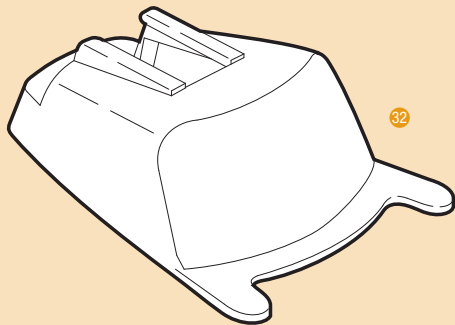
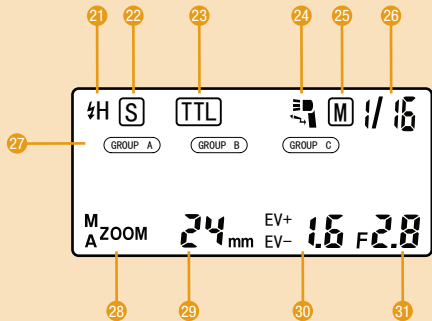
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Overview

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Warnings

Before using your VS-570, please read the following safety notices carefully and thoroughly to ensure safe use, and to help prevent damage to your flash or injury to yourself or others.

- Do not fire the flash 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 product yourself. There are high-voltage components inside that can produce a hazardous electric shock.
- Keep this product and its batteries out of 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 the VS-570 in flammable conditions (such as environments containing flammable gases or liquid chemicals). This could damage the flash, start a fire, or cause an electric shock.

- Do not clean the VS-570 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 VS-570 get damaged, 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 batteries 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 VS-570, as this could cause a malfunction that may cause it to explode or ignite.
- Remove all batteries from the VS-570 before long-term storage in order to prevent the product from igniting or leaking corrosive liquids.
- Do not store or use this product at temperatures above 104°F (40°C).
- Keep the metal contacts in the battery compartment clean and free of corrosion and dirt. Do not touch them with your fingers. Corrosive elements on the contacts can damage the VS-570 and prevent it from functioning properly. Contacts 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.

Installing Batteries

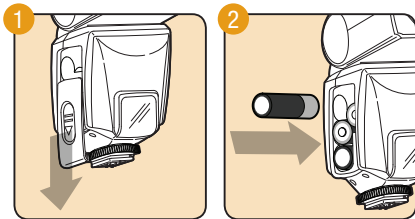
The VS-570 can be powered by four AA batteries of several types:

- Lithium (1.5V)
- Nickel-metal hydride (Ni-MH) (1.2V)
- Alkaline (1.5V)

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

To install batteries, make sure the VS-570 is turned off and follow these steps:

1. Press on the battery compartment cover and slide it in the direction of the arrow to remove it.
2. Insert batteries in the orientations indicated by the illustration inside the compartment.
3. Replace the battery compartment cover by pressing and sliding it into place in the opposite direction of the arrow on the cover.



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

Mounting the Flash

The VS-570S and VS-570SMI employ different locking mechanisms. The VS-570SMI is equipped with a locking wheel, and the VS-570S is equipped with a locking release button.

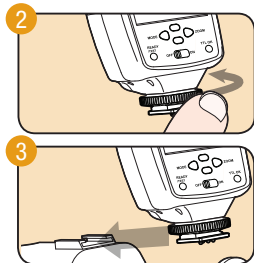
Mounting the VS-570SMI:

To mount the VS-570SMI on your camera, follow these steps:

1. Make sure the flash is turned off.
2. Rotate the locking wheel counterclockwise to loosen it.
3. Slide the mounting foot all the way into your camera's hot shoe.
4. Rotate the locking wheel clockwise until snug. Be careful not to overtighten.

To dismount the VS-570SMI from your camera, follow these steps:

1. Make sure the flash is turned off.
2. Rotate the locking wheel counterclockwise to loosen it.
3. Slide the mounting foot out of your camera's hot shoe.



Mounting the VS-570S:

To mount the VS-570S on your camera, follow these steps:

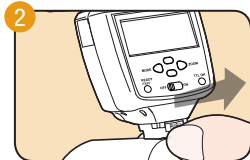
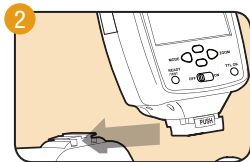
1. Make sure the flash is turned off.
2. Slide the mounting foot all the way into your camera's hot shoe. The lock will automatically engage to hold the flash in place.

