

Panasonic AG-HMC150 HD Camcorder 10/1/14

CAMERA CASE

Inside the case you will find the following ten items:

- A) Camcorder
 - B) Batteries (2)
 - C) Charging Unit to recharge batteries by itself.
 - D) AC Power Connecting Cable to power camera using AC in conjunction with the Charging Unit.
 - E) Lav Mic for recording seated interviews.
 - F) 25 ft HDMI cable for connecting Ikan Monitor's video output to a Samsung TV set.
 - G) Servo Control for zoom, focus, and aperture (mount on tripod handle).
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AT REAR OF CAMERA (Rear Camera Controls)

- 1) **To Install Battery** - lift the viewfinder all the way up. Carefully place the battery (*with connector end facing downward*) into the compartment directly underneath the viewfinder. First, push the battery inward to make it flush against the compartment wall and then make sure that the battery's connector end is aligned with the gold prongs of the camera. Now push the battery downward all the way to make a good connection. (*You should hear a click*). **To Remove Battery** - press the gray **PUSH** button at the top left rear to release while lifting up on the battery itself.
 - 2) **Power Button** - turn on power by pushing in the white button while pressing the black button up to power "ON". If the battery is good, the battery icon in the top right corner of the viewfinder will not flash off and on. If the battery icon flashes off and on, then immediately power off the camera and recharge the battery as soon as it is possible to do so. Replace with a charged battery to power on camera.
 - 3) **SD Card Slot** – insert SD Card into the slot labeled "OPEN" located above the battery. To open, just slide to the left and pull down. Insert only a "**Class 10**" SD Card with a **45mbps** speed. To close slot, just lift up the door.
 - 4) **PUSH** - to remove battery from camera, push in and then lift up on battery.
 - 5) **Scene File Dial** - turn the dial to "**F1**" for normal "**60i interlace shooting**" for a "live" Documentary look. Turn dial to "**F6**" (*Scene Cine D*) for 24P "progressive scan" shooting for a PSA, movie, or Music Video look.
 - 6) **Mode** – for live camera view, press to light up "**CAM**" above. To playback recorded clips, press to light up "**PB**" below.
 - 7) **Power** - press in white button while pressing black button up to power "**ON**". Push in and press downward to power "**OFF**". **To Record** - press the **Red Button** to "*Record a clip*", then press again to "*Stop recording a clip*".
 - 8) **Headphone Jack** - under the Power Button, remove the black plastic cover to expose the 1/8th inch mini Headphone Jack. Plug in headphones to monitor the audio quality during recording. The monitor level volume inside the headphones can be adjusted using the **Audio Mon / ADV** - and **+** buttons located on top of camera above LCD Screen without affecting VU levels.
 - 9) **Servo Inputs** – plug the two 1/8" servo jacks from the Servo Unit into the two inputs on the camera. The thicker 1/8" plug for "*zoom and focus control*" goes into the top input, while the thinner plug for "*iris control*" goes into the bottom input. (*Make sure that the small Servo Unit itself has both of its switches on "M"*).
 - 10) **HDMI Input** – plug in the short HDMI cable from the Ikan Monitor for the camera to feed the Ikan Monitor.
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ON LEFT SIDE OF CAMERA (Outer Controls)

- 1) **Focus** - “**M**” (Allows you to focus manually). (For use on dolly/crane movement shots, you may want to switch to “**Infinity**” for “zoomed all the way out” wide angle shots. For some dolly/crane shots where manual focus is impossible, you may want to switch to “**A**” for automatic focusing).
 - 2) **Push Auto** - hold this down for a quick auto focus on a subject, then release and the lens will go back to “Manual Focus” mode.
 - 3) **ND Filter** (Neutral Density Filter)
 - a. “**OFF**” (for indoor shooting)
 - b. “**1/4**” (overcast day) Cuts light down to one fourth the amount.
 - c. “**1/16**” (sunny day) Cuts light down to one sixteenth the amount.
 - d. “**1/64**” (sunny day) Cuts light down to one sixty fourth the amount.
 - 4) **Zoom** - switch to “**SERVO**”.
 - 5) **Iris Dial** - turn clockwise (up) to close iris. Turn counter clockwise (down) to open up iris. (As you turn the Iris Dial, notice that the corresponding f/stops are displayed in the viewfinder and LCD Screen). Remember to always find the zebras by opening the iris, then adjust the iris to the threshold of the zebras disappearing by closing the iris.
 - 6) **Iris Button** – press to make sure that the screen says, “**Manual Iris**”. If the camera is mounted on a crane, you can switch the camera to “Auto Iris” for ease of operation.
 - 7) **Gain** - “**L**” (for least amount of noise). Do not use “**M**” or “**H**” high gain modes because they add too much grain. .
 - 8) **White Bal** - “**B**” (stores your White Balance for a scene). Use “**A**” to store a different White Balance for another scene.
 - 9) **Ring** – “**FOCUS**”
 - 10) **Auto** – “**MANUAL**”
 - 11) **CH 1 Audio** - put in straight up position, then set proper level for each scene by turning the dial while looking at the Ch2 VU meter in the viewfinder or LCD Screen. (This channel can be used for the camera’s built-in mic or an external LAV Mic).
 - 12) **CH 2 Audio** - put in straight up position, then set proper level for each scene by turning the dial while looking at the Ch2 VU meter in the viewfinder or LCD Screen. (This channel can be used for the camera’s built-in mic or an external LAV Mic).
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ON LEFT SIDE OF CAMERA (Inner Controls Behind LCD Screen)

