

OPERATING INSTRUCTIONS

/i LENS DISPLAY

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The Cinematography Electronics /i Lens Display takes the information from Cooke /i technology lenses and the distance measurements from the Cinematography Electronics CineTape and combines them into an easy to read display. Lens data such as Focus, Near and Far Depth of Field, and T-Stop are shown along with CineTape distance both numerically and on a bargraph that displays their relationship to each other, providing valuable information to the focus puller. Other information such as Marker settings, marker Order, Hyperfocal Distance, Field of View, Zoom, E- pupil, marker editing operations and the CineTape distance are selectable on a configurable Top Multifunctional Display window.

CONNECTORS

The /i Lens Display has 3 electrical connectors, which are marked:

CINETAPE 2

This is a green 4 pin Fischer connector (with a green ring). This input connection is used for power and data from the CineTape2.

DATA OUT

This is a silver 4 pin Fischer connector (with a green ring). This output connection is used to output either Lens data or CineTape data. The Data Output (Lens or CineTape) is selected in the Power-up Menu described below.

LENS

This is a small 4 pin Lemo connector (with a gold ring). It is used for power and data transmission between the /i Lens Display and the Cooke /i lens.

CONNECTION SET UP

The CineTape 2 to /i Lens Display Cable is used to connect the /i Lens Display to the CineTape2. This cable has a 4 pin Fischer connector and a green strain relief on each end. Connect one end of the cable into the green connector labeled CINETAPE 2 on the /i Lens Display. Connect the other end into the CineTape 2 connector labeled REMOTE. This cable connects the data and power. If using a CineTape 1 (original) use the CineTape 1 to /i Lens Display Cable.

The /i Lens Cable is used to connect the /i Lens Display to the Cooke lens. This Lens Cable has 4 pin Lemo connectors on both ends. Attach it between the lens and the connector marked LENS on the display. Initial /i lens data loads within a few seconds.

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DATA WINDOWS BARGRAPHS and MARKERS

T-STOP:

This display has large and small characters. The larger character shows the full stop and the smaller character shows tenths of a stop.

FAR:

This shows the FAR (upper) limit of the Depth of Field. It is displayed in either Feet or Meters depending on the setting of the CineTape Feet or Meters selection.

See Note A below.

FOCUS:

This shows the FOCUS setting of the lens.

See Note A below.

NEAR:

This shows the NEAR (lower) limit of the Depth of Field. It is displayed in either Feet or Meters as determined by the setting of the CineTape Feet or Meters selection.

Note A:

For the FAR, FOCUS and NEAR windows above, the following applies:

While in the Feet mode distances below 2 feet are shown in 0.1 inch increments.

Distances between 2 feet and 100 feet are shown in feet and inches.

Distances above 100 feet are shown in feet until Infinity (inF) is reached.

In the Metric mode distances are in centimeters up to 9999cm, then meters up to 999m until infinity (inF) is reached.

Bargraphs: 1:1, N:1

The two bargraphs at the left edge of the /i Lens Display show a graphical representation of the numerical distances. Both bargraphs display Depth of Field, CineTape distance, and Marker settings. These individual items are displayed in contrasting colors that are selectable in the Power-up Menu described below. Both bargraph displays show the same information and colors but differ in scale.

The two bargraphs are marked 1:1 and N:1. The left 1:1 bargraph designates Depth of Field with a scale of 1 segment per inch (cm). For example, 20 segments designate 20 inches (cm) and 30 segments designate 30 inches.

The CineTape distance is superimposed on the bargraph as a 2 segment wide indicator using a contrasting color. This provides a simple graphical representation of the subject focus with respect to the Depth of Field.

The right N:1 bargraph displays the same information as the left 1:1 bargraph with a different scale. When the scale on the 1:1 bargraph become too large the alternate scale displayed on the right N:1 bargraph becomes useful. Alternate scales, from 2:1 to 25:1, are selected in the Power-up Menu described below.

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MARKERS

Markers are displayed on both Bargraphs and are a useful reference for focus pullers. They are one segment wide and shown in a contrasting color. A Marker Flash can also be programmed when the Marker and the CineTape distance are the same. The color scheme for the Bargraphs and the Marker Flash is configured in the Power-Up Menu described below.

