

# Panasonic GH2

## GH2 Recording Motion Pictures

### Recording Video while in Photo modes (p. 43-45):

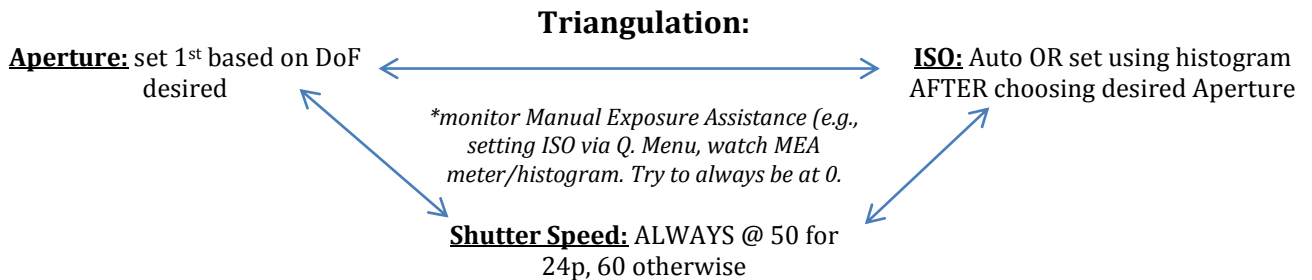
Set to Photo mode below for specific settings, then just press red Motion Picture button (you will capture VIDEO instead of just a still photo but with the same settings as you'd want for the photo). \*\* All Photo mode videos will be in 1080i or 720p, NOT 24p.

### Motion Picture mode (“Creative Motion Picture Mode,” p. 105-107, 126-128)

- (If turn camera on while already IN CMP (“Creative Motion Picture” mode), press MENU to change any settings. If camera is already on and then change to CMP, it will automatically be in MENU.)

To set up 24p, highest quality Settings in MENU (p. 126):

- FSH (1920 x 1080 @ 17 mbps) (vs FH=1920 x 1080 @ 13 Mbps. Other option is also 720p).
- 24p: 24H (1920 x 1080 @ 24 Mbps)
- Continuous AutoFocus On/Off: MENU, Motion Picture tab, Continuous AF.



**Shutter speed notes:** Typically use ONLY 1/50 sec shutter speed (some DSLR's don't have 1/48 setting); possibly 1/60 (or slightly lower than 1/50 if fluorescent lighting is affecting footage). Shooting at 1/30 should give acceptable results but should only be used in very dim lighting if really needed and only for slow moving objects such as interview or a fairly still subject). The general rule is to use a “180-degree shutter,” which is a shutter speed of double the frame rate. A faster shutter speed will give sharp images but motion will be stutter while slower speeds result in blurred motion. Both higher and slower shutter speeds can be used to get certain effects but be wary and know how to avoid the issues they will cause.

### Motion Picture Features common to all exposure modes




1. TOUCH screen to set focus area (can set up “rack focus” between various locations on screen if needed; practice with settings/lighting first to ensure that camera doesn't need to “search” for focus). Focus notes below.
2. Additional Automatic Filming Options in 24p
  - Auto ISO (not available in Manual Exposure; needs to be S, A, or P setting)
  - Aperture-Priority Mode, Shutter-Priority Mode, or Program AE (change off of Manual in Q.Menu).
  - Change overall MENU options (p. 126-135). Options chosen in REC mode and Motion Picture mode (p. 126 list, p. 55) remain the same across modes (i.e., once changed, they remain the same even if modes change or camera is shut off until changed back).
  - Non-24p options: 1) Select specific Photo Mode (p. 32-33), press Motion Picture button and will record with specific Mode's settings (just NOT in 24p at this time). 2) Press Function 1 button and then Motion Picture button; camera will record in Intelligent Auto mode.
3. **Manual Exposure Assistance in combination with Histogram** (p. 93/132, 65/129)

	The exposure is adequate.
	Set to faster shutter speed or larger aperture value.
	Set to slower shutter speed or smaller aperture value.

