

# IRIS604

FOUR CHANNEL VIDEO QUAD

Installation Manual & User Guide



## 1.01 Conventions:

At various points within this guide, the following icons will be used to illustrate important or potentially dangerous information:



### **WARNING**

This symbol indicates a risk of damaging the camera or other items or an important issue that may effect the operation of the camera.



### **INFORMATION**

This symbol points out important information pertaining to the installation, operation and maintenance of the camera.



### **DANGER**

This symbols alerts the user of a serious risk of damage or personal injury or death.

## 1.02 Limited Warranty:

This product is warranted to be free from defects in materials or workmanship for one year from the date of purchase. Upon registration of the product an additional 12 months warranty will be awarded FOC. Within this period, Iris Innovations will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labour, provided that the customer shall be responsible for any transportation cost. This warranty does not apply to: (i) cosmetic damage, such as scratches, nicks and dents; (ii) consumable parts, such as batteries, unless product damage has occurred due to a defect in materials or workmanship; (iii) damage caused by accident, abuse, misuse, water, flood, fire, or other acts of nature or external causes; (iv) damage caused by service performed by anyone who is not an authorized service provider of Iris Innovations Limited or Iris Innovations USA Corporation; or (v) damage to a product that has been modified or altered without the written permission of Iris Innovations. In addition, Iris reserves the right to refuse warranty claims against products or services that are obtained and/or used in contravention of the laws of any country. This product is intended to be used only as a travel aid and must not be used for any purpose requiring precise measurement of direction, distance, location or topography.

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## 2.01 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. In opening the device the warranty becomes void.

### WARNING: Disclaimer



This product is intended to be used only 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 switcher 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: Service and Maintenance

This product contains no user serviceable parts. Please refer all maintenance and repair issues to your authorized Iris Innovations dealer. Any unauthorized 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. Never manually alter the pan or tilt position of cameras whilst the power to the unit is on as this may permanently damage the motors. 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 to avoid unintentional movement of the cameras motors. Clean the camera housing with a soft cloth. Moisten the cloth and use a mild detergent if required but take care not to get detergent on the lens window. 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.

### 3.01 Introduction

Thanks for buying the IRIS604 Four Channel Video Quad Switcher from Iris Innovations!

The IRIS604 enables up to four on board CCTV cameras with a composite video output to be viewed on up to two viewing sources such as a dedicated video monitor or multi-functional chart plotter display. Cameras can be view in full screen, quad view (screen split into quarters to allow all four cameras on the screen at once) and picture in picture mode.

Easy to install, the IRIS604 has been designed to keep unsightly cabling well out of the way, with a central control box into which the video signals are terminated and a small, compact control keypad that sits discretely at the helm for control.

The unit is supplied with a single IRIS540 control keypad and other keypads can be added as desired.

### 3.02 Contents of Package

Please unpack your IRIS604 and check to make sure the following items are included. If there are any items missing please contact your Iris dealer:

1. IRIS604 Video Switcher
2. IRIS540 Control Keypad
3. 2m BNC~BNC Coaxial Video Cable - to connect the output of the switcher to your monitoring source.
4. RJ45 Doubler - to facilitate connection of a second IRIS560 keypad is desired.
5. 1m Power cable with in-line 1A fuse.
6. BNC~RCA (Phono) Jack Adapter - for use if your viewing device has a phono input
7. BNC~BNC Straight Adapter

### 3.03 Overview of Key Features

Here's a brief list of some of the IRIS604's Key Features:

- 4 Composite Video Outputs
- 2 Composite Video Outputs
- Control via Remote Waterproof Keypad
- Simple Operation and Setup
- Full Screen, Quad View or Picture in Picture
- Auto Sequence through Camera Inputs
- Low Power Consumption
- Maximize your MFD's Video Display Capability



IRIS540 (DCS04) Keypad

### 4.01 Connections.

#### Video:

Connect your camera inputs to the 4 female BNC inputs on the side of the unit. Connect the video output cable (supplied) to either of the 2 paralleled female BNC outputs.

#### Keypad:

Plug the RJ45 connector from your IRIS540 (also referred to as DCS04 Keypad) into the panel mount socket labelled KEYPAD on the side of the unit. Multiple keypads can be added. Refer to the section 5.01 Adding Keypads for further details.

#### Power:

Connect the device using the power lead provided to a stable +12VDC supply. The 2 power wires are colour coded RED for +12VDC and BLACK for Ground. The RED +12VDC wire is fitted with an in-line 1A fuse for additional protection.

### 4.02 Operation.

#### Camera Selection

To switch the desired video input, simply select the corresponding numbered button on the keypad. The camera selection will stay on the screen until a different input is selected, or the sequence mode is activated.

