Photography Start-Up Guide

For All Lighting Systems

Congratulations on your New Lighting System

You have taken the first step to shoot quick and easy professional photos

This abridged photography startup guide will show you how to setup your digital camera and shoot high quality photographs in minutes.

You may find more help at: www.or-tech.com/support

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Basic Camera Setup

Did you purchase a camera from us?
If you did, your camera is already pre-set to the correct settings. But make sure to check that your camera has the following settings:

Did not purchase a camera from us?
Please adjust your digital camera to the following settings:

Connecting your Camera to the computer?
Please visit our website for detailed instructions: www.or-tech.com/support

Note: The photos are for illustration purposes only. This guide goes into specific detail for setting Canon PowerShot cameras, although the instructions may also be followed to set-up other digital cameras (See your camera's manual for specific information).

1. **Turn ON your camera, then turn ON the Macro Mode (Enable it)**
   This is the only setting that <u>never</u> gets saved. You must enable it every time you turn on your camera. Press down the area or button next to the tulip symbol until the flower/tulip symbol appears on your LCD screen.
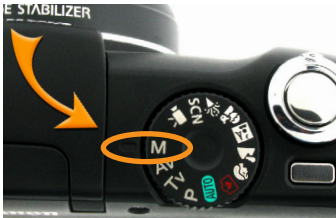

Canon Powershot SX110 IS

Canon Powershot SX10 IS

2. **Set your camera to Manual Mode**
   The letter "M" (for "manual") should be selected in the mode wheel.
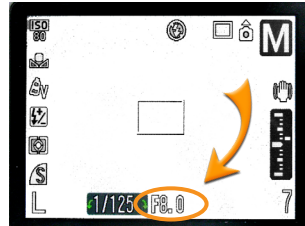

Canon Powershot SX110 IS

Canon Powershot SX10 IS

3. **Fix your camera's aperture (F-Stop) at F8.0** (See note below)
   In most Canon cameras, the aperture may be changed by moving the
   ← or → button in the back of the camera while in shooting mode
   (when the aperture is selected). The aperture number "F8.0" should
   appear at the bottom of your camera's screen once you've selected it.

+/- Button found in most Canon cameras   Camera's LCD Screen

*Notes: In order to modify the aperture in most Canon cameras press the +/- button, which toggles between selecting the aperture or shutter speed. In newer Canon models you change the F-stop by moving the wheel clockwise or counterclockwise. By setting your aperture at F8.0 on most point-and-shoot digital cameras or **F16.0 in DSLR digital cameras** you increase your camera's depth-of-field, which allows you to focus the entire item being photographed (rather than only parts of it).*

4. **Verify the Close up Lens (+2) is attached to your camera lens.**
   When photographing items 4 to 12 inches away from the camera, a close-up lens is needed to focus properly. (A lens adapter may be required)

Macro lens & lens adapter being attached   Camera with lens attached

5. **Make sure the FLASH is turned off.**
   The flash is turned off when you see the image of a lightning bolt crossed-out within a circle on your screen.

6. **Set the focus to "Spot"**
   Set your camera's focus option to "Spot". This will allow you to have total control of where you want to focus your items. This is found in most Canon cameras under the "Function/Set" menu.

   Note: Please refer to your camera's manual for specific information on how its done.

7. **Adjust the Custom White Balance**
   If you purchased a camera from ORTech, your camera's white balance has already been adjusted to the correct setting for fluorescent lighting. If you choose to photograph with halogen lighting you'll need to do a custom white balance adjustment once again. If you did not buy a camera from ORTech, you still need to do a custom white balance adjustment.
   NOTE: Halogen lighting is used only for photographing jewelry containing gemstones such as rubies, amethysts, and other colored stones that are red, orange, or purple.

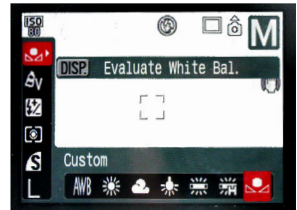   ### Steps for performing a custom white balance adjustment:
   a) Make sure your camera's aperture is at F8.0 and the shutter speed is at 1/400 for a custom white balance using fluorescent lighting, or 1/100 for halogen lighting. Turn on the desired lighting.
   b) Find the menu in your camera that allows you to perform a custom white balance. For Canon Powershot Cameras: Press the FUNC/SET button, go down to the white balance options in the left menu and then scroll right or left until you find an icon that shows a circle on top of two triangles (this is the custom white balance option). *View image to the right.*

   White balance "function/set" menu of most Canon PowerShot cameras

   c) Position your camera so that it is looking towards the inside of the lighting system.
      Note: Make sure the lighting system is empty
   d) Finally, press the button indicated by your camera to evaluate the lighting and perform a white balance adjustment of the inside of the photography system.
      Note: In Canon PowerShot Cameras the name of a button will appear to the left of the words "Evaluate White Bal". Press the button shown to actually perform a white balance. In the illustration above the "DISP" button appears.