- Histogram is displayed in orange when the MEA is other than +/-0 during Exposure Compensation or in the Manual Exposure Mode.

4. Cinema Mode (1 option from Film Mode above)
  - Cine gamma settings are typically closer to the “film-like” look (highlights roll off softly without rapid transition to being blown-out, shadow areas transition smoothly in the quarter tones without color shifts as the shadow areas build, partially blown-out areas where only 1-2 channels are blown look reasonable instead of showing purple/green fringing, less of the “hard” video look).
  - Two options of how to change Film Modes: 1) Function Button 3. 2) Menu, Motion Picture/REC, Film Mode.
  - Default Adjustments for Cinema are all 0's. My initial settings: Contrast: 0, Sharpness +1, Saturation +1, NR +1.
  - May likely need to increase ISO, as the Cinema setting makes image darker.
  - May not be a good option if recording simultaneously with TM700 as one will have it and the other won't.
5. **Ex Tele Conv** option (ETC) (p. 66-67)
  - MENU, Motion Picture, ETC
  - Recording magnification of 2.6X with video (2X with still photos). Due to GH2 sensor crop factor already present (2X), in ETC mode, this means that focal length marked on lens is actually 5.2X what it would be in full-frame 35mm terms. Thus, 20mm lens is now 40 mm lens in normal setting; 104 mm in ETC mode. 14-140mm lens is 28-280mm... but 73-728 in ETC.
  - Explanation of ETC mode: in stills mode, there is degradation due to a smaller area of the sensor being used. In video mode, there is no picture quality deterioration. All DSLR cameras have sensors between 12-24MP and need to scale this down to 2MP for video; the ETC mode uses just a 2MP portion of the GH2's 18MP sensor... just the center 1920 x 1080 pixels for HD video.
6. **Function Buttons** (p. 17)
  - Current settings: (1) Intelligent Auto (to get back to Motion Picture mode, press Fn1 again). (2) Ex Tele Conv. (3) Film Mode.
  - To Set Function Buttons: Menu, Custom, Fn Button Set. (Possible other options: Auto Bracket, Focus Area Set, Metering Mode, 1 Shot, Guide Line, Shutter AF, Pre AF, ISO Limit Set, Flash).
7. **OIS** (p. 73-74; only available if lens being used has an internal stabilizer; e.g., 14-140mm lens).
  - Menu, REC, Stabilizer. When recording motion pictures, Stabilizer fixed to Mode 1 if on.
  - Options: OFF (only available when using lens without OIS), Mode 1 (jitter is always compensated during REC mode), Mode 2 (jitter is compensated for when shutter button is pressed), Mode 3 (camera shake is corrected for up/down movements; ideal for panning).
8. Sleep Mode cancel: Press shutter button halfway.

## AE Exposure Modes within Creative Motion Picture Mode

- To set mode: Q.Menu, Exposure Mode
  - View benefits and options within each specific exposure mode in “Picture Mode” summaries below
1. Press MENU to adjust Motion Picture Settings: Film Mode (Standard, Dynamic, etc.), Exposure Mode (P,A,S,M), Metering Mode, Continuous AF, Highlight (p. 129), Audio settings, Ex. Tele Conv\*, etc. (see p. 126-135 for additional options).
  2. Press Q.Menu to adjust the following settings (Press Q.Menu to activate setting options, use cursor buttons to choose/adjust option, press Q.Menu or Menu to exit).  
Bold options ALWAYS adjust for EACH shot:
    - **Film Mode** (Standard, Dynamic, Smooth, Nature, Nostalgic, Vibrant, B&W Standard, B&W Dynamic, B&W Smooth, My Film 1, My Film 2, Multifilm, Cinema) (P. 117-118)
    - 24H vs. 24L (p. 105, 127)
    - i.Dynamic ON/OFF (p. 123)
    - i.Resolution ON/OFF (p. 122)
    - Histogram Position (p. 65)
    - Metering Mode (p. 121):
      - : Multiple: measures the most suitable exposure by judging the brightness on whole screen (recommended).
      - : Center weighted: used to focus on the subject on the center of the screen and measure the whole screen evenly.
      - : Spot: measures the subject in the spot metering target
    - **Exposure mode (M, S, A, P)**
    - **Aperture**
    - **Shutter Speed (ALWAYS HAVE THIS SETTING AT 50 FOR 24P; otherwise set to 60 for other fps)**

