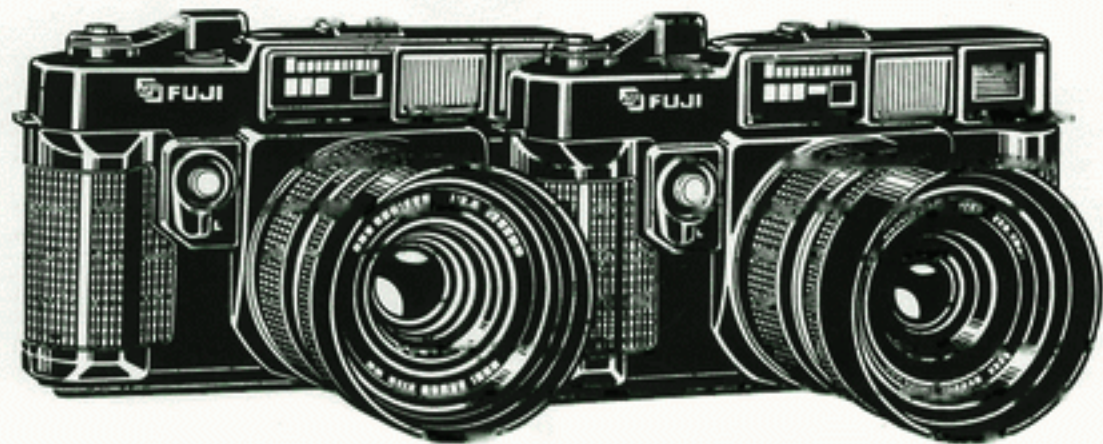




GW690 
Professional

GSW690 
Professional

GW670 
Professional



OWNER'S MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
MANUAL DE INSTRUCCIONES

OWNER'S MANUAL

This manual will show you how to use and care for your FUJI GW690 II Professional, FUJI GSW 690 II Professional, or FUJI GW670 II Professional correctly. Please follow the instructions carefully. (The instructions are the same for the three cameras because the only differences among them are in the lens focal length and picture size.)

English (Pages 6 ~ 13)

See illustrations while you read this manual.

BEDIENUNGSANLEITUNG

Diese Anleitung enthält alles, was Sie über die Bedienung und Pflege Ihrer FUJI GW690 II Professional, FUJI GSW690 II Professional bzw. FUJI GW670 II Professional wissen müssen. Lesen Sie die Anleitung bitte aufmerksam durch. (Die Anleitung ist für alle drei Modelle gleichermaßen zutreffend, da diese sich nur in der Brennweite des Objektivs und im Bildformat voneinander unterscheiden.)

Deutsch (Seite 14 ~ 22)

Orientieren Sie sich beim Durchlesen dieser Anleitung bitte an den Abbildungen.

MODE D'EMPLOI

Ce manuel contient les instructions sur l'utilisation et l'entretien des appareils FUJI GW690 II Professional, FUJI GSW690 II Professional ou FUJI GW670 II Professional. Veuillez le lire attentivement. (Les instructions sont les mêmes pour les trois appareils car les seules différences entre eux résident dans la longueur focale de leur objectif et dans le format d'image.)

Français (Pages 23 ~ 30)

Se reporter aux illustrations en lisant le mode d'emploi.

MANUAL DE INSTRUCCIONES

Este manual le explica cómo manejar y conservar correctamente su FUJI GW690 II Professional, FUJI GSW690 II Professional o FUJI GW670 II Professional. Sirvase seguir atentamente las explicaciones. (Las instrucciones son idénticas para las tres cámaras porque las únicas diferencias entre ellas son la distancia focal del objetivo y el tamaño del negativo.)

Español (Página 31 ~ 38)

Consulte las ilustraciones mientras lee este manual.

