

Photographing Fireworks

Recommended Equipment

Digital or Film Camera, but an SLR is easier than a Point & Shoot but either will work.

Low speed film if using a film camera ISO 100 is excellent.

Tripod.

Cable release or remote shutter release.

New or fully charged batteries.

Something to cover the lens (lens cap, dark cloth that light won't pass through, small box, coffee can). If using a box or can it is best to paint the inside flat black or line it with black felt a few days in advance. The lens cap can be more difficult than a box or can. The box or can must be large enough to fit over the lens.

Normal to wide angle lenses including zoom lenses.

Camera Setup

If digital set to ISO 100 or if it does not go that low, use the lowest ISO setting.

If using a film camera load it with ISO 100 film.

If you are shooting digital set your white balance to daylight or flash (even if you are not using the flash) so the camera is not fooled by the bright colors against the dark sky or anything else in the background.

Install new or fully charged battery / batteries.

If your camera has a flash that automatically fires in low light disable this feature unless you are planning on having a foreground objects that needs to be illuminated (see slow sync flash notes for exposure information if you have objects and plan on using the flash to illuminate the foreground).

Attach cable release or set camera for use with remote shutter release.

Setup tripod and attach camera.

Turn off Auto focus and manually focus to a point that is approximately the distance the fireworks will be or focus just short of infinity. If your camera does not allow manual focusing, set it to the landscape mode.

Exposure

Fireworks take several seconds from the time they launched until the colors have faded away; to capture this you will need a shutter speed of about 6-12 seconds. Fireworks are also quite bright since your shutter will be open for 6-12 seconds; you will need an aperture small enough to prevent overexposure. An f-stop of 8-16 works well for most professional fireworks displays.

Shutter Speed. There are several methods of controlling the shutter speed, choose one keeping in mind not every camera is capable of doing each of these methods.

1. Set the shutter speed on the camera to 6-12. Using the cable release or remote, trip the shutter just after the firework is launched. You can change the shutter speed from exposure to exposure. If your camera has multiple exposure capability, you may want to use it to fill the frame with fireworks.
2. Set the camera to "T" (Time) setting and cover the lens with the lens cap, box, can or cloth. Press the shutter release to open the shutter. When the fireworks are launched uncover the lens for 6-12 seconds. Don't worry about being exact 6-12 seconds, using a watch or counting will work fine. At the end of the exposure press the shutter to close the shutter (some cameras require turning the shutter speed knob or turning the camera off to close the shutter). This method allows you to expose the film or sensor for the entire time the firework is visible whereas allowing the camera to open and close the shutter can cause you to miss some of the fireworks
3. Set the camera to "B" (Bulb) setting and use the cable release to open and close the shutter. When the fireworks are launched uncover the lens for 6-12 seconds. Don't worry about being exact 8 or 11 seconds, using a watch or counting will work.

General Tips

1. Don't forget the basics of composition: Cityscapes are great backgrounds for fireworks, people in the foreground add a scale reference, and trees on the sides look good framing the fireworks. If the fireworks display is near a river, look for bridges & boats to add some interest to the photos. Also, reflections of fireworks in the windows of large buildings often look good.
2. Arrive early to get a good position keeping in mind you want a good position for photographing the fireworks not just watching the fireworks.
3. Take a flashlight so you can see your camera controls.
4. You will be using long exposures, this will drain your batteries faster than usual, be prepared with new or fully charged batteries & extra batteries.

5. If shooting digitally look at you photos between shots to check the exposure but do it quickly so you don't miss anything. Even if you do not like a shot, do not waste time deleting do that after the fireworks show is over.
6. Bring enough film or memory cards for at least 50 photos.
7. On digital cameras, do not use noise reduction as it is often fooled by fireworks.
8. If using a digital camera, use the highest quality setting, preferably RAW. Too much JPEG compression can ruin fireworks photos.
9. Thinking about using a "Single Use" camera, don't waste your money. The preset shutter speeds and apertures combined with the high speed film almost never does a good job.
10. Shoot both vertical and horizontal shots.
11. If shooting digitally, set the contrast to normal, do not use automatic.

Tips for Point and Shoot camera users

1. Some P&S cameras have a fireworks mode.
2. Using the Night Mode **without** flash usually works well but may render out of focus images depending on the camera
3. Many P&S cameras have a double exposure mode; try it for a few shots.
4. The Landscape mode often does a good job and focuses near infinity.
5. If your P&S camera has a "B" (Bulb) setting use it and a cloth, box or can to control the exposure Even though P&S cameras are light weight, you need a tripod. If you don't have one, find a fence, wall, car or something stable on which to set the camera.