

IRIS730 / 1720

INSTALLATION & OPERATION GUIDE

IRIS1720/730 User Guide

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Important Notices. Read Before Use:

This instruction manual is intended for administrators and users of the IRIS1720 and IRIS730 Marine Cameras. The use of video surveillance devices can be prohibited by laws that vary from country to country. It is the user's responsibility to ensure that the operation of such devices is legal before installing this unit for surveillance purposes.

Before installing the Camera, please read and follow all the safety and operating instructions to avoid any damages caused by faulty assembly and installation. The user must adhere to all the warnings on the product and in this manual.

Liability

Every reasonable care has been taken in the preparation of this instruction manual. Iris can not be held responsible for any technical or typographical errors and reserves the right to make alterations to the product and manuals without prior notice. Iris makes no warranty of any kind with regard to the material contained within this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The user should verify the relevant information is current and complete before placing orders. All products are sold subject to Iris' terms and conditions of sale at the time of order acknowledgement.

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Installation of this product requires modifications to the structure of the vessel. This must be undertaken by experienced, fully trained and competent persons. Iris can in no way be held liable for any damage or loss that may occur as a result of improper installation or sub standard work. Iris Innovations or its subsidiaries accept no responsibility for work carried out to the vessel during the installation of this product, or subsequent issues that may arise due to the modification of the vessel during the installation of this product.

CE/FCC Statement (EMC)

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 which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. If the equipment is not installed and used in accordance with the instruction, it generates, uses, and can radiate radio frequency energy which may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his/her own expense will be required to take whatever measures may be required to correct the interference.

Warnings & Important Product Information

WARNING: Installation and Operation

This product must be installed and operated in accordance with these instructions. Failure to do so may result in poor product performance, damage to the product or vessel and or personal injury. Installation should only be carried out by qualified personnel or by persons competent in electrical systems.

WARNING: Power Supply and Grounding

Ensure the boats power supply is switched off during installation. Ensure suitably rated circuit breakers / fuses are used in the installation of the product in accordance with the electrical values shown in the technical specifications of the product. Never switch on power until the power connections are correctly terminated in accordance with the information provided in this document. Do not connect or disconnect the product with the power supply switched on. Never disconnect the DC ground with the power supply on.

WARNING: Wiring terminations

Where the products video, power and data terminations are extended, ensure that suitable connectors are used and that the point of termination for each cable is adequately protected against moisture ingress. Ensure correct polarity is strictly observed. Do not cut or remove cable connectors without prior permission from Iris Innovations Limited.

WARNING: Do Not Open the Unit

There are no user serviceable parts within the product so there is no need to open the device. The product has been certified to IP66 standards, however, submersion or the product or exposure to high pressure washing will invalidate the warranty.

WARNING: Disclaimer

This product is intended to be used only for recreational purposes and/or as an aid to navigation and must never be used as an alternative to correct navigational practices and judgements made on the basis of approved navigation methods. It is the users responsibility to observe correct and proper navigational skill when using this product. Only officially approved charts and notices to mariners contain the current information required for safe navigation.

Operating the camera or viewing the video input whilst the vessel is moving could cause a distraction and result in accidental collision resulting in property damage, injury or death. Iris Innovations cannot be held liable for any incidental, special, indirect or consequential damages whether resulting from the use, misuse or inability to use this product.

CAUTION: Switch Camera Off When Not in Use.

To prolong the operation life of the the cameras sensor we strongly advise that power to the camera is routed via a dedicated switch.

CAUTION: Service and Maintenance

This product contains no user serviceable parts. Please refer all maintenance and repair issues to your authorised Iris Innovations dealer. Any unauthorised work to the product may affect the warranty.

CAUTION: Care and Cleaning

This product is a sensitive piece of electronic, imaging equipment and must be handled and treated accordingly. Do not drop or shake the unit during installation. Avoid exposure of the imager to direct sunlight where possible as this may degrade the cameras performance over time.

When cleaning the device, ensure power is switched off. Clean the camera housing with a soft cloth. Moisten the cloth and use a mild detergent if required. The lens window has a protective coating which may suffer damage as a result of improper cleaning. To clean the lens window use a soft cotton cloth. Moisten with clean water if necessary. For further advice on cleaning the lens window, contact Iris Innovations.

INFORMATION: Product Disposal and Recycling

Dispose of this product in accordance with the WEEE Directive.

The Waste Electrical and Electronic Equipment (WEEE) Directive requires the recycling of waste electronic and electrical equipment. Iris Innovations supports the WEEE policy and politely request you observe correct disposal methods. For further information on how to correctly dispose of this product please contact Iris Innovations.

Please recycle unwanted packaging and documentation. The cardboard carton, all paper manuals and documents and the protective plastic bag in which the camera is shipped are widely recyclable. Please check with your local recycling plant for confirmation.