NAMES OF PARTS / BEZEICHNUNG DER TEILE / NOMENCLATURE / NOMENCLATURA

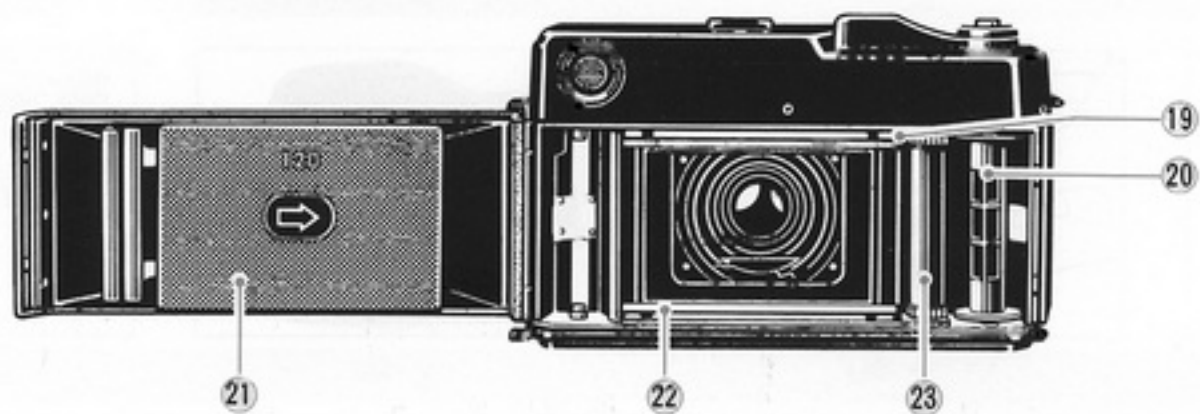
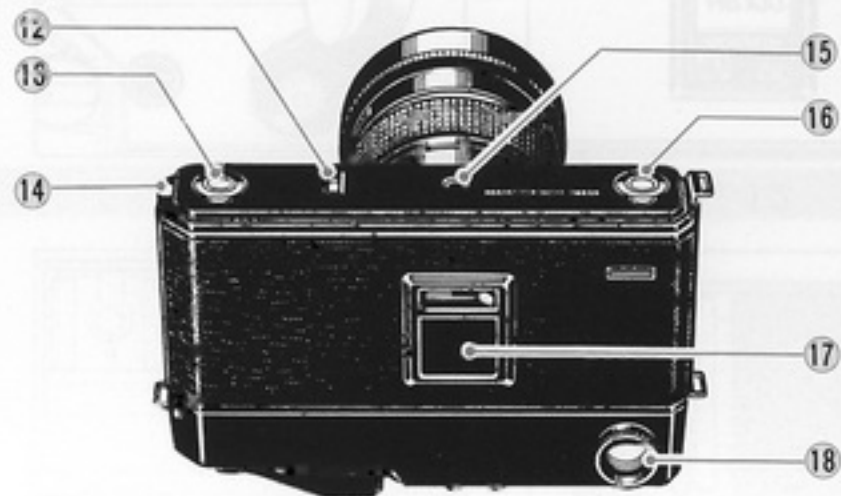
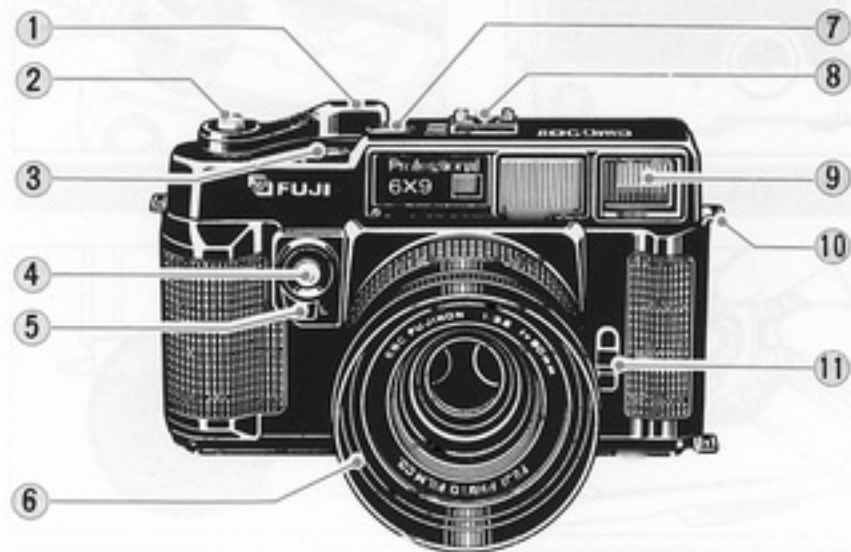


