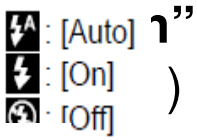
Camera Controls - Basic Modes

(modes & symbols vary a lot between makes & models of cameras!)

- **The basic modes on most are typically:**
- **"P"** ("**Programme**") = pre-programmed **Shutter Speed** & **Aperture** combos
- **"Auto"** (**"Automatic"**) **like** "**P**" but can *often* adjust shutter speed /aperture
  Note: OTOH, on some cameras, "Auto" means the same as "Programme"!
- **M" "Manual"** = Complete Aperture/Shutter Speed control – your choice!
- **Zoom action**: buttons, dial, turn ring on lens/body, "pinch" on the screen?
- 

  ו" = Flash activates/pops up & is ready to fire:
) (*automatically / when you want it to /or never?)*
- *"menu" "**Red Eye Correction**" = to prevent "red eye" effect from the flash.*
- **"Scene" Modes –** Some cameras have many, e.g. 
  & so what does each do? - *We will come back to some Scene Modes later!*
- "**Smart Auto**" Mode: Some cameras even look" at the scenes and decide which "Scene Modes" would be best *(hopefully you will agree – but maybe not?)*
  -> *Look at the manual and the camera, and find out!*
- *NB: If you need, but don't have, a printed manual try contacting "Old Timer Cameras" (http://www.oldtimercameras.com/) as they can sometimes help.*

•More Advanced Settings *for some cameras*

- **“A”/“Av”** *(“Aperture value”)* **= “Aperture priority” -** like “**P**”/“**Auto**” but you can change Aperture & camera changes the Shutter speed for the same exposure.
  *- the **smaller the number**, the more **open (“**bigger”) the lens aperture is, and thus **more** light enters the camera – e.g.“F4.0 lets more light in than “F5.6”, and so the image is lighter**.***

- **“T”/“Tv”** *(“Time value”)* = “**Shutter priority**” – like “**P**”/ “**Auto**” but you can change shutter speed & the camera changes the Aperture for same exposure
  *- the **smaller the fraction**, the quicker the shutter opens & closes, and so less light enters the camera, but the better it “freezes” motion – e.g. “1/500” is faster than “1/250” and freezes motion better*

-  “**Exposure Compensation” =** Press button & use “-”/”+” dial / screen-slider to reduce/increase Aperture to darken/lighten next image
  – May only work when camera is set to “Auto”/”A”/”T”, & not “P”

- **“WB**” “**White Balance**”: compensates for colour-cast differences in light sources
  *– generally set to “**Automatic**” (“**AWB**”) by default, but can often be selected manually –* ***Try it!.***

- “**B**” ***“Bulb” /“Brief”*** = Shutter stays open as long as shutter button is depressed

- “**Delayed action**”*(2-10s, depends!)* = a button/menu-press option to engage the mode, then press the shutter button & wait for a 2-10s delay before shutter fires.

Exposure Control – More info

- Exposure is controlled by the combination of **Shutter Speed**, **Aperture** size and **Sensor Sensitivity ("ISO")** settings
  (& other factors like "White Balance" ("WB"), to correct for variations in lighting methods)
- The more light gets to the sensor, the "brighter" the image is for a given ISO sensitivity setting – You may be able to vary some/all the settings, but:
  - If you increase the **Aperture** *(to a **lower numeric value**!!)*, then "depth of field" *(image "near to far" sharp focus area)* **reduces**
  - *OTOH*, if you *decrease* the **Aperture** *(to a **higher numeric value**)*, you may need slower shutter speeds & thus have "camera shake" problems
  - If you *increase* the **Shutter Speed** *(to a **higher numeric value!)*** too far, under-exposure (dark image) results as you/the camera can't open the aperture enough to fully compensate, and, again, you lose "depth of field".
  - If you increase the S**ensor "ISO" sensitivity** *(to a **higher numeric value**)* to maintain the Shutter Speed &/or Aperture setting, image definition / quality *will* suffer at some point –> *find out your camera's critical ISO sensitivity number*
- Exposure control modes sometimes include:
  - "Average"/"Evaluative" *(whole image)*,
  - "Centre Weighted"
  - "Spot" options where you can select the area of the image for which you most need the correct automatic settings selection.

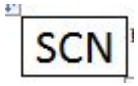
More on Focusing Modes

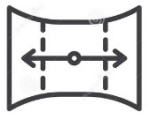
- "**Auto**" - camera selects the areas which it considers should "in focus"
  - *Can you still control and aim the main focus point(s)?*
- "**Average**", "**Centre Weighted**", "**Spot**" "**Selected area**" options : you select the area of the image where you need the most accurate focusing
- "**Manual**" - if/how can you do that – *lens ring, buttons, dial, touchscreen?*
-  **acro**"/ "**Close Up**": internal lens optical elements move to allow it to focus much closer than normal, o*r is it actually be just a "Digital Zoom"?*

  (but results in reduced "depth of field"/"in-focus" image – accurate focusing is critical!):
- "**Zoom Type**" – 2 modes – make sure you know which one(s) you have!
  - **Optical zoom:** physical lens element positions move to widen/narrow view angle, and sensor image file remains same
  - **Digital zoom:** like zooming on the PC screen - enlarges a portion of the image, *but does not change the basic view angle/size of the sensor image & so reduces the definition as compared with Optical Zoom mode!*
  - ***OR:*** both may be available – if so choose "**Optical**" for best results!

Scene Modes: Typical *(only!)*

NB: The symbols vary from make to make!

- 

"Scene Modes" - several more special modes,
e.g.: Night scene , Foliage, Snow, Beach, Fireworks
-  **"Portrait"** Produces a "soft" effect when photographing people
-  **"Landscape"** Optimized for shooting landscape scenes which contain both near and far subjects.
-  **"Nightime snapshot"**: shots of people against twilight/ night backgrounds by effects of camera shake effects without using a tripod
-  **"Kids & Pets":** Capturing subjects that move around quickly,
e.g.: children and pets, without missing photo opportunities.
-  **"Action"**/ **"Sport"** - Prioritises Shutter speed over Aperture
-  **"Indoor"** Prevents camera shake & maintains subject's true colour *(correct "White Balance")* under fluorescent/tungsten lights.
-  **"Stitch"** /"**Stitch Assist"**/ **"Panorama"** shoot overlapping images to be merged/stitched to create 1 panoramic image in-camera or on a PC