

INSTRUCTIONS
FOR USING
AIRES 35III L

1:1.9 $f=4.5\text{cm}$

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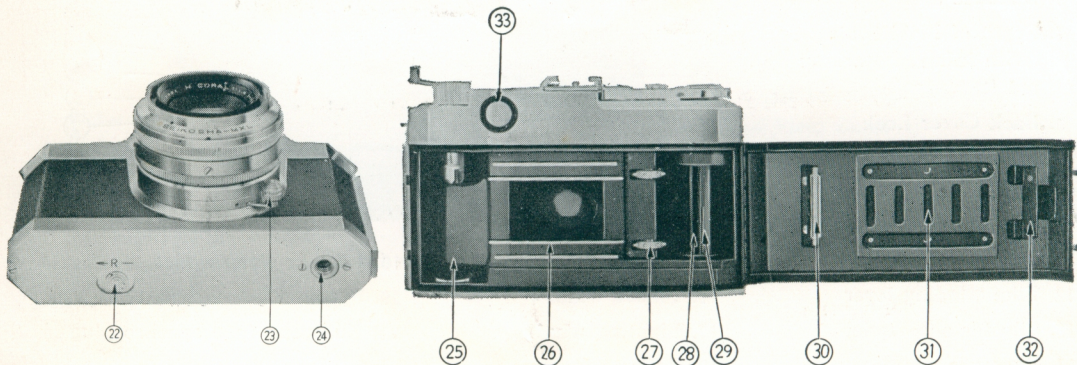
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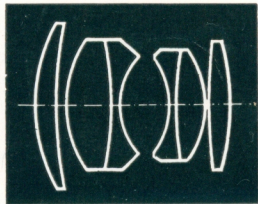
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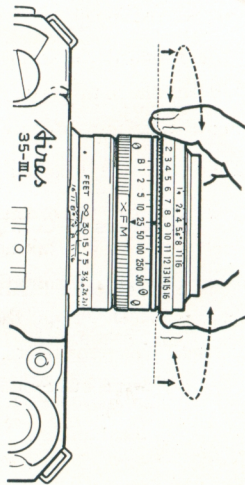
LENS: Aires H-Coral, F 1.9/4.5cm. 4-cell, 6-element, amber-coated.

SHUTTER: Seikōsha MXL fully-synchronized with cross-coupled Light Value Scale (LVS)
Speeds: B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/250 and 1/500 sec
with built-in M F X synchro setting with automatic time lag adjusting
mechanism.

LIGHT VALUE SCALE (LVS)—a new mechanism to ensure perfect exposures

Your camera, the Aires 35III L, incorporates the new Light Value Scale, which is cross-coupled to aperture and shutter speed settings. Previous models utilized two scales and two setting rings. With the cross-coupled feature, both aperture and shutter speed are set with one knurled ring. This ring has the light value scale and also the aperture numbers engraved thereon.

Light Value is the measure of available light for correct exposure with a given film speed expressed in single figures. It is represented by a combination of aperture and shutter speeds.



How to use Light Value Scale

1. Find out by means of an exposure table or an exposure meter the light value commensurate to the sensitivity of your film.
2. Push forward the knurled ring, and while pulling it away from the camera body turn it and set the light value to the black dash **I**. Let your fingers off, and the knurled ring snaps back and becomes coupled with the shutter speed dial.
3. Then turn the knurled ring and set the black dash **I** to the desired shutter speed.

Since the shutter speed and aperture are cross-coupled, a change of the shutter speed (except for 1/500 sec. – when taking pictures at 1/500 sec. set the light value one reading higher, e. g. 14 when it is 13.) automatically changes the aperture, so that the amount of light going into the lens, in other words, the exposure, remains always the same under a given lighting condition. With the light value set at 8, for instance, you have 6 speeds, 1, 1/2, 1/5, 1/10, 1/25 and 1/50 sec., and as your speed is made higher from 1 to 1/50 sec., the aperture changes from 16 to 1.9. At that light value, the knurled ring does not move any further than the range of 6 speeds, which means that you cannot get a good picture at any other speed under that lighting condition; the diaphragm and LVS scales likewise have their ranges of movement.

This feature prevents you from getting wrong exposures.

Discriminating photographers were quick to recognize the value of a system to allow both aperture and shutter speed change with a quick flick of the finger, and yet get identical exposures at each setting. The Seikosha MXL shutter on your Aires 35-III L has this feature, yet allows you to set your cameras in the conventional manner, independent of the LVS scale.