Fig. 1



Fig. 2



Fig. 3



Fig. 4

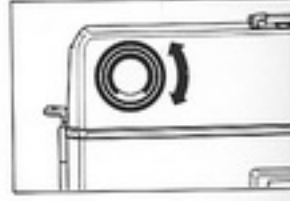


Fig. 5

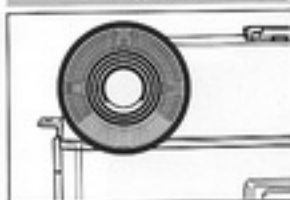


Fig. 6

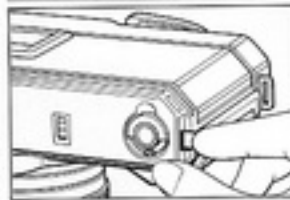


Fig. 7



Fig. 8

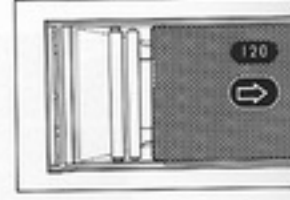


Fig. 9

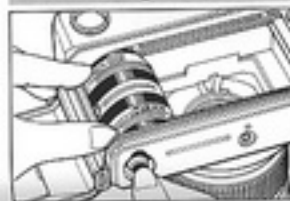


Fig. 10



Fig. 11

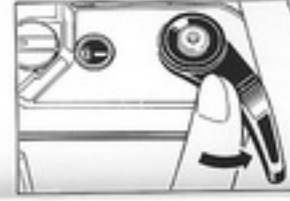


Fig. 12



Fig. 13



Fig. 14

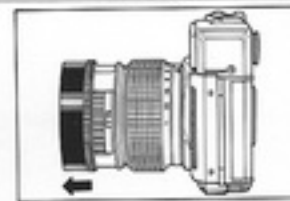


Fig. 15

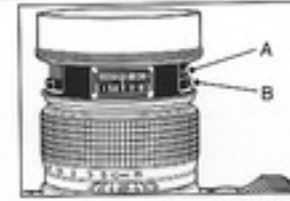


Fig. 16

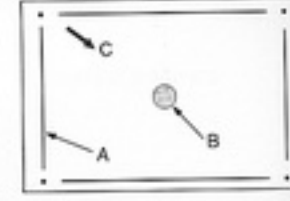


Fig. 17



Fig. 18



Fig. 19



Fig. 20



Fig. 21



Fig. 22

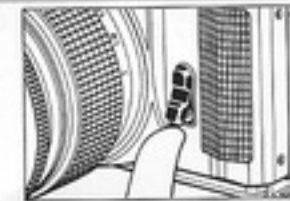


Fig. 23

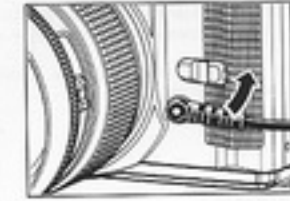


Fig. 24



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NAMES OF PARTS

- ① Film Advance Lever
- ② Top Shutter Release
- ③ Exposure Counter
- ④ Front Shutter Release
- ⑤ Front Shutter Release Lock
- ⑥ Lens Hood
- ⑦ Film Selector
- ⑧ Accessory Shoe (Hotshoe)
- ⑨ Viewfinder Window
- ⑩ Strap Lug
- ⑪ Sync Socket Cover
- ⑫ Shutter Actuation Counter
- ⑬ Take-up Spool Knob
- ⑭ Camera Back Lock
- ⑮ Tripod Socket
- ⑯ Film Loading Knob
- ⑰ Film Reminder Slot
- ⑱ Viewfinder Eyepiece
- ⑲ Film Start Mark
- ⑳ Take-up Spool
- ㉑ Pressure Plate
- ㉒ Focal Plane Rail
- ㉓ Film Winding Length Detecting Roller

