



"ΦT-2" PANORAMIC CAMERA

PURPOSE

The "ΦT-2" is a special panoramic camera for landscape photography with a large viewing angle of the object.

The camera is intended for amateur cameramen, reporters and research workers.

BASIC SPECIFICATIONS AND DESIGNATION OF CAMERA'S COMPONENTS

The "ΦT-2" panoramic camera is designed for the normal 35 mm film. One loading of the camera makes it possible to take 12 pictures of the 24×110 mm size.

The camera is fitted with the "Industar-50" anti-reflex coated lens with F (focal length) being equal to 5 cm and a constant relative aperture of 1:5.

The lens is mounted in the turning drum thus enabling it to cover an angle of 120°.

The camera has three exposure speeds: 1/100 sec, 1/200 sec and 1/400 sec.

This booklet describes basic instructions on how to use the "ΦT-2" camera and cannot be regarded as a photography manual.

Before using the camera, peruse the handling and operating instructions in this description. Insignificant discrepancies between the description and your camera are possible due to a further technical perfection of the camera design.

A special light-proof magazine housing the film 1.65 m long is provided for the camera loading.

The camera is furnished with an ordinary folding visor for viewing the area being photographed.

The camera is designed for taking pictures with the lens constantly set. In practice it is possible to take sharp enough pictures of objects placed from 10 m to infinity.

Overall Dimensions, mm:

Length	120
Width	85
Height (minus view-finder)	48
Weight, kg	0.730

CAMERA DESIGN AND HANDLING INSTRUCTIONS

Camera

The diagram of the "ΦT-2" camera is shown in Fig. 1. The camera comprises the following: "Industar-50" lens 1 mounted inside turning drum 2, feed magazine 3, graduated exposure

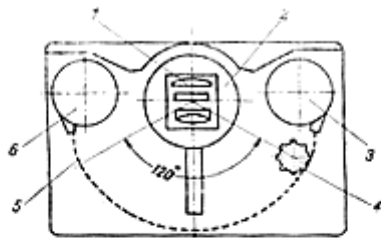


Fig. 1. Scheme of "ΦT-2" Panoramic Camera

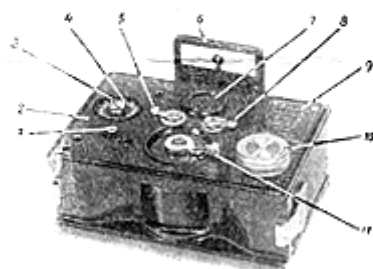


Fig. 2. General View of "ΦT-2" Camera

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counter roller 4 and take-up spool 6. The diagram also shows film position 5 in the camera.

The following fixtures are mounted on upper lid 2 (Fig. 2): exposure counter 3 with needle 4, ball level 7, right-hand lever 8 and left-hand lever 5. Exposure speeds are set by turning the above levers to various positions indicated in table 9. Besides the exposure speeds shown in the table an exposure speed equalling roughly 1/60 sec can also be attained by setting levers 8 and 5 into position shown in Fig. 4. To wind the film by one picture, turn key 10 in the direction shown by the engraved arrow till needle 4 makes three turns around the counter cycle plus one mark of the exposure counter scale.

The shutter is cocked by turning crank 11 towards release button 1 until latching. The exposure speed setting is not coupled with the shutter cocking and film winding.

Frame 6 is a view-finder. Standard thread 2 (Fig. 3) is provided on the lower lid 1 for fixing the camera on a tripod or in the case. Side walls of the detachable lid 1 (Fig. 4) have jacks 2 for locking the camera after its loading.