- **ISO** (p. 90-91, 123 to limit/change)
- **White Balance** (p. 87-89)

### Additional Features in Creative Motion Picture Mode

1. Setting HDMI output (p. 60)
  - Auto (automatically set based on info from connected TV/Monitor), 1080i (interlaced method with 1080 scan lines), 720p (progressive method with 720 available scan lines), 480p (progressive with 480 lines).
2. Adjusting Eye Sensor (p. 15)
  - Menu, Custom, LVF/LCD switch. Options: 1) Auto Switch On/Off, 2) Sensitivity: Low/High. Set Auto Switch to OFF only if won't be needing EVF at all while filming.
  - **Adjusting diopter:** adjust dial (vertical dial directly to left of viewfinder) to suit vision
3. Slow shutter speeds when shooting video:
  - GH2 is normally limited to 1/25 SS when filming at 24p. Even if you could shoot at a slow SS, each frame would be blurred & jerky IF there was camera or subject motion. But if shooting something static (e.g., landscape), you may need long exposure to avoid having to push ISO (and risk noisy image). Solution: GH2 allows shutter speeds down to ½ second if you: 1) set camera to manual focus mode (or attach a manual focus lens), 2) set to manual exposure mode.

## Focus Settings

### Focus Modes for Motion Picture recording

*Focus Mode Lever options: MF, AFC, AFS*

#### Manual Focus (p. 84-85):

- Set the Focus Mode lever to MF
- Set the focus manually by rotating the focus ring
- **MF ASSIST** (p. 84. Set to ON: Menu, Custom)
  - Rotating focus ring (or touching screen) enlarges screen 5X.
  - MF GUIDE (set to ON: Menu, Custom) enables checking if rotation of focus ring is toward near or far side.
  - MF ASSIST can also be displayed by pressing/holding Q.Menu button, dragging screen (or using cursor buttons) to decide the area to enlarge, then press MENU. (Returning MF ASSIST to original position: adjust via Q.Menu, set Focus Mode to other than MF, change Aspect Ratio or Picture Size, or turn camera off.)
  - Enlarge 10X by rotating Rear Dial right (or touching + on screen); rotate Rear Dial left (or touch + again) to return to 5X.
  - Close MF ASSIST: 1) press shutter button ½; 2) touch CANCEL on screen, 3) touch Menu, 4) it will close automatically 10 seconds after rotating focus ring.
  - Using MF ASSIST with non-electronic lens (e.g., Tamron 28-75mm f2.8): Press Rear Dial. Rotate Rear Dial L/R to enlarge 10X). Press Rear Dial to exit MF ASSIST.
  - MF ASSIST is disabled once recording video begins.
- **AF/AE LOCK** (p. 86, 129-130. Set via Menu, Custom)
  - Press/hold AF/AE LOCK button ("AEL"). If you release button, AF/AE LOCK is canceled. (This can be changed by changing setting on AF/AE LOCK HOLD (Menu, Custom). OFF: focus & exposure fixed only while pressing AEL button; if release button, AEL is canceled. ON: focus & exposure remain fixed even if release AEL button; if press AEL button again, AEL is canceled.)
  - **Motion Picture recording: AE Lock and AF Lock must be activated before recording begins; during recording, only cancellation can be performed.** (Still Pictures: AF lock only is effective when taking pictures in Manual Exposure Mode. AE Lock only is effective when taking pictures with Manual Focus.)
  - While pressing AEL button, move camera to recompose picture, then press shutter button fully (When just AE option is set below, after pressing shutter button halfway to focus, press shutter button fully to take picture). Exposure and/or Focus remain unchanged. The exposure is set, even if the brightness of the subject changes.
  - The subject can be focused again by pressing the shutter button halfway even when AE is locked.
  - Program Shift can be set even when AE is locked.
  - **Options:**
    - AE: only exposure is locked ("AEL", aperture value & the shutter speed light when exposure is set)
    - AF: only the focus is locked ("AFL", the focus indication, aperture value, and shutter speed light when subject is focused).
    - AF/AE: both focus and exposure are locked ("AFL", "AEL", focus indication, aperture value, and shutter speed light when subject is focused and exposure set).

