7. Camera Exposure Profiling

1. **Calibration testing for exposure profiling**
A camera exposure profile plays two main roles.
[1] It can be used to display on a light meter the unique dynamic range and clipping point of the digital camera you are using.
[2] To display more accurate exposure values on the light meter, it records unique variations in the camera, lens shutter speed, aperture, etc. that you are using and reflects them in the exposure display.

The L-758DR/L-758D/L-758CINE can be programmed to stored, recall and display up to three different digital cameras.
Below are the following settings that can be programmed into the L-758DR/L-758D/L-758CINE.

1. Compensation value
Compensation value (aperture and shutter speed) can be programmed for a specific camera and hand-held meter. Compensation adjustment is within a +/- 5EV range in 1/10 step increments.

2. Dynamic range (-)
The point at which a given lighting situation (pre-exposure) has surpassed the responds level of a sensor and alerts the shooter of a under exposure situation (Pre-Exposure Warning). These point can be custom set from -7EV to 0EV in 1/10 increments.

3. Clipping point (-)
The point at which the sensor has reached its maximum reproducible shadow details without pixel noise or grain. Dynamic range (-) adjustment is set from -7EV to 0EV in 1/10 step increments.

4. Clipping point (+)
The point at which the sensor has reached its maximum reproducible highlight details without blooming or highlight block up. Dynamic range (+) adjustment is set from 0EV to +7EV in 1/10 step increments.

5. Dynamic range (+)
The point at which a given lighting situation (pre-exposure) has surpassed the responds level of a sensor and alerts the shooter of an over exposure situation (Pre-Exposure Warning). These point can be custom set from 0EV to +7EV in 1/10 increments.

Characterristic Curve
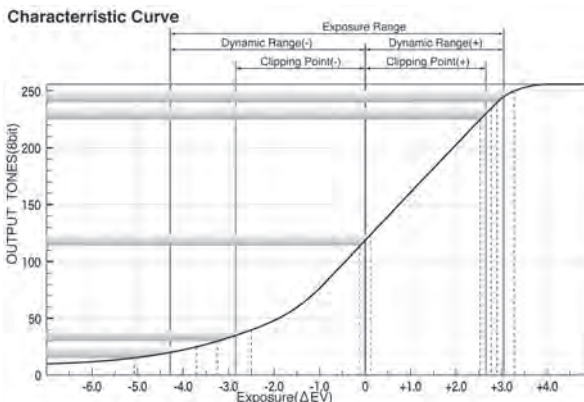
It is necessary to test the cameras sensitivity, measure the actual dynamic range and know the clipping points of your digital camera and processing used before programming the L-758DR (L-758D/L-758CINE) meter for Exposure Profiling.

Reference:
- The dynamic range settings and the clipping point settings can be switched, if it is necessary to create clipping points within the dynamic range.In this case, simple enter the dynamic range data in the clipping point cells and the clipping points in the dynamic range cells.
- For details, please refer to the Software Guide found on the CD-ROM included with this product.

NOTE:
- Data Transfer Software and Software Guide (Testing procedure, Image analyzing and so on) are preliminary for digital still photography use.
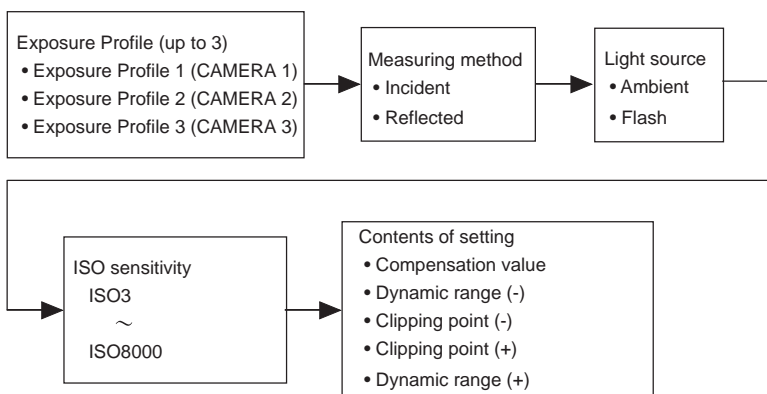
2. How to set the Camera Exposure Profiling
There are two ways to input the result of the test target data into the light meter: 1) Sekonic Data Transfer Software - install application software from the included CD-ROM and connect the computer and light meter via USB, and 2) Direct Input - Manually enter the test target data directly into the light meter.

2-1 Sekonic Application Software
Data Transfer Software is included with the L-758DR, L-758D and L-758CINE. Data Transfer Software is an application software for creating and editing the Camera Exposure Profiles and transferring the data to the light meter.

2-1-1 Outline of software
1) The software makes it possible to create the following items of camera exposure profile easily by automated calculation from testing data.