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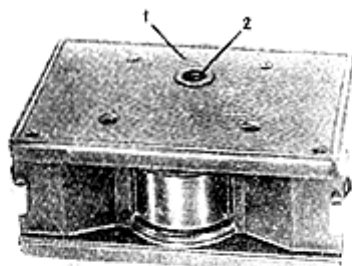


Fig. 3. "ΦT-2" Camera. View of Lower Lid

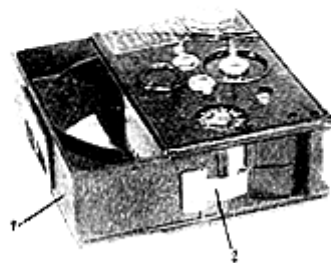


Fig. 4. "ΦT-2" Camera. View of Side Walls

Magazine and Its Loading

The magazine consists of four parts: cartridge, outer cramp, inner cramp and reel. To open the magazine, remove the outer and inner cramps from the cartridge and take out the reel. Magazine is loaded with a film in red light or in complete darkness depending on the film type.

Fix the film end under the spring and start winding the film over the reel. The light-sensitive layer of the film should face inside towards the reel axle. Holding the reel and pulling the loose end of the film do not tighten the winding for the resultant friction between turns may cause scratches on the light-sensitive layer.

Do not touch the light-sensitive layer both during the magazine loading and while handling the film. The film can be held only by the perforated edges. Insert the reel with film into the cartridge, leave the film end passed between the cartridge dies, slip on the outer and inner cramps.

Subsequent operations with the magazine can proceed in light.

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Camera Loading

Slip the take-up spool out of the camera. Pull the film end 12—13 cm long out of the magazine. Take out the reel from the empty spool and fix the film end under the pressing spring, wind one turn and assemble the spool.

When fixing the film end make sure that the slot of the spool is in the upper position. Turn the open camera with its back to you. Set needle 4 (Fig. 2) of the exposure counter at mark "6", insert the magazine and take-up spool into the camera. Slip on the lid and latch locks 2 (Fig. 4).

To advance the unexposed film to the film gate turn winding key 10 (Fig. 2) by 3.5 turns of needle 4 and set the latter at the mark with figure "1".

Photographing

The "ФТ-2" camera makes it possible to take hand-held photos and to shoot with tripod with the slipped on case. Photographing can be effected without case from any horizontal plane.

Prior to photographing:

- open the case and swing out the case cover;
- lift the view-finder;

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Keep the camera with the released shutter in case. Moisture unfavourably affects the mechanical parts and coated surfaces of the lenses. When in use, see that no rain or snow fall on the camera. When changing from cold to warm, do not open the case. Let the camera warm up in the buttoned case.

Cleaning the Lens

The "Industar-50" lens is housed inside the camera and thus prevented from getting dirty. Nevertheless it can gather some dust with time. To get access to the lens, cock the shutter and, holding the lens drum with finger, press the release button and shift the drum slit to the middle of the camera. Dust and fogging traces can be removed from the coated surface of the lens by a soft brush or cotton-wool pad slightly soaked in rectified alcohol, ether or perfume without pressing against the surface cleaned.

Even if due to careless handling of the coated lens or some other reason the anti-flare coating of outer surfaces is damaged, the lens will never-

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mount the camera on the tripod when photographing with the latter.

Then set the exposure speed by turning levers 8 and 5 into positions shown in table 9 (Fig. 2).

Cock the shutter by turning crank 11 clockwise until it clicks.

Focus the camera with the view-finder, set the bubble of the ball level into the central position and release smoothly button 1. See that the bubble of the level is not displaced from the level centre when photographing a horizontal plane. Hold the camera fast with both hands when taking hand-held pictures.

Camera Unloading

To unload the camera:

open the camera, i.e. remove back detachable lid 1 (Fig. 4);

slip out take-up spool 6 (Fig. 1) with film by lifting crank 10 (Fig. 2) until stop. The camera is ready for reloading.

Maintenance and Care of the Camera

Protect the camera from impacts, jerks, dust, dampness and sharp temperature changes.

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theless transmit more light and will produce pictures of higher contrast than an ordinary lens of the same type.

Camera set

ФТ-2 camera with detachable back	1 pc
Metal magazines	4 pcs
Camera case	1 pc
Camera's description	1 copy