Overview

The IRIS730 / 1720 'Barracuda' Through Hull camera from Iris Innovations is a very high resolution, colour analogue CCTV camera that provides crisp, clear images from below the surface, packed into a robust housing designed especially for mounting through the hull of your vessel.

With an ingress protection rating of IP68 and manufactured from high quality materials, the 1720 / 730 are amazing underwater cameras guaranteed to provide superb images to your chart plotter, monitor or TV. With these cameras you can gaze in wonder at sub aquatic marine life and seascapes. The 1720 and 730 can also be incorporated as part of an onboard security and surveillance system, or be used for underwater surveys.

Key features of the IRIS730 include:

- Aluminum Bronze Bezel
- Hard Anodised Aluminium Shaft
- IP68 Waterproof Design
- Housing Dimensions: 118mmø Bezel. Shaft Length: 120mm. Shaft Diameter: 89mmø
- Hole Cut Out: 90mm (3.54")
- Weight: 1.8Kg
- 800TVL Hi Resolution Colour Analogue Camera
- Composite Video Output
- Very Low Power (<100mA @ 12VDC)
- Compatible With All Chart Plotters Supporting Composite Video Inputs
- Compatible With AV Inputs on TV's and Monitors
- Simple Plug'n'Play Operation

Key features of the IRIS1720 include:

- Aluminum Bronze Bezel
- Hard Anodised Aluminium Shaft
- IP68 Waterproof Design
- Housing Dimensions: 118mmø Bezel. Shaft Length: 120mm. Shaft Diameter: 89mmø
- Hole Cut Out: 90mm (3.54")
- Weight: 1.8Kg
- iHD Iris High Definition Digital Video
- Realtime 1080P Resolution
- Very Low Power (<100mA @ 12VDC)
- Compatible With Chart Plotters Supporting Digital Video (HD-SDI, HDMI, DVI)*
- Simple Plug'n'Play Operation

* Appropriate iHD Video Adapters May Be Required When Interfacing with Chart Plotters or TV's / Monitors. Contact your Iris Dealer or Visit www.boat-cameras.com for further details.

Installation: IRIS1720 / IRIS730

WARNING!

Warning: Installation of this product must only be carried out by a marine electronics professional or competent person. Failure to observe these installation guidelines and good electrical practices could result in fatal damage to the product, other on board equipment and personal injury. Observe electrical codes and practices of the region in which the device is being installed.

When installing on board, it is essential to observe electrical safety precautions associated with the installation and operation of DC powered electronic equipment in and around water. Ensure the waterproof integrity of the camera, cables and connection of the device are never breached or compromised. Always power the device from an appropriately rated fuse board or distribution panel.

Installation of the IRIS1720 / 730 necessitates a hole being cut into the structure of the vessel. Although guidelines are provided below, the responsibility to ensure the camera is installed correctly and is sealed sufficiently to prevent water ingress belongs to the installer, who must be suitably competent. Iris Innovations Limited and Iris Innovations USA Corporation accept no liability whatsoever for issues that may arise as the result of improper or sub standard installation that results in damage caused directly or indirectly as a result of leakage.

IMPORTANT!

- 1) Always ensure that the vessel's power source and battery are disconnected prior to installation!
- 2) Ensure a suitable fuse or circuit breaker are used. Iris recommend a 1A fuse.
- 3) Prior to installation, ensure there is sufficient space within the vessel to accommodate the camera, taking into consideration room to tighten the cameras lock nut and facilitate access to connect and disconnect the cable.
- 4) Although the camera housing and rear connector are waterproof, ensure the cable exit gland is not submerged at any time in the bilge or any other area on the vessel in which the camera is installed that may be subject to submersion. Ensure this is installed well away from any moisture or direct heat sources.

CABLING:

The IRIS1720 / 730 requires a 12VDC power supply and draws less than 100mA. Use a suitably rated fuse or breaker and run 2 core power cable appropriate for these requirements.

The camera outputs 1VP~P Composite Video. A suitable coaxial cable rated at 75Ω should be used with appropriate BNC connectors. Typical cable types are RG59, RG6 etc. Good quality cable should be used to ensure the integrity of the video signal. Maximum length of cable run for IRIS1720 should not exceed 500m.

IRIS supply combined power and video cable with the part number: IRIS960-xx, where xx denotes the desired length in meters.

CAT5 cable can also be used in conjunction with IRIS Balun adapters. Contact Iris for further details.