“Trimming” (wide-angle) coupled range viewfinder



The Aires 35-III L is equipped with a “trimming” coupled range viewfinder mechanism of the super-imposed image type, and single eyepiece.

As the illuminated frame of the viewfinder is brilliant and as the two images are very clear, it is easy to coincide them even as close as 23 inches.

The illustration shows the wide field that can be seen through the viewfinder eyepiece and the brilliantly illuminated frame. All subjects caught within this frame will be recorded on your film. The frame allows you to

take pictures down to a distance of 3 feet. For taking pictures between 23 inches and 3 feet, frame your picture within the parallax compensating marks at the upper right and left hand corners and the lower left hand corner instead of the illuminated frame.

This is to compensate for parallax between the viewfinder and the taking lens.

In addition, this new "trimming" range viewfinder has the following 5 advantages.

- (1) The viewfinder on the ordinary camera gives a very different image depending on how the photographer holds the camera to his eye. With the Aires "trimming" viewfinder mechanism, however, there is no such difficulty. A subject shown in the brilliant frame of the finder is recorded by the lens exactly as it is seen.
- (2) As only the picture within the illuminate frame is recorded by the lens and as the actual view seen through the eyepiece is much larger, the photographer can frame and compose his picture very easily.
- (3) Fast moving objects passing through the field of view can be seen through the eyepiece for an instant before they enter the illuminated frame itself, thus permitting the photographer to capture the subject at just the right instant.
- (4) The brilliantly illuminated frame will allow accurate composition in even the poorest light.
- (5) For those photographers who wear spectacles and who in the past have had difficulty using 35 mm camera, this new type of "trimming" viewfinder will solve all their problems.

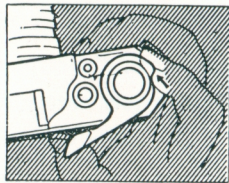
Winding of film and cocking of shutter

The Aires 35-III L is so designed that both film winding and shutter cocking can be performed at one and the same time and very rapidly by means of a single-action lever.

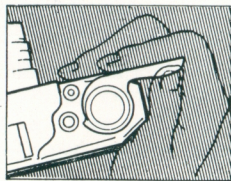
- (1) Push the cove at the right corner of the lever with your index finger, and the lever comes into operating position.
- (2) Put your thumb to the lever
- (3) Turn the lever to the right until it stops
- (4) Let your thumb slip off the lever

The film has now been advanced one exposure and the shutter cocked. Since the shutter cannot be released if you stop the lever halfway, it is necessary that the lever should be turned until it goes no further. Double exposures are perfectly prevented.

Since the shutter release button is so conveniently located the index finger of your right hand falls over it when you hold the camera, you can wind the film and release the shutter very rapidly at the rate of 12 exposures per 10 seconds.



Push cove at right corner



Turn lever until it stops

Diaphragm and shutter speed

Shutter speeds are changed by turning the knurled ring. To change aperture openings the knurled ring is pushed forward, unconnecting the coupling feature, with the index fingers of both hands or by using thumb and forefinger and pulling away from camera body and turning to the desired aperture.

The diaphragm may be set anywhere between the click stops, but the shutter speed scale must not be used this way.

Film Reminder

There are many kinds of film, and this feature helps you remember the kind of film you have in your camera. It is useful for one that uses many kinds such as color films and films of different speeds. Set the Reminder at the stop as indicated in the instructions you find in the film carton. When the camera is not loaded, set it at EMPTY.

Cable Release and Self-timer

If the shutter speed is slower than $\frac{1}{5}$ sec. use of cable release is advisable. The cable release or the self-timer can be screwed into the shutter release button.

Infrared Marking

Infrared ray film takes pictures by the infrared light invisible to human eyes. With this film the focus is different from that with visible light, and therefore after getting the right focus in the usual way, set the distance shown on the distance scale ring at the infrared ray marking. (red R on the depth of field scale.)

Synchronization

By simply inserting a European type synchro plug into the contact, you can get all types of flash bulbs synchronized at all speeds. There are two types of flash bulbs, the M class and the F. The M class takes longer to ignite and the light output is high, while with the F class the duration is short and the light output low. The time lag is slow with the M class and fast with the F. (Time lag means the time the bulb takes to ignite after the shutter has been released.) If your bulb is of M class, all you have to do is to turn the ring over to the M contact, and if it is F, to the F contact.