   Camera positioned straight down, looking into the inside of the lighting system with fluorescent lights on

Shooting High-Quality Photographs

The following steps will explain what you need to do with your camera in order to achieve high-quality photographs by using our lighting systems.

NOTES:
- *If you bought a camera from MK Digital, the camera has been preset for use with fluorescent lighting (white light).*
- *Never use fluorescent and halogen lighting at the same time. Choose one or the other. LED lighting may be used alongside fluorescent, but not halogen light.*

Steps to Follow:

1. **Zoom In**
   Use your camera's zoom features to get a closer look of your item
   Note: Zoom-in as much as you can, while making sure your camera is still able to focus. If you zoom-in too much your camera might not focus the item and you will lose depth-of-field. You should zoom-out and then crop your image to get the desired section of your photo.

2. **Choose the correct shutter speed to adjust brightness**
   Every time you take a picture you need to choose the correct light by adjusting the shutter speed, according to what you think looks best. The shutter speed is represented by a fraction, like 1/100 or 1/250 of a second.

   Do the following:
   a) **Place an item inside the lighting system**
   b) **Adjust the shutter speed** (by changing the fraction number to be greater or smaller) until you get an image on your screen that is the most appropriate balance between too light and too dark. Choose what image looks best and take note of the shutter speed number. *Read important notes on next page.*
   c) **Take a photo with the shutter speed number you chose.** This is your "Best looking image". *Note: It doesn't matter which number you chose.*
   d) **Take two additional photos**, one with a slower speed (A lighter photo) and one with a faster speed (A darker photo) from the one you originally chose. *Take note of which shutter speed you use for each one. Read example below.*
   e) **Judge your photos.** Transfer your images to the computer, then open them in full screen to make a better judgment of which one looks best. The best photo will often be the one that looks slightly darker, as this photo will look best after it's been properly edited. The slightly brighter photo is usually inadequate, as parts of your product will fade into the background. The slightly darker photo or the "best looking one" will often be the best to use for editing.
   Important Note: Choosing an image with a slightly gray background is perfectly normal. You will later eliminate the gray by editing your image. View Page 9.

Example: Let's pretend you chose the shutter speed number 1/100 to be just the right balance between too dark and too light. Take a photo with 1/100, then a slower speed (let's say 1/50) which will take a brighter photo, and then a faster speed (let's say 1/125) which will take a darker photo.

Image that looks best
Shutter speed you think is best

Image that looks brighter
Slower shutter speed

Image that looks darker
Faster shutter speed

Important Notes:

- The LCD screen in your camera might not give you the best and most accurate representation of your photos. To decide which shutter speed gives you the best photos possible, make sure to always judge your photos in your computer screen. Experiment with various shutter speeds for best results.
- Do not use the shutter speeds mentioned previously, they are just examples. You must choose the shutter speeds yourself.
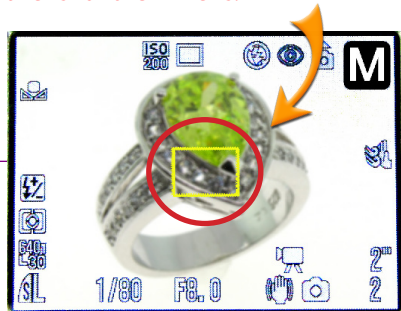
3. **Focus your photos.**

Press your camera's shutter button halfway until you hear a beeping sound and see a green square on your LCD screen, this means the camera is focusing properly. If the square is yellow or no square appears, the camera is not focusing properly. **Important Note:** To fix this, physically move the camera away from the item (as needed) and/or zoom out. You may also try exchanging the +2 macro lens for the +4 lens.

| **Focused Image** | **Unfocused Image** |
| Green Square Appears | Yellow Square (or nothing) Appears |

Note: Not all cameras show a green or yellow square when the image is focused or not focused. Please read your camera's manual for specific information. Do not release the shutter button until your image is properly focused.

4. **Achieve Depth-of-field in your photos.**

As mentioned on page 5, depth-of-field will allow you to focus your entire item, rather than just sections of it.