To dismount the VS-570S from your camera, follow these steps:

1. Make sure the flash is turned off.
2. Push and hold the locking release button while simultaneously sliding the mounting foot out of your camera's hot shoe.


Mounting the VS-570 on the included stand:

You can mount the VS-570 on the included stand in the same way you would mount it on your camera. This allows you to set the flash up on a flat surface or attach it to a tripod head, light stand, or clamp that has a compatible 1/4"-20 screw mount.



Turning on the Flash and Firing a Test

To turn the flash on, simply slide the power switch to the On position.

When the flash is ready to fire, the Ready light will glow red. 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 3 minutes of inactivity, the flash will automatically enter power-saving mode to conserve battery life. The LCD will display a single OFF indicator, and the Ready light will turn off. To reactivate the VS-570, simply press any button on the control panel, or tap your camera's shutter-release button. During long periods of inactivity, it is recommended that you use the power switch to turn the flash off completely.

LCD illumination: When a button is pressed, the LCD will be illuminated for about 5 seconds.

Extended Interface

You can connect your VS-570 to an external power source or PC sync via the extended interface on the side of the flash.

External power source: An external power source, such as the Bolt Cyclone Battery Pack, can greatly increase the battery life of your flash and reduce the recycle time in between flashes.

Note: When using an external power source, the AA batteries must still be in the flash in order to operate.

PC Sync: You can synchronize your VS-570 with a camera by running a PC cord between your camera and the VS-570's PC sync socket. This lets you position the flash away from the camera, thus giving you more lighting options.


Note: The PC sync socket on the VS-570 is only for synchronous signal input, and not output.

To access the extended interface, follow these steps:

1. Pull back the contact cover on the side of the flash.
2. Plug the cable into the corresponding socket.
 - A. For an external power source, plug the Bolt BO-1011 power cable (sold separately) into the external power source socket.
 - B. For PC sync, plug a PC cord into the PC sync socket.

Using the Automatic TTL Flash Mode

When the VS-570 is mounted on a compatible camera, it can set the appropriate flash level automatically, in conjunction with the camera's through-the-lens (TTL) metering system. To use the automatic mode, mount the flash on the camera and follow these steps:

1. Each time you turn the flash on, it will be in automatic mode. This will be confirmed by the TTL mode indicator on the LCD. If the flash has been set to another mode, press the Mode button repeatedly to cycle through the flash modes until "TTL" is shown on the LCD.
2. Make sure your camera is set on a programmed or automatic mode, or on a priority mode such as aperture-priority.
3. Press the shutter-release button on your camera halfway to ensure that the camera is communicating with the flash. The camera's aperture setting will be displayed on the flash LCD, and a flash  icon will appear in the camera's viewfinder.
4. Press your camera's shutter-release button to take the picture. The OK indicator will flash on the VS-570's LCD, and the OK light below it will glow green momentarily to indicate that the proper exposure was attained.

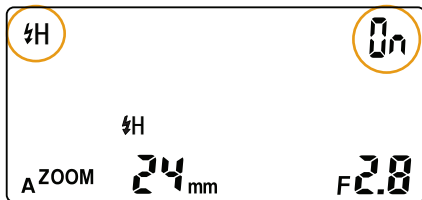
Note: The aperture indicator on the VS-570 provides readouts up to f/11, in full-stop increments. The indicator will display the f-stop closest to your current camera setting.

Using High-Speed Sync

You can use shutter speeds higher than your camera's top flash sync speed with the VS-570 by activating high-speed sync in automatic TTL mode. High-speed sync lets you use shutter speeds as fast as 1/8000 second. This is especially useful when using large apertures in bright situations or when freezing motion.

To activate high-speed sync mode on the VS-570, press the Mode button repeatedly to cycle through the flash modes until the high-speed sync mode indicator appears on the LCD.

