

Technologies Explained – PowerShot A3100 IS PowerShot A3000 IS

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Optical Image Stabilizer

Canon's highly-effective optical Image Stabilizer technology prevents image blur by dramatically reducing the effects of camera shake. In situations where the camera is more prone to shake – such as in darker conditions or when shooting with the zoom extended – the optical Image Stabilizer can help images remain sharp through minute vibration gyros which detect camera movement caused by hand shake. These signals are processed by a single-chip IS controller, which discriminates between hand shake and intentional camera movements. Shake signals are sent to the IS unit, which moves one of the lens elements accordingly to re-align the light rays and cancel out the effects of camera shake.

Smart Auto mode (with i-Contrast)

Smart Auto mode uses Scene Detection Technology to determine the shooting scene by analysing subject brightness, contrast, distance and overall hue. The camera then selects the scene type from 18 variables, applying the best settings for optimum output. In Smart Auto mode, a colour icon indicating the type of scene detected – and the lighting conditions of the scene - is shown on the LCD monitor. Smart Auto also includes i-Contrast which extracts greater detail in darker regions, without blowing out correctly-exposed parts of the image.

Easy mode

Easy mode offers intelligent picture taking without added complexity - providing the simplest point and shoot mode for beginners. In Easy mode, Smart Auto is active, selecting the optimum settings for the best results in each type of scene. However, most on-screen data is cleared in order to facilitate framing and most of the function buttons are disabled to prevent accidental use.

Smart Flash Exposure

Canon's Smart Flash Exposure feature intelligently controls the power and usage of the onboard flash to ensure natural results in a variety of conditions. By using focusing distance as well as shooting scene information, an optimum balance between the ambient light of the scene and flash power is achieved. When shooting in very bright conditions, shadows which can appear on a subject's face can be detected by the

camera and flash can be used to eliminate them. When shooting at close distances, overexposure is avoided by effectively sensing how reflective the subject is, as well as reducing the flash power to compensate for the close shooting distance.

Auto ISO with Motion Detection Technology

Auto ISO mode, using Motion Detection Technology, calculates the movement of both the camera and subject as well as the speed at which the motion occurs. ISO sensitivity and shutter speed are then automatically adjusted to deliver minimum blur and maximum image quality in any situation.

Face Detection Technology

Canon Face Detection Technology makes it easier than ever to produce superb people shots. This advanced system quickly and accurately detects faces in a scene – then optimises camera settings so that everyone looks their best. With the ability to detect multiple faces in a frame, it's great for group photos as well as portraits.

These cameras include the following Canon Face Detection Technologies:

- **Face Detection AF:** Sets the focus on the faces in people shots – not just the closest subject.
- **Face Detection AE:** Optimises exposure for human subjects' faces in all lighting conditions – useful for backlit scenes or indoor shooting.
- **Face Detection FE:** Guards against washed-out faces when using the camera's flash – perfect for close-up shots in restaurants, clubs or other dimly lit locations.
- **Face Detection WB:** Optimises white balance for natural-looking skin tones which remain true to life regardless of skin colour and lighting conditions.
- **Face Select and Track:** Allows users to select one of the faces in a group to be given priority over the rest. The camera will then keep this face in focus and adjust settings for an optimal shot - ensuring the user can shoot the right moment and be sure of excellent results.
- **FaceSelf-Timer:** Allows perfect group shots or self portraits by automatically triggering the shutter two seconds after a new face has entered the frame.
- **Auto Red-Eye Correction:** Eliminates the unwanted effects of flash photography. At the touch of a button in playback, natural-looking eyes can be instantly restored. The original image can then be replaced or the corrected image saved as a new file.

Low Light mode

Low light mode enables shooting in darker conditions by automatically selecting the optimum ISO - up to 3200 - at a reduced resolution, so the user can capture the natural ambience of darker scenes.

DIGIC III Processor

Canon's DIGIC III (Digital Imaging Core) processor manages all of the camera's primary functions to optimise operating efficiency. Advanced image processing algorithms deliver superb image detail and colour reproduction with accurate white balance. High-speed processing results in outstanding responsiveness, rapid auto focus and extended continuous shooting ability. DIGIC also powers advanced Noise Reduction Technology and Face Detection Technology.

Li-ion battery

Lithium-ion rechargeable batteries provide a lightweight power solution for digital cameras. The charger can be used anywhere in the world (with appropriate adaptor) while users can recharge the camera's battery irrespective of its power level without worrying about the impact of memory effect over time (gradual capacity deterioration).