Vileyka factory “Zenit”

CAMERA “AGAT-18K”

USER’S MANUAL

0245.00.00.000-02 RE

ATTENTION! Exposure setting in your camera is made by symbols of weather that correspond to the following typical conditions of shooting at daylight for middle latitudes.


Object on snow, in mountains, at sea at the clear sun.


Sun is clear or in easy haze, sharp shadows.


Sun is in haze, soft shadows.


Light overcast, without shadows.


Cloudy or the shadow side under an open, clear sky.


Very cloudy, thunderclouds.


In a room in 1 meter from a window at absence of direct solar illumination.

Due to continuous modernization of the camera construction there are possible inessential differences between this manual and your camera.

1. GENERAL INDICATIONS

“Agat-18K” is modern compact scale camera. The camera works in a range of temperatures from a minus 15 up to 45 centigrade.

2. TECHNICAL DATA

Frame size, mm 18x24
Number of frames..... 72
Lens (fixed) ..... “Industar-104”
Focal length, mm..... 28
Aperture ratio 1:2.8
Scale range, m ..... 0.9 to inf.
Exposure parameters range..... 1:2.8 @ 1/60sec to 1:16 @ 1/500sec

Film speed range, ISO ..... 25 to 1600
Dimensions, mm, no more..... 95x60x45
Weight, kg, no more 0.12

3. INCLUDED ITEMS

Name	Qty	Note
Camera	1	
Lens cap with hand strap	1	On the lens
Insertion	1	Inside of the camera
Take-up spool	1	Inside of the camera
User’s manual	1	
Carton box	1	

4. CAMERA CONSTRUCTION

The camera consists of two basic parts: case with mechanisms and a demountable cover with the view finder.

The camera features opportunity of transportation of a film “from cartridge to cartridge” without necessity of film rewind.

Controls and functional units of the camera are shown on Figures 1-4.

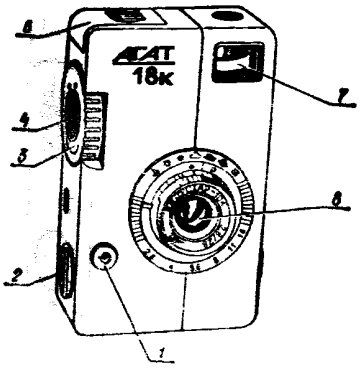


Figure1

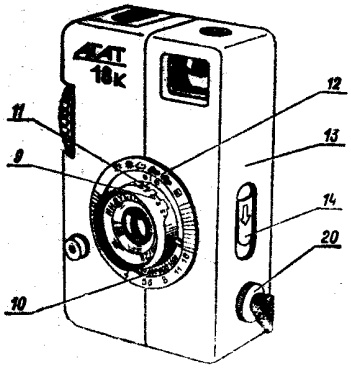


Figure 2

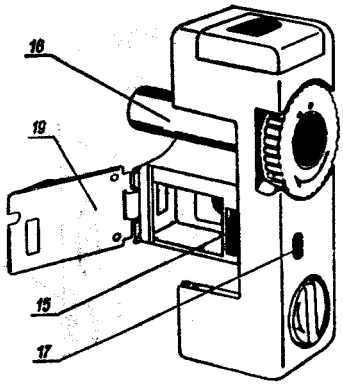


Figure 3

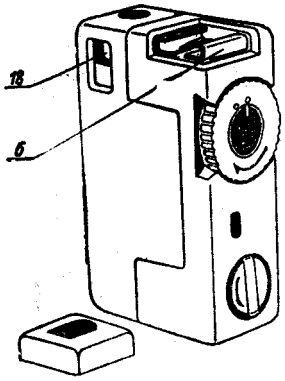


Figure 4

1. Shutter release button	11. Indexed ring
2. Rewind crank	12. Exposure setting ring
3. Wind knob	13. Dismountable cover
4. Rewind button	14. Lock button
5. Hot shoe	15. “Star”
6. Insertion	16. Take-up spool
7. View finder (front element)	17. Picture counter window
8. Lens	18. Eye-piece of the view finder
9. Distance setting ring	19. Pressing plate
10. Film speed setting ring	20. Tripod socket

5. PREPARATION TO WORK

5.1. Remove the cover from the lens. Tate the camera as shown on figure 5. Push the lock button (14) in direction specified by the arrow on it. Keeping it displaced position, remove the camera cover (13).
Shutter cocking in unloaded camera may be done rotating he star (15) toward the take-up spool.