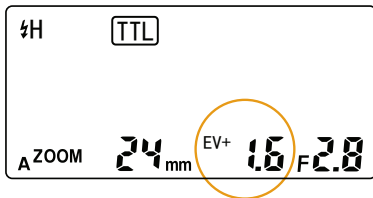
To turn high-speed sync on or off, press the up or down buttons. "ON" will appear in the top right corner of the LCD when high-speed sync mode is activated, and [⚡H] will appear when high-speed sync mode is deactivated.



Using Flash Exposure Compensation

In automatic TTL mode, you can use flash exposure compensation to adjust the VS-570's flash output incrementally, just as you would adjust exposure with the exposure compensation function on your camera.

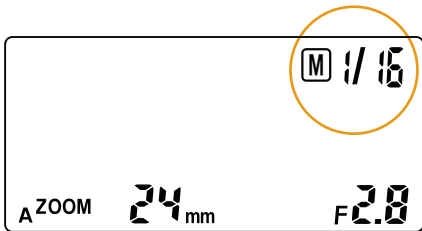
To apply flash exposure compensation, press the up or down buttons on the flash to increase or decrease flash exposure by 1/3 stop—up to 3 stops total. The LCD will display EV+ or EV- next to the exposure value to indicate whether it is increased or decreased.



Using the Manual Flash Mode

You can also set the VS-570's flash output level manually for greater creative control over your images. Seven manual settings are available: 1/1, 1/2, 1/4, 1/8, 1/16, 1/32, and 1/64. The 1/1 setting is the full-power flash, and each successive setting halves the light output. To use the manual mode, turn the flash and camera on and follow these steps:

1. Press the Mode button repeatedly to cycle through the flash modes until "M" and the flash output level indicator show on the LCD. Press the up or down buttons to set the desired flash output level. The output level will cycle through in both directions.
2. Set the exposure settings you want to use on your camera. The highest shutter speed available will be your camera's flash sync speed. To use higher shutter speeds, switch to automatic TTL mode and activate high-speed sync (see *Using High-Speed Sync* on page 18).
3. Take a test shot, and check the exposure on your camera's LCD.
4. Adjust your camera's exposure settings and the light output level of the flash as needed.



5. Press your camera's shutter-release button to take the picture.

Note: For best results, a handheld light meter is recommended when using the manual flash mode.

Important! To avoid overheating and damaging your flash unit, please wait for at least 10 minutes after 20 continuous flashes at full power. The flash will automatically shut off if it gets overheated.

Controlling Flash Coverage (Zoom)

The VS-570's angle of coverage can be adjusted ("zoomed") to match the focal length of your lens, so that your image is evenly illuminated from edge to edge.

When the flash zoom setting is adjusted, the position of the reflectors inside the flash head shift in order to make the angle of coverage wider or narrower.

The available zoom positions are 24mm, 28mm, 35mm, 50mm, 70mm, 85mm, and 105mm.

Automatic zoom control: When you turn the VS-570 on, the zoom mode indicator on the LCD will show an A to indicate that it is in automatic mode and at the default 35mm position. When you press the shutter-release

button on your camera halfway to initiate communication between the camera and the flash, the flash zoom will adjust to match the lens focal length and the closest zoom setting will be displayed on the LCD. If you zoom your lens, the flash zoom setting will change automatically.

When the flash head is angled up or swiveled to the side, the zoom position is set to 50mm. The “50mm” indicator will flash on the LCD, and the zoom can then be manually adjusted (see below).

Note: Older cameras that do not offer digital data transmission with the flash do not support the automatic flash zoom control. The manual zoom control must then be used.

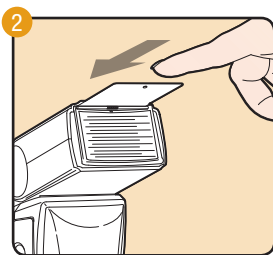
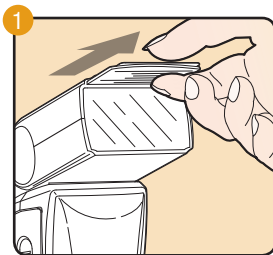
Manual zoom control: To manually select a setting that corresponds to the focal length of your lens, press the Zoom button to make the M indicator for manual mode appear. Then continue to press the button to cycle through the available focal length settings.

Note: Manual zoom can also be used to achieve special effects, such as using the 105mm setting with a wide-angle lens to produce a vignette.

