

## Additional Information – Digital IXUS 110 IS and Digital IXUS 990 IS

### Printing

The Digital IXUS 110 IS and Digital IXUS 990 IS feature a dedicated Print menu for quick access to direct print options. Full PictBridge support means users can print directly to any PictBridge compatible printer without the need for a PC.

The Digital IXUS 990 IS has a Print button for one-touch printing.

### Language

The Digital IXUS 110 IS and Digital IXUS 990 IS feature a user interface that supports 26 languages: English, German, French, Dutch, Danish, Finnish, Italian, Norwegian, Swedish, Spanish, Simplified Chinese, Traditional Chinese, Japanese, Russian, Portuguese, Korean, Greek, Polish, Czech, Hungarian, Turkish, Thai, Arabic, Romanian, Ukrainian and Farsi.

### Memory Card Support

In addition to SD, SDHC and MMC memory cards, the Digital IXUS 110 IS and Digital IXUS 990 IS support MMCplus and HC MMCplus card formats.

### Software and CANON iMAGE GATEWAY<sup>1</sup>

The Digital IXUS 110 IS and Digital IXUS 990 IS come bundled with the following Canon Software:

- ZoomBrowser EX 6.3 (Windows), ImageBrowser 6.3 (Macintosh): For organising and editing images, movies and slideshows, or creating and printing digital photo albums.
- PhotoStitch 3.1 (Windows), PhotoStitch 3.2 (Mac): For creating panoramic photos from multiple images.

The bundled software supports Windows Vista (including SP1) / XP SP2-3 and Macintosh OS X v10.4-10.5. Both cameras support PTP for driverless transfer to Windows XP and Macintosh OS X, along with MTP for image and movie transfers to Windows Vista.

Purchasers of the Digital IXUS 110 IS and Digital IXUS 990 IS are eligible for free membership of CANON iMAGE GATEWAY: 100MB of online 'personal gallery' space for sharing stills and video with family and friends.

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<sup>1</sup> CANON iMAGE GATEWAY is not available in all European countries. Please see [www.cig.canon-europe.com](http://www.cig.canon-europe.com) for available countries. Movie upload requires users to download and install the movie upload task, available after registration.

### **Optional Accessories**

The Digital IXUS 110 IS and Digital IXUS 990 IS can be combined with the following accessories:

- Soft Case (DCC-70) for Digital IXUS 990 IS, (DCC-1100) for Digital IXUS 110 IS
- Digital IXUS Metal or Leather Strap
- High Power Flash (HF-DC1)
- AC Adapter Kit (ACK-DC30) for Digital IXUS 990 IS, (ACK-DC10) for Digital IXUS 110 IS
- HDMI Cable (HTC-100)
- Waterproof case (40m) (WP-DC32) for Digital IXUS 110 IS
- Waterproof Case Weight (WW-DC1) for Digital IXUS 110 IS

## Technologies Explained

### DIGIC 4

Canon's DIGIC 4 (Digital Imaging Core) image processor manages all of the camera's primary functions to optimize 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 4 also powers advanced Noise Reduction Technology, i-Contrast, Face Detection AF/AE/FE/WB and the new Scene Detection Technology.

### Scene Detection Technology

Available in Smart Auto mode, Canon's Scene Detection Technology analyses the shooting scene by taking into account subject brightness, contrast, distance and overall hue. The optimum settings are then automatically selected for each scene from a choice of 18 possible modes. A colour icon indicating the type of scene detected – and the lighting conditions of the scene - is shown on the LCD monitor.

Smart Auto mode gives users the reassurance that the camera will take care of settings and deliver great results - even when shooting moving subjects, backlit scenes, night shots, sunsets, and shots taken at very close range. Smart Auto mode also increases image dynamic range to reduce highlight blow-out when shooting bright scenes, reduces dynamic range to improve contrast in low-contrast scenes, and automatically enhances blue saturation for blue skies.

### Face Detection AF/AE/FE/WB, Face Select & Track and FaceSelf-Timer

Canon's Face Detection AF/AE/FE/WB system automatically detects up to 35 faces within a frame before adjusting focus, exposure, flash and white balance to ensure optimal results. It is able to determine which faces are intended to be the subject, instantly reverting to the partnering 9-point AiAF system if no face is the primary subject. Thanks to the advancements brought about by DIGIC 4, Face Detection is now able to detect faces at an angle or in profile with enhanced speed and accuracy. FaceSelf-Timer allows easy group shots by automatically triggering the shutter shortly after a new face has entered the frame. In addition, both models feature Face Select & Track - which allows the user to select a particular face to be the main subject of a photograph and track it.

### i-Contrast

Available in either shooting or playback mode, Canon's i-Contrast function analyses the exposure, dynamic range and other image characteristics of a shot,

then adaptively increases the gain in dark areas – to produce heightened detail in darker regions, without blowing out correctly-exposed parts of the image. The noise reduction function of DIGIC 4 ensures minimal noise in adjusted areas.

### **Active Display and Improved UI**

Canon's Active Display feature, found in both models, uses an acceleration sensor to allow playback features based on orientation and movement of the camera. Pictures can be scrolled through simply by flicking the camera up or down; while scrolling through images with the multi control dial, the rate of image movement can be altered with the angle of the camera. A new User Interface includes optional on-screen Hints and Tips, which provide succinct explanations of how different settings alter users' images.

### **Zoom Blur and Creative Light Effect**

The Digital IXUS 990 IS features two new shooting modes. Zoom Blur physically zooms the camera's lens from wide to telephoto while the shutter is released – creating a dynamic feeling of movement in a shot. Creative Light converts the light from existing light sources – such as light bulbs or sparks from fireworks – into various shapes such as stars and hearts.

### **Optical Image Stabilizer**

The Digital IXUS 110 IS and Digital IXUS 990 IS use a lens shift type Image Stabilizer (IS) system to detect and correct camera shake that can cause image blur. Offering a 3 stop advantage and 4 stop advantage respectively, the two cameras offer improved performance in low-light conditions or when shooting at the telephoto end of the lens and when vibrations are more severe; the Digital IXUS 990 IS is also more sensitive to low-frequency vibration, such as the rocking of a boat.

Minute vibration gyros detect camera movement caused by hand shake. These signals – at 4,000 per second on the Digital IXUS 110 IS and 8,000 per second on the Digital IXUS 990 IS – 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.

For improved accuracy and responsiveness, the moving lens element is supported on tiny ceramic spheres. In addition to minimising friction, ceramic spheres avoid some of the problems that can affect metal systems, such as thermal expansion and magnetism.

### **Motion Detection Technology**

Part of Smart Auto mode, Motion Detection Technology uses several methods to detect movement of both camera and subject:

- Changes in brightness – detected by the Auto Exposure function
- Changes between frames – detected using pixel shift
- Face movement – detected by Face Detection Technology
- Camera shake – detected by the Image Stabilization system

ISO speed and shutter speed are then automatically adjusted to deliver minimum blur and maximum image quality. DIGIC 4 drives a number of new improvements to Motion Detection Technology. When a face is detected, shutter speed is now varied according to the speed at which the face moves. The amount of camera shake is also taken into consideration.