

Photographing Fireworks



Fireworks displays are colorful and spectacular to watch – and they are easy to photograph! To get good still photographs, you need an adjustable camera or an automatic camera capable of making long exposures. Take along a good supply of Kodak film and a tripod or other firm support for your camera. Take lots of picture – the fireworks appear and disappear so quickly that you can never be sure what you've photographed until you see the pictures.

WHICH FILM TO USE?

You can take pictures of fireworks with either color or black-and-white film. Of course, fireworks are especially dramatic because of their vivid colors, so your pictures will be more exciting in color.

Unless you definitely need slides, use negative film for prints. It can take good pictures over a wide range of exposures, whereas slide film requires precise exposure. When you want color prints, choose KODAK GOLD, KODAK GOLD MAX, KODAK ADVANTIX, or KODAK ROYAL GOLD Films. For color slides, you can use KODAK EKTCHROME, KODACHROME, or KODAK ELITE Chrome Films balanced for daylight.

EXPOSURE WITH ADJUSTABLE CAMERAS

If your camera offers both automatic exposure (the camera sets the aperture and shutter speed) and manual exposure (you set lens aperture and shutter speed), use the manual exposure. For the most interesting pictures, you should make time exposures. With the support of a tripod, hold the shutter open several seconds or longer to catch several bursts. With time exposures, the streaking fireworks will become great aerial blooms as they etch paths of light across the film.

Use the chart that follows to choose an aperture that will give good exposure. The small apertures, such as $f/16$ and $f/22$, used for high speed films, will reproduce bursts as thin radiating streaks with intense colors. The medium apertures, such as $f/5.6$ and $f/8$, used for low- and medium-speed films, will render thicker streaks with colors not quite so intense.

To Take the Picture

- Place your camera on a tripod or other film support.
- Set the focusing scale at infinity, and set the lens opening according to the suggestions in the table.
- Aim the camera in the direction of the bursts.
- Set the camera shutter on "Bulb," often indicated by a "B."
- Open the shutter; you may keep it open for several bursts or for only one. Then close the shutter. Capturing several bursts on the same frame of film creates complex intricate patterns for more interesting fireworks photographs. If you keep the shutter open for several bursts and there are bright lights or moving cars nearby, put a hat or a piece of dark paper in front of the lens between bursts to keep stray light out while the shutter is open. A helpful accessory for this technique is a locking cable release to hold the camera shutter open on the bulb setting.
- Add interest and a feeling of depth by including silhouettes of objects or people in the foreground of your pictures.
- If you have a telephoto or zoom lens, use it to get close-ups of the fireworks displays.
- When using color-slide film, consider the table below as a guideline for exposure settings. You may find a slight bracketing of the f -stop (± 1 stop) will yield variations in density and color.
- If you don't use a tripod, you won't be able to make a sharp time exposure. However, you can get successful results with a handheld camera at $1/30$ second at $f/5.6$ on KODAK GOLD MAX 800 Film or KODAK ROYAL GOLD 1000 Film for color prints or on KODAK T-MAX P3200 Professional Film for black-and-white prints. Time your exposures with the firework bursts. This technique works best during the finale when there are many bursts going off at the same time.

USING AUTOMATIC-ONLY CAMERAS

Great for general picture-taking, automatic-only cameras need a little help for fireworks. Automatic-only cameras set both the shutter and aperture. They offer you no alternative of making these settings yourself. If you have an automatic-only camera, you should use high-speed, color-print film, such as GOLD MAX 400, ROYAL GOLD 400, or ADVANTIX 400 Film. Because the camera meter sees mainly dark sky when photographing fireworks, an automatic-only camera will likely overexpose the film. Negative film for prints, however, is quite tolerant of overexposure and will still yield good pictures.

The slowest shutter speed on many automatic-only cameras is $1/15$ second, a shutter speed too fast to show fireworks as aerial blooms.

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AUTO-FOCUS CAMERAS

If you are using an auto-focus camera, set the focus manually on infinity, if possible. See your camera manual. If you can't set the focus manually, take a test shot of the fireworks and then check the focus indicator to determine whether your camera is focusing properly on infinity. Infinity is indicated by a figure eight on its side ∞ or by a distant-scene symbol, such as a mountain .

Some cameras have an indicator light to let you know when the time exposure is starting. All you have to do is keep the camera steady until the light goes out. (The shutter in an automatic camera will automatically close.)

VIDEO CAMERAS

Photographing fireworks with most video cameras will result in overexposed, colorless scenes. That's because most video cameras offer fully automatic exposure with no means of underexposing. Seeing mostly dark sky, the camera's exposure system gives the maximum exposure, which overexposes the bright fireworks. If your camera, however, offers manual settings or lets you underexpose automatically, try a 2-stop underexposure. View the scene through the viewfinder, and, if possible, try for a setting that seems a bit too dark.

Fireworks Displays Suggested Exposures for KODAK Films

Color-Print Film		GOLD 100 ISO 100	GOLD 200 ISO 200	GOLD MAX 400 ISO 400	GOLD MAX 800 ISO 800
		ROYAL GOLD 100 ISO 100	ROYAL GOLD 200 ISO 200	ROYAL GOLD 400 ISO 400	ROYAL GOLD 1000 ISO 1000
		ADVANTIX 100 ISO 100	ADVANTIX 200 ISO 200	ADVANTIX 400 ISO 400	
Color-Slide Film	KODACHROME 25 (Daylight) ISO 25	ELITE Chrome 100 (Daylight) ISO 100	ELITE Chrome 200 (Daylight) ISO 200	ELITE Chrome 400 ISO 400	
	EKTACHROME ELITE II 50 ISO 50	KODACHROME 64 (Daylight) ISO 64	KODACHROME 200 (Daylight) ISO 200		
Black-and-White Print Film		T-MAX 100 Professional ISO 100		TRI-X Pan ISO 400	T-MAX P3200 Professional ISO 3200
		PLUS-X Pan ISO 125		ADVANTIX Black & White + 400 Print ISO 400	
				T-MAX 400 Professional ISO 400	
Type of Display					
Aerial Bursts: Keep shutter open on Bulb for time exposure.	f/4	f/8	f/11	f/16	f/22

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