Using the flash with wide-angle lenses: When you have a lens wider than 24mm mounted on your camera, you can use the built-in diffuser panel to give the flash an angle of coverage equivalent to that of an 18mm lens.

To use the diffuser:

1. Pull the diffuser and reflector panels out of their slot in the flash head.
2. Push the reflector back in, and let the diffuser lay flat against the flash lens. The diffuser also softens the light, providing an alternative when no surface is available for bouncing the flash (see *Bouncing Your Flash* on page 24).



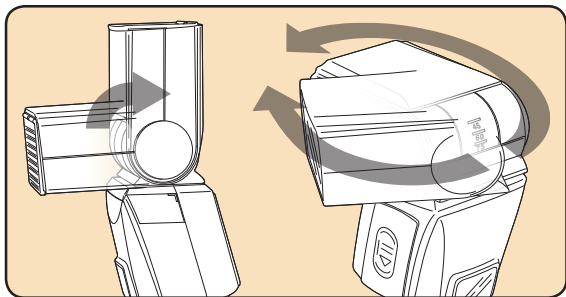
Using the Autofocus-Assist Light

Camera autofocus systems can have difficulty locking onto a subject in dim light. When the ambient light level is low, the VS-570 will emit a red autofocus-assist beam when you press your camera's shutter-release button halfway to autofocus. The camera will then be able to autofocus by locking onto the projected light.

Bouncing Your Flash

Using flash to directly illuminate a subject often creates harsh, unnatural, and unattractive shadows. To avoid this, the flash can be tilted or swiveled, allowing you to aim your flash at a large white or neutral-colored surface, such as a ceiling, a wall, or a reflector. The light will bounce off of the larger surface before striking your subject, providing softer, more natural illumination.

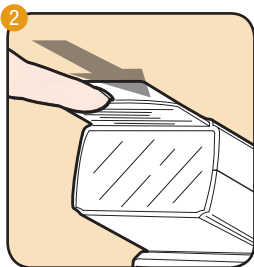
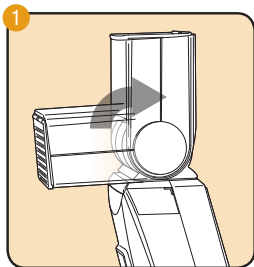
The VS-570 flash head can be tilted up at 45-, 60-, 75-, and 90-degree angles to the lens. It can also be swiveled horizontally 180 degrees to the left and 120 degrees to the right. When bouncing your flash, you may need to adjust your exposure settings, since the level of light falling on your subject will be reduced. The farther away the bounce surface and your subject are, the more illumination will be reduced.



Tip: Bouncing your flash off of colored surfaces can create a color cast in your images. Bouncing off of a white or neutral-colored surface will not alter the color of the light, while bouncing off of a gold-toned surface can give portraits a warmer look. Other colors, while usually not desirable, can be used for creative effects.

Creating catchlights: Catchlights are the reflections that appear in people's eyes in photographs. Without catchlights, eyes can have a dull, lifeless look. To create catchlights in your subjects' eyes when bouncing your flash, follow these steps:

1. Position the flash head at the 90-degree angle (pointing straight up) to bounce your flash off the ceiling or an overhead reflector.
2. Pull the built-in reflector and diffuser panels all the way out of their slot in the flash head. Push the diffuser back in while leaving the reflector extended.



Using Rear- or Second-Curtain Synchronization

When you photograph a moving subject with a slow (1/30 second or longer) shutter speed and a flash, the flash will freeze the moving subject and the long exposure will cause motion blur and light trails to appear in the image, especially in low light.

This “slow-sync” flash technique, also referred to as “dragging the shutter,” can be applied in two different ways: The flash can be synchronized with the camera’s shutter release so that it fires at the beginning of the period when the shutter opens, or it can fire near the end of that period.

The former is called “front-curtain” or “first-curtain” flash sync, and the latter is called “rear-curtain” or “second-curtain” sync. Front-curtain sync causes motion blur and light trails to appear in front of moving subjects, while rear-curtain sync makes them appear behind moving subjects. That means rear-curtain sync creates a more realistic impression of movement.