## **AFS/AFC modes** (p. 43/19, 34, 81-83)

- For continuous AF:
  - Focus mode set to AFS or AFC (“when recording motion pictures, the focus is continuously adjusted for both AFS and AFC”, p. 19, 43).
  - Pre-AF must be set to ON (p. 130. Menu, Custom, Pre-AF options).
  - Press the shutter button halfway when it is difficult to focus on the subject.
  - TOUCH screen to set focus area (can set up “rack focus” between various locations on screen if needed; practice with settings/lighting first to ensure that camera doesn’t need to “search” for focus).
- For fixed Focus position with ability to set focus when press shutter button halfway OR touchscreen focus option (set Beep to OFF via Menu, Setup):
  - Focus mode set to AFS or AFC
  - Pre-AF set to OFF
  - Press shutter button halfway (ensure Shutter AF is set to ON via Menu, Custom, Shutter AF)
  - **Other option: see AF/AE LOCK above**

## **Auto Focus Mode Dial** (p. 81-83)

- **Face Detection** (“portrait” icon):
  - Camera automatically detects person’s face; AF area is yellow. When more than one face is detected AF area is displayed as white. When shutter button is pressed halfway, the frame turns green when camera is focused.
  - Changing position and size of AF area (p. 83):
    - Touch subject on screen; move area by touching different location on screen (OR move AF area using cursor buttons). AF area returns to center by pressing Cancel (garbage icon).
    - Rotate Rear Dial to right to make AF area larger, to left to make area smaller.
    - Touch Set.
- **AF Tracking:** *“Currently AF tracking is not available in video recording. Closest option is AFC with Face Detection Focus Mode (i.e., if set to a face which moves, camera will change focus with it. Some difficulty can occur with 20mm pancake lens.”*
- **23-Area-Focusing**
  - Up to 23 points for each AF can be focused. This is effective when the subject is not in the center of the screen.
  - Touch screen to display AF area setting screen. After releasing finger, only “+” remains (center point of selected AF area frame). To see AF area setting screen again, press/hold Q.Menu; AF area frame can then be selected by pressing cursor button or by rotating rear dial.
  - Setting of the AF area frame is canceled when CANCEL is touched.
- **1-Area-Focusing**
  - Camera focuses on subject in the AF area on screen.
  - Changing position and size of AF area (top of p. 83):
  - When subject is not in the center of the composition in this mode, bring the subject into the AF area, fix focus and exposure by pressing shutter button halfway, move the camera to the composition you want with the shutter button halfway, then capture image. \*\* Only when Focus Mode Lever is set to AFS.

**AF + MF:** (p. 131. Menu, Custom): ON: It is possible to finely adjust focus manually by rotating focus ring while AF Lock (Focus Mode is set to [AFS] and shutter button is halfway pressed, OR AF Lock with [AF/AE LOCK]).

**AF Assist Lamp** (p. 131. Menu, Custom): ON: When capturing images in dark places, the AF Assist Lamp lights while the shutter button is pressed halfway, making it easier for the camera to focus when recording in low light conditions that make focusing difficult. Range for 14-140mm lens: 1-3 meters (3¼ ft to 9.8 ft). Lamp is valid only for subject in center of screen; use it by positioning subject in center of screen. Remove lens hood.

## **Focus Modes in Picture Modes** (p. 34)

**AFS** (“Auto Focus Single”): Focus is set automatically when the shutter button is pressed halfway. Focus will be fixed while it is pressed halfway.

