

## **Steps to help Eliminate Flickering/Bars/Lines when recording Displays and Touchboards with a PTZ Camera**

To eliminate Flickering/Bars/Lines when recording a Display with a PTZ Camera, adjustments to the camera and possibly the Display are many times required.

**Resolutions:** Cameras are typically set to 1080P@30Hz or 1080P@60Hz by default. When plugging the camera into a Display, the display must be set to 1080P to achieve an initial image. If no image appears, check the Displays Resolution to ensure it is set to 1080P@60Hz under Display menu settings.

**Lighting:** It's critical to understand that overhead lighting or sunlight may have negative effects when attempting to record a Display. If the environment has Fluorescent lighting, we recommend replacing the bulbs with new LED bulbs. Bulbs near the end of life may also exhibit negative effects.

The cause is fluorescent lighting pulsates which creates issues with basic frame/shutter timing when capturing video using cameras.

If sunlight is a concern, eliminate beams of sun rays in front of the camera/target by using shutters or blinds. Sunlight beams may affect the camera's ability to properly zoom and focus on the desired targets.

### **Setting the camera up to record a Display/Touch Board:**

- 1) Make sure the Display or Touch Board that is being recorded is set to 1080P@60Hz.
- 2) Connect the camera to a Local Display using the HDMI Output.
- 3) Confirm picture. Then using the Remote Control, press Menu pointing at the camera.
- 4) Go to "VIDEO OUT" press right on the remote to select - Set Cameras resolution to 1080P@30Hz. This lowers the Frame Rate to help match the Displays Frame timing.
- 5) Press Menu to exit the "Video Out" Settings.
- 6) Next, navigate to "Exposure" Setting, press right on the remote Navi.

- 7) Under “Exposure”, scroll down to “Flicker”, press right on the remote.
- 8) Flicker Options: (OFF, 50HZ, 60Hz) Turn “Flicker” On and select 60Hz. This will brighten up the image being shot. If this does not work, try 50Hz.
- 9) Exit the Menu by pressing Menu or selecting Exit at the bottom of the Menu.

### **Display/Touchboards Setting/Adjustments:**

- 1) Ensure that the Resolution is set to 1080P@60Hz.
- 2) No Direct light on the Display, Sun or Artificial.
- 3) Check and adjust the Brightness and BackGround settings under the TV Displays settings. Adjust the brightness up for both settings.

Note - Not all Displays offer Background adjustments.

**NOTE** - Most recordings issues of Displays can be easily rectified when recording or streaming using some of these basic adjustments to the Camera, Display and Lighting. However, if the Display or Touchboard is antiquated or entry level, there may not be an easy remedy due to low quality parts installed in the Displays for affordability.

PLASMA displays are not supported. Projectors tend to also have more issues due to the type of Screen variances (Matte/Gloss/Painted, etc.) and or the age of the lamp/bulb in the projector as well as the distance from projector to Screen creating a delay.

**NOTE** - BZBGEAR Cameras have been tested with New-Current 4K/1080P Displays including popular brands like Sony, Samsung, Panasonic and JVC. 95% of the time when using newer popular brand name Displays, no adjustments are required to the Camera or Display when recording.

Call or Email BZBGEAR Tech Support with concerns or questions!



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