The VS-570 supports rear-curtain sync modes on cameras that offer the setting. Consult your camera’s manual to find out how to activate it. Use your camera’s manual or shutter-priority mode to control the amount of blurring and light trails you capture by varying the shutter speed.

Using the VS-570 as a Wireless Master or Slave

The VS-570 is equipped with advanced wireless flash functions, allowing you to fire the flash remotely while still maintaining full TTL control. In addition, it can be set to multiple channels and groups, giving you unlimited creative lighting possibilities.

Important terms: Here are the terms you'll need to be familiar with in order to learn how to work with multiple wireless flash units:

Master: This can be the VS-570's master mode, the camera's built-in flash, or a dedicated wireless controller. The master controls how the slave flashes operate in wireless TTL mode. Only one master flash is allowed in a multiple-flash photography setting. Note that not all cameras and flashes offer master capability.

Slave or remote flash: Flash units that are not directly connected to the camera and are controlled via the master flash or a controller are called "slave" or "remote" units. There is no limitation on the number of remote flash units that can be used at once.

Channels: Master and slave flash units exchange data through channels. On the VS-570, four channels (1, 2, 3, and 4) are available. You can select the channel you prefer for communication between the master and

remote flash units. You can use this option to prevent your remote units from being triggered by the master unit of another photographer working with the same type of system nearby.

Groups: With the VS-570's wireless system, you can assign remote flash units to either of two groups (A or B) and set the mode and power ratio for each group, as well as the master.

Using the VS-570 as a Wireless Master

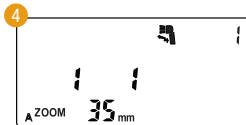
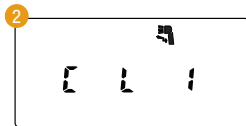
The VS-570 can be used as an optical wireless TTL master flash, enabling you to remotely set and control your wireless slave flash units from the VS-570 while maintaining automatic TTL functionality. The VS-570 offers two wireless TTL master modes, CL1 and CL2, which allow you to control up to two groups of flashes and adjust power output in ratios.

In CL1 mode, only the master and group A fire, and power output for the two is set at a ratio. For example, if the ratio is set at 2:1, the master fires at twice the power of group A.

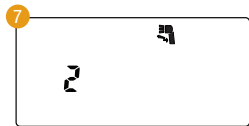
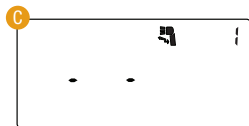
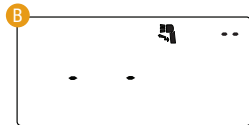
In CL2 mode, the master, group A, and group B fire. As in CL1 mode, power output is set at a ratio. For example, if the master is set to 8, group A is set to 4, and group B is set to 1, then the ratio will appear as 8:4:1. The master will fire at twice the power of group A, and group A will fire at four times the power of group B.

To set the VS-570 as a wireless master, follow these steps:

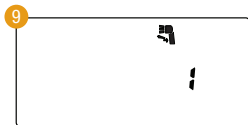
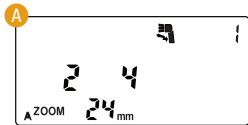
1. Set your camera's flash mode to wireless (WL). For more information on this, refer to your camera's instruction manual.
2. **Choose the controller setting.** Press the Mode button repeatedly until the master control screen appears on the LCD. Use the up or down navigation buttons to select CL1 or CL2.
3. **Enable wireless master mode.** Press the mode button so the TTL mode screen appears.
4. Press and hold the Mode button until the wireless master summary screen appears. For more information on this, refer to Wireless Master Summary Screen on page 34.
5. Select the wireless channel. Press the Mode button and use the up or down navigation buttons to cycle through channels 1–4.
6. **Turn group ratio selection on or off.** Press the Mode button and use the up or down navigation buttons to turn group ratio selection on or off.

