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**User Manual**  
IXUS/ELPH camera  
Revision 2 / September 2014  
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IXUS/ELPH camera

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**User Manual**

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## **Technical support**

If you have questions on your *eBee* or your IXUS/ELPH camera please consult senseFly Ltd's technical support page at the following address:

<http://www.sensefly.com/support/>

# IXUS/ELPH Camera

Congratulations on your purchase of the *eBee*, the purpose of this guide is to help you use the drone's *IXUS/ELPH* camera effectively.

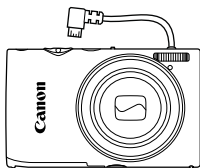


**Note:** This manual refers to versions 2.3 and later of the *eBee*'s *eMotion* software. Check the software version included in your *eBee* and consult the Release Notes for potential changes included in more recent versions of the software.

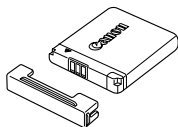


**Caution:** The *IXUS/ELPH* camera has been modified to be compatible with the *eBee* drone. It is therefore not recommended to use it for other purposes than payload on a senseFly drone.

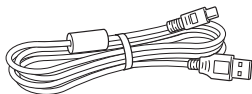
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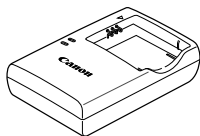
Camera



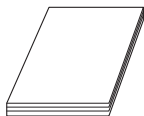
Battery pack



Interface cable



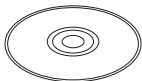
Battery charger



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SD memory card



Canon's digital camera  
solution disks (2x)



All the items below, related to your *IXUS/ELPH* camera, are directly included with your senseFly product:

- 1×*IXUS/ELPH* camera
- 1×*IXUS/ELPH* camera battery pack
- 1×*IXUS/ELPH* camera battery charger
- 2×*IXUS/ELPH* camera manufacturer's solution disks
- 1×USB cable
- 1×SD memory card

Depending on your order, your package may also include additional items. Please verify upon delivery that your package is complete. In case of a missing item, please contact your reseller immediately.

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**Part I**


# **Getting started**

## 1 Pre-flight procedure


### 1.1 Predefined camera settings

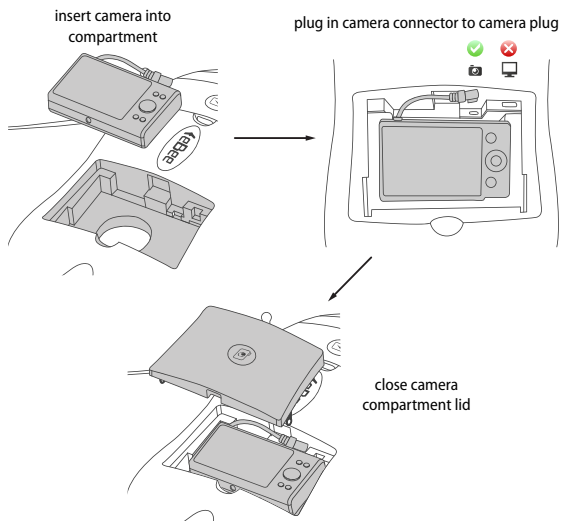
Although the *IXUS/ELPH* camera can be manually configured, a predefined set of parameters, optimised by senseFly, is saved within the camera as the factory settings.



**Note:** Image size (Recording pixels or ) is set to L with an aspect ratio of 4:3 in the default factory settings. Only images taken with these settings can be processed by *Postflight Terra 3D*. If you have changed these settings, you must set them back to the default or carry out a re-set (See senseFly factory settings).

### 1.2 Installing the camera

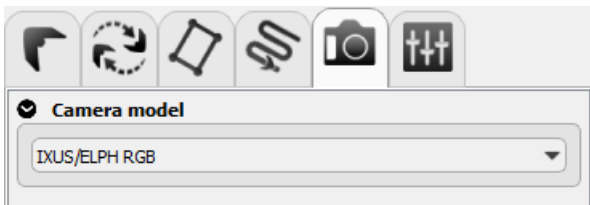
Before every flight, make sure that the battery of your *IXUS/ELPH* camera is fully charged and its SD memory card contains enough free space. Next, insert the *IXUS/ELPH* camera into your *eBee*, plug it into the connector (see icon ) and close the camera compartment's lid.