#### Quad View

To display all four cameras on the screen together in a quad view, press the QUAD VIEW button.

#### Picture in Picture (PIP)

Use the numeric camera select keys to choose the desired main image view. Then press the PIP key to open up a second, smaller window in the corner of the screen. The numeric key buttons now change the camera input in the PIP window.

To return to normal operation, press the QUAD VIEW key.

#### Freeze Frame

To freeze the image, press and hold the FREEZE key then select the desired camera you want to freeze. This is useful if you've seen something but need to study it in order to identify the object. For example if you think you've spotted an object floating in the water but you're not sure what it is or whether it may damage your boat.

To return to live video mode, press FREEZE again.

#### Auto-Sequence

In auto sequence mode the device displays each of the four camera inputs one at a time with a pre determined dwell time between switching.

To activate Auto Sequence, press and hold the SHIFT key then press the QUAD key.

To return to live mode, simply press one of the four numeric camera select keys.

### 4.03 Configuration.

#### Set Up

The IRIS604 features in depth set up features which are accessed and adjusted by pressing and holding the SHIFT key, then selecting the MENU button.

Use the numeric keys to move the cursor around the menus.

1 = UP, 2 = DOWN, 3 = LEFT, 4 = RIGHT.

## 4.03 Configuration (Continued)

The QUAD key in set-up mode cycles incrementally through the parameter values and the PIP key is used to enter the desired value.

Within the main set up menu are the following sub menus:

1. DISPLAY
2. CAMERA
3. BUZZER
4. DATE-TIME
5. ALARM
6. MOTION
7. EVENT
8. SYSTEM

To access each of the sub menus use the numeric keys to move to the desired option then press the PIP key to enter into the desired menu.

To change parameter values, press the QUAD key.

### 1. DISPLAY SETUP

Sub Menus:

- |                     |                                |
|---------------------|--------------------------------|
| 1: DATE-TIME        | ON/OFF                         |
| 2: CAMERA TITLE     | ON/OFF                         |
| 3: VCR DATE TIME    | (NOT USED)                     |
| 4: VCR CAMERA TITLE | (NOT USED)                     |
| 5: BORDER SET       | WHITE (Black, Dark Grey, Grey) |

### 2. CAMERA SETUP

Sub Menus:

- |                  |                               |
|------------------|-------------------------------|
| CHANNEL NUMBER   | Selects required camera input |
| 1: BRIGHTNESS    | 00 (-31 ~ +32)                |
| 2: CONTRAST      | 00 (-31 ~ +32)                |
| 3: SATURATION    | 00 (-31 ~ +32)                |
| 4: HUE           | 00 (-31 ~ +32)                |
| 5: GAIN          | 00 (-31 ~ +32)                |
| 6: TITLE         | CAM0100000                    |
| 7: DEFAULT RESET | Press PIP to action           |

### 3. BUZZER SETUP

Sub Menus:

- |               |                                   |
|---------------|-----------------------------------|
| SYSTEM BUZZER | ON (Turns Buzzer function on/off) |
| BUTTON BUZZER | ON/OFF                            |
| ALARM BUZZER  | ON/OFF                            |
| MOTION BUZZER | ON/OFF                            |
| VLOSS BUZZER  | ON/OFF                            |

### 4. DATE TIME SETUP

Sub Menus:

- |         |                    |
|---------|--------------------|
| 1: DATE | YEAR/MONTH/DAY     |
| 2: TIME | HOUR/MINUTE/SECOND |

## 5. ALARM SETUP

Alarms are not supplied as standard with the IRIS604 but can be ordered as a special build. Contact your Iris dealer for further information.

## 6. MOTION SETUP

Sub Menus:

- |                      |                         |
|----------------------|-------------------------|
| MOTION FUNCTION      | ON/OFF                  |
| CHANNEL NUMBER       | Selects required camera |
| 1: SENSITIVITY       | 0 ~ 15                  |
| 2: VELOCITY          | 0 ~ 30                  |
| 3: MOTION ACTIVE     | ON/OFF                  |
| 4: MOTION AREA SETUP | See below:              |

In MOTION AREA SETUP, use the numeric keys to move around the image then the PIP key to define whether the area currently highlighted by the cursor form part of the desired motion alarm area. Transparent = alarm area, Blue = not alarm area.

## 7. EVENT LIST

Displays alarm event activity. Although alarms are not included in the standard 604 model, motion detection and video loss will be displayed here.

## 8. CAMERA SETUP

Sub Menus:

- |                      |                          |
|----------------------|--------------------------|
| 1: DWELL INTERVAL    | Sequence dwell time      |
| 2: CLEAN EVENT TABLE | Wipes event list         |
| 3: FACTORY DEFAULTS  | Restores default values. |

## 5.01 Adding Keypads



The IRIS560 keypad operates by switching 5V to ground when a specific key is pressed. Therefore it is simple to add keypads by paralleling the wiring.