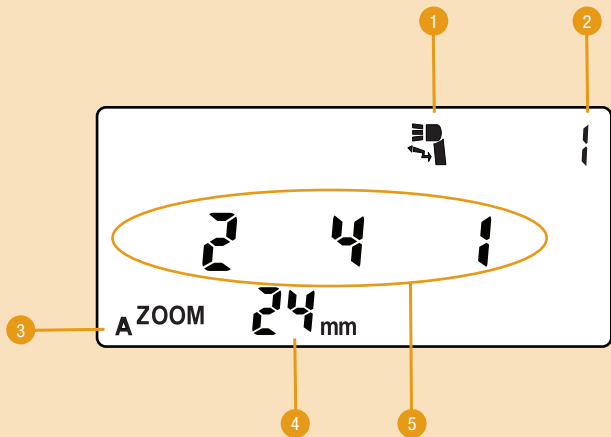


- A. When group ratio selection is enabled, continue with step 7 below to set the power ratios between the master and groups.
 - B. When group ratio selection is disabled, group A will fire in TTL mode, and the master and group B will not fire.
 - C. Press the Mode button to return to the wireless master summary screen. At this point, the VS-570's wireless TTL master setup will be complete, and you will be ready to start shooting.
7. Set the power ratios. After enabling group ratio selection, press the Mode button so the master ratio indicator appears onscreen. Use the up or down navigation buttons to set the ratio value to - (off), 1, 2, 4, or 8.
 8. Press the Mode button so the group A ratio indicator appears onscreen. Use the up or down navigation buttons to set the ratio value to - (off), 1, 2, 4, or 8.



- A. In CL1 mode, press the Mode button to confirm your settings and return to the wireless master summary screen. At this point, the VS-570's wireless TTL master setup will be complete, and you will be ready to start shooting.
 - B. In CL2 mode, continue with step 9 below.
9. Press the Mode button so the group B ratio indicator appears onscreen. Use the up or down navigation buttons to set the ratio value to - (off), 1, 2, 4, or 8.
 10. Confirm your settings. Press the Mode button to return to the wireless master summary screen. At this point, the VS-570's wireless TTL master setup will be complete, and you will be ready to start shooting.






Wireless Master Summary screen

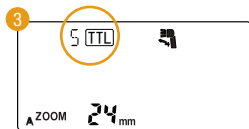
1. Wireless TTL mode
2. Channel number
3. Zoom mode
4. Zoom position
5. TTL master summary setting

Using the VS-570 as a Wireless TTL Slave

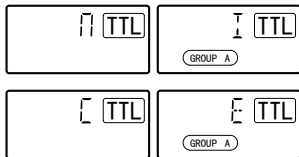
The VS-570 can be used as an optical wireless TTL slave in Sony, Nikon, and Canon TTL systems. This enables you to use a Sony, Nikon, or Canon wireless TTL master to control the VS-570 as a slave flash unit.

To set the wireless TTL slave mode, follow these steps:

1. Make sure the master flash or controller on your camera is turned on and set to automatic TTL mode.
2. Select the appropriate group and channel on the master unit. Consult the master's user manual for more information on this topic.
3. Press the VS-570's Mode button repeatedly to cycle through the flash modes until the Wireless TTL mode [] icon appears on the LCD. Use the up or down navigation buttons to select Sony, Nikon, or Canon TTL slave modes.
 - A. For Sony TTL slave mode, the S-TTL indicator will appear onscreen. Press the Mode button to confirm, and the LCD will display the Sony optical slave screen. To set the VS-570 as a Sony TTL slave, continue with Sony TTL Slave Mode on page 37.



- B. For Nikon TTL slave mode, the N-TTL indicator will appear onscreen. Press the Mode button to confirm, and the LCD will display i-TTL. To set the VS-570 as a Nikon TTL slave, continue with Nikon and Canon TTL Slave Modes on page 39.
- C. For Canon TTL slave mode, the C-TTL indicator will appear onscreen. Press the Mode button to confirm, and the LCD will display E-TTL. To set the VS-570 as a Canon TTL slave, continue with Nikon and Canon TTL Slave Modes on page 39.



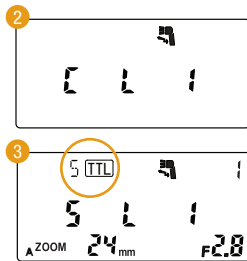
Sony TTL Slave Mode

The VS-570 incorporates two Sony wireless TTL group selectors, which are SL1 and SL2. When the master flash is set to CL1 master mode, then the SL1 group selector is available. When the master flash is set to CL2 master mode, both the SL1 and SL2 selectors are available.