Exposure Profile (up to 3)		Measuring method		Light source
• Exposure Profile 1 (CAMERA 1)	→	• Incident	→	• Ambient
• Exposure Profile 2 (CAMERA 2)		• Reflected		• Flash
• Exposure Profile 3 (CAMERA 3)				

| ISO sensitivity		Contents of setting
ISO3	→	• Compensation value
～		• Dynamic range (-)
ISO8000		• Clipping point (-)
		• Clipping point (+)
		• Dynamic range (+)

Reference:
• For detailed information on Sekonic Data Transfer Software, please refer to the Software Guide found on the Sekonic Application Software CD-ROM included with this product.

2-2 Manual Input of Exposure Profile

It situations where it is not possible or convenient to use a computer or the Sekonic Data Transfer Software, Exposure Profile data can be entered into the L-758DR (L-758D or L-758CINE) directly. Below is the step by step process for manually entering a specific Exposure Profile.

1) With the meter turned off,enter the Camera Exposure Profiling mode by pressing the Power button ⑫ while pressing the AVE../ ⊿ EV button ④ at the same time.
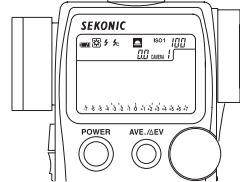
2) In the Camera Exposure Profiling mode, the current (or default) contents are displayed.

3) Setting Individual Exposure Profiles (Camera 1, 2 and 3)
Press MID.TONE button ⑳ while pressing ISO1 button ⑪ to select the desired camera exposure profile.
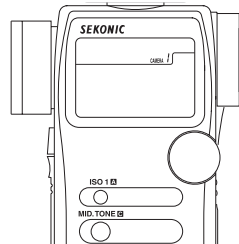
4) Setting measuring mode
Rotate the Jog wheel ⑤ while pressing the Mode button ⑩ to select measuring mode (ambient or flash including all flash mode)
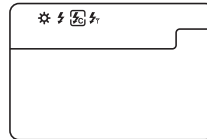
5) Setting light receiving method
Turn the Incident/reflected spot selector dial ⑲ to select incident or reflected light.

6) Setting ISO sensitivity
Rotate the Jog wheel ⑤ while pressing the ISO1 button ⑪ to select ISO sensitivity.
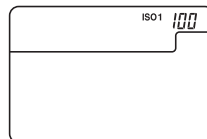
7. Camera Exposure Profiling

7) Setting compensation value
Rotate the Jog wheel ⑤ while holding down ISO1 button ⑪ and ISO2 button ⑥ simultaneously. Compensation values can be made in 1/10 step increments in +/-5.0EV.
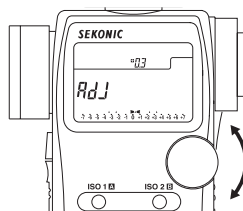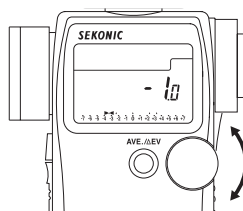
8) Setting Dynamic range (-)
Rotate the Jog wheel ⑤ while pressing AVE./ ⊿ EV button ④ . Dynamic range can be set from -7 to 0EV in 1/10 step increments.
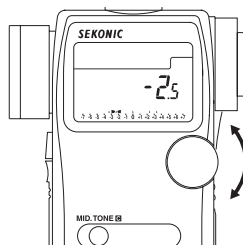
NOTE:

> • Only when you enter the data manually,
> the setting value is not the step from the middle tone (0), but the step from the the edge of clipping point (-).
>
> Ex) When the clipping point (-) is -2.5 and the dynamic range (-) is -3.5, the step of dynamic range (-) to enter is -1.0.

9) Setting Clipping point (-)
Rotate the Jog wheel ⑤ while pressing MID.TONE button ⑳ . Clipping point can be set from -7 to 0EV in 1/10 step increments.

10) Setting Clipping point (+)
Rotate the Jog wheel ⑤ while pressing Memory clear button ㉓ . Clipping point can be set from 0 to +7EV in 1/10 step increments.
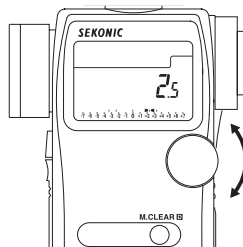
11) Setting Dynamic range (+)
Rotate the Jog wheel ⑤ while pressing ISO2 button ⑥. Dynamic range can be set from 0 to +7EV in 1/10 step increments.

