

TOSHIBA

Leading Innovation >>>

INSTRUCTION MANUAL

FULL HD COLOR CAMERA HEAD

IK-HR1H

INFORMATION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

USER-INSTALLER CAUTION: Your authority to operate this FCC verified equipment could be voided if you make changes or modifications not expressly approved by the party responsible for compliance to Part 15 of the FCC rules.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Following information is only for EU-member states:

The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about the take-back and recycling of this product, please contact your supplier where you purchased the product or consult.

CAUTIONS ON USE

- This apparatus does not operate on its own. Be sure to use it by connecting with the dedicated camera control unit (option). Please do not connect it to other equipment.
- Read the "CAUTIONS ON USE AND INSTALLATION" in the instruction manual of IK-HR1CD or IK-HR1CS and follow them.
- This camera is for indoor use only.

COMPONENTS

(1) Camera head (without lens)	1
(2) Accessories	
(a) Instruction manual	1
(b) Tripod mount	1
(c) Screws M3 x 8	4

CONNECTION

- When connecting the camera cables, be sure to turn off the camera control unit and the other equipment connected.
- When connecting the camera head and the camera control unit, please use the dedicated camera cable (option).
- We suggest that a 2-million pixel C-mount lens is used.

When using other lenses, the best camera performance of this camera may not be obtained.
(For example, low resolution may occur, focus may be lost through the range of a zoom lens, and flare, ghosting or shading may occur)
Furthermore, to avoid damaging the camera, use a lens which has a rear projection from the flange face of less than 11mm(0.433").

- DC power is supplied by a camera cable model # EXC-HR**(option) through the camera control unit model # IK-HR1CD or # IK-HR1CS (option).
- * ** shows a camera cable type name. Refer to the "Type name" of a camera cable in "OPTIONAL PARTS".
- The camera cable is direction dependant. Refer to the IK-HR1CD or IK-HR1CS Instruction Manual section "4.CONNECTION".

Limited Warranty – TOSHIBA Camera

The Imaging Systems Division of Toshiba America Information Systems, Inc. ("ISD") makes the following limited warranties with regard to this Camera ("Product"). These limited warranties extend to the Original End-User ("You(r)").

One (1) Year Limited Warranty of Labor and Parts

ISD warrants that this Product will perform in accordance with specifications for a period of one (1) year from the date of purchase by the Original End-User. During this one (1) year period, ISD will repair or replace the Product, if it does not perform as warranted. In order to take advantage of this Limited Warranty, You must: (a) deliver the Product to an ISD Authorized Service Provider ("ASP"); and (b) pay all transportation and insurance charges for shipment of the Product to the ASP. ISD reserves the right to substitute factory refurbished parts in place of those in need of repair.

Instruction Manual (Owner's Manual):

You should read the Instruction Manual (Owner's Manual) thoroughly before operating this Product. Before seeking warranty service, you should check the troubleshooting guide in the Instruction Manual (Owner's Manual) and follow the instructions to correct the problem.

Your Responsibilities

This Limited Warranty is subject to the following conditions:

- You must provide the bill of sale or proof of purchase at the time that warranty service is required.
- You must notify an ASP within thirty (30) days after you discover that the Product does not perform in accordance with specifications during the Limited Warranty period.
- All warranty servicing of this product must be made by an ISD Authorized Service Provider.
- You must pack the Product in its original carton using the original packing material, then insert the original carton containing the Product into another carton with additional packing material before shipping the Product to an ASP.