The X contact is for electronic flashes.

Important: When using the camera without flash equipment, set the ring at X.

Focusing

As you look through the range viewfinder eyepiece and adjust the focus by the focus knob (23), you will see two images of the same object in the mirrorlike rectangle. The images move apart or together as you move the focus knob. Adjust it until the two images of the object on which you are focusing coincide exactly. At the same time, all objects in the range shown on the depth of field scale will also be in focus at the f-stop you select for the exposure.



Film loading

Use standard 35 mm film cartridges (35 mm film 20 - 36 exposures).

The film can be loaded easily - more so if you bent its tip $1/8''$ from the end.

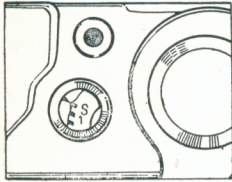
- (1) Push up the back cover key and the back cover snaps open.
- (2) Hold the camera lengthwise and pull up the rewind knob all the way.
- (3) Place the cartridge in the film chamber and push in the rewind knob.
- (4) Insert the bent tip of the film into the groove of the film winding shaft. If the groove is not in the right place, move it by turning the film winding shaft with your thumb. In inserting the film tip into the groove, press the edge of your film against the right side and at the same time let the perforation engage the gears of the sprocket.
- (5) Give the film winding shaft a few forward turns with your left thumb or turn the winding lever to wind the film one or one and a half times around the shaft. Then close the

back cover and lock it. The film has now been loaded. Turn the winding lever until it will go no further and the film is advanced and the shutter cocked. Press the shutter release button and repeat the operation once more. By doing this, you will make sure that you do not use the length of film which was exposed to light while loading the camera.

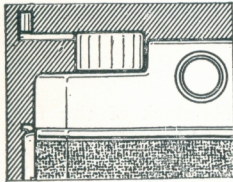
Another feature of the Aires 35-III L is that the exposure counter automatically registers S the instant the back cover is closed and shows the figure 1 after only 2 blank shots, while with other cameras you must release the shutter 3 or 4 times.

- (6) Before you start shooting, turn the film rewind knob gently in the direction of arrow until it goes no further. This is done in order to take up the possible slack of the film in the cartridge, and each time you wind the film the rewind knob turns in the opposite direction of the arrow to show that the film is being transported accurately.

Film Rewinding



Exposure counter



Position of crank
when pulled up

The number of the exposure counter advances with every exposure to show how many pictures you have taken. When you have exposed the entire roll, the film winding lever will move no further. Now the film is to be rewound into the cartridge. In rewinding the film, move the rewind button R at the bottom of the camera in the direction of arrow, pull up the rewind lever crank on rewind knob into position and crank it in the direction of arrow. As you turn the rewind lever crank, the exposure counter goes backward to show how far the rewinding has progressed. The film has been completely wound back when the exposure counter shows S, but even if you do not look at the exposure counter, you can tell from the resistance to your fingers, that the rewinding has been completed. You may unlock the back cover after you have wound the film back into the cartridge or when you see S in the exposure counter and take out the cartridge. The rewind button R will automatically return to the original position when you load your next film and turn the winding lever.

How to hold the Aires 35 III L camera when taking pictures

(A) Ordinary (horizontal) position

Hold the camera in both hands using the right index finger to operate the shutter button and the left index or middle finger to adjust focusing.



To look through the viewfinder either the left or the right eye will do. Use whichever is convenient to you. Stabilize the camera by so holding it that the left hand thumb is pressed against your cheek. The shutter can be released so smoothly that you can take pictures even at the low speed of $1/5$ or $1/10$ sec. without using a tripod.

(B) Vertical position

Almost all 35 mm cameras are made to take pictures in the ordinary position. Vertical position is somewhat difficult but by practice you will get used to it.

There are two ways to hold the camera for shooting vertical pictures, one is with shutter button above your eyes, that is with your right hand above the camera, the other is with the shutter button below eyelevel. When the camera is held in the former way, the shutter button can be pressed with your right index or middle finger and film winding done without moving

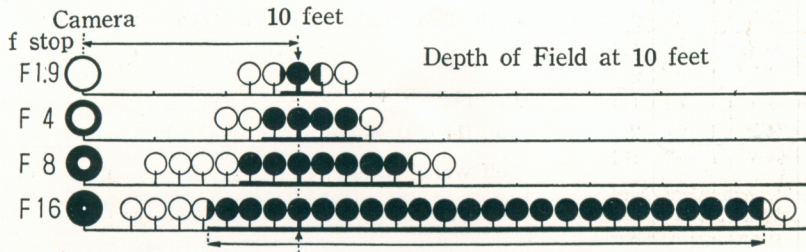


the camera from its shooting position. However, since the camera is held high, it is somewhat unstable especially for slow exposures. If the camera is held in the latter manner, the shutter button is pressed with your thumb. When winding the film, your thumb is also used and the camera has to be moved away from your eyes each time you wind the film. This position, however, is the more stable.