To achieve depth-of-field:

a) *Move the camera, so that the center of the screen appears on the side of the item (1/3 down from the top of the item – View Photo B on next page).*

b) *Press the shutter button half-way to focus the item and without releasing your finger, move the camera back to have the item on the center of the screen. (View Photo C)*

c) *Click the shutter button all the way down to shoot the image.*

Please see images on the next page

Photo A

Focusing at the center of the item
(No depth of field achieved)
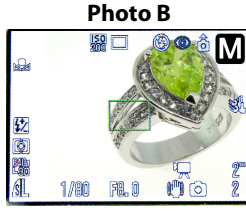***Bottom of ring is not focused***

Photo B

Focusing at the center
and side of the item

Photo C

Focusing at the center of the item
(Depth of field achieved)
Entire ring is in focus

5. **Adjust the brightness, contrast and sharpening of your photos.**
Use the Catalog Producer Software (included with every ORTech
Photography Lighting System) to adjust your photographs and attain
perfectly white backgrounds. At times, you may find that even after
following all previous steps you will still get photos with slightly gray
backgrounds. This may happen, but it can easily be corrected by
adjusting the brightness and contrast of your photos.

Steps for editing your photos:

a) **Crop your photos** - If needed, crop (cut) your image so that you only use
the section of the photo that features your item. (View Photo D). Do this by
clicking on the "Crop" button under the Image edit tab of the Arcsoft Catalog
Producer Software, and then select the area that you would like to crop. To
select an area click, hold and drag your mouse diagonally to create a square or
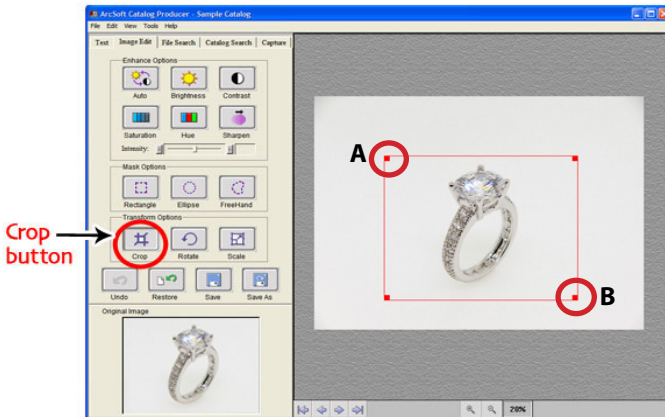rectangle (shown in red). To crop area selected "right-click" your mouse.

Photo D - Screenshot of photograph being cropped in
Arcsoft Catalog Producer Software - Image Edit Tab
Example: Click and drag from point A to B in the image shown above

b) **Adjust the brightness and contrast** - Edit your photos by increasing the brightness and contrast by 10 to 12 points each, while 20 to 25 points for the sharpening. (View Photo E)

To edit brightness, contrast or sharpening click on the appropriate button and then move the intensity bar to the right or left (you may also use the arrows).
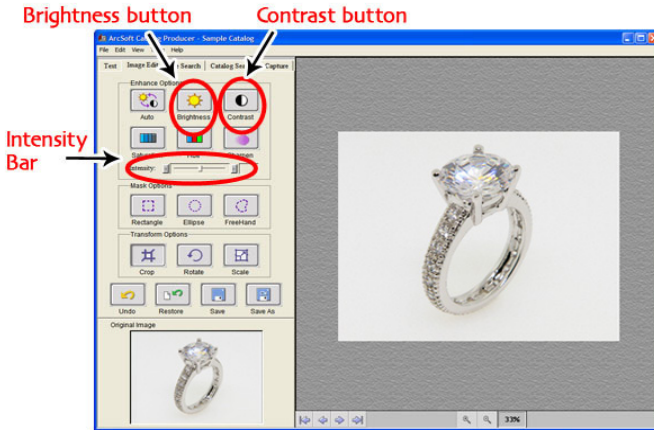

Photo E - Screenshot showing the brightness and contrast buttons in the image edit tab
Note: Photo shown has not been edited for brightness and contrast yet

c) **Save your new photo** - "Save" or "Save As" your new edited photograph

Photo F - Photo of ring after editing.
The background is perfectly white, and the ring looks perfect! You're done.

NOTE: *Play around with the brightness, contrast and sharpening adjustments; this is the best way to find out which adjustments work best for you.*

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Product Photography Lighting Systems