

Light Ranger 2

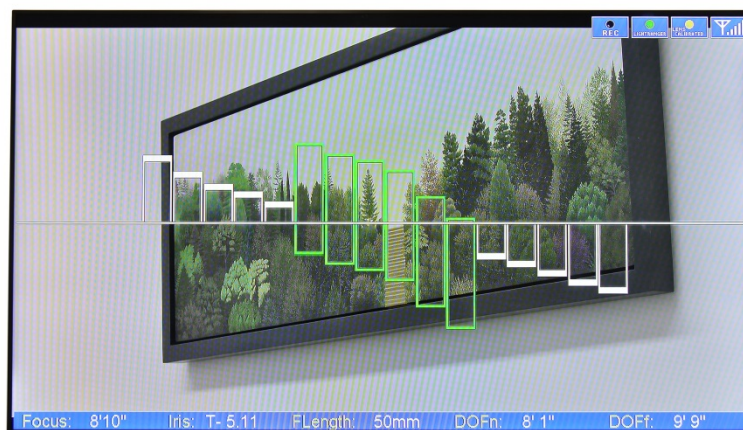
Critical Focus for the Digital World

6/2014

The Light Ranger 2+ simultaneously measures distances along 16 horizontally arranged detection zones. The distance measurements allow for high precision manual as well as autofocus operation. The companion video interface unit generates graphic overlays for the focus puller's monitor.



- In **manual focus mode**, the subject distances are represented by an array of rectangles, each rectangle representing one of the sixteen detection zones and overlaying the corresponding area of the image where depth is measured. The height of the rectangle above or below the center line represents whether the subject is in front of, behind, or within the lens depth of field (DOF). Subjects within the DOF are identified with green rectangles, otherwise the rectangles are white.



†US patent applied for.

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- In **autofocus mode**, a red rectangle overlays the monitor image, showing where the distance measurement is taking place. The width of the rectangle is controlled by the north-south axis \updownarrow of the HU3 navigation key and corresponds to the number of detection zones. The horizontal position of the rectangle is controlled by the \leftrightarrow east-west axis of the navigation key.

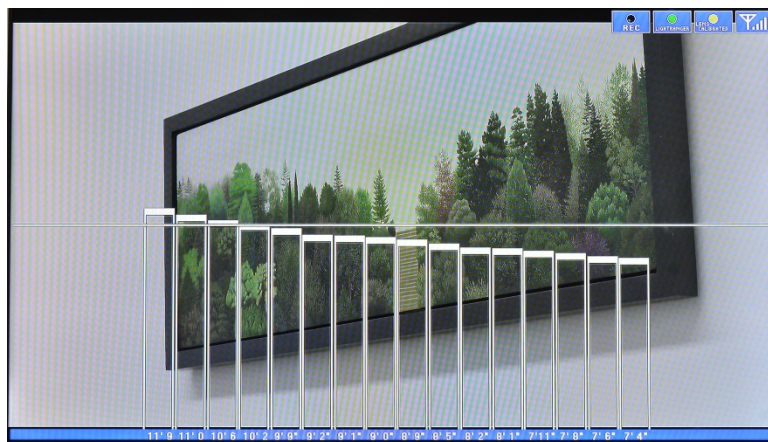


\updownarrow
increases/
decreases
focus zones

\leftrightarrow
Shifts AF
rectangle
horizontally

To make a smooth change from autofocus to manual mode, first match the distance setting shown for the focus knob "Knob" to the current "Lens" setting, and then exit autofocus mode using the HU3 softkey.

- The **Basic Range** mode shows distances from the camera image plane to subjects within the field of view of the LR2. The height of the vertical bars indicates distance graphically, while the digits beneath each bar show the distance numerically.



Preliminary Specifications*

LR2 System comprises:

- Light Ranger 2 sensor
- LR2 Video Overlay Unit

Operation requires the HU3 and MDR3 components of the FI+Z system.

1. LR2 ranging module

Operating Range 1' to > 40'

Horizontal angle of view: 18°

Vertical angle of view: 3°

Number of detection zones: 16

Emission type/ wavelength: LED/ 970nm (typ.)

Eye Safety: IEC 62471-2006 exempt lamp classification

Size: 5 ½ x 3 ¼ x 1 inches

Weight: 550g

Power: 10-32VDC

Mounting: ¼-20

2. LR2 Video Overlay Unit with G4 wireless link

Size: 4.5 x 5.5 x 1.4 inches

Power: 12VDC

Weight: 450g

Video Inputs/Outputs

1 x HD-SDI

1 x HDMI

Wireless Transceiver: G4

Parallax Range: ±20 inches (50cm)

Calibration: Menu driven, using focus target or manual offset entry.

Monitor graphics are scaled and positioned according to the LR2 and HU3 menu selections:

- Camera sensor size
- LR2 mounting offsets
- Lens focal length per HU3 lens library
- Focus distance

* The specifications listed are preliminary and subject to change.