5.2. Set the rewind button (4) into working position.

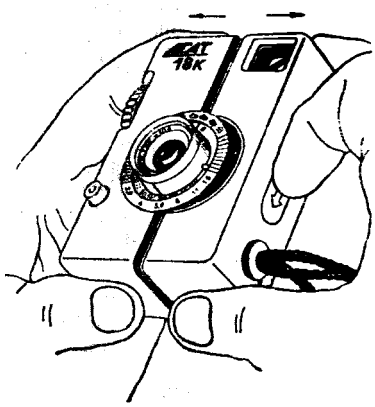


Figure 5

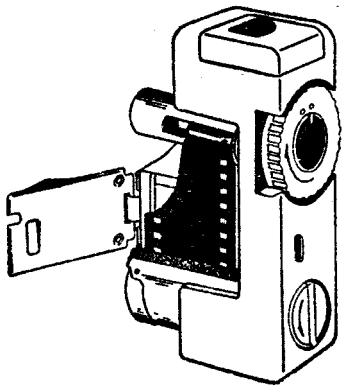


Figure 6

To do it, press the button with a finger against the stop, and turn it until overlapping an index with a white point.

If there is a difficulty with pushing button, turn a bit the spool (16) in any direction.

Note. At long breaks in work with the camera is desirable, that the rewind button was set in non-working position (an index points to the red point).

5.3. Open plate (19), insert cartridge with film into the camera. Insert end of the film into slot of the take-up spool (16), so that it has left through opposite slot. Make sure that the film lays on guidelines of the film channel without skews, and a claw of the reception coil and claws of the star (15) fit to the film perforation (fig. 6).

Close plate. Thus the ledge on support guideline of the film channel should enter the appropriate groove of the plate.

Release the shutter and, rotating the wind knob (3) and pressing by a finger the plate (19) to the film channel, make sure that the film is reeled up on the take-up spool, and that star (15) rotates.

Close the camera cover (13). To do this, insert a ledge of the cover into appropriate guidelines of the camera and push it until stop, avoiding skews. Thus springed lock button (14) will be latched.

Pass the lighted during loading part of the film. To do this, turn the wind knob (3) until stop, then press the shutter release button (1). Repeat this operation 2-3 times. Number '1' of the picture counter will be visible in the center of the picture counter window (17). The camera is ready to shooting.

If at attempt to wind a film the handle does not rotate, it means that shutter is cocked - press the shutter release button. If the handle rotates without restriction, check up, whether there is a rewind button in the work position (see 5.2) or adjust gearing the end of a film with a tooth of the take-up spool (16).

5.4. Loading the camera with transportation of a film "from cartridge to cartridge".

5.4.1. Preparation of the camera. Set the button (4) to work position (see 5.2). Holding wind knob (3) with one hand, use other hand to turn the take-up spool counter-clockwise and to take the spool out of the camera.

Note. Keep the spool in case there is no free take-up cartridge. When installing take-up spool into the camera, button (4) should be in work position. Holding knob (3) with your right hand, insert the take-up spool (16), mount it on the fork, and turn it clockwise till stop.

5.4.2. Preparation of a cartridges with film. Take a loaded cartridge and cut film edge, so that it can be inserted into the slot of spool of the take-up cartridge (fig. 7). Take the spool from the take-up cartridge and orient it like the feeding spool. Fix the film in the take-up spool and assemble take-up cartridge.

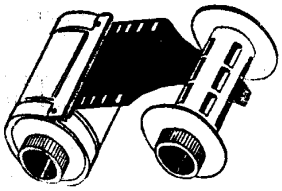


Figure 7

5.4.3. Installation of the block of cartridges into the camera.

Open plate, move apart the cartridges according to distance between cavities for cartridges in the case, and install them into the case. Make sure that the film lays on guidelines of the film channel without skews, and the tooth of the star (15) enters into film perforation (fig. 8). Further it is like described in 5.3.