**AFC** (“Auto Focus Continuous”): This mode allows you to compose a picture more easily by continuously focusing on the movement of the subject while the shutter button is pressed halfway. When taking pictures of a moving subject, the camera predicts the movement of the subject and focuses on it (motion prediction). Press the shutter button halfway again when it is difficult to focus on the subject. When the brightness is not enough, this will work the same as AFS.

**Manual Focus:** See Manual Focus mode in “Recording Motion Picture” section above.

**AF/AE Lock:** See “Recording Motion Picture” section above

## ***GH2 Picture Modes*** (summary p. 32-33)

Various Notes:

- Many photographers shoot in Aperture Mode approximately 90% of the time while shooting in Shutter-Priority Mode the remainder of the time when capturing live action.
- Slower than 1/60 shutter speed: need tripod. Otherwise, subject will be blurred.
- When using higher apertures, camera shake can appear in low light; use tripod or increase ISO.
- ISO: standard settings are 100-200. Max ISO with iISO ("Intelligent ISO" setting) = 800.
- Other variables for DoF: wide-angle lenses have shallower DoF (i.e., more of image in focus... telephoto will have more blurred background).
- **Exposure Compensation:** adjusting the exposure measured by camera's light meter by allowing more/less light in. This allows lightening/darkening of image without increasing noise via ISO increase. Camera is adjusting a portion of an f-stop or shutter speed setting (1/2 - 1/3) or both (in the case of Program Shift). This adjustment typically only has a small range vs. switching to Manual mode to make more significant adjustments (can always make major adjustments in Manual mode and then switch to one of the other modes).

### **Manual Exposure Assistance** (p. 93, 132).

- Set to ON to display the Expo.Meter in Picture Modes when correcting exposure, performing Program Shift, setting aperture, setting shutter speed.
- See summary above in "Creative Picture Mode" p. 2, #3.
- Unsuitable areas of the range are displayed in red.

**iA:** ("Intelligent Auto mode. p. 48-51) *"iA Mode" usefulness: can set up for photos quickly & easily.*

- **Settings determined automatically by camera: all settings.**
- **Rear Dial:**
  - Pressing: switches on Exposure Compensation
  - Rotating: Adjusts Exposure Compensation
- TOUCH screen to set focus area (can set up "rack focus" between various locations on screen if needed; practice with settings/lighting first to ensure that camera doesn't need to "search" for focus).

**P: Program AE Mode** ("Auto Exposure" mode. P. 35-37) *"P Mode" usefulness: 1) can change DoF OR record moving subjects more dynamically by slowing shutter speed (gives blur) while accurate exposure remains in place. 2) can change settings that can't be changed in iA (ISO, WB, exposure compensation, flash, etc.).*

- **Settings determined automatically by camera: shutter speed and aperture based on brightness of subject.**
- ISO can be set manually OR automatically; typical ISO setting would be 100-200; increase if need more light.
- Example of "usefulness option 1" above: scene is photographed with f2.8 & SS of 1/500 to get shallower DoF & easier photographing of many subjects; OR scene is photographed with f5.6 & SS of 1/125 to get more of scene in focus. BOTH would appear different but would be exposed similarly.
- Difference between Program AE Mode and iA full auto: with full auto, everything is automatic, while in Program Mode, only exposure is automatic, while other settings can be set manually.
- **Rear Dial:**
  - Pressing: switches between Program Shift and Exposure Compensation (to indicate active option: f-stop & SS turn yellow OR exposure turns yellow). "Program Shift" (changes preset aperture and shutter speed without changing exposure)
  - Rotating: adjusts settings of option chosen via Pressing.
- Program Shift adjustments can only be displayed if enough light is present. If exposure is not adequate when the shutter button is pressed halfway, the aperture value & shutter speed turn red & blink. Try adjusting ISO at this point.
- To cancel Program Shift: rotate rear dial until Program Shift indication disappears OR shut camera off.
- All ISO settings available in P mode except iISO.