The CL1 and CL2 master modes allow for groups and channels. Use CL1 mode when you need to set only the channel, but not groups. Use CL2 mode when you need to set the channel and the groups.

To set the VS-570 as a Sony TTL slave, follow these steps:

1. Make sure the VS-570 is set to Sony TTL slave mode.
2. Press the Mode button repeatedly until the master control screen appears on the LCD. Use the up or down navigation buttons to select CL1 or CL2. Make sure to set it to the same mode as the master.
3. Press the Mode button repeatedly until the Sony optical slave screen appears on the LCD. Use the up or down navigation buttons to cycle through the slave mode and channel combinations.
 - A. If the flash is set to CL1, it will cycle through SL1, channels 1–4.
 - B. If the flash is set to CL2, it will cycle through channel 1, SL1; channel 1, SL2; channel 2, SL1; channel 2, SL2; and so on.
4. If desired, adjust the flash coverage angle by pressing the Zoom button repeatedly.
5. Make sure that the red light on the front of the VS-570 is blinking. This indicates that the unit is ready to fire in wireless TTL slave mode.



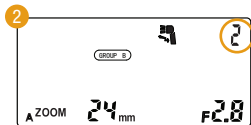
Note: Your flash must be on the Sony optical slave screen in order for it to operate as a TTL slave (Example 3). Do not navigate away from this screen while operating the VS-570 in this mode.

Nikon and Canon TTL Slave Modes

When setting the VS-570 as a wireless TTL slave for Nikon and Canon TTL systems, you can configure the TTL mode, group, channel, and flash coverage angle (zoom).

To set the VS-570 as a Nikon or Canon TTL slave, follow these steps:

1. Make sure the VS-570 is set to Nikon or Canon TTL slave mode.
2. Use the up or down navigation buttons to select the channel and group. The flash will cycle through channel 1, groups A through C; then channel 2, groups A through C; and so on.
 - A. When using a single slave flash, set it to the same group and channel as the master.
 - B. When using multiple slave flashes, select the same group and channel for all units in the same light position.
3. If desired, adjust the flash coverage angle by pressing the Zoom button repeatedly.
4. Make sure that the red light on the front of the VS-570 is blinking. This indicates that the unit is ready to fire in wireless TTL slave mode.



Using Your VS-570 as a Wireless Manual Flash

For even greater creative control, you can set the output levels of your remote flash units manually. Using the optical slave feature, the VS-570 can be set to fire whenever it detects a signal from the master flash. This works optically—when the VS-570 “sees” another flash firing, it will instantaneously fire along with it.

Setting the remote flash units manually: To set a VS-570 flash unit to function as a slave with the output level selected manually, follow these steps:

1. In Manual mode, use the up and down buttons to select the power output (1 through 1/64).
2. Press the Mode button once to enter Slave mode.
3. Set the slave mode as desired (see below).
4. If desired, adjust the flash coverage angle by pressing the Zoom button repeatedly.
5. Make sure that the master flash on your camera is on and set to the appropriate mode. If you don't want the master flash to illuminate a subject in front of the camera, tilt the head upward.

Setting the slave mode:

Depending on your camera and flash settings, the master flash may emit more than one burst of light in quick succession (called a “pre-flash”). Pre-flash is used to help the camera meter and/or focus, and is done

automatically by the camera. If the slave flash is not set correctly, it may be triggered by the pre-flash and fire before the camera's shutter opens. In order to ensure that the VS-570 fires at the correct time, there are three different slave modes available: modes 0, 1, and 2. To select the correct slave mode, follow these steps:

1. Make sure the flash is in Slave mode.
2. Press the Up and Down buttons to cycle through the slave mode options on the LCD.
 - A. In mode 0, the flash will fire on the first (or only) burst of light. Use this mode when the master flash is set to manual.
 - B. In modes 1 and 2, the slave will ignore either one or two pre-flashes, respectively. Use these modes when the master flash is set to TTL or automatic modes. Whether the master emits one pre-flash or two will depend on the camera and settings—always take a test exposure to ensure that the slave is set correctly.