Both ways have merits and demerits, and there are pros and cons on them even among professionals. You must learn for yourself which suits you better. It is also up to you to decide which eye you can use more conveniently.

Facts about the Depth of Field

Lenses have a tendency to be in focus in front of and behind the subject focused on. This range is called Depth of Field. For instance, if you focus on a person 10 feet away a dog closer than 10 feet and flowers further than 10 feet may also be in focus. The depth of field is shallow in the foreground and deep in the background. (see illustration) The depth of field scale on page 18 shows you the depth of field of the Aires H Coral F 1.9/45mm at various apertures and distances. Therefore if this principal is applied new fields of interest in picture taking will arise. In taking fast action pictures there are times when you have no time to set the focus. It is at such times that the Fixed Focus setting can be of help to you. Set the distance scale and diaphragm stop at the Fixed Focus markings (30 feet and half way between F: 5.6 and F: 8) and all objects from about 13 feet to infinity will be in focus. With this setting you can take pictures of most objects by simply adjusting the shutter speed.



Depth of Field Chart

(AIRES H CORAL 1:1.9 f=4.5cm)

(FEET)

F	R	1 ² / ₃		2		2 ¹ / ₃		2 ² / ₃		3 ¹ / ₃		5		7		15		30		∞	
		ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.
1.9	R v	1	7 ³ / ₄	1	11 ⁵ / ₈	2	3 ¹ / ₂	2	7 ³ / ₈	3	2 ⁷ / ₈	4	9 ⁵ / ₈	6	7 ³ / ₈	13	4	24	0	119	11
	R h	1	8 ¹ / ₄	2	³ / ₈	2	4 ¹ / ₂	2	8 ⁵ / ₈	3	5 ¹ / ₈	5	2 ⁵ / ₈	7	5 ¹ / ₄	17	1 ³ / ₄	40	0	∞	
2	R v	1	7 ³ / ₄	1	11 ⁵ / ₈	2	3 ¹ / ₂	2	7 ³ / ₈	3	2 ⁷ / ₈	4	9 ⁵ / ₈	6	7 ¹ / ₈	13	3	23	9	113	11
	R h	1	8 ¹ / ₄	2	³ / ₈	2	4 ¹ / ₂	2	8 ³ / ₄	3	5 ¹ / ₈	5	2 ³ / ₄	7	5 ¹ / ₂	17	3	40	9	∞	
2.8	R v	1	7 ⁵ / ₈	1	11 ¹ / ₂	2	3 ¹ / ₄	2	7	3	2 ¹ / ₂	4	8 ⁵ / ₈	6	5 ³ / ₈	12	8	22	0	81	6
	R h	1	8 ³ / ₈	2	¹ / ₂	2	4 ³ / ₄	2	9	3	5 ⁵ / ₈	5	3 ⁷ / ₈	7	7 ⁷ / ₈	18	4	47	5	∞	
4	R v	1	7 ¹ / ₂	1	11 ¹ / ₄	2	3	2	5 ⁵ / ₈	3	1 ⁷ / ₈	4	7 ¹ / ₄	6	2 ⁷ / ₈	11	11	19	8	57	2
	R h	1	8 ¹ / ₂	2	⁷ / ₈	2	5 ¹ / ₈	2	9 ¹ / ₂	3	6 ³ / ₈	5	5 ³ / ₄	7	11 ³ / ₄	20	4	63	2	∞	
5.6	R v	1	7 ¹ / ₄	1	10 ⁷ / ₈	2	2 ¹ / ₂	2	6	3	1	4	5 ¹ / ₂	5	11 ³ / ₄	11	0	17	4	40	11
	R h	1	8 ³ / ₄	2	1 ¹ / ₄	2	5 ⁵ / ₈	2	10 ¹ / ₄	3	7 ¹ / ₂	5	8 ¹ / ₄	8	5 ¹ / ₄	23	8	112	8	∞	
8	R v	1	7	1	10 ¹ / ₂	2	1 ⁷ / ₈	2	5 ³ / ₈	2	11 ⁷ / ₈	4	3	5	7 ⁵ / ₈	9	11	14	8	28	9
	R h	1	9 ¹ / ₈	2	1 ³ / ₄	2	6 ³ / ₈	2	11 ¹ / ₄	3	9 ¹ / ₄	6	⁵ / ₈	9	3	31	5	∞		∞	
11	R v	1	6 ⁵ / ₈	1	10	2	1 ¹ / ₄	2	4 ³ / ₈	2	10 ⁵ / ₈	4	³ / ₈	5	3	8	9	12	4	21	0
	R h	1	9 ⁵ / ₈	2	2 ¹ / ₂	2	7 ¹ / ₂	3	⁵ / ₈	3	11 ¹ / ₂	6	6 ³ / ₄	10	6	52	9	∞		∞	
16	R v	1	6	1	9 ¹ / ₈	2	¹ / ₈	2	3 ¹ / ₈	2	8 ¹ / ₂	3	8 ⁵ / ₈	4	8 ³ / ₄	7	5	9	10	14	6
	R h	1	10 ¹ / ₂	2	3 ³ / ₄	2	9 ³ / ₈	3	3 ¹ / ₈	4	3 ⁷ / ₈	7	7 ¹ / ₂	13	6	∞		∞		∞	

