

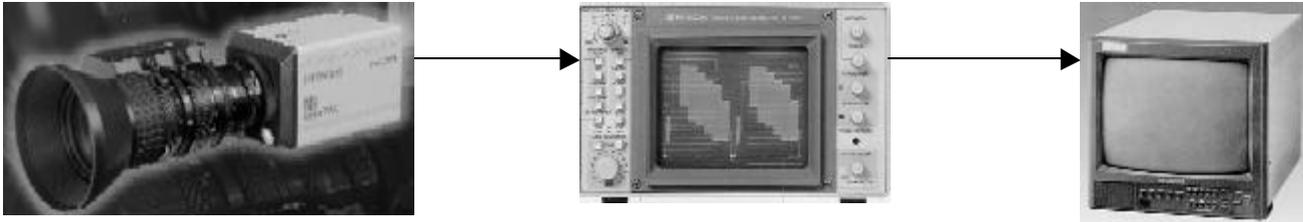
# HITACHI

Hitachi Denshi (Europa) GmbH

## Lens / Camera Configuration for Bayonet Cameras

When using a zoom lens on a camera there are several items that need to be checked and adjusted in order to obtain the optimum performance from the camera system. Once the lens has been mounted to the camera, and the proper electrical connections made, the following steps should be performed.

**System Setup:** The camera video output is connected to the waveform monitor, and looped through to the video monitor where it is terminated in 75 ohms



**Presets:** Verify that Gain is set to Normal, AGC is set to OFF, Shutter is set to OFF, and IRIS GATE is set to OFF. Verify that the lens is in the auto iris mode and the auto iris is functioning. Color balance should be set to the memory mode, and any paint offsets in the camera should be set to zero. Verify that the iris override is set to zero.

**Backfocus Check:** Place a backfocus chart approximately 6 feet or more in front of the camera. The lighting on the chart should be such that the lens iris is as wide open as possible, preferably around f2.0. Zoom in on the center of the backfocus chart, and adjust the front focus ring on the lens for best focus. Zoom full out on the chart and adjust the lens backfocus ring for best focus on the chart. Repeat the procedure by zooming in and checking lens focus and zooming out and checking the backfocus on the camera. The backfocus chart should now remain in focus through the entire zoom range of the lens.

**Auto Iris Adjustment:** Replace the backfocus chart with an 11 step logarithmic grayscale chart. Illuminate the chart with the same type and amount of light that will normally be used. Zoom in to frame the chart. Adjust auto white balance and auto black balance. Select the menu system on the camera, and go to the menu setting for auto iris level setting. Using the left/right arrow keys on the camera, change the numeric value until the camera video signal is set to 100 IRE on the waveform monitor. Next, set the open and close positions using the corresponding menu selections in the cameras menu system. Set the open position to cause the iris to open to maximum aperture, and the close position to set the iris to f16.

**Auto Shading Adjustment:** Verify that the grayscale chart is still properly framed, and that the chart is evenly illuminated top to bottom. Adjust auto white balance. In the menu system select the AUTO SHADING function and initiate white shading using the right arrow key.

**Flare Adjustment:** If the camera is equipped with flare adjustments, set the lens iris to the manual mode. Open the lens one f stop past the point where the camera is making 100 IRE of video. Looking at the bottom black step on the grayscale chart, adjust the red and blue flare controls for minimum chroma on the waveform monitor. Return the lens to auto iris mode.

The lens has now been set to work correctly with the camera. The backfocus, auto iris, flare, and shading should not require adjustment unless the lens or camera components are changed.