Bell & Howell GUARANTEE

This new Bell & Howell/Canon product is guaranteed to be free from imperfections in both material and workmanship for one year from date of original purchase. Should any part of this equipment be defective, it will be replaced or repaired free of charge, (except for transportation), provided the equipment has been operated according to the instructions accompanying it.

No liability is assumed for film which is damaged or is unsatisfactory for any reason and no liability is assumed for interruptions in operation of equipment. This guarantee is void:

a) If equipment has not been registered with Bell & Howell (please use card supplied);
b) If equipment has been damaged by accident or mishandling;
c) If equipment has been serviced by other than Bell & Howell approved service station;

The foregoing is in lieu of all other warranties expressed or implied and Bell & Howell Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with this product.

**Location of nearest approved service station will be furnished on request.*

Bell & Howell COMPANY, 7100 McCORMICK Rd., CHICAGO 45, ILLINOIS

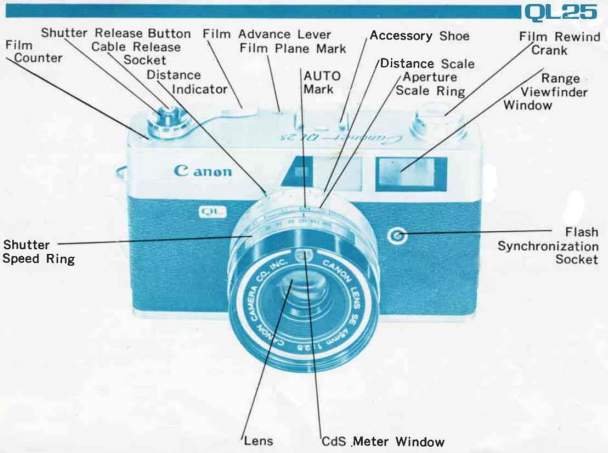
PRINTED IN JAPAN

HOW TO USE YOUR

Bell & Howell/Canon

Canonet QL2.5

35mm
STILL CAMERA



Canonet QL 25 is the latest in the Canon QL series that have captured the most camera fans in the world. Canonet QL 25 incorporates Canon's revolutionary and unique QL film loading device. This superb loading device, together with the accurate EE mechanism that has sold over 1,700,000 Canonet cameras, has made the Canonet QL series the most sought after and easy-to-use cameras in the world. The new Canonet QL 25 is a camera that can be easily used for taking excellent pictures even for those handling a camera for the first time. Load with QL and shoot with EE!

Type: 35 mm Lens Shutter Type EE camera.
Film Size: 24mm×36mm.
Lens: Canon Lens SE 45mm F 2.5 5-element 4-component construction.
Shutter: B $^{1}/_{15}$ $^{1}/_{30}$ $^{1}/_{60}$ $^{1}/_{125}$ $^{1}/_{250}$ $^{1}/_{500}$
Exposure Meter: Highly sensitive CdS exposure meter. Mercury battery used as power source.
EE Mechanism: Fully coupled with exposure meter, shutter and lens aperture. Shutter priority type EE. Manual aperture setting possible.
Operating Range of Meter: EV 3.7~19.
Film Speed Index: ASA 25~800.
Finder: Double-image superimposing system, coupled rangefinder. Marked finder with parallax error automatically corrected. Magnification ratio 0.7 X. Visible aperture readings and warning marks in the viewfinder.
Flash Synchronization: X contact. Speedlight and various classes of flash bulbs can be synchronized.
Film Loading: Revolutionary film loading with Canon's unique QL device. Using 35mm film in cartridge.
Film Winding: Single operation 120° winding lever type.
Film Counter: Self-resetting type.
Film Rewind: Press rewind button and rewind with crank.
Size: 140×79×31mm (lens protrusion 38mm)
Weight: 770 grams.

STEPS IN EE PHOTOGRAPHY

1. Load film with the unique QL device.

2. Set the film speed.

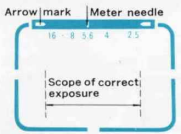
5. Remove the lens cap.