When the camera is not in use:

The durability of the shutter spring will be lessened if you leave the shutter cocked. With the Aires 35-III L film winding and shutter cocking are done simultaneously, so you must be even more careful not to leave the shutter cocked, especially at a higher speed.

After each film is exposed and the camera is to be stored in its case, the distance scale should be returned to infinity. Return the Film Reminder to EMPTY after removing film from the camera. Even when the shutter is not cocked, its auxiliary spring will be under pressure at 1/500 sec., so change the setting to other than 1/500 sec.

Protection of the lens:

The exposed area of a wide-aperture lens is wide. Since the Aires H-Coral F:1.9/4.5 cm. lens is made particularly big to ensure a greater light value of its edges and is a high speed lens, the unprotected area is very wide. By always using a good UV filter (Aires filter SL39C), whose value of exposure factor is low, the lens will be protected from dust and water. The Aires filters are polished in the same way as optical glasses and ultra-hard-coated. Use of the Aires filters along with the Aires lens-hood is recommended. There are 5 Aires filters for black and white pictures and 3 for color pictures. They are of screw-in type.

TABLE 1 Standard Exposures (Light Value on the basis of ASA 100)

Subject	Spring Mar. Apr. May	Summer June July Aug.	Autumn Sep. Oct. Nov.	Winter Dec. Jan. Feb.
Seascape, mountain and snow scenes, open landscape	16	17	16	15
Common scenes	15	16	15	14
Bright streets, snap-shooting	14	15	14	13
Outdoor crowd	13	14	13	12
Close-up of an outdoor person	12	13	11	10
Person in shade or by window	11	12	10	9

TABLE 2 Weather, Time and L. V. Coefficient

Weather	L. V. Coefficient	T i m e	L. V. Coefficient
Fine	± 0	Morning 10 o'clock Afternoon 3 "	± 0
Slightly cloudy	- 1	Morning 9-10 " Afternoon 2-3 "	- 1
Cloudy	- 1.5	Morning 8-9 " Afternoon 3-4 "	- 1.5
Very cloudy	- 2		

TABLE 3 Film-Sensitivity and Filter Coefficients

Sensitivity	L. V. Coefficient	AIRES FILTER		L. V. Coefficient
		for black & white	for color	
ASA 800	+ 3	U. V.	Skylight	(1 A) \pm 0
ASA 400	+ 2	Light Yellow	Cloudy	(81 B) - 0.5
ASA 200	+ 1	Yellow and Green	Brown	(85 & 85 C) - 1
ASA 50	- 1	Orange	Blue	(80 A) - 1.5
ASA 25	- 2.5	Light Red		- 2.5
ASA 12	- 3			

When you take a picture, with an XX film, of an outdoor crowd with ample sunshine about noon in April, the L. V. is 13 as shown under Spring in the Table 1. If you use a yellow filter in this instance, the L. V. coefficient is -1 as shown in the Table 3, so that the Light Value is to be $13 - 1 = 12$.



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