NOTE:

> • Only when you enter the data manually, the setting value is not the step from the middle tone (0), but the step from the the edge of clipping point (+).
>
> Ex) When the clipping point (+) is 2.5 and the dynamic range (+) is 3.5, the step of dynamic range (+) to enter is 1.0.
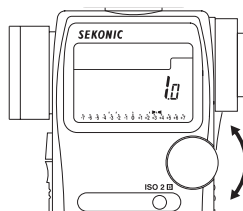
12) Press the Measuring button ⑭ if you want to copy this ISO setting to all ISO setting (from ISO 3 to 8000)
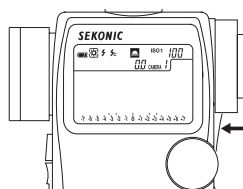
Reference:

> • To cancel the current setting being edited and return to a previous setting, press the ISO1 button ⑪ and the Memory clear button ㉓ simultaneously.
> • To return to the default for all setting of Camera Exposure Profile (CAMERA 1 to 3), press the Mode button ⑩ and the Memory clear button ㉓ simultaneously.
> • To return to the default for one of the cameras, please use the application software instead of manual input.

7. Camera Exposure Profiling

3. How to use Camera Exposure Profiling

3-1 Selecting Camera Exposure Profiling
Preset Camera Exposure Profiles (Camera 1, 2 and 3) can be recalled.

1) Hold down the ISO 1 button ⑪ , and press the MID.TONE button ⑳ to select the desired Camera profile (Camera 1, 2 or 3).

NOTE:

> • Holding down the MID.TONE button first and pressing ISO1 button makes the last measurement value "Mid.Tone" as standard value. Be sure to hold the ISO1 button first and press the MID.TONE button to select the desired camera profile.
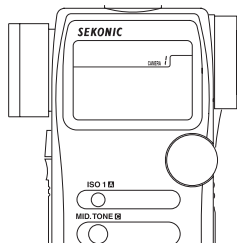
3-2 Analog scale
The analog scale indicates the last measured value, memorized, contrast, and averaged value, clipping point and dynamic range on the LCD. As you can see in the figure on the right, it is composed of four scales.

EV scale
Aperture scale
Clipping and Dynamic range icons
Value display scale
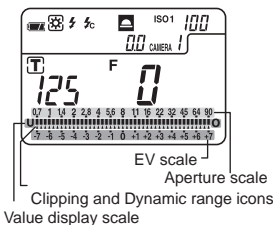
3-2-1 Aperture scale
The Aperture scale can be displayed in all mode except Aperture priority mode. Aperture values are displayed as measured values (last measured value, memorized, contrast and averaged value) on this scale.
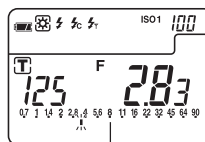
Aperture scale

3-2-2 EV scale
It can be displayed in all modes except multiple flash mode.Aperture scale or EV scale can be switched by holding the Mode button ⑩ and pressing the AVE./⊿EV button ④.The EV scale can display a memorized measured value (ex.Incident reading) as a standard value (Mid.Tone), and display up to nine memorized values on the EV scale as +/- 7EV from the MID.TONE in 1/3 step increments.
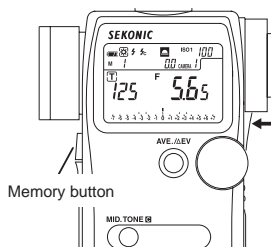
Memory button

1) After taking a measurement by pressing the Measuring button ⑭ ,pressing either the Memory button ⑦ ,MID.TONE button ⑳ or AVE./ ∠ EV button ④ stores the measured value as zero in the middle of the EV scale representing the MID.TONE value. Pressing MID.TONE button will display a blinking " ▲ " on the scale. Pressing AVE./∠EV button will display a blinking " ▌ " on the scale.

If the MID.TONE button is not pressed,the measured value will be set automatically in the middle of the EV scale.(See the section "3-2-3")
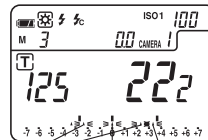
Reference:
- In custom setting (see page 44), it is possible to select which value (last measurement, first memorized value or last memorized value) will become the middle of the EV scale if the MID.TONE button is not pressed.

2) The EV scale displays Clipping points(+/-),Dy-namic range(+/-)and Mid. Tone with a triangle " ▲ "icon.
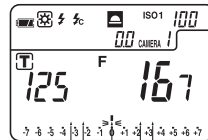
3) Measured value exceeding Clipping point will be displayed as a slow blinking " ▲ " icons.Measurements that exceed the Dynamic range will be displayed as fast blinking " ▲ " icons.
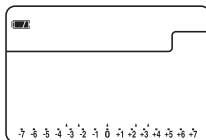
Dynamic range(-)   Dynamic range(+)
Clipping point(-)   Clipping point(+)
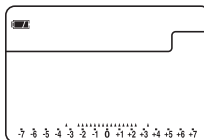Mid.Tone

Exceed Clipping point (blinking slowly)   Exceed Dynamic range (blinking faster)
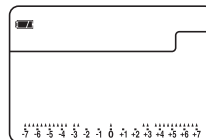Mid. Tone (blinking)

Reference:
- In the custom setting mode (see page 44), it is possible to select how to indicate the clipping points and the dynamic range. Below are the three display choices.