Creating & Deleting Markers:

Pushing (click) the Red Knob after adjusting the lens focus to the desired distance creates a marker. The marker #1 shows up on the center focus segment of the bargraph in a contrasting color to the Depth of Field. Changing focus to a new position and then pushing (click) the Red Knob again creates a second new marker #2. A total of 9 Markers can be created the same way. They are numbered in the order they were created 1 through 9.

Any marker may be deleted by lining up the marker with the center focus and pushing (click) the Red Knob.

Inserting a Marker:

A new marker can be inserted between existing markers by Pushing and Holding the Red Knob until the insertMarker menu appears. Adjust the lens focus to the desired marker distance and turn the Red Knob to the preferred marker number. Push (click) the Red Knob to save the new marker and number. Any previously set marker numbers higher than the new marker number are incremented by one.

Selecting N (No) in the insertMarker menu exits without inserting a marker.

Green InFocus LED:

A Green LED is located at the left edge of the /i Lens Display. This Green LED lights when a subject is in focus, based on the Cinetape2 measured distance and the Depth of Field information from the /i Lens Data.

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TOP MULTIFUNCTIONAL DISPLAY:

The Top Multifunctional Display is the horizontal readout screen near the top edge of the /i Lens Display. Two selectable data items are viewable in this display, one on the left and the other on the right-side. Choose items from; CineTape Distance, Marker Settings, Marker Order, Hyperfocal Distance, Field of View, Zoom Setting, and Entrance Pupil.

Programing Left Side

The Left Side Data item is selected through the Power-up Menu → Configure section, described below. This item is fixed and does not change during normal operation.

Showing Right Side

The Right Side Data item is selected by rotating the Red Knob. This item is variable and can be changed during normal operation. While turning the Red Knob the display shows the selection title before settling in with a letter representation of the function and the actual data.

Choose from:

CineTape2	(CT2)
Marker	
Marker Order	(mOrder)
Hyperfocal Distance	(Hfocal)
Field of View	(FoV)
Zoom	
Entrance Pupil	(EPupil)

MORE push:

Push (click) the Red Knob to access marker editing and group functions:

DeleteMarker -- Delete Mkr ?

Push (click) the Red Knob to select marker(s) to delete or N to exit without deleting a marker.

Edit Marker – Edit Mark ?

Push (click) the Red Knob to select marker to edit or N to exit. Selecting a marker shows marker distance which can be changed by turning the Red Knob.

ClearMarkers – Clear Mrks ?

Push (click) the Red Knob to select Y or N to clear the current set of markers.

SaveMkrGroup – Save Group ?

Push (click) the Red Knob to save selection of current markers into 1 of 5 groups or N to exit.

LoadMkrGroup – Load Group ?

Push (click) the Red Knob to load a previously saved group of markers or N to exit without.

ClearMkGroup – Clr Group ?

Push (click) the Red Knob to clear a previously saved group of markers or N to exit.

RETURN push:

Pushing Red Knob gets back to operating display.

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POWER-UP MENU:

The Power-up Menu provides settings and adjustments, such as Display Brightness, Configure, Bargraph Scale, Bargraph Colors, Marker Flash and Lens Info.

To access the Power-up menu simply unplug the CineTape 2 to /i Lens Display Cable, and then plug it back into the /i Lens Display while pushing and holding the Red Knob.

The accessible functions are as follows:

Display Brightness Adjustment (BRIGHT)

Display Brightness is the first item to be accessed through the Power-up Menu and is adjustable in 15 steps or Automatic (A). This is useful for comfortable viewing in different lighting conditions. The lowest setting is "BRIGHT 1" and the brightest setting is "BRIGHT 15". Adjust the brightness to the desired level by turning the Red Knob. Selecting the automatic setting "BRIGHT A" matches the brightness of the CineTape. The display shows the new brightness setting and varies as it is adjusted. The new setting is saved into memory by momentarily pushing (click) the Red Knob, which also advances the Power-up Menu to Configure section.

CONFIGURE the Top Multifunctional Display & Data Out & Bargraphs

This section of the Power-up Menu provides options to personalize the /i Lens Display. Configure what data is stationary on the Top Multifunctional Display, what info is sent to the Data Out connector and which scale and colors are on the Bargraph.