SPECIFICATIONS

	GW690II [GW670II]	GSW690II
Picture Size	6 x 9 cm [6 x 7 cm] format; actual picture size 56 x 82.6 mm [56 x 68.5 mm].	Same as GW690II.
Film	120 half-length, 120, and 220 roll film.	Same as GW690II.
Film Advance	Lever on camera top, 2-stroke advance (first stroke 138°, second stroke depends on film roll diameter); self-cocking shutter; double exposure prevention.	Same as GW690II.
Exposure Counter	Automatic reset, additive.	Same as GW690II.
Shutter	No. 0 interlens shutter; T, 1-1/500 sec.; X sync; shutter release lock. Provided with hotshoe and sync contact.	Same as GW690II.
Lens	EBC Fujinon 90 mm, F3.5, 5 components, 5 elements, non-interchangeable; 1m nearest focusing distance; F32 minimum aperture; screw-in filter (70mm outer diameter, 67 mm inner diameter, 0.75 mm thread pitch); 58° [52°] covering power (diagonal), equivalent to f=39 mm [f=44 mm] on 35 mm camera. Built-in retractable lens hood.	EBC Fujinon SW 65mm, F5.6, 4 components, 6 elements; non-interchangeable; 1m nearest focusing distance; F32 minimum aperture; screw-in filter (70mm outer diameter, 67mm inner diameter, 0.75mm thread pitch); 76° covering power (diagonal), equivalent to f=28mm on 35mm camera. Built-in retractable lens hood.
Rangefinder & Viewfinder	Double-image, coupled range-viewfinder; 0.75X magnification; 95% field of view at 1m, 92% at infinity; 59mm base line length (44.3mm effective base line length).	Double-image, coupled range-viewfinder; 0.75X magnification; 93% field of view at 1m, 90% at infinity; 59mm base line length (26.6mm effective base line length).
Dimensions & Weight	120 mm H x 200 mm W x 128 mm D; 82 mm ϕ lens barrel; 41 mm body thickness; 1,440 g [1,445 g].	120 mm H x 200 mm W x 131 mm D; 82 mm ϕ lens barrel; 41 mm body thickness; 1,480 g.
Other	Provided with shutter actuation counter.	Same as GW690II.

The data in brackets apply to the GW670II.

Notice: Specifications are subject to change without notice.

HOW TO USE

READYING THE CAMERA

1. Attaching the shoulder strap

Pass the strap ends through the camera's strap lugs and adjust the strap length with the buckles. (Fig. 1)

- To pass the strap end through the hoop, push the hoop back a bit so that you can do it easier.
- To carry the camera horizontally, use the strap lugs on both sides of the camera; to carry it vertically, use the two strap lugs on the right hand side.

2. Using the camera case

The soft case is wrapped around the camera and closed with the zip and stick fasteners. Use it to protect your camera from dust, nicks, and scratches. (Fig. 2)

- When the strap is attached to the strap lugs on both sides of the camera, open the zip fastener and put on the soft case.

3. Putting on the lens cap

Just fit it on the lens hood to protect the lens from dust and grit. (Fig. 3)

(Do not wipe the lens with silicon cloth because it will leave tiny abrasion marks on the glass. Take special care because dust and scratches on the lens can impair its sharpness appreciably. See paragraph entitled "Cleaning the Lens").