- 1) **Bars** – press to get Color Bars on screen.
- 2) **Shutter** - press until you see “**Shutter OFF**” on LCD Screen.
- 3) **Speed Sel** - when you turn the camera’s Shutter On, use this button to select the specific shutter speed (*1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000*), but you will normally use Shutter OFF most of the time with this camera.
- 4) **CH 1 Select** – to use the camera’s built-in microphone, switch all the way up to “INT”. To use an external microphone such as a LAV or BOOM Mic, switch all the way down to “**INPUT 2**” so that the external LAV or BOOM Mic is recorded on CH 1.
- 5) **CH 2 Select** - – to use the camera’s built-in microphone, switch all the way up to “INT”. To use an external microphone such as a LAV or BOOM Mic, switch all the way down to “**INPUT 2**” so that the external LAV or BOOM Mic is recorded on CH 2. (*Whether you use the camera’s built-in mic or an external Lav Mic, make sure that both Channel Select switches are on the same setting..... both should be on “INT” for the camera’s built-in mic or both should be on “INPUT 2” for an external mic*).
- 6) **Input 1** - switch down to “**OFF**” (*No 48 Volt phantom power*).
- 7) **Input 2** - switch up to “**ON**” to power external LAV or BOOM Mic with 48V phantom instead of having to use a battery.
- 8) **LCD** - ignore.
- 9) **Zebra** – press to make sure that “**ZEBRA 1 100%**” is displayed on the LCD screen.
- 10) **OIS** - press until you see “**OFF**”. (*Defeats camera shake compensation function on camera*).
- 11) **WFM** – press to “**OFF**” to remove WFM or VEC display from LCD screen.

ON FRONT OF CAMERA

- 1) **Input 1** - switch to “**MIC**”
- 2) **Input 2** - switch to “**MIC**”
- 3) **Lens Cap** - remove lens cap by squeezing in handles. (Store it in camera case so you don’t lose the lens cap!).

ON RIGHT SIDE OF CAMERA

- 1) **Input 1** - leave capped.
- 2) **Input 2** - plug in XLR connector from external BOOM Mic or LAV Mic. (*This mic will be recorded on both Ch 1 and Ch 2*).

ON TOP HANDLE OF CAMERA

- 1) **Rec Button** - Press the Red Button to “Record a clip”, then press again to “Stop recording a clip”.
 - 2) **Zoom Servo** - press “**T**” to zoom in (*longer focal length*). Press “**W**” to zoom out (*shorter focal length / wide angle*)
 - 3) **Handle Zoom** – switch to “**1**” for slowest zoom speed on handle zoom.
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Operating the Camera

SHOOTING MODE SELECTIONS

- 1) At the rear of camera, install a battery or hook up the AC Power Connecting Cable to the Charging Unit to power the camera.
 - 2) Power on camera.
 - 3) Select Recording Format by pressing the green **MENU** button on the top left side of the camera and select: **“Recording Setup”**. Next, select **“Rec Format”** and then select **“PH 1080 60i”**.
 - 4) Select Scanning Mode by turning the black **SCENE FILE Dial** at rear of camera. Select **“F1”** for normal “interlace scanning”.
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TO WHITE BALANCE & BLACK BALANCE THE CAMERA

- 5) On the left side of the camera, make sure that the White Balance switch is on **“B”**.
 - 6) Fill the screen entirely with white and defocus to homogenize any light gradations.
 - 7) Adjust iris to the threshold to the zebras disappearing.
 - 8) On the front of the camera, hold down the **AWB button** until the viewfinder says **“AWB OK”** and then **“ABB End”**. This will take approximately 7-8 seconds to complete. This single step sets both the White Balance and the Black Balance on the camera.
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TO RECHARGE BATTERIES

- 1) Install a battery into the Charging Unit by properly aligning the connector end of the battery with the gold prongs on the charger.
 - 2) Plug in Charging Unit's power cord into a hot AC outlet.
 - 3) If the AC outlet is hot, the green charging light will come on to indicate that charging of the battery is taking place.
 - 4) The green charge light will go out when the battery is done recharging. Depending on the size and capacity of the battery, this can take anywhere from 90 minutes to 3 hours.
 - 5) When recharging is completed, unplug the Charging Unit from the AC outlet and remove the battery from the charger.
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WAYS TO SAVE BATTERY POWER

1. Keep the LCD Screen closed (Off) as much as possible. *(Use Viewfinder instead).*
 2. Refrain from unnecessary “Servo Zooming”. *(Switch to “Manual” for adjusting the zoom while setting up shots).*
 3. Refrain from playing back scenes when shooting on location with battery power.
 4. Turn off camera during long breaks in shooting.
 5. Turn off camera when practicing just the mechanical aspects of dolly/crane movement, but power on when it is time to frame shot.
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