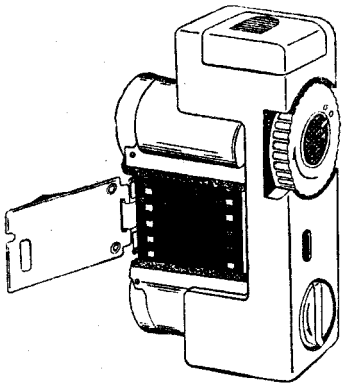


Figure 8

5.5. Setting film speed. Set the loaded film speed value by turning ring (10) (there two ledges on it) against an index in the bottom part of ring (11). You may set any intermediate values of film speed. If you can't reach mentioned ledges by your fingers, you may use any thin object, like a match, for example.

Table 1 shows correspondence between GOST/ISO and DIN film speed values.

Table 1

GOST/ISO	25	32	40	50	64	80	100	125	160
DIN	15	16	17	18	19	20	21	22	23

200	250	320	400	500	640	800	1000	1250	1600
24	25	26	27	28	29	30	31	32	33

6. OPERATING PROCEDURE

6.1. Setting of the exposure by weather symbols.

Take the lens cover (21) off. Estimate a condition of the weather (sky), turn the ring (12) to set chosen symbol against index mark on the ring (10).

Keep in mind following when setting the weather symbols:

- It is impossible to set “thunderclouds” and “shootings near window” with film speed of 25 ISO;
- It is impossible to set “shootings near window” with film speed of 50 ISO;
- It is impossible to set “at the sea” and “clear sun” with film speed of 1600 ISO;
- It is impossible to set “at the sea” with film speed of 800 ISO;

It means, that photographing on films of the given photosensitivity under these weather conditions is not recommended due to insufficient or superfluous light exposure of an object.

Chosen exposure parameters (diaphragm and shutter speed) will be fulfilled by iris shutter of the camera.

Diaphragm setting shown on the bottom part of the ring (12) against the bottom index on the ring (11), and corresponding value of shutter speed roughly can be determined using Table 2.

Table 2

Diaphragm	2,5*	2,8	3,4*	4	4,8*	5,6	6,8*	8	9,5*	11	13,5*	16
Shutter speed	1/65	1/130	1/144	1/169	1/204	1/260	1/354	1/362	1/417	1/540	1/540	1/540

* Diaphragm values not marked on the ring.

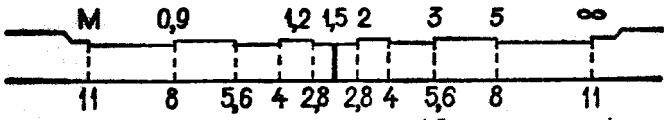
In some cases necessity to adjust exposure setting, for example, when object (picture) very dark or very light, may arise. There two additional symbols-indexes near line index on the ring (10) are given: “light” and “dark”. Shift of the weather symbol from index toward the light mark will reduce an exposition 2 times, and shift toward dark mark will increase it 2 times.

When shooting in the conditions of the light conditions considerably distinguished from stipulated symbols of weather, you may use a light meter. Having determined an exposure parameter with the light meter, it is necessary to choose on it that combination of shutter speed and diaphragm value, which is the closest to one of the combinations specified in the Table, and to set appropriate diaphragm value with ring (12).

6.2. Setting of distance.

Having determined distance up to object, adjust appropriate value on a scale (9) with the top index on the ring (11). Insignificant mistakes in determination of distance have no essential value, as the lens has big depth of sharpness.

If it is necessary, you can determine depth of sharpness range using ledges on the ring (11) and circuit given on next page.



So, if you set distance of 1,5 m, and diaphragm of 2,8, all objects between 1,2m and 2 m from film plane will be sharp. But if you change diaphragm value to 8, sharpness range will change to 0,9m up to 5m.