4. Attaching the viewfinder eyepiece

Just screw it into the eyepiece socket. (Fig. 4)

- The eyepiece on your camera is designed for people with normal eyesight. If you cannot see clearly through it, use an eyepiece that can be adjusted to your eyesight. If you are nearsighted, use an eyepiece with a minus diopter, and if you are farsighted, use one with a plus diopter.
- The eyepiece socket of your camera is provided with a 19mm-diameter, 0.75mm-pitch screw thread. It will take any commercially available eyepiece, rightangle finder, magnifier, etc. (Fuji does not supply these accessories).

5. Attaching the eyecup

The eyecup is made of rubber and is fitted on over the eyepiece. It prevents extraneous light from entering the eyepiece and gives you a clearer view through the viewfinder. (Fig. 5)

LOADING THE FILM

1. Opening the camera back

To open the camera back, just pull the camera back lock toward the camera bottom with your thumbnail. (Fig. 6)

2. 120/220 film selector

While pressing down the film selector with your finger, turn and set it for the film you are using as follows: (Fig. 7)

	6 x 7 cm Format	6 x 9 cm Format
220 roll film	20 EXP	16 EXP
120 roll film	10 EXP	8 EXP
120 half-length roll film	5 EXP	4 EXP

6 x 7 cm Format.....GW670II

6 x 9 cm Format.....GW690II and GSW690II

- Be sure to set the film selector and pressure plate for the film (120 or 220) you are using. If you don't use the correct side of the pressure plate, you won't get precisely focused pictures because the film will not move into the exact focal plane. (120 roll film is attached to an opaque backing paper over its entire length, but such paper is used only on the leading and trailing ends of 220 roll film. The thickness of the backing paper causes a shift in the position of the focal plane and the pressure plate adjusts for this difference while keeping the film flat on the focal plane at one and the same time.)

< Pressure plate >

If you are using 120 roll film, you'll have to use the side of the pressure plate marked "120" and if you are using 220 roll film, you'll have to use the side

marked "220". (Fig. 8)

To turn over the pressure plate, just push it toward the arrow and lift it out.

3. Loading the take-up spool and film

(1) Pull out the film loading knob and transfer the empty spool into the take-up spool chamber (located on the same side as the film advance lever).

(Fig. 9)

(2) Next, pull out the film loading knob and load the film in the film chamber (located on the same side as the viewfinder eyepiece).

- To lock the take-up spool and film loading knobs in "pulled out" position, turn the keys slightly to the left.
- The take-up spool and film can be loaded easier by fitting in the top side first.
- After loading the take-up spool and film, snap down the knob keys into the niched side of the knob recess. Do not snap them down in the opposite side because they will protrude above the camera bottom and prevent correct seating of the camera on the tripod head.

4. Positioning the film start mark

Pull out the film paper leader, pass it through the film channel, insert the tip into the slot of the take-up spool, and wind the paper leader around the spool with the film advance lever.

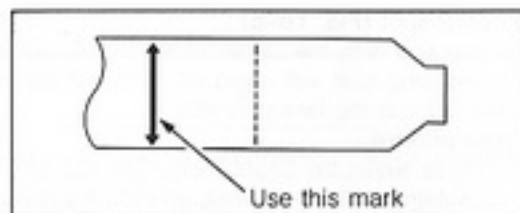
Stop winding as soon as the film start mark on the leader paper is aligned with the red dot on the right hand side of the film channel, then close the camera back.

<Avoiding film slack>

- To prevent the film from slackening, press down the leader paper near the supply side lightly with your finger so that it won't buckle, and wind the film advance lever firmly.
- To prevent the film from becoming loose again when the camera back is being closed, use the film advance lever to keep the leader paper taut until you snap the camera back into place.

<Positioning the start mark on 220 roll film>

- If you are using 220 roll film, line up the solid arrow mark (normal lead mark) with the red dot in the film channel. Do not use the thin hyphenated line (long lead mark). (Fig. 10)



5. Winding the film and positioning it for the first shot

- After loading the film, just wind the film advance lever as far as it will go. The exposure counter will switch from "S" to "1" and the shutter will cock by itself. (Fig. 11)
- Tear off the top of your film box and insert it in the film reminder slot in the camera back. It will remind you which film you are using. (Fig. 12)

SETTING AND ADJUSTING THE CAMERA CONTROLS, ETC.