Installation: IRIS1720 / IRIS730

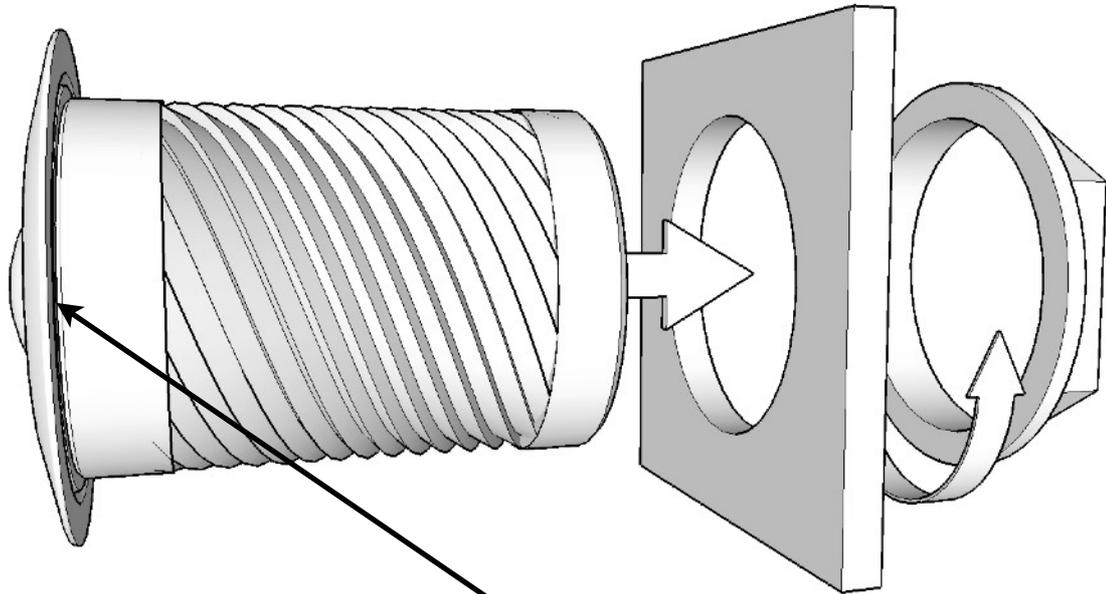
Procedure:

- 1) Locate the camera as desired, taking into consideration internal or external obstacles that may affect the performance of the camera or inhibit the installation.
- 2) The camera should be positioned on a flat surface. Ensure the external surface of the hull (or transom) are even and parallel. It may be necessary to sand or grind the surface.
- 3) Once the installation area is prepared, drill a 90mm (3.54") hole using a suitable pilot hole and hole saw.
- 4) Ensure the inner hull surface is sealed to prevent water intrusion into the hull before the camera is secured in place.
- 5) Ensure that the hull surface is free from dirt, grease and debris. Remove anti-foul from the hull surface where the camera bezel will sit.
- 6) Use a suitable marine adhesive sealant (3M 4200 for example) to apply a liberal bead of sealant around the entire circumference of the back side of the bronze bezel. A channel is machined into the back of the bezel - ensure this is completely filled with sealant.
- 7) Apply a bead of sealant around the edge of the 90mm (3.54") hole
- 8) Carefully slide the camera into the hole, ensure the orientation of the camera is as required. The camera is shipped with a removable stick-on arrow to indicate the 'top' of the cameras field of view.
- 9) From inside the vessel, slide the rubber spacer rings over the camera shaft as required to ensure the lock nut will provide a suitably tight fixing. Two rings are supplied.
- 10) Screw the lock nut in place and hand tighten. Do not lock fully in place at this stage.
- 11) Connect the Coaxial video cable to the cameras BNC jack, and 12VDC power via the DC Jack (Cabling details above).
- 12) Power up the camera and ensure you have a good picture. Now make sure the camera orientation is correct and as desired. Make changes to the camera orientation now before the sealant cures and the lock nut is fully tightened.
- 13) Disconnect the cables from the camera.
- 14) Follow the sealant manufacturers instructions on curing time before fully tightening the camera lock nut.
- 15) From inside the vessel, apply another bead of sealant fully around the circumference of the camera shaft.
- 16) Allow the sealant to fully cure before putting the boat back into the water.
- 17) Connect the power and video cable back to the camera.

