



HOOKER TACTICAL
Safety & Defense Equipment, Inc.

Operator's Manual
for the Third Eye Spotting Scope Eye Cam
(Standard and High-Resolution Models)



Standard B&W and Color



Hi-Res. And Low-Lux B&W

Part Number: MAN-3rdEYE

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1.0 Introduction

The Third Eye Eye Cam is a versatile, easy-to-use, specialized video camera system that uses the latest in high performance technology.

Third Eye Eye Cam Systems allow the user to share their eye view of any given situation via a live video link, and record what they see. Third Eye Eye Cam products are designed to be compatible with most existing professional optics, from spotting scopes to riflescopes, night vision to surveillance optics, and are ideal tools for all branches of police and military. The eye cam mounts on the eyepiece of almost any optic. The design and construction is such that it does not interfere with the user's normal vision through the optic.

1.1 Cautions

Opening the Third Eye housing will void the warranty. There are no user adjustments inside the housing.

Do not drop or misuse the Third Eye. Operate the Third Eye as described in these operating instructions. Do not expose the view port of the Third Eye to direct sunlight or point the optic to which it is attached towards the sun. The bright sun light can permanently damage the sensitive image capture portion of the unit. Also, to protect the image capturing system and the image sharing module, keep the eye cam unit stored in its protective case when not in use.

When not in use disconnect the Third Eye from the battery supply. Store batteries in a safe place. Battery leakage may cause severe equipment damage.

For rechargeable batteries, only use the charger recommended for the battery. Do not charge batteries inside the storage case. Batteries charged incorrectly, with the wrong charger, may explode and cause injury or death.

2.0 System Specifications

Voltage Source Requirement	Any DC source between 12 & 24 volts
Operating temperature range:	-10° C to +40° C
Storage temperature range:	-30° C to +70° C

Eyecam Specifications	Hi-Res. B & W	Hi-Res. Color	Standard B & W	Standard Color
Resolution (TV lines):	570	480	400	330
Sensitivity (lux)	0.005	0.17	0.1	0.8
Input Current (mA)	120	130	120	120
Chip Type:	CCD	CCD	CCD	CCD
Chip Size:	1/3"	1/3"	1/3"	1/3"
Video output format	Either NTSC or PAL	Either NTSC or PAL	Either NTSC or PAL	Either NTSC or PAL
Video output (75 ohms unbalanced):	1V p-p	1V p-p	1V p-p	1V p-p
Approximate Weight (grams):	110	110	30	50

Note 1: The collar of your choice will be supplied with the model ordered. A list of available collars and the equipment to which each attaches may be requested.

Note 2: Systems can be built to customer specifications. Quotes for customized systems are no charge.

Note 3: The Standard and High-Resolution Eye Cams are designed for use on an optic with a 25mm eye relief. The video image they produce will not be in sharp/clear focus when attached to an optic with a different eye relief such as a rifle scope having a 75mm eye relief. A different model Eye Cam must be used with a rifle scope.

Note 4: The video out format is not switchable. It must be specified when placing order.

Third Eye specifications are subject to change without notice.

3.0 How it Works

The Third Eye “Clamp-On” Eye-Cam system captures the image using a proprietary beam splitter [image sharing module] that in no way interferes with the image quality or field of view. This unique system may be attached to the eyepiece of almost any optic to record and/or transmit live video images. The field of view of the camera covers the rectangular areas of the view as per the diagram to the left. The standard view is the 1x view and can only be changed with a factory modification to your eye cam. If a 1.5x or 2x view is desired it must be requested at the time of purchase or your unit returned for modification.



4.0 Warranty/Repair

If the Third Eye Eye Cam fails to conform to system specifications (see Section 2.0) within one year of the date of delivery and has not been misused or damaged, the non-conforming device shall be promptly repaired or replaced free of charge. See Section 8.2 for additional information.

Please fill out warranty registration information on page 12 of this manual and fax or mail it to us.

5.0 Recommended uses

The recommended uses for the Third Eye Eyecam include the following:

SWAT team training and evaluation • Tactical Command • Surveillance • Battlefield intelligence gathering • Target identification/spotting • Marine search and Customs enforcement & evidence gathering • Perimeter defense • Border patrol • Night vision recording • Correctional facility observation/escapee search.

6.0 How to prepare for use

6.1 Removal from box

When opening the shipping container, make sure no sharp objects penetrate into the container. Remove contents and check them against the packing list to ensure receipt of all items.

6.2 Mounting on a scope

To mount the Third Eye on a scope or optic, slide the collar over the eye piece until its forward motion is stopped by the rear of the collar. For a “right-eye” unit, position the Third Eye housing to the right as shown in the figure below. Turn the clamping screw to “lock” in place. For a “left-eye” unit, position the Third Eye housing to the left (opposite from the figure below). Turn the clamping screw to “lock” in place.

If the collar does not fit properly on the scope, either contact your supplier to get the correct collar or, if it is loose, wrap tape around the eyepiece to fill the space.

Mounting Position of Eye Cam
for right-eyed use



6.3 Connecting the cables

There are two cables to connect to the eye cam; the video cable and the power cable.

Connect the video cable between the BNC connector on the eye cam housing and the video recorder, recording kit, or the video transmitter.