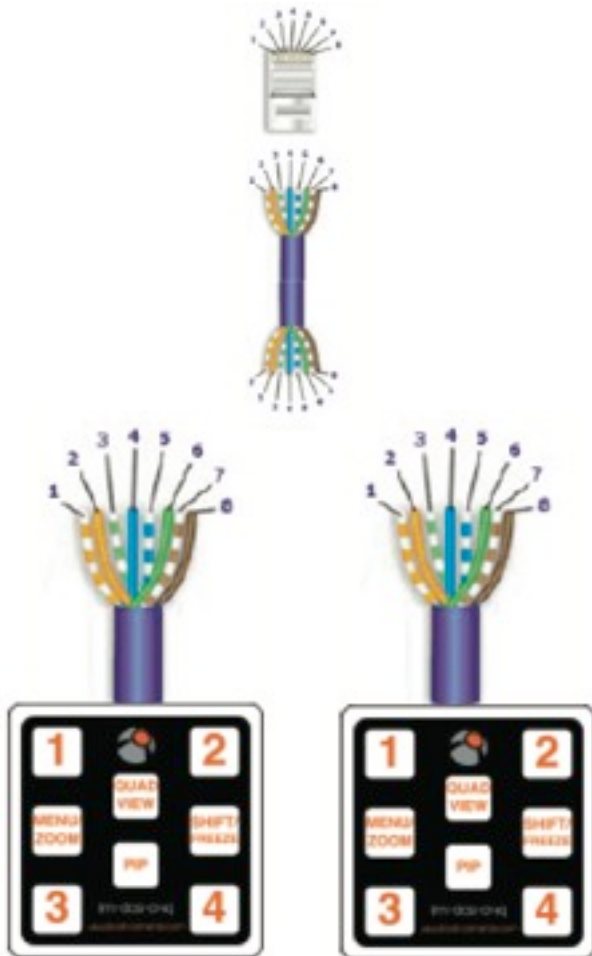
If specified, the IRIS606 can be supplied with an RJ45 Doubler, so a second keypad can easily be added by simply plugging the RJ45 doubler into the KEYPAD socket on the switcher box and connecting each keypad into the doubler, otherwise, the diagram below details how to add an additional keypad.

1. Use CAT5 Cable and RJ45 Plugs. CAT5 cable has been used as it is inexpensive and easy for installer to source.
2. Cut the RJ45 connectors from each of the keypads and strip the outer cable sheath back sufficiently to expose enough of the wire to allow termination.
3. Carefully strip back insulation from each of the 8 wires.
4. Use another CAT5 Cable with RJ45 connector at one end only and the other end of the cable stripped back as described in step 2 and 3 above.
5. Now join the cables together, ensuring the colours are correctly matched. Use a suitable method such as screw terminal connectors, crimps or solder to obtain a good connection. Ensure each wire is insulated from the other colours to avoid a short circuit.

If it is necessary to extend the CAT5 cable used, please observe RJ45(A) wiring standards.

### WARNING

Although RJ45 connectors and CAT5 cables are used, the IRIS606 and IRIS560 (DCS04) are not IP network devices and must not be connected to computers, routers or other network equipment.



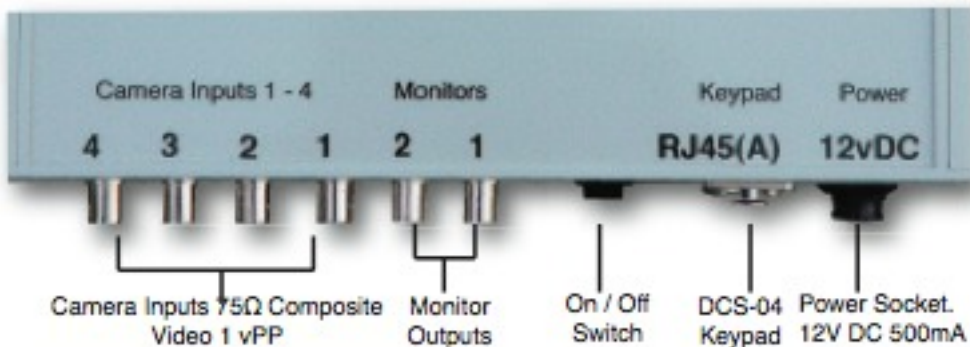
Keypads Shown are IRIS540 for illustrative purposes only.