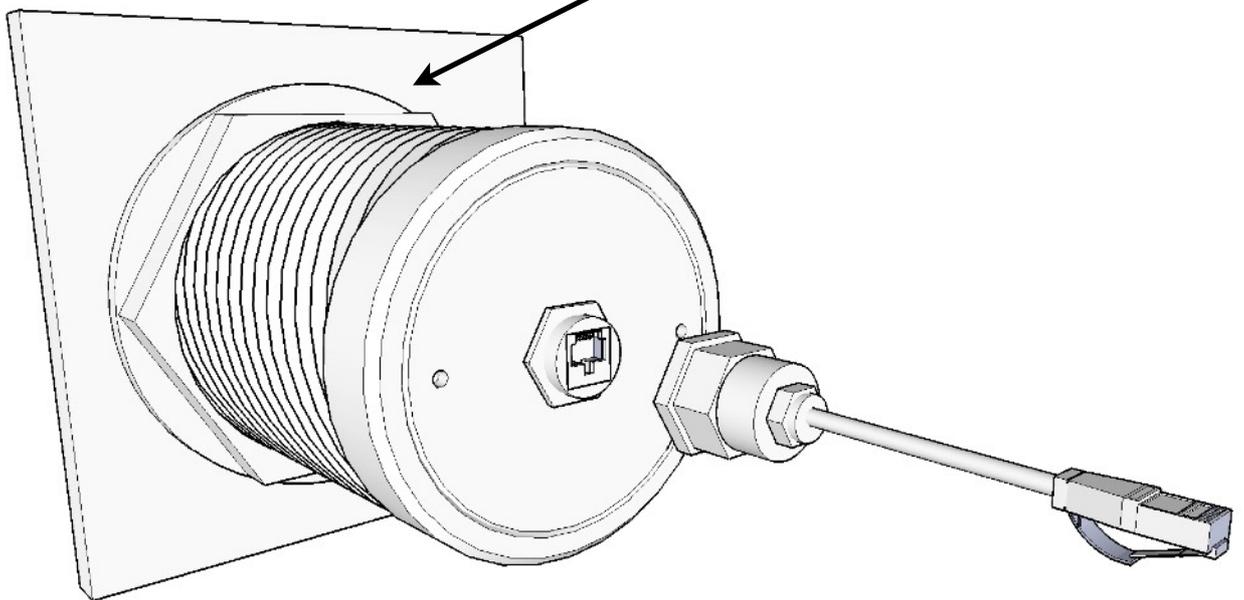
DO NOT LAUNCH THE VESSEL UNLESS THE SEALANT IS FULLY CURED IN ACCORDANCE WITH THE SEALANT MANUFACTURERS INSTRUCTIONS AND YOU ARE SATISFIED THERE ARE NO LEAKS.!

Installation: IRIS1720 / IRIS730

Procedure:



Apply Sealant (See Guidelines)



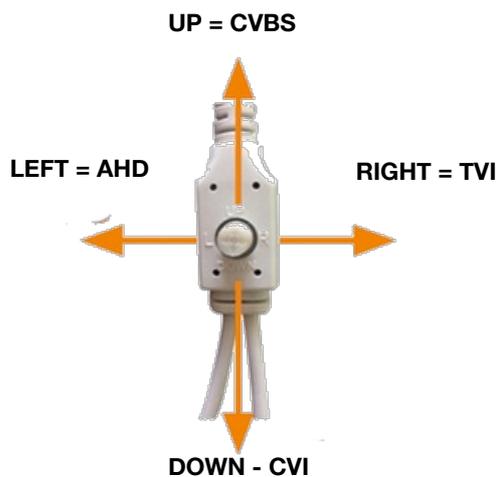
Connector Types May Vary Depending on
Camera Model
For illustrative Purposes Only

Camera Setup

The IRIS066 camera features an in-line micro thumb-stick controller to allow video format configuration and access to the camera's on screen menu system.

Setting Video Format

The camera is set to CVBS (composite video) as default. To change video format simply move the joystick according to the directions below



HOLD JOYSTICK IN DESIRED POSITION FOR 6 SECONDS TO SET VIDEO FORMAT

On Screen Menu Setup

The cameras on screen menu system lets you set up many features including Auto Exposure, White Balance, Video Resolution, Day Night settings and Mirror Image.

To enter the SETUP mode press the joystick down whilst it is in the central position. You should see the main menu appear on the screen.

NOTE: If the joystick remains ideal for 10 seconds in any menu mode the camera will return to normal operation and you will have to re-enter menu mode.

Once in side the menu mode, navigate by moving the joystick up and down (in accordance with the orientation shown in the diagram above) and change values by moving Right to increase values and Left to decrease values.

MAIN MENU:

(Sub Menus in BOLD)

AE (Auto Exposure)

WB (White Balance)

DAY / NIGHT

VIDEO SETTINGS

LANGUAGE

RESET

SAVE - EXIT

EXIT

AE (Auto Exposure) Menu:

BRIGHTNESS

EXPOSURE MODE

GAIN

RETURN

WB (White Balance) Menu:

MODE (ATW or MWB)

DAY / NIGHT

MODE (Ext, Auto, Colour, B/W)

VIDEO SETTINGS:

CONTRAST

SHARPNESS

COLOUR GAIN

DNR

TRANSFER MODE (VIDEO FORMAT)

IMAGE SIZE

FORMAT

DWDR

MIRROR IMAGE

RETURN

Once you have made changes as necessary, navigate to SAVE-EXIT in the main menu for the changes to be stored into the cameras memory. The camera should now retain the new settings on boot-up.

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