6. Wind the film advance lever

7. Focus and compose the picture.

3. Set the aperture ring to AUTO mark.

4. Adjust the film speed setting lever to a simple exposure mark by turning the shutter speed ring.



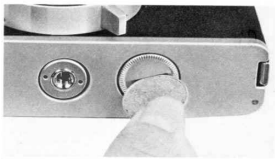
(1) Needle indicates lens aperture :
Gives correct exposure.

(2) Needle inside the arrow mark :
Turn the shutter ring in the direction of the arrow and take the picture.

(3) When the needle will not indicate the aperture although the ring is turned: It indicates that no picture can be taken. In other words, functioning of EE photography is not possible.

8. Press the shutter release button gently.

Film can be loaded in seconds with Canon's QL system. Open the camera back, drop the film onto the mechanism and close the cover. It's as simple as A—B—C. The QL system accepts any standard 35mm film cassette. Choose the film that matches your needs.— either 20 or 36 frames — from the wide selection available throughout the world. No special cartridge is necessary!



MERCURY BATTERY LOADING

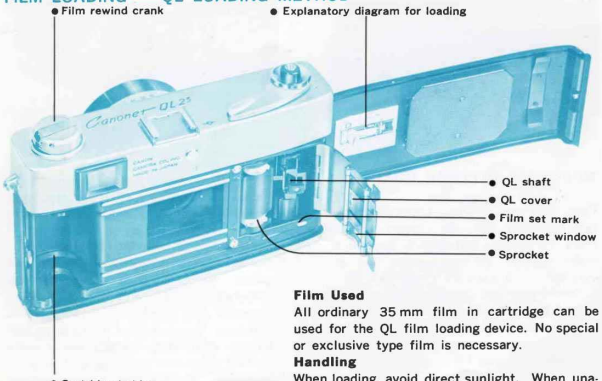
First, load the mercury battery in a separate envelope into the battery compartment. Unless the battery is in position the meter will not function because the mercury battery powers the CdS meter.

1. Insert coin into groove of battery cover and then turn to left to remove.
2. Face the central contact of the mercury battery inwards and insert, then screw the cover back in.

When inserting, do not confuse the ⊕ ⊖. In case of reverse insertion, the meter will not function properly.

* For mercury battery, the National M-1P model or the Toshiba TH-MP are used. These are equivalent to the United States Mallory RM-1R. Life of the battery in continuous use is about two years.
* Do not soil with perspiration or fingerprints. Before insertion, clean mercury battery thoroughly with dry cloth. Perspiration or finger marks may cause corrosion. Be careful not to insert unclean battery as it may damage the camera contact point.
* When not in use for a long period, remove the mercury battery and keep in a dry place.

FILM LOADING — QL LOADING METHOD

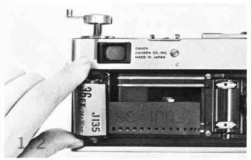


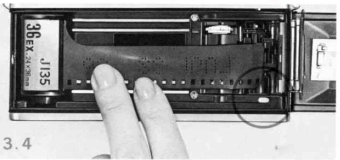
Film Used

All ordinary 35 mm film in cartridge can be used for the QL film loading device. No special or exclusive type film is necessary.

Handling

When loading, avoid direct sunlight. When unavoidable, face back to the sun and load quickly.





1 Open the back cover.

Pull the back cover lock and the back will rise. Next, open the back cover to maximum. When the back cover is opened, the QL cover also opens simultaneously and is ready for loading the film.

* The QL cover performs a very important function in film loading. This cover automatically opens and closes together with the opening and closing of the back cover. Do not touch the QL cover.

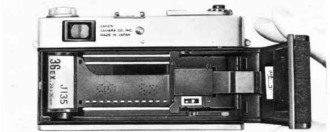
2 Insert cartridge.

Raise the rewinding knob fully. After the cartridge has been inserted, push the knob back into its former position, and then insert the fork into the axis of the cartridge. In case the knob does not fully return, it can be easily put into proper position by turning it slightly to the left or right.

3 Set film tip to (▬) mark.

4 Engage the film perforations with the gear.

When doing this, face the cartridge as shown in the picture and hold the film down with the left hand so that it does not rise.



