The International Film School Sydney

Equipment Proficiency Test
SONY
HDV-ZP1 Video Camera

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Equipment Proficiency Test Developed by James Hall

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1. Description of Equipment Tripod, Camera and Sound - Overview

Baseline of what equipment we are using highlighting its functionality:

1.1 TRIPOD – Miller DS10 Solo Carbon Fibre System

- Ultralight, ultra rigid carbon fibre
- Versatile DS10 75mm ball levelling head
- Selectable counterbalance
- True fluid pan and tilt and drag
- Height range 8" – 63"
- Quick Release slide plating
- Suits DVCAM, HDV, MiniDV, PD150 or Cannon XL-1

1.2 CAMERA – HDV-ZP1

- 3 x 1/3" 1080i Super HAD CCDs (16:9)
- Carl Zeiss Vario-Sonnar "T" lens
- 2ch Audio XLR Inputs
- HDV / DVCAM / DVsp Switchable
- 50i / 60i (PAL / NTSC) Switchable
- B/W & Colour Switchable Viewfinder
- 2-mode Cinematone Gamma
- 3.5" LCD panel (16:9)

1.3 SOUND – RODE NTG-2

- Broadcast sound quality
- Condenser microphone transducer
- Weighing 161 grams
- Low noise circuitry
- Low handling noise
- XLR connection

1.4 Test Requirements - Set up of Tripod, HDV-ZP1 Camera and Mic

What is to be examined:

- Setup and lock of the legs of the tripod.
- Balance the tripod using the spirit level.
- Set the tripod to dial 2 for a smoother transition.
- Attach the handle to the tripod and lock it off.
- Attach the battery to the camera.
- Attach the Camera to the tripod – place and tighten the plate to the base of the Camera; Slide the plate with Camera onto the tripod; Lock of the plate.
- Adjust the tilt dial to the desired position and lock off.
- Adjust the pan dial to the desired position.

- Insert a Mini DV Tape.
- Switch the power to the ON mode.

2. Description of HDV-ZP1 Manual Functionality

Baseline of the camera's manual features:

- Fully automatic or fully manual controllability .
- Focus Ring used for manual focus.
- Zoom Ring used for manual zoom.
- Expanded focus allows the cinematographer to quickly bring a subject into focus with the push of a button.
- Auto Zoom lever adjustable speed settings.
- White balance allows you to adjust the lighting conditions to your natural surroundings including presets of indoors and outdoors.
- In Build ND Filter settings: ND1, ND2 and Off.
- Exposure/Aperture set manually to adjust the amount light to be let in between f1.7 – f.11.
- Shutter Speed can be set between 1/3 – 1/10000 lower speeds for slow movement of subject higher speeds for quicker movement of subject.
- Gain Selection 0 – 18db.
- Various locking mechanisms to prevent mistakes.
- Eyepiece fully adjustable for each individual cinematographer.

2.1 Test Requirements – Executing those functions

What is to be examined:

- Adjust the HDV-ZP1 to the manual setting.
- Focus the eyepiece/viewfinder to your eye.
- Adjust the exposure/aperture (iris).
    - Push iris button – rotate the silver dial (front)
- Adjust the shutter speed (Shutter)
    - Push shutter speed button – rotate the silver dial (back).
- Adjust the gain by flicking the lever to the high, medium or low setting.
- Adjust the white balance – focusing the camera on a white piece of paper.
- Adjust the ND filter.
- Adjust the focus manually clicking on the focus button and rotating the focus ring.
- Adjust the zoom manually changing the lever to the zoom ring and rotating the ring.
- Bring an object into focus using the Expanded focus.
- Adjust the Auto Zoom handle speed settings.
- Lock of the record button and manual lock settings.

3. Description of HDV-ZP1 Digital functionality

Baseline of the camera's digital features:

- The SMPTE standard color bars can be used to display and record on tape before every shoot.

- Zebra Patterns uses a striped pattern to indicate areas of the frame where there is overexposure.
- Digital Aspect Ratio has 3 settings Edge Crop (4:3), Letter Box (16:9) non compatible 16:9 TV and Squeeze (16:9) compatible 16:9 TVs only.
- Marker selection on LCD allows centre, 4:3 and Safety Zone.
- Steady Shot function compensates for camera shake.
- Record Format can be set to standard DV(DVCAM/SP) or HDV 1080i.
- Choice of 50i/60i formats.
- Component allowing 50i/60i in interlaced, progressive and high definition format.
- Conversion of HDV – DV if required.
- TC Run allows the time code to be set on the Camera.
- Quick Record allows segments of media for easy batch capture when editing.
- Status button allows quick review of current digital functionality including Camera, Audio, Output and Assign.