**Note:** It is recommended before every take-off to perform a visual check of the camera's lens in order to ensure the best image quality for the 3D reconstruction.

## 2 *eMotion*

After connecting your *eBee* in *eMotion*, verify that the correct camera model is selected in the **Camera** tab.



### 3 Importing images

The postflight process requires the pictures taken during the flight to be geotagged. To do so, remove the SD card from your *IXUS/ELPH* camera and insert it into the SD card reader of your computer and follow the instructions of the *eMotion* Flight data manager. If your computer does not feature an SD card reader, you can also transfer the images by connecting your computer to the *IXUS/ELPH* camera with a USB cable.

### 4 Charging the battery

To charge the camera's battery, remove it from the camera and insert it into its charger. Plug the charger into a power outlet. The charging LED will show red when charging begins. Once the battery is fully charged, the LED will show green. Charging takes approximately 1 hour and 30 minutes.

**Part II**  
**Appendix**

## 1 Specifications

<i>Sensor</i>	1/2.3" back-illuminated CMOS
<i>Image size</i>	16.1 Mpix
<i>Maximum f/number</i>	f/2.7
<i>Maximum shutter speed</i>	1/2000s
<i>Output format</i>	JPEG
<i>Battery life</i>	Approx. 170 shots
<i>Operating environment</i>	0 – 40 °C, 10 – 90% humidity
<i>Weight</i>	Approx. 125 g (4.4 oz)

## 2 Handling precautions

- If water droplets or dirt stick to the camera or screen, wipe with a dry soft cloth, such as an eyeglass cloth. Do not rub hard.
- Never use cleaners containing organic solvents to clean the camera or screen.
- Use a blower brush to remove dust from the lens.
- To prevent condensation from forming on the camera after sudden temperature changes (e.g., when the camera is transferred from a cold to warm environment), put the camera in an airtight, resealable plastic bag and let it gradually adjust to the temperature before removing it from the bag.
- If condensation does form on the camera, stop using it immediately. Continuing to use the camera in this state may damage it.



Remove the battery and memory card, and wait until the moisture has evaporated before resuming use.

### 3 senseFly factory settings

The configuration of your *IXUS/ELPH* camera is critical for the acquisition of quality images. In case of unwanted configuration changes, the camera can be configured back to senseFly factory settings using the following procedure.

- Power ON the camera.
- Reset to Canon factory settings:
  - Press the MENU button and navigate to the **Tools** tab.
  - Choose **Reset All** and confirm with **OK**.
- Set the program selector switch (top of the camera, beside the ON/OFF button) to **Manual** mode (📷)
- Deactivate the flash (right of the multipurpose controller)
- In shooting mode, press MENU to enter into the **Shooting** settings and set these as follows:

<b>AF Frame</b>	Center
<b>AF Frame Size</b>	Normal
<b>Digital Zoom</b>	OFF
<b>AF-Point Zoom</b>	OFF
<b>Servo AF</b>	OFF
<b>AF-assist Beam</b>	OFF
<b>Flash Settings...</b>	
> <b>Red-Eye Corr</b>	OFF
> <b>Red-Eye Lamp</b>	OFF
<b>i-Contrast</b>	OFF
<b>Review</b>	OFF
<b>Blink Detection</b>	OFF
<b>Grid Lines</b>	OFF
<b>IS Settings... &gt; IS Mode</b>	OFF
<b>Date Stamp</b>	OFF
<b>Face ID Settings... &gt; Face ID</b>	OFF

- Into the Tools tab, set the options as follows:

<b>Mute</b>	ON
<b>Hints &amp; Tips</b>	OFF
<b>Power Saving...</b>	
> <b>Auto Power Down</b>	OFF
> <b>Display Off</b>	3 min
<b>Date/Time</b>	Correct the date and time
<b>Time Zone</b>	Correct the time zone