6.3. Cocking the shutter.

Advance a film rotating wind knob (3) clockwise until stop. Shutter will be cocked automatically during this process.

Bordering frame of the view finder

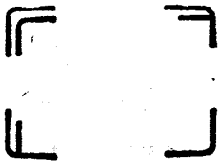


Figure 9

6.4. Photographing.

Observing in the view finder (18), point the camera to desired object so that it was placed inside luminous frames of the view finder. If the object is on distance closer than 3m, you should determine frame borders by the parallactical marks inside a luminous frame (fig. 9).

Release the shutter, smoothly pressing button (1).

6.5. Photographing with flashlight.

The camera has flash socket that allows to use electronic flashes with cable-free connection.

Take off insertion (6) and mount a flashlight into the hot shoe (5). Flash may be mounted or dismounted both in cocked and released state of the shutter.

When using a flash, set a diaphragm value on the scale (12) in interval from 2,8 up to 16 only. Setting it to position left of 2,8 is not recommended.

6.6. Unloading the camera.

6.6.1. If you using take-up spool, press the button (4) and adjust index with red point. Take out the rewind crank (2) and rotate it in direction specified by an arrow to rewind used film into the cartridge. You will know about film ending by weak jerk and easier rotation of the crank. Take off a camera cover (13) and take the cartridge. The picture counter thus automatically will reset to reference mark.

6.6.2. If you using take-up cartridge to transport film “from cartridge to cartridge, than after shooting 72-nd frame, shoot empty 2 frames, take off the cover (13) and take out the block of cartridges.

Cut off a film from feeding cartridge. Similarly, it is possible to take part of exposed film from the camera if it is necessary, and load the rest again. The freed cartridge may be used at the subsequent camera loading as a take-up cartridge.

7. RULES OF CARE AND STORAGE OF THE CAMERA

The camera requires care. It is necessary to keep it clean and preserve it from mechanical damages, dampness and fast changing of temperature.

You must use a napkin or the cotton wool slightly moistened with spirit, and also the squirrel brush to cleaning an optical surfaces of the lens and of the view finder.

Independent disassembling of the camera is prohibited, as it may lead to break adjustments of separate units. Repair and adjusting may be made by the qualified experts in repair workshops only. Using of any greasing in the camera is forbidden.

8. ACCEPTANCE CERTIFICATE

The camera “Agat-18K” factory number _____ meets to specifications TU3-3.377-83 and is recognized suitable for operation.

Date of manufacturing_____

The controller_____
(signature or stamp)

The packer_____
(signature or stamp)

9. GUARANTEE CERTIFICATE

The factory-manufacturer guarantees matching of the camera to requirements the TU3-3.377-83 in case of observance by the consumer of rules of the operation stated in this manual within 24 months from the date of sale through a retail trading network.

In case of absence of sale date and stamp of shop in the guarantee coupon, the warranty period is counted from the date of release of the camera by the factory-manufacturer.

During a warranty period of operation the consumer has the right to free-of-charge repair of the product in case of malfunction on fault of the factory-manufacturer.

Repair of the camera is carried out by guarantee workshops. The address of the nearest workshop is informed in shop at sale of the camera. At absence of workshop of guarantee repair the camera for repair should be sent to the factory-manufacturer in the full complete set, stacked in the container protecting the camera from damages at transportation to the address: 222410, Vileyka, Minskaya obl., zavod "Zenit", masterskaya garantiynogo remonta.

It is necessary to include the operation manual, the brief description of defect and a return address.

Claims to quality of functioning of the camera are not accepted. And also guarantee repair is not made, if camera broken as a result of the negligent manipulation of the consumer, or non-observance of service regulations, and also at absence of the manual and the guarantee coupon.

The exchange of cameras is carried out through a retail trading network according to working rules of an exchange of the industrial goods bought in a retail trading network.

Malfunctions fixed:

_____

_____

_____ Workshop mechanic _____
(date) (signature)

Owner_____
(signature)

CONFIRMED
Workshop manager _____

_____
(workshop name)

"___"_____20___ _____
(signature)

Workshop stamp

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