Five point   Inside Range   Outside Range

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3-2-3 MID.TONE button
This button is used to set the measured value in the middle of EV scale.

1) Take a measurement by pressing the Measuring button ⑭ . Press MID.TONE button ⑳ to set the Mid.Tone on the scale. " ▲ " in the middle of the EV scale will blink continuously twice to indicate that the Mid.Tone has been set.
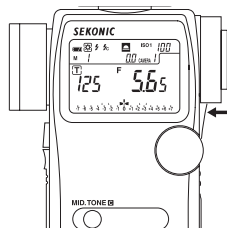
2) By measuring and memorizing the highlights and/or shadows in a subject with spot metering, it is possible to determine numerically whether the measured area falls within the dynamic range and/or clipping points, that is, can be reproduced photographically without blooming or highlight block-up or pixel noise or grain in shadow.


Mid. Tone	Measure and memorize	Measure and memorize
F5.6$_5$	the Highlight	the Shadow
	F16$_0$	F2.0$_3$
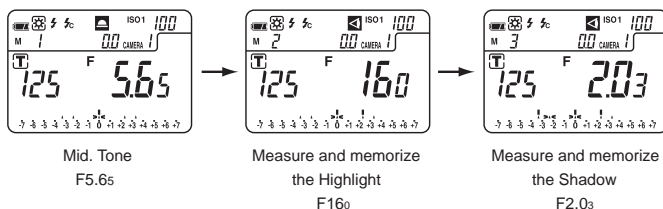
3) Changing Mid.Tone Value
If it becomes necessary to change the measured mid-tone value, for instance, to make the highlight or shadow within dynamic range or clipping points, hold the MODE button, and presss the MID.TONE button (M 0 will start to blink) to recall the mid-tone value on the display and lock it on the scale. After the mid-tone is locked, press and hold down the MID.TONE button and rotating the Jog wheel until the mid-tone value is positioned where it is desired.
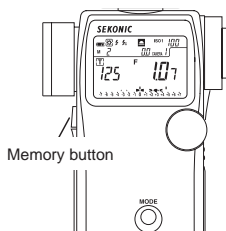
NOTE:

> • If you do not lock the mid-tone value (MODE than MID.TONE = "M 0" blinking) the mid-tone scale will shifts to the last measured value when you press the MID.TONE button.


Mid-tone recall (lock) mode

Mid-Tone adjustment with Jog Wheel while pressing MID.TONE button
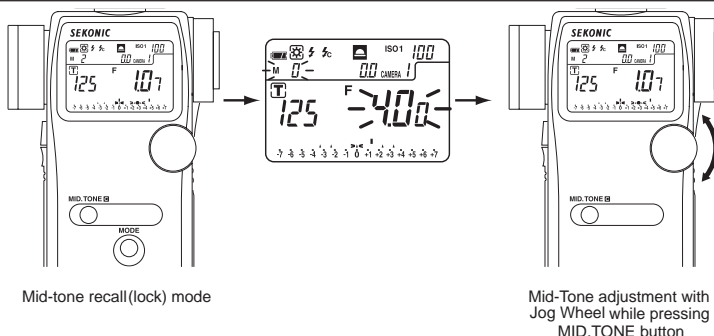
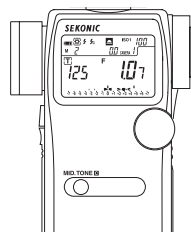4) Setting Mid.Tone Value from Memorized Values
   After storing some measurements in memory, it is possible to set Mid-Tone value from memorized values. First enter the memory recall mode by holding the MODE button, and pressing the Memory button. Select one of the memorized values by rotating the Jog wheel and then press the MID.TONE button to set it as the Mid-tone value.

Memory button
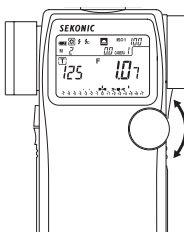
Memory recall mode   Select desired memorized   Press MID.TONE to set
                                    value as Mid.Tone

NOTE:

- Depending on the lighting conditions, type of photographic equipment and the exposure standard adopted your exposure result may differ. Please test your setup before shooting under any conditions.
- It is possible that your set exposure values are not the desired effect for the given subject matter or shooting situation. Under these situations, please compensate the values to achieve the desired effect. See section 2-2 "Manual Exposure Profile Input" (See page 49)