1. Unlocking the front shutter release

If you can see the letter "L", the shutter release is locked. To unlock it, push the front shutter release lock toward the lens so that it covers the "L". (Fig. 13)

2. Built-in lens hood

The lens hood is built into the lens barrel. To use, just pull it out. (Fig. 14)

3. Setting the shutter speed selector and aperture ring

- Shutter Speed Selector (Fig. 15-A)

- Aperture Ring (Fig. 15-B)

Pull out the lens hood and set the shutter speed selector and aperture ring for the picture you are taking.

4. Focusing the lens

Look through the viewfinder eyepiece, center your subject in the viewfinder, and turn the focusing ring to make the double images in the yellow center spot in the viewfinder converge into one. (Fig. 16)

- Bright frame (Fig. 16-A)

- Double-image center spot (Fig. 16-B)
 - Always line up your eye with the center of the viewfinder eyepiece. If you don't, the yellow focusing spot will move off center of the bright frame and you won't be able to focus the lens precisely.
- 5. Composing your picture**
- Compose your picture within the bright frame. The top and left sides of the bright frame will automatically move and correct for parallax as you focus. There is hardly any parallax, however, and you'll get properly centered pictures because the fields of view of the GW690II and GSW690II are, respectively, 95% and 93% at the nearest focusing distance (1 meter) and 92% and 90% at infinity (∞). (Fig. 16)
 - Moving top and left-side frame lines (Fig. 16-C)
 - To take infrared pictures, measure the distance of the subject with the focusing ring and set that distance to the infrared mark (red line labelled "R"). This will make up for the slightly nearer point on which you'll have to focus. (Fig. 17)

DEPTH OF FIELD TABLE FOR THE EBC FUJINON 90MM, F3.5 LENS

Shooting distance Aperture		1	1.2	1.5	2	3	5	10	∞
3.5		0.97~1.01	1.18~1.22	1.46~1.54	1.93~2.07	2.84~3.18	4.56~5.54	8.32~12.56	47.69~ ∞
4		0.98~1.02	1.18~1.23	1.46~1.54	1.92~2.08	2.82~3.21	4.50~5.63	8.12~13.04	41.75~ ∞
5.6		0.98~1.02	1.17~1.24	1.44~1.56	1.89~2.12	2.75~3.30	4.32~5.95	7.54~14.93	29.56~ ∞
8		0.97~1.03	1.15~1.25	1.42~1.59	1.85~2.17	2.66~3.44	4.09~6.46	6.85~18.80	20.96~ ∞
11		0.96~1.05	1.13~1.28	1.39~1.63	1.80~2.26	2.55~3.67	3.81~7.35	6.07~29.78	14.88~ ∞
16		0.94~1.07	1.11~1.31	1.35~1.69	1.73~2.39	2.40~4.05	3.47~9.17	5.23~ ∞	10.57~ ∞
22		0.92~1.10	1.08~1.36	1.30~1.79	1.64~2.60	2.22~4.76	3.09~14.20	4.38~ ∞	7.53~ ∞
32		0.89~1.15	1.03~1.45	1.23~1.95	1.53~2.98	2.01~6.35	2.68~ ∞	3.58~ ∞	5.37~ ∞

Unit: m

< Using the depth of field table >

Depth of field is the zone of sharpness in front of and behind the point on which the lens is focused and it varies with the lens focal length, aperture, and shooting distance. Your camera is provided with a depth of field scale on the lens top on both sides of the lens setting mark, but for more detailed readings, refer to the accompanying depth of field table for your camera.

Example:

If the focal length of your camera is 90mm and you are shooting from a distance of 5 meters with an aperture of F8, everything between 4.09 and 6.46 meters from the camera will come into sharp focus.