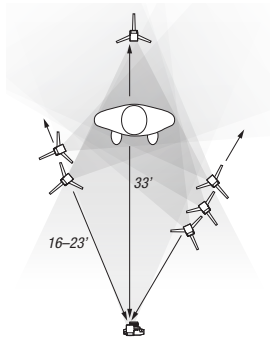
Important! Some cameras, when set to red-eye reduction, will emit a series of quick flashes lasting a second or more. This may not work properly with any slave mode. We suggest you avoid using red-eye reduction when using the VS-570 as a slave.

Positioning Remote Flash Units

You can create a professional lighting setup by positioning remote units singly or in groups to function as main, fill, accent, and other lights. Metering your scene with a handheld light meter and setting your light ratios to achieve specific looks will give you a professional level of creative control.

When positioning wireless slaves to light a subject, keep in mind the following:

- The effective communication range between master and remote flash units is approximately 33 feet (10 meters) in the front position, and approximately 16 to 23 feet (5 to 7 meters) at both sides. These ranges may vary, depending on the ambient light.
- The flash head should not be aimed directly into the camera lens.
- The wireless sensors are located on the front of the VS-570. Make sure that sensor is facing the master flash and that there is no obstruction between the two units.
- When photographing outdoors or in bright ambient light, the sensors can be overwhelmed by ambient light, which will lower their sensitivity.
- To avoid creating interference between flash units, using more than three in a single group is not recommended.



Upgrading the Firmware on the VS-570

In order to ensure compatibility with future cameras, the VS-570's firmware may be updated. This can be done to ensure proper communication with new cameras, or to add new features.

Visit www.boltflashes.com/firmware to check if a new firmware version has been released. Follow the online instructions to upgrade.

Troubleshooting

Problem	Solution
The flash is stuck in the camera hot shoe.	Make sure that the mounting foot release lock is pushed (Page 14).
The flash is turned on but won't fire.	Make sure that fresh batteries are installed and in the proper orientation (Page 12).

Problem	Solution
The flash is set up as a wireless TTL slave but won't fire.	<ul style="list-style-type: none"> • Make sure that the master flash is within the transmission range and the wireless sensor on the slave is pointing toward the master flash. Remove any obstructions in the line of sight between the two (Page 42). • The ambient light may be too high (Page 42).
The flash is set up as a manual (optical) slave, but the light is not noticeable in the picture.	Make sure that the flash is set to the appropriate slave mode (Page 36).
The edges of images look dark.	Make sure that the flash zoom setting corresponds to the focal length of your lens (Page 21).
There's a whining sound coming from the flash.	This is normal and does not indicate a malfunction. When the flash becomes warm from continuous use, vibrations inside the unit may cause this sound. It will dissipate as the unit cools.

Specifications

Type: On-camera and wireless TTL automatic and manual flash

Compatible cameras: Sony cameras with TTL flash system support and a Sony-Minolta style hot shoe

Guide number (at 50mm focal length, ISO 100): 141 feet / 43 meters

Flash coverage: 24mm–105mm (18mm with diffuser panel)

Flash duration: 1/1,000–1/20,000 second

High-speed synchronization: Yes

Flash recycle time: 0.5–9 seconds (AA Ni-MH)

Manual mode power output: 1/1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/64

Wireless transmission method: Optical pulse

Wireless transmission range: Up to 33 feet (10 meters)

Wireless channels: 4

Controllable wireless slave groups: 3

Slave timing modes: Instant sync, skip one pre-flash, skip two pre-flashes

Power source: 4 AA lithium, Ni-MH, or alkaline batteries; optional external power source

Tilt positions: 0°, 45°, 60°, 75°, 90°

Swivel range: Right 0°–120°, Left 0°–180°

Dimensions: Approx. 2.5" × 3.9" × 4.7" (65 × 100 × 120 mm)

Weight: Approx. 9.2 oz. (260 g) without batteries

Guide Number Chart*

Zoom Position	GN - Meters	GN - Feet
24mm	34	112
28mm	36	118
35mm	38	125
50mm	43	141
70mm	45	148
85mm	47	154
105mm	50	164

*at ISO 100

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

One-Year Limited Warranty

This BOLT 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 BOLT Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to BOLT 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.boltflashes.com or call Customer Service at 212-594-2353.



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