Connect the power cable between the 2-pin Tajimi connector and the power source (i.e. independent battery pack, recording kit, or user provided 18 volt power source).

NOTE: When the eye cam is not being used, do not leave the power cable connected to it or leave it laying in the direct sunlight. This may damage the unit.

6.4 Cleaning the view port

The Third Eye view port may become dirty or develop a “film” that degrades performance. When this happens, use a lens cleaning tissue or soft cloth, dampen it with clean water, and carefully wipe the view port. Wipe with a light circular motion.

Do not immerse the Third Eye in water to clean the view port.

7.0 How to operate

The following instructions will assist the user in operating this unit for maximum performance.

7.1 Turning it on

To turn the eye cam on, connect the power cable and make sure there are fresh/fully-charged batteries in the power source.

Caution: Do not attempt to view the sun or any other very bright light source. See Section 1.1.

7.2 Obtaining a clear video image

The eye cam has no user-operated focus adjustments. All adjustments have been made at the factory and locked into place.

To obtain a clear video image, the user must first remove the eye cam and focus the scope to 0 diopters. This is the setting for a user with perfect vision and for a user wearing corrective lenses. Remount the eye cam (as instructed in Section 6.2) to the eyepiece end of the scope making sure it is positioned as far on to the eyepiece as it can be.

8.0 Trouble shooting tips

The following are trouble shooting suggestions.

8.1 Video image unclear

If the video image is out of focus (i.e. fuzzy), complete the following steps:

1. Remove the eye cam from the eyepiece of the scope.
2. Wearing your corrective lenses, if required, adjust the eyepiece lens of the scope for its sharpest focus. Adjustment is usually made by moving the focus ring on the eyepiece .
3. Remount the eye cam to the eyepiece.
4. If the image is still too fuzzy or grainy, change the batteries in the battery source and repeat the steps above.
5. Prior to calling Customer Service (see Section 8.2), remove the eye cam from the scope. Holding the eye cam, by itself, up to your eye, look through the view port at an object at least 10 meters away. If the video image is in focus then the eye cam is performing properly. However,

if the video image is out of focus, the eye cam is defective and the instructions in Section 8.2 should be followed.

NOTE: If you just can't get the video image focused to your liking, call us for technical assistance (see Section 8.2).

8.2 Inoperative Unit

For an inoperative unit:

1. Check to see that the power cable is connected properly.
2. Check to see that the batteries are installed correctly in their housing. (Reinstall correctly or replace with fresh ones.)
3. Install a fresh set or fully-charged set of batteries into power source.
4. If the unit is still inoperative, return it for repair or replacement using the following procedures.
 - Call Third Eye Customer Service (208-527-3395) or send an email to customerservice@hookertactical.com and advise of problem.
 - Information requested will include date, time and circumstances of failure.
 - Follow instructions received from the Customer Service Representative.

Note: Upon receipt, the unit will be quickly analyzed and a repair estimate sent to you if the unit is not under warranty. For units out of warranty, repairs will be made and the working unit returned after customer approval is received.

8.3 Cleaning after being immersed in mud or water

To clean the unit if it has fallen into mud or dirty water, rinse it off with clean water, dry off immediately, and then wipe it with a clean soft cloth. Do not immerse the unit into water or any cleaning liquid. Use a minimum amount of water during the cleaning process.

Use lens cleaning tissue, dampened with clean water, to clean both both sides of the viewing port.

If unit has fallen into clean water dry it off with a soft clean cloth. Use lens cleaning tissue to wipe both sides of viewing port.

Let unit dry thoroughly before using.

8.4 Moisture on viewing port

During a quick temperature change (especially in a humid climate) the viewing port may become fogged on its outside. The unit is designed to minimize fogging on the inside of the viewing port, To clear a fogged viewing port, take a lens cleaning tissue or soft clean cloth and gently wipe it off. Do not use defogging chemicals on any part of the viewing port.

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9.0 User Notes

WITH THE EXCEPTION OF THIS PAGE, WHICH MAY BE COPIED AND MAILED TO HOOKER TACTICAL, FOR PURPOSES OF REGISTRATION, COPYING OF THIS MANUAL IN PART OR WHOLE WITHOUT WRITTEN CONSENT IS FORBIDDEN.

Warranty Registration Information

Please fill in the information below. Mail a copy to:

Hooker Tactical Safety and Defense Equipment, Inc.

Attn: Third Eye Customer Service

P. O. 190

147 South Idaho Street

Arco, Idaho 83213 USA

Or fax a copy to: (208) 527-3408

Purchaser: Agency (or name) _____

Address _____

City _____ State ____ Zip _____

Third Eye Model: Standard __ Hi-Res. ____

Third Eye Serial Number _____

Date Purchased _____

Purchased From: Name _____

Address _____

City _____ State ____ Zip _____

NOTICES:

1. The Third Eye Eyecam is:

a) **Made in the USA by:** Hooker Tactical Safety & Defense Eq.
Arco, Idaho 83213 USA

b) Patent pending.

2. All Third Eye documentation is copyright protected.

3. Third Eye specifications are subject to change without notice.

**HOOKER TACTICAL
SAFETY & DEFENSE EQUIPMENT, INC.**

**Developing Products for
Community Safety and Defense
Worldwide**

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