**A: Aperture-Priority Mode** (p. 92): *"A Mode" usefulness: can concentrate on DoF to guide viewer to focal point of image while allowing camera to set SS (given an ISO sensitivity set manually or automatically).*

- Higher f-stop # = smaller aperture. Higher f-stop # = more of image in focus. Lower f-stop # = larger aperture. Lower f-stop # = more of background is blurred.
- ISA can be set manually OR automatically; typical ISO setting would be 100-200; increase if need more light.

- In A Mode: increase aperture to higher # if subject is too bright or vice-versa; if don't want to change DoF, adjust ISO.
- **Rear Dial:**
  - Pressing: switches between aperture setting and Exposure Compensation.
  - Rotating: adjusts settings of option chosen via Pressing.
- Aperture & SS turn red & blink if exposure is too low.
- Exposure Compensation in Aperture-Priority mode changes exposure time.

**S: Shutter-Priority Mode** (p. 92-93): *"S Mode" usefulness: can adjust shutter speed to freeze action (higher/"faster" shutter speed) OR create motion blur (lower/"slower" shutter speed).*

- Aperture is automatically calculated by camera for proper exposure given ISO setting).
- \* Recommendation: "Bracket" shots to shoot a number of photos at different settings to get at least one useful shot (see "Auto Bracket" under Drive Mode Lever section below).
- S Mode will change DoF (i.e., fast shutter speed will likely have narrow DoF with most of image in focus).
- **Rear Dial:**
  - Pressing: switches between shutter speed and Exposure Compensation
  - Rotating: adjusts settings of option chosen via Pressing.
- Exposure compensation in Shutter-Priority mode changes f-stop number.
- Reading shutter speeds:
  - Slower: 60" (60 seconds) → 1" (60, 50, 40, 30, 25, 20, 15, 13, 10, 8, 6, 5, 4, 3.2, 2.5, 2, 1.6, 1.3, 1.
  - Faster: 1" (1 second) → 1/4000 (1", 1.3, 1.6, 2, 2.5, 3.2, 4, 5, 6, 8, 10, 13, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 160, 200, 250, 320, 400, 500, 640, 800, 1000, 1300, 1600, 2000, 2500, 3200, 4000.
- Freezing action: 1/500 → 1/4000
- Blurring movement of person/animal: 1/250 → 1/30 (MUST use tripod or hold camera steady)
- Blur slow-moving water: 1/15 or slower (use tripod)
- Setting Shutter Speed to "B" allows shutter to stay open as long as shutter button is pressed fully (up to 120 seconds). Shutter closes when shutter button is released (useful for night scenes; always use tripod).

**M: Manual Mode** (p. 93-4): *"M Mode" usefulness: can set exposure by manually setting Shutter Speed, Aperture, & ISO.*

- For recording motion pictures, this mode is likely MY most common option)
- **Rear Dial:**
  - Pressing: switches between aperture setting and shutter speed (including during Manual Exposure Setting)
  - Rotating: adjusts settings of option chosen via Pressing.

**Scene Mode** (p. 76-80)

- **Scene Mode in iA** (p. 48-49)
  - Scene detection is automatic; when camera identifies optimum scene, scene icon is blue; then back to red.
  - **Recording Motion Picture options within iA:**
    - iPortrait (faces detected & focused automatically; brightness adjusted so it is recorded clearly).
    - i-Scenery (entire landscape recorded vividly without whiting out background sky even if bright).
    - i-Low Light (records very clearly even in a dark room or twilight).
    - i-Macro (allows recording at very close proximity to object).
  - **Still Photo options within iA:**
    - i-Portrait
    - i-Scenery
    - i-Macro
    - i-Night Portrait (subject & background recorded with near real-live brightness).
    - i-Night Scenery (records night scenery vividly by slowing shutter speed).
    - i-Sunset (takes vivid pictures of red color of sun at sunset)
    - i-Baby (takes pictures of a baby with a healthy complexion)
- **Scene Mode for Motion Pictures/Still Photos** (p. 98-101)
  - Set mode dial to SCN
  - Press cursor buttons to select Scene Mode. Press Menu to set.
  - To change Scene Mode, press Menu again
  - **Scene Modes:**
    - Peripheral Defocus (choose subject to focus on by touching screen & pressing Set; background is blurred)
    - Night Portrait (see above): 1) Open flash (can change flash setting), 2) use of tripod & Self-timer recommended, 3) keep subject still for 1 sec. after taking picture.