5 When the back cover is half-closed,
the QL cover presses down on the film. Check through the sprocket window whether the film has been engaged correctly onto the gear.

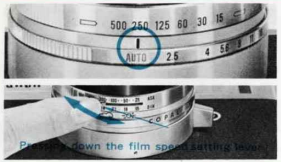
6 Close the back cover.
Merely press the cover and it will be firmly locked.

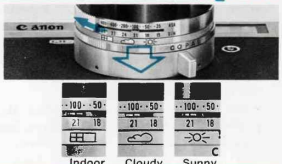
* If the film is sagging, the cartridge will rise and the back cover will not close.

7 Make two unexposed shots.
Remove the aperture ring from AUTO, and with the lens cap still on, wind the film advance lever, releasing the shutter twice. The film counter will advance to 0. With the next advance, the camera is ready for the first shot.

* The condition of film feeding can be checked by watching the turning of the rewind knob when the film advance lever is wound. If the film sags, remove the sagging by turning the rewinding crank.

8 Return the aperture ring to AUTO.





PREPARATIONS FOR EE PHOTOGRAPHY

Before using the EE mechanism for taking pictures, prepare the camera so that the following three conditions are fulfilled:

1 Adjust the AUTO mark of the aperture ring to the indicator.

2 Press and turn the film speed setting lever, adjusting it to the speed index of the loaded film.

* Film speed index is indicated on the film box.

* The click stop functions for the following 16 indicated film speed:

(32)(40) (64)(80) (125)(160) (250)(320) (500)(640)
ASA 25 · · 50 · · 100 · · 200 · · 400 · · 800
DIN 15 · · 18 · · 21 · · 24 · · 27 · · 30
(16)(17) (19)(20) (22)(23) (25)(26) (28)(29)

3 Turn the entire shutter ring, and adjust the index position of the film speed setting lever to the simple exposure mark of either sunny, cloudy or indoors.

* When adjusting the simple exposure mark, always make the adjustment by turning the entire shutter ring. The setting may be approximate. Set at a position where the shutter ring catches the click stop.
* When the film speed index of ASA 100 is set to the simple exposure marks, the shutter speeds will be set as follows :

Sunny $^{1}/_{500}$ sec. Cloudy $^{1}/_{125}$ sec. Indoors $^{1}/_{30}$ sec.

Do not use B exposure for EE photography

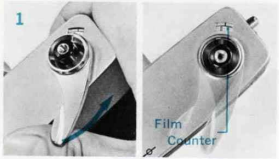
It is not only meaningless but might also damage the EE mechanism. In case you have accidentally taken a picture after setting the shutter speed to B while the aperture ring was set at AUTO, make the following adjustments to the EE mechanism.

(1) Keep the shutter speed at B. Set the aperture ring to manual and take one unexposed picture.
(2) Turn the shutter ring and set at another speed other than B.
(3) When using EE photography, return to AUTO setting.

* Do not use the intermediate spaces of the shutter speed scale.
* Do not use the intermediate space between 1/8 sec. and B either. All shutter speeds should be set only at the engraved graduations where the click stops work.

HOLDING THE CAMERA

1. Hold the camera with both hands as firmly as possible.
2. Stabilize the camera by pressing it against the cheek or forehead.
3. When the camera is in a horizontal position, both elbows should be firmly against the body, and at least one elbow should be resting against the body when in a vertical position.
4. Press the shutter button gently so as not to move the camera.
5. It is recommended that you use a tripod and a cable release when taking pictures at shutter speeds slower than 1 30 sec.



SHOOTING

1 Wind the film advance lever.

By winding the lever, a single frame of film is advanced, charging the shutter. At the same time, the film counter advances by one number.

2 Focus looking through the viewfinder.

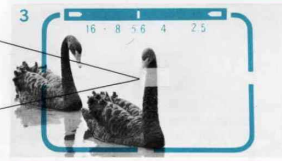
When the focusing lever is moved, correct focus is achieved when the two images seen in the center of the viewfinder coincide completely.

