

# Adapting The Zoomar Lens To The Auricon-Pro

By JOHN HOKE

BECAUSE OF THE particular design of the Auricon-Pro 16mm single-system camera, which has the lens rather centrally located instead of to the left, as with most motion picture cameras, the Zoomar-16 lens cannot be used on this camera efficiently unless some provision is made for the operator to fully utilize the Zoomar finder. This finder, as most readers know, is coupled to the zoom lens and is focused automatically with it.

Where the Zoomar-16 is mounted on the Auricon-Pro, the case of the camera interferes with use of the finder—the body of the camera intersecting the finder eyepiece, as may be seen in Fig. A. The writer overcame this obstacle by installing an arrangement of prisms, which provide an offset viewing element for the finder, as may be seen in the photos above. Prism No. 1 (Fig. 2) receives the finder image and projects it to the left, where it is observed through prism No. 2 by the operator.

This modification employed two war surplus prisms held in proper alignment with the Zoomar-16 by a framework constructed of acrylic plastic as diagrammed in the figures below. The prisms were obtained at moderate cost from the

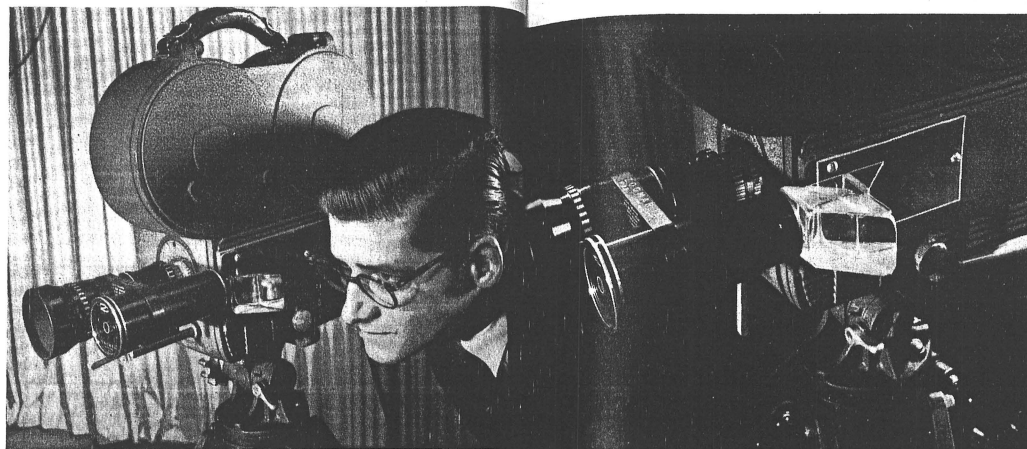


FIG. A—WITH THE offset prism viewer in place, the camera operator can more conveniently view subject being photographed by the Zoomar lens. Without the offset viewer, use of regular Zoomar finder is hampered because it is too close to camera.

FIG. B—CLOSEUP of the finished prism viewer. (Here black paint has not yet been applied to top and bottom prism brackets.) Prism arrangement affords convenient viewing of image by camera operator; shows sharp, clear picture of scene as picked up by Zoomar lens.

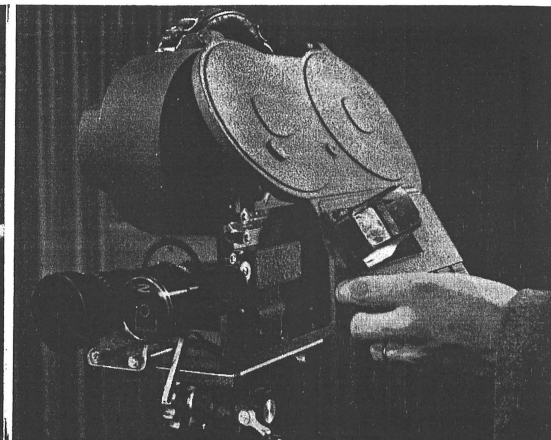


FIG. C—As the prism device is mounted entirely on door of the Auricon-Pro camera, instead of on Zoomar finder itself, opening the camera door to change film does not require removal of the Zoomar lens. When door is closed, prism viewer is accurately aligned with Zoomar finder.

Edmund Scientific Corp., Barrington, New Jersey. (Catalogue No. 3108. Specify right-angle prisms, 38mm x 38mm x 54mm.—ED.).

For other Auricon-Pro owners who may wish to use the Zoomar lens with their camera, the following instructions for making both the prism assembly, and the supporting bracket for the Zoomar itself (Fig. 4) may be of interest.

The prism bracket (Fig. 2) is constructed of clear Lucite  $\frac{1}{8}$ -in. thick. This is obtainable in most hobby shops, as is the cement necessary for joining the pieces together. The various pieces—base plate, brace, prism brackets, etc.—may be cut from sheet Lucite with the aid of a small hand coping saw. Any rough edges may be smoothed with a file and sandpaper.