To bypass this section and advance to the Lens Information section select N (No) and momentarily push (click) the Red Knob.

To personalize the /i Lens Display select Y (Yes) and momentarily push (click) the Red Knob.

SET Left Side Data LEFT DISPLAY <-Set.

This sets what is displayed on the left side of the Top Multifunctional Display. Select one of the seven items by turning the Red Knob. The selection is saved by momentarily pushing (click) the Red Knob, which also advances the menu to the DATA OUT section.

Choose from:

CineTape2	(CT2)
Marker	
Marker Order	(mOrder)
Hyperfocal Distance	(Hfocal)
Field of View	(FoV)
Zoom	
Entrance Pupil	(EPupil)

NOTE

During normal operation, the right side of the Upper Multifunctional Display will show a 2nd item from the remaining list of seven. These are selected by turning the Red Knob.

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POWER-UP MENU continued:

DATA OUT (DataOut) Connector:

Either Lens data or CineTape data can be programmed for the DATA OUT connector on the /i Lens Display.

On the menu select either Lens (Lens data) or CT2 (CineTape2 data) by turning the Red Knob. The setting is saved into memory by momentarily pushing (click) the Red Knob which also advances the Power-up Menu to the Bargraph Scale menu.

Bargraph Scale Select: N:1

The right N:1 bargraph displays the same information as the left 1:1 bargraph but with a different scale. When the scale on the 1:1 bargraph becomes too large the alternate scale displayed on the right N:1 bargraph becomes useful. Alternate scales are selectable here for the N:1 Bargraph.

When the CineTape is in Feet-Inches select from 1:1, 2:1, 4:1, 8:1, or 10:1

When the CineTape is in Meter-cm select from 1:1, 2:1, 10:1, 20:1, or 25:1

Adjust the bargraph N:1 scale to the desired ratio by turning the Red Knob. The N:1 bargraph shows the new scale and varies as it is adjusted. The new setting is saved into memory by momentarily pushing (click) the Red Knob, which also advances the Power-up Menu to Bargraph Colors section.

Bargraph Colors (BAR COLORS)

The bargraph colors for Depth of Field, CineTape and Markers are changeable in eight different color combinations. Modifying the colors of the bargraphs is useful for comfortable viewing. In addition "Frame Bars" can be selected to aid in visualizing when something of interest is coming into view on the 1:1 bargraph.

Adjust the bargraph colors to the desired color scheme by turning the Red Knob. The bargraphs show the new scheme as it is adjusted. The new setting is saved into memory by momentarily pushing (click) the Red Knob, which also advances the Power-up Menu to Marker Flash section.

This table shows the offered color combinations for each setting number:

Setting Number	Depth of Field	CineTape	Markers	Frame Bars
1	Green	Red	Yellow	Red
2	Green	Yellow	Red	Yellow
3	Red	Green	Yellow	Green
4	Red	Yellow	Green	Yellow
5	Green	Red	Yellow	
6	Green	Yellow	Red	
7	Red	Green	Yellow	
8	Red	Yellow	Green	

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POWER-UP MENU continued:

Marker Flash:

Markers are displayed on the bargraph in a contrasting color. This setting blinks the Marker when it matches the CineTape measurement. The blinking is selectable as continuous, off or 1 through 5 flashes.

Choose N, 1, 2, 3, 4, 5 or Y by turning the Red Knob. Save the setting into memory by momentarily pushing (click) the Red Knob which also advances the Power-up Menu to the Lens Information menu.

Lens Information (Lens Info)

This is the last item on the Power-up Menu. The Lens information is the list of the internal lens data for the connected lens. There are two options Y (Yes) and N (No).

To skip the Lens Info section and exit the Power-up Menu select N (No) by turning and momentarily pushing (click) the Red Knob.

To show the Lens information select Y (Yes) by turning the Red Knob and momentarily pushing (click). Then click on each item to advance through the list.

The shown internal Lens information is:

Serial Number:

Owner Data:

Lens Type:

Focal Length:

iNodal:

Entrance Pupil:

Circle of Confusion:

Push: Push (click) the Red Knob to exit the Power-up Menu.