3 Determine the composition to be recorded within the frame.

The field-of-view which will appear on the film can be seen within the rectangular frame. The frame is coupled to the range-finder, and as the parallax error is automatically corrected, the range which is in view will appear on the film in its entirety.

4 Press the shutter button while looking through the viewfinder.

When the needle is pointing to the aperture stop the shutter may be clicked. It is important to press the shutter button gently in order to avoid blurry pictures.

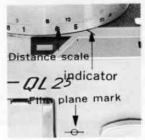


* Do not press the shutter button indiscriminately.
* When the shutter actuates, the film advance lever is again ready to advance.

In case the exposure is incorrect for EE photography, the safety device will prevent the pressed shutter button from being released. In this case, the needle inside the viewfinder will be within the arrow mark. Turn the shutter ring in the direction of the arrow so as to bring the needle within the range of the aperture stops.

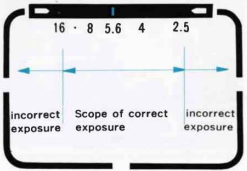
Distance scale

Although for ordinary picture-taking the distance scale is unnecessary, it indicates the distance between the subject in focus and the film surface. It is possible to get the photographic distance by adjusting the distance scale to the indicator.



EE PHOTOGRAPHY INDICATOR AND CHANGE IN SHUTTER SPEED

Look at the marks and figures within the viewfinder. The arrow marks to the left and right indicate the change in shutter speed, and the aperture readings the correct exposure section.



The needle shows the aperture reading.

The needle is not within the correct exposure section.

* Picture can be teken if the shutter speed is changed.
* Picture cannot be taken even though the shutter speed is altered.

Shutter may be clicked at correct exposure.

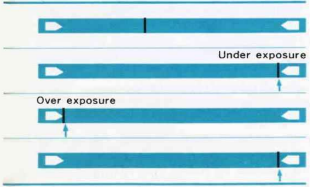
When the needle is within the arrow mark pointing to the left, turn the shutter ring to the left.

When the needle is within the arrow mark pointing to the right, turn the shutter ring to the right.

If the needle does not advance to the correct exposure section, the picture cannot be taken. (beyond the range of the exposure meter).

* When turning the shutter ring (or aperture ring), remove the finger from the shutter button.

When the camera is directed towards the subject, the needle will swing according to the strength of light indicating the conditions for photographing.
For obtaining the proper exposure, make adjustments according to the diagrams below before taking the picture.



* When the needle does not point to the correct exposure, although the shutter ring is fully turned, it indicates that the subject is either too bright or too dark, beyond the limits of the exposure meter. Taking of pictures under such a condition is not recommended.

* As the shutter ring has two arrow marks, turn the shutter ring so that adjustment can be made in the direction of the arrow where the needle of the viewfinder stays.

* The intermediate points of the aperture stops show F 11.

* If the film advance lever is not fully wound, the shutter will not click although the shutter button is pressed.

* When the background is excessively bright compared to the main subject, or in case taking pictures against the light, there is always the possibility that the main subject is under-exposed. Picture may be taken by lowering the film speed index by one stop.

  For instance, by setting the film speed at ASA 50 in case the ASA is 100. This procedure should be regarded as an exception, as soon as the picture is taken the film speed index should be returned to its original position. In case even this step is not applicable, switch the aperture setting to manual.

FILM REWINDING

Since no further winding is possible when the end of the film is reached, rewind the film into the original cartridge, as explained below. As the exposed film is naked within the camera, the entire roll will be ruined if the cover is opened before rewinding.

1 Rewind with crank.

2 Press in the rewind button.

* If the exposed film, including the leader part, is rewound completely into the cartridge, there is fear of light leakage into the cartridge when it is taken out of the camera. When rewinding has been completed, the rewind button stops revolving and the resistance on the rewinding crank becomes slightly lighter. This means that all the film has been rewound except for the leader part. Stop rewinding at this stage.

3 Open the back cover.

4 Remove the cartridge.

Remove after raising the rewinding knob completely.

* When the lever is wound, the rewind button will return automatically.
* If winding continues even after the film is at an end, the film will tear and rewinding will become impossible. If this happens, open the back cover in a dark room.