## 6.01 Installation

(Product labels may differ slightly to those shown)



1. Locate switcher box in a position free from extreme heat, dust or moisture.
2. To fix switcher box into position, lift flaps either side of the box as shown above then screw into position using appropriate fixings.
3. Ensure sufficient clearance is allowed to connect BNC video connectors, Power Tail and RJ45 connector



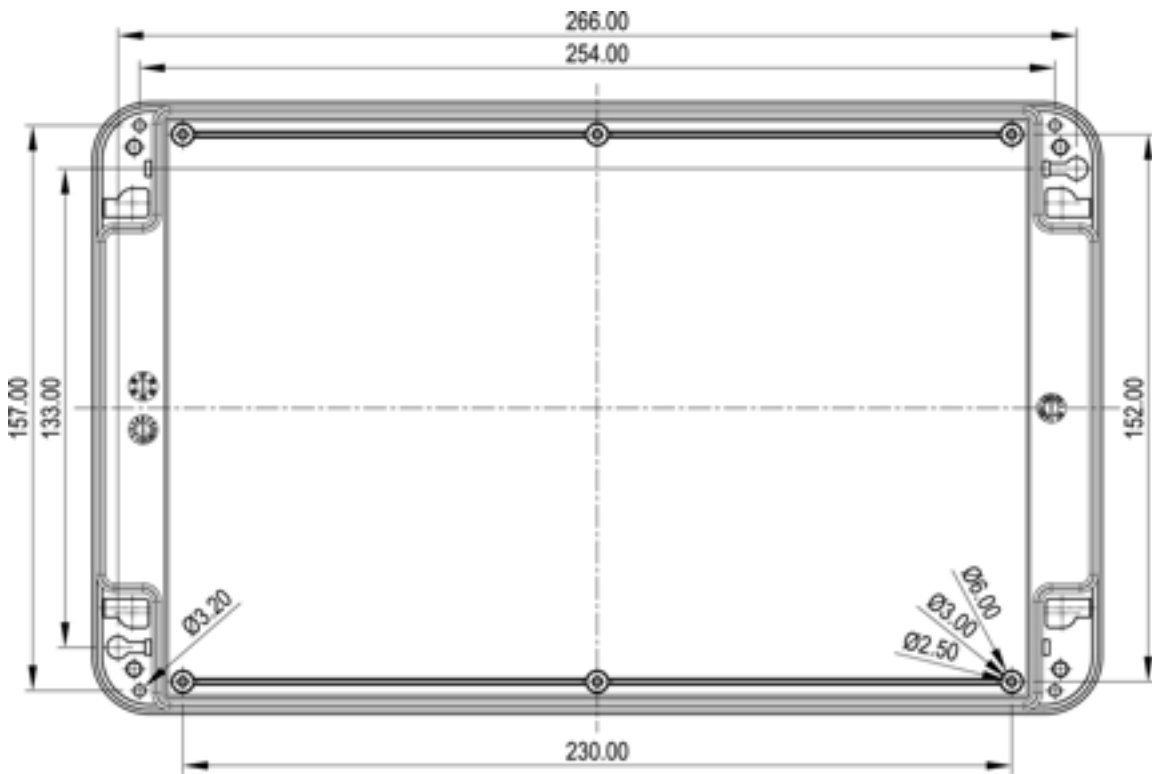
Connect up to four camera inputs and two monitor outputs to the BNC connectors as required.

Connect IRIS540 Keypad to the CAT5 connector. For additional keypads, see section 5.01

Plug the power lead supplied into the power socket. The power lead has two wires, red for +12VDC and black for DC Ground. DO NOT REVERSE POLARITY OR APPLY MORE THAN 12VDC.

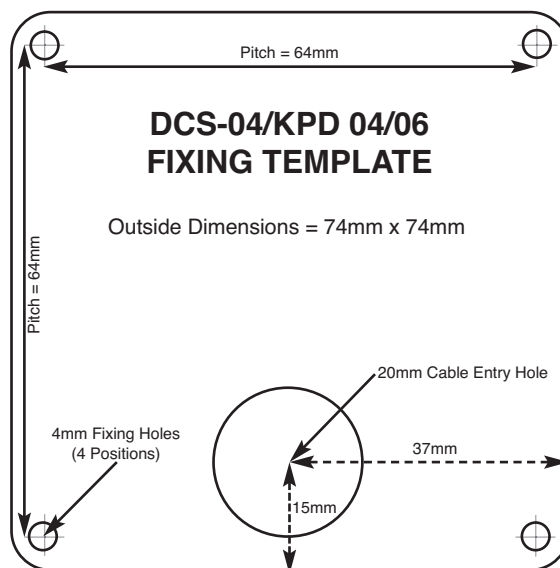


### 7.01 Switcher Box Dimensions



### 7.02 IRIS540 (DCS04 / DCS04Q) Keypad Template

Print off to 100% scale.



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