3.1 Test Requirements – Executing those functions

What is to be examined:

- Toggle the colour bars function.
- Toggle the zebra pattern function – set to 90%:
    - Push Menu button.
    - Navigate to Camera Set – Zebra Level – 90%.
- In Camera setup set the aspect conversion to squeeze:
    - Push Menu button.
    - Navigate to In/Out Record – Down convert - squeeze.
- In Camera setup set the marker to ON.
    - Push Menu button
    - Navigate to Camera Set – Marker – ON
- In Camera setup set the marker display to Center and Safety Zone
    - Push Menu button
    - Navigate to Camera Set – Marker Sel – Center ON – Safety Zone – ON
- Toggle Steady shot to OFF for a more natural look.
    - Push Menu button
    - Navigate to Camera Set – Steadyshot - OFF
- Adjust Record Format to HDV 1080i
    - Push Menu button
    - Navigate to In/Out Rec – Rec Format – HDV1080i
- Adjust 50i/60i formats
    - Push Menu button
    - Navigate to Others – 50i/60i SEL – 50i
- Adjust Component Display to 1080i/576i
    - Push Menu button
    - Navigate to In/Out Rec – Component – 1080i/576i
- Convert HDV Media to DV media
    - Push Menu buton
    - Navigate to In/Out Rec – I.link Conv – HDV/Conv – On
- Set the timecode to Run
    - Push Menu button
    - Navigate to TC/UB Set – TC Run – Rec Run

- Adjust Quick Rec to On
    - Push Menu button
    - Navigate to Others – Quick Rec – On
- Review the status of your Camera Settings
    - Push the Status Check button
    - Navigate through the pages Camera, Audio, Ouput and Assign.

4. Description of HDV-ZP1 Sound functionality

Baseline of the camera's sound features:

- Boom pole has 3 sections allowing short, medium and long extension
- Durable rubber connector allows secure hold of directional Mic
- Wind socket reduces the unwanted noise when recording Audio
- The Directional Mic allows the Sound Recorder to pickup Audio in the Direction that the Mic is facing
- The 3 pin XLR cord allows the Directional Mic to attach to the camera for 16bit quality sound
- The HDV-ZP1 Camera has 2 Audio Stereo sound channels, allowing Internal Mic or XLR(Line) input.
- The Channel Selector captures both CH1 and CH2 sound input or just CH1 or CH2 input.
- The manual adjustment of sound levels can be easily done using the sound dials for Channels 1 and 2 located at the back of the camera.
- Wind Cut function reduces noise reduction remove unwanted noise on the Camera
- Input Trim allows you to lower the noise db levels.
- Headphone jack allows Stereo quality headphones to monitor sound levels

4.1 Test Requirements – Executing those functions

What will be examined:

- Extend the boom pole to the desired position lock each section off
- Attach the connector to the top of the boom pole
- Attach a wind socket to the Directional Mic
- Attach the Directional Mic to the connector making sure it is firmly in place
- Attach the XLR cord to the directional Mic
- Attach the other end of the XLR cord to the Audio Input Channel 2 in the Camera
- Make sure the Audio Channels are set to Manual on both CH2 and CH2
- Adjust the Volume level to the desired position at the back end of the camera
- Set Channel Select to CH1
    - Push the Menu button
    - Navigate to Audio Set - Moni – CH1
- Turn on Noise Reduction
    - Push the Menu button
    - Navigate to Audio Set – Mic NR – On
- Adjust the Mic Select to XLR or Line function
    - Push the Menu button
    - Navigate to Audio Set – Mic Select – XLR
- Adjust the following XLR settings

  - Push the Menu button
  - Navigate to Audio Set – XLR Set:
  - Toggle XLR CH SEL – CH2
  - Toggle XLR AGC Link – Separate
  - Toggle Input2 Level – Mic
  - Toggle Input2 Trim – 0dB
  - Toggle Input2 Wind - ON
- Connect the Headphones to the headphone jack
- Monitor the audio on the camera
  - Hold down the menu button
  - Adjust the monitor levels accordingly

5. Media Output – Setup and charging

Baseline of the camera's output to media features:

- Large easy to use buttons are definitely a convenience when playing back a tape in the camcorder.
- A 4 pin Firewire cable can be used to transfer media rapidly to a computer using the 1394 IEEE standard.
- AV input/output cables allows the cinematographer to connect the camera to a TV or Monitor for playback.
- Batteries usually last for 3 hr record time and can be placed in the recharger to be used again at a later time.

5.1 Test Requirements – Executing those functions

What will be examined:

- Toggle the VCR/playback camera mode
  - Show where the playback controls are.
- Show where the DV/Firewire output device is
  - Connect the Firewire cable to a computer.
- Show where the AV input/output is
  - Connect the AV input/output to a monitor.
- Power down and pack away the HDV-ZP1 Camera/Tripod and Sound Kit.
- Remove the battery and place it in the charger for recharging.