MANUALLY OPERATED APERTURE PHOTOGRAPHY

When the AUTO mark of Canonet QL 25 has been removed, the automatic mechanism ceases to function. It is then possible to manually operate the aperture and shutter speed separately. Accordingly, when the effective use of the shutter speed or aperture is desired, or in case it is essential to expose the dark subject for a long time, as well as to regulate the aperture for flash photography, the manual mechanism should be employed. Everything else is operated as usual.

In manual aperture, also, the exposure meter needle can be seen moving when you look into the viewfinder.

The aperture regulates the amount of light. As the numerical value increases, it gets darker. For each stop of the index, the light decreases by one-half. Thus, when the index is lowered by one stop the exposure time must increase two times, two stops by four times. The ratio between the aperture stop and the amount of exposure, with F2.8 as the basis is as follows:

Aperture stop: 2.5 2.8 4 5.6 8 11 16
Exposure ratio: 0.8 1 2 4 8 16 32

Effectiveness of the aperture

* As the numerical value increases, quantity of light becomes lesser. For each indexed point, the light is reduced one-half.
* The bigger the numerical value, the deeper the scope of the focusing.
* The farther the distance of the subject, the deeper is the scope of focusing.
* On the other hand, the greater the lens opening, the shallower the focus.

The shutter speed adjusts the exposure time. Similar to the lens aperture scale, each index of the shutter speed means double or one-half of the exposure time. So, if you turn the shutter speed ring one stop faster, open the lens aperture one stop.

Effectiveness of shutter speed

High speed: For preventing blurs, taking a fast moving object, and for effective use of shallow aperture.

Low speed: For taking dark subjects, using blurs for effects, and for effective use of deep aperture.

B (BULB) EXPOSURE

B stands for bulb exposure. Since the shutter remains open as long as the shutter button is being pressed, it is used for long exposures exceeding 1 sec.

1 The aperture ring is released from AUTO and set to a desired aperture stop.

2 Turn the shutter speed ring and match B to the indicator.

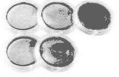
3 Wind the film advance lever and press the shutter button.

The shutter remains open while the shutter button is being pressed and closes when it is released.

* Do not take B (bulb) photography with the aperture ring set at AUTO.

T (Time) Exposure

When exposure is being made over an extended period, make the setting at B exposure as explained above. Open the shutter with a lock attached release and lock the release during exposure.



ACCESSORIES

* **Clamp-on Type Lens Hood**
* **Flash Unit J-2**

  All-round type. The AG, and PH baseless adapters can be used.
* **Flash Unit J-3**

  For exclusive use with baseless bulbs. PH, AG socket switching type.
* **Flash Quint**

  Small type flash equipment which illuminates five bulbs in succession. Exclusive AG type.
* **Speedlite 100**

  Compact clip-on type electronic flash unit.
* **55mm Screw-in Type Filters**

  UV, Y_1, Y_3, O_1, R_1, G_1, Skylight, Color Conversion A and B, ND 4 and ND 8. Total of 11 types.
* **Self-timer 7**

  Exclusively use with Canonet QL 25.
* **Canon Release**

FLASH SYNCHRONIZATION

Flash photography is used when the subject is too dark for EE photography. Therefore, shoot with manual aperture after taking the aperture off AUTO.

1 Attach the flash unit to the accessory shoe, and insert the cord into the flash synchronization socket of the camera.

2 For flash bulbs, the M or F classes of bulbs or speedlight may be used.

3 In case of flash photography, the aperture is obtained by dividing the guide number of the flash bulb by the distance.

* The aperture stop is calculated by dividing the guide number of the flash bulb with the distance.

$$\text{Aperture} = \frac{\text{Guide Number of a bulb}}{\text{Distance}}$$

* The guide number changes according to the film speed.
* When using speedlight with Canonet QL 25, exposure time is equivalent to very short duration of flash, with no relation to shutter speed.

Flash Synchronization Scope

Type	Scope of Synchronization
M class	Shutter speed 1/30 sec. and under.
F class	Shutter speed 1/60 sec. and under.
Speedlight	All shutter speeds