DEPTH OF FIELD TABLE FOR THE EBC FUJINON 65MM, F5.6 LENS

Unit: m

Aperture \ Shooting distance	1	1.2	1.5	2	3	5	10	∞
5.6	0.96~1.05	1.13~1.28	1.40~1.63	1.80~2.25	2.55~3.65	3.83~7.24	6.15~27.63	15.51~∞
8	0.94~1.07	1.11~1.31	1.35~1.69	1.73~2.38	2.40~4.03	3.49~8.97	5.30~∞	10.94~∞
11	0.91~1.11	1.07~1.37	1.30~1.79	1.64~2.59	2.22~4.70	3.11~13.49	4.45~∞	7.78~∞
16	0.88~1.16	1.03~1.45	1.23~1.95	1.53~2.97	2.01~6.20	2.70~48.47	3.63~∞	5.54~∞
22	0.84~1.24	0.97~1.60	1.15~2.24	1.39~3.75	1.78~11.47	2.28~∞	2.90~∞	3.96~∞
32	0.80~1.39	0.91~1.87	1.05~2.86	1.25~6.06	1.53~∞	1.88~∞	2.26~∞	2.84~∞

6. Winding the film and cocking the shutter

- If the number "1" is showing in the exposure counter, the shutter blades will open and close when you press in the top or the front shutter release. To advance the film and cock the shutter for the next shot, just wind the film advance lever two times.
- The first stroke will cock the shutter and advance the film partially; the second stroke will complete advancing the film. The winding angle of the film advance lever will therefore differ on the second stroke with the amount of unexposed film left.

<Shooting with the camera held vertically> (Fig. 18)

If you are shooting with the camera held vertically, use the front shutter release. It will let you hold the camera steadier.

<Using a tripod> (Fig. 19)

If you are shooting indoors or nighttime pictures with a shutter speed of 1/30-second or slower, use a tripod and a cable release.

Note:

Without film in the camera, you cannot press down the shutter release unless you open the camera back.

<Time exposure>

To take long-exposure pictures, set the shutter speed selector to "T" (Time) and press in the shutter release. The shutter will remain open even if you take your finger off the shutter release.

To trip the shutter, just turn the shutter speed selector back toward "1".

- On time exposure, it is also possible to trip the shutter by operating the film advance lever, but the film will advance and move your picture out of position in the case.

To trip the shutter on time exposure, always turn the shutter speed selector. Do not operate the film advance lever.

7. Unloading the film

- After you complete exposing a roll of film, wind it up to the very end with the film advance lever. A sudden release of tension will tell you that the trailing end has left its spool and that winding has been completed. It will take about three strokes to wind the film completely.

Next, open the camera back, take out the exposed roll of film and seal the end to prevent the roll from unwinding. (Fig. 20)

- The empty spool is transferred to the take-up side for taking up the next roll of film.

8. Taking flash pictures

- If you are using a small-size clip-on flash, clip it into the accessory shoe on the camera top. (Fig. 21)
- To use the sync socket, lift the sync socket cover with your finger and push it to the side, then plug the cord into the socket. (Fig. 22, 23)
- The 65mm lens of the GSW690II has a covering power of 76° or equivalent to that of a 28mm lens on a 35mm camera. This means that a flash with a small covering angle will not provide enough light along the picture edges. Be sure to use a flash with a covering angle that is wide enough for a 28mm lens on a 35mm camera.
- Your camera has an X-contact, that is, electronic flashes will synchronize with all shutter speeds.
- If you are using a flash bulb, use an M-class bulb with a shutter speed of 1/30-second or slower. If the shutter speed is 1/60-second or faster, the flash will discharge but it will not synchronize properly and a large part of the light will be lost.

CAMERA CARE AND MAINTENANCE

It is assumed that most of you who own a Fuji GW690II or GSW690II are professional photographers who will put the camera to hard use and who cannot afford to develop camera trouble in the middle of a job.

It is therefore hoped that the following instructions and recommendations will be studiously heeded.

1. Using the shutter actuation counter

Your camera is provided with a 3-digit shutter actuation counter in the bottom which will tell you how many times the shutter has been used so that you'll know when the camera needs maintenance.