- Night Scenery (see above): use tripod & Self-timer.
- Sunset (see above).
- Party (for pictures at wedding receptions, indoor parties, etc.; allows you to take pictures of people and the background with near real-life brightness): 1) open flash, 2) use tripod/Self-timer if able.
- Sports (for fast-moving scenes): 1) Intelligent ISO is activated, 2) maximum ISO becomes ISO800.
- Baby1, Baby2, PET: Intelligent ISO is activated, 2) maximum ISO becomes ISO400 (Baby settings), ISO800 (PET setting).
- **Advanced Scene Mode for Motion Pictures/Still Photos** (p. 96-97)
  - Set Mode Dial to Portrait, Scenery, OR Close-up
  - **Portrait options: Normal, Soft Skin, Outdoor Portrait, Indoor Portrait, Creative Portrait.** To make mode more effective: 1) rotate zoom ring as far as possible to Tele, 2) move close to subject to make more effective.
  - Scenery options: Normal Scenery, Nature, Architecture, Creative Scenery.
  - Close-up options: Flower, Food, Objects, Creative Close-up. Creative Close-up is suitable for near distance motion picture recording. Use tripod/Self-timer. Set flash to Forced Flash Off.

### Custom Modes (p. 55-57, 104)

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### Drive Mode Lever (p. 76-80)

- Burst (Menu, REC): Set Drive Mode Lever to [📷]. Rate set to H @ 4.5/sec; (SH allows 40/sec but no RAW).
- Auto Bracket (Menu, REC): Set DML to +/- . Current settings: Burst, 5 pics @ 1/3 step, -/0/+ (-2/3, -1/3, 0, +1/3, +2/3).
- Self-timer (Menu, REC): Set DML to [⌚]. Options: 2 secs, 10 secs, 3 pictures after 10 secs (@ 2 second intervals).

### Flash (p. 68-73)

- Menu, REC, Flash.
- FORCED FLASH OFF is available in ALL photo modes.
- Flash is activated twice. Interval between 1<sup>st</sup> and 2<sup>nd</sup> flash is longer when red-eye options are chosen. Subject should not move until 2<sup>nd</sup> flash is activated.
- Setting options:
  - **Forced Flash Off:** ☹ (flash is not activated in any recording conditions). WHEN USE OF FLASH ISN'T PERMITTED.
  - Auto: ☺ A (flash is automatically activated when recording conditions make it necessary).
  - Auto/Red-Eye Reduction: ☺ A ☹ (use when taking pictures of people in low lighting).
  - Forced Flash ON: ☺ (flash is activated every time regardless of conditions; use when subject is back-lit or under fluorescent light).
  - Forced ON/Red-Eye Reduction: ☺ ☹ (flash is activated every time along with red-eye reduction; use when subject is back-lit or under fluorescent light).
  - Slow Sync: ☺ S (when taking pictures against dark background landscape, this feature slows shutter speed when flash is activated. Dark background landscape will appear brighter. Use when taking pictures of people in front of dark background. Using slower speed can cause motion blur; use tripod).
  - Slow Sync/Red-Eye Reduction: ☺ S ☹ (same as above but with Red-Eye Reduction).

### Additional Features of GH2

- Touch Shutter Mode (p. 38): Touch "Touch Shutter" icon on screen.
- Aperture/Shutter speed Preview (p. 95);
- Advanced Scene (p. 96-101):
- My Color Mode (p. 102-103):
- Highlight option (p. 129):
- Auto Review (p. \_\_. With Highlight option, p. 129):

### Setting aperture in Canon lens for GH2

- Set desired aperture while lens is still on Canon camera body (if Canon body unavailable, aperture set to wide open)
- Press aperture preview ("DoF Preview" button), continue holding it as you unmount lens
- Lens is now permanently set to that aperture until it is set back on Canon body