The size of the prisms which the reader uses will more or less determine the size of the various segments of the bracket assembly; but if prisms of the size already mentioned are obtained, then the baseplate dimensions should be  $4\frac{3}{4}$ -in. by  $2\frac{1}{2}$ -in. The smaller rectangle—the brace—(Fig. 2) should be  $1\frac{1}{2}$ -in. by  $\frac{1}{2}$ -in. The third and fourth segments—the angular prism bracket pieces shown in Figs. 2 and 3 (the top

bracket is omitted in the diagram in order to show position of the prisms)—may be cut according to the prism dimensions shown in Fig. 3. By placing two pieces of Lucite together, the two brackets may be cut and shaped in one operation.

For this assembly, the larger rectangle of Lucite becomes the base plate which holds the prism framework to the body of the camera. The two angular brackets sandwich the two prisms, holding them in proper alignment on the base plate, behind the viewfinder of the Zoomar lens. The smaller rectangular piece serves as a brace to support the brackets and give added rigidity to the whole.

The first step in the construction of the prism-holder and base plate is to remove the regular viewfinder from the Auricon-Pro camera. Then position the Lucite base plate in the same position that was occupied by the viewfinder. With a sharp instrument mark on the Lucite location of the rear

screw hole, and the hole for the top screw in the door of the camera. Next, drill the Lucite panel as marked, using a  $\frac{3}{16}$ -in. drill, and bolt it to the camera door, using the regular camera screws.

To locate the two prisms on the base plate in proper position behind the Zoomar finder, hold one of the prism brackets (Fig. 3) in position on the base plate, with side "A" flat against the base plate, as shown in Fig. 2. Then, while holding this piece in place, position one of the prisms on the bracket in such a way that one of the two square faces is located directly behind the Zoomar finder. Now mark position of the prisms on the bracket, and the position of the prism bracket on the base plate.

When these positions have been determined and clearly marked, the next step is to cement the prism bracket to the base plate. With a small artist's brush, apply the plastic cement to the joint formed by the base plate and the prism bracket. Hold bracket firmly in position long enough to permit a firm bond to develop between the two pieces of Lucite.

The two prisms are next cemented in place. For this use an acetate bond such as Duco plastic cement. Apply the cement to the surface of the prism bracket, then set prism #1

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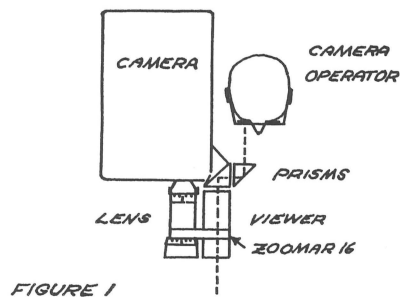


FIG. 1—Above diagram not only shows why the prism finder gadget is necessary to use of the Zoomar-16 lens on the Auricon-Pro, but also shows how it works to advantage of camera operator.

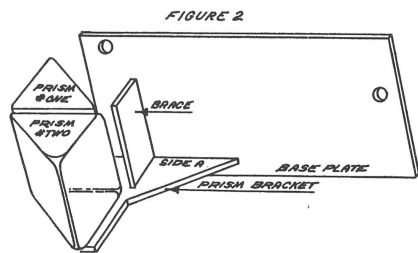


FIG. 2—Method of assembling the various pieces plus prisms which go together to form the complete offset viewfinder auxiliary. Top prism bracket has been omitted here to show position of prisms.

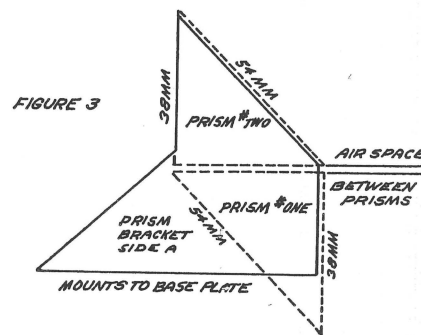


FIG. 3—Detail of the prism bracket, showing position of the two prisms when cemented in place. Note that an air space of  $\frac{1}{16}$ -inch is provided between the prisms—a must.

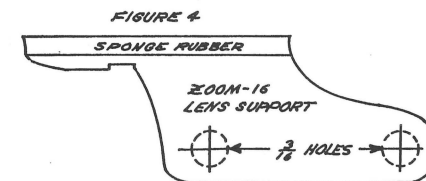


FIG. 4—Detail of support for the Zoomar lens which fits on the two matte box rods extending from front of camera. This is companion piece to prism viewer, is necessary to hold Zoomar rigid.