It counts 10 shutter actuations as 1; that is, if it shows 150, the shutter has been actuated 1,500 times. After reaching 999 (9,990 shots) it will return to 000 with 10 more shots. (Fig. 24)

<Overhauling>

Your camera is a precision instrument and it is subject to fair wear and tear. The heart of your camera is the shutter. It is intricately constructed, precision-

assembled, more delicate and less enduring in consistency than the other parts, and shutter trouble can be ruinous to your photographs. It is therefore recommended as follows on the strength of thorough factory tests.

(1) Shutter

Normally, interlens shutters perform perfectly up to about 5,000 shots, after which they become less accurate and may start behaving erratically. Be sure to have your shutter overhauled as soon as it has been actuated 5,000 times; that is, when the counter reaches 500.

(2) Film advance unit and others

The film advance unit is much more durable than the shutter. To be on the safe side, however, you should have it overhauled together with the other mechanisms as soon as the shutter has been actuated 10,000 times (when the counter returns to 000 from 999).

Note:

It would be wise to have your camera overhauled sooner if you take a lot of pictures near the ocean or under other adverse conditions.

2. Checking the camera before shooting

Before loading film in the camera, make it a habit to perform the following checks.

(1) Film advance unit

Open the camera back and, while watching the take-up spool, wind the film advance lever to make sure the film advance unit is working smoothly.

(2) Camera back interior

Open the camera back and turn the four rollers (two on the camera back and two on the camera body) to make sure they are working properly. Also, check the film pressure springs in the film take-up and supply chambers to make sure they are attached properly and can exert sufficient pressure on the film.

(3) Rangefinder

While watching the double-image focusing spot in the viewfinder, focus the lens at infinity and at nearest focusing distance to make sure the focusing ring is operating properly. If you can open the camera back and check the focused image on the film plane with a sheet of ground glass and the milky-white TAC film that comes with your camera, all the better. The ground glass and TAC film should be placed on the inner focal-plane rails, not on the outer

and elevated film guide rails.

(4) Shutter

Check the various shutter speeds through the camera back. You can more or less tell whether the shutter is operating at the right speed or not by the amount of light it passes through and by the sound it makes.

(5) Aperture

Open the camera back and turn the aperture ring to make sure the aperture blades open and close smoothly.

(6) Flash synchronization

Clip on the flash, open the camera back, open up the aperture fully, set the shutter speed selector to the speed you want, then press in the shutter release. If light comes in through the lens, flash and shutter speed are correctly synchronized.

<Important>

Camera trouble can cost you dearly both materially and otherwise. Always check your camera before use and have it overhauled periodically so that you can be sure of yourself at all times.

3. Cleaning the lens

As mentioned earlier, scratches on the lens surface can reduce its sharpness far more than you would think. If the contrast of your picture seems somehow insufficient and it doesn't look crisp enough, the cause is usually scratches on the lens surface.

<How to clean>

- (1) First, blow off dust from the lens surface completely with an air blower.
- (2) Next, moisten a sheet of lens cleaning paper with plenty of Fuji lens cleaning fluid and wipe the lens gently with it in a circular motion. Always start from the center then gradually move out to the edges.
- (3) Finally, after all contaminants have been removed, wipe off the remaining lens cleaning fluid with a dry sheet of lens cleaning paper. Again, start from the center in a circular motion then move out to the edges.

Caution:

Breathing a mist on the lens surface then wiping it off with silicon cloth or other similar material is the worst thing you can do. Never do it because this is one of the main causes of scratches on camera lenses.

4. Precautions

- Always load and unload film in subdued light.
- After unloading your exposed film, always trip the shutter by pressing in the shutter release.
- In hot weather, do not leave your camera in a closed car or in moist places except temporarily for a very short time.
- Always clean your camera before and after taking pictures. Clean the interior with an air blower, and wipe off the exterior with silicon cloth.
- Put your camera away where it is cool, dry, and free of dust. And don't forget to put the lens cap on.