DISCLAIMERS:

ALL OTHER EXPRESS OR IMPLIED WARRANTIES ON THIS PRODUCT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

IF THIS PRODUCT IS NOT IN GOOD WORKING ORDER AS WARRANTED ABOVE, YOUR SOLE AND EXCLUSIVE REMEDY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT. IN NO EVENT WILL ISD OR ITS PARENT COMPANY OR ANY ASP BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT. THIS LIMITATION APPLIES TO DAMAGES OF ANY KIND, INCLUDING ANY DIRECT OR INDIRECT DAMAGES, LOST PROFITS, LOST SAVINGS OR OTHER SPECIAL, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, WHETHER FOR BREACH OF CONTRACT, TORT OR OTHERWISE, OR WHETHER ARISING OUT OF THE USE OF OR INABILITY TO USE SUCH PRODUCT, EVEN IF TAIS, ITS PARENT COMPANY, OR AN ASP HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR OF ANY CLAIM BY ANY OTHER PARTY. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR SOME PRODUCTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THIS LIMITED WARRANTY SHALL BE VOID IF THE PRODUCT OR PARTS HAVE BEEN SUBJECTED TO MISUSE, ABUSE, ACCIDENT, IMPROPER INSTALLATION, IMPROPER MAINTENANCE, OR USE IN VIOLATION OF ISD'S WRITTEN INSTRUCTIONS, OR WHERE THE PRODUCT HAS BEEN ALTERED OR MODIFIED WITHOUT ISD'S PRIOR AUTHORIZATION, OR UPON THE REMOVAL OR ALTERATION OF ISD'S FACTORY SERIAL NUMBER. LABOR SERVICE CHARGES FOR PRODUCT INSTALLATION, SET UP AND ADJUSTMENT OF CONTROLS ARE NOT COVERED BY THIS LIMITED WARRANTY.

How to Obtain Warranty Service – Step-By-Step Procedures:

To obtain warranty service, You should:

- Contact an ASP for warranty service within thirty (30) days after the Product fails to comply with specifications.
- Arrange for shipment of the Product to an ASP.
- Securely pack the Product as described above, insure the carton, and include a letter explaining the problem and a copy of the bill of sale or proof of purchase.
- Prepay all transportation and insurance costs.

Questions? If you have any questions, please check ISD's Web Site or send an e-mail as follows:

Web Site: <http://www.toshiba.com/taisisd/indmged>
E-mail: CCTVtechsupport@tais.toshiba.com

No person, agent, distributor, dealer, authorized service provider, or company is authorized to change, modify, or extend the terms of this Limited Warranty in any manner whatsoever. The time within which an action must be commenced to enforce any obligation of ISD arising under this Limited Warranty or under any statute, or law of the United States or any state thereof, is hereby limited to one (1) year from the date You discover or should have discovered the problem. This limitation does not apply to implied warranties arising under state law. Some states do not permit limitation of the time within which You may bring an action beyond the limits provided by state law, so the above provision may not apply to You. This Limited Warranty gives You specific legal rights and You may also have other rights which vary from state to state.

TOSHIBA AMERICA INFORMATION SYSTEMS, INC.
Imaging Systems Division
9740 Irvine Boulevard, Irvine, CA 92618-1697

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SPECIFICATIONS

Image sensor	1/3 inch color CMOS sensor (rolling shutter/progressive scan)
Output pixels	Horizontal : 1920, Vertical : 1080 (max.)
Lens mount	C mount (flange back : 17.526 mm in-air)
Operating ambient temperature	0°C to 40°C (32° F to 104° F)
Operating ambient humidity	Less than 90 %
Weight	Approx. 48 g (0.106 lbs) (tripod mount and screws not included)

- Design and specifications are subject to change without notice.
- For more information, please refer to the section "10. SPECIFICATIONS" in IK-HR1CD or IK-HR1CS instruction manual.

OPTIONAL PARTS

For further details, contact your camera dealer.

Camera control unit

Type name
IK-HR1CD
IK-HR1CS

Camera cable

Type name	Length m	Length inch
EXC-HR03	Approx.3	Approx.118
EXC-HR05	Approx.5	Approx.197
EXC-HR10	Approx.10	Approx.394

EXTERIOR DIMENSIONS

Camera Head

Tripod mount

Unit : mm [inch]
Ø : diameter

DISCLAIMER

We disclaim any responsibility and shall be held harmless for any damages or losses incurred by the user in any of the following cases:

- Fire, earthquake or any other act of God; acts by third parties; misuse by the user, whether intentional or accidental; use under extreme operating conditions.
- Malfunction or non-function resulting in indirect, additional or consequential damages, including but not limited to loss of expected income and suspension of business activities.
- Incorrect use not in compliance with instructions in this instruction manual.
- Malfunctions resulting from misconnection to other equipment.
- Repairs or modifications made by the user or caused to be made by the user and carried out by an unauthorized third party.
- Notwithstanding the foregoing, Toshiba's liabilities shall not, in any circumstances, exceed the purchase price of the product.

COPYRIGHT AND RIGHT OF PORTRAIT

There may be a conflict with the Copyright Law and other laws when a customer uses, displays, distributes, or exhibits an image picked up by a television camera without permission from the copyright holder. Please also note that transfer of an image or file covered by copyright is restricted to use within the scope permitted by the Copyright Law.

PROTECTION OF PERSONAL INFORMATION

Images taken by the camera that reveal the likeness of an individual person may be considered personal information. To disclose, exhibit or transmit those images over the internet or otherwise, consent of the person may be required.

LIMITATION OF USAGE

The product is not designed for any "critical applications." "Critical applications" means life support systems, exhaust or smoke extraction applications, medical applications, commercial aviation, mass transit applications, military applications, homeland security applications, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage. Accordingly, [Toshiba/TAIS] disclaims any and all liability arising out of the use of the product in any critical applications.

CAUTIONS ON USE AND INSTALLATION

- Handling the unit.**
Do not drop, jolt, or vibrate, as this may result in damage to the unit. This may cause problems. Treat the camera cables carefully to prevent cable problems, such as breaks in the cable and loose connections.
- Install the camera in a location free from noise.**
If the camera or the cables are located near power utility lines or a TV, etc., undesirable noise may appear on the screen. In such a case, try to change the location of the camera or the cable wiring.
- Operating ambient temperature and humidity.**
Do not use the camera in places where temperature and humidity exceed the specifications. Picture quality will deteriorate and internal parts may be damaged.
Be particularly careful when using in places exposed to direct sunlight. When shooting in hot places, depending on the conditions of the object and the camera (for example when the gain is increased), noise in the form of vertical strips or white dots may occur. This is not a malfunction.
- When not using the camera for extended periods of time.**
Switch the control unit off and disconnect the power supply.
- Avoid using or storing the camera in the following places:**
Places filled with highly flammable gas.
Places near gasoline, benzene, or paint thinner.
Places subject to strong vibration.
Places containing chemicals (such as pesticides), rubber or vinyl products for extended periods of time.

The following descriptions are for that a camera control unit "IK-HR1CD or IK-HR1CS" connected to this camera head.

- Do not shoot intense light.**
If there is an intense light at a location on the screen such as a spot light, a blooming and smearing may occur. When intense light enters, vertical stripes may appear on the screen. This is not a malfunction. Ghosts may occur when there is an intense light near the object. In this case, change the shooting angle.
- Moire**
A moire pattern is an interference pattern generated when two repetitive line patterns overlap. This is not a malfunction. Eliminating the repetitive line patterns, or aligning the two patterns, will eliminate the moire.
- Handling of the camera head and protection cap.**
Keep the camera head and protection cap away from children, as they may pose a choking hazard. The protection cap protects the image sensing plane when the lens is removed from the camera head, do not discard.
- When cleaning the camera.**
Unplug the power source before cleaning. Clean with a soft dry cloth only. Do not use chemicals or chemically treated cloths. Chemicals may damage coatings and printed letters. When cleaning the lens, use lens cleaning paper.
- Installation of camera head.**
When installing the camera head, secure it with the mounting holes at the bottom (M3 thread, depth 5 mm) or on a rigid tripod connected to the tripod mount attached to the base of the camera head. Ensure that the camera head is not pulled by the camera cable connected to the rear of the camera. Also do not apply any force or strain on the cable connector. When mounting a heavy lens to the camera, support the lens so that it is not applying any force or strain on the camera head.