

# SCUBACAM LTD.

## SCU-50



**Manufactured by:**

Scubacam Ltd. Unit 8, Battlerswells Farm, Jackets Lane, Harefield, Middlesex UB9 6PZ  
Tel: **+44 (0)1923 822 872** E Mail: **sales@scubacam.net** Website: **www.scubacam.net**



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A digital (.pdf) version of this manual can be found on our website at  
**[www.scubacam.net/downloads](http://www.scubacam.net/downloads)**

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# Introduction

The Scubacam range of splash housings are completely watertight, flexible lightweight camera housings designed for both video and film cameras. They are designed to operate just above or just below the surface of the water, or in an environment which is extremely dusty or dirty, while also giving the camera operator access to all lens and camera functions.

Each model of Scubacam splash housings are made from high quality polyurethane sheet and clear PVC viewing windows – both robust and hard-wearing materials. The units are sealed with specialised watertight zips made to M.o.D. specifications. All metal parts are either stainless steel, or anodised aluminium.

It is important to remember that these housings are NOT to be considered as being suitable for prolonged continuous underwater use, and are not an inexpensive replacement for other brands of more expensive solid aluminium deep-water housings.

## General Information

The materials used in manufacture can be affected by heat, ozone, and ultraviolet light. This appears as surface cracking on areas under stress. Therefore, it is important not to expose your Scubacam splash housing to these conditions for prolonged periods.

Polyurethane and PVC are also adversely affected by solvents and oils, including sun protective agents used on the skin, and therefore must be always kept away from these.

Should the housing come into contact with these substances, wash the affected areas with a diluted detergent solution.

The glues used in the manufacture of this splash housing are heat sensitive. Do not leave the splash housing in a situation where the temperature will rise above 75°C.

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# Technical Data

<b>Housing:</b>	Anodised aluminium frame with a black TPU structure bonded with a high tenacity webbing to clear PVC viewing windows
<b>Operating Temperature:</b>	-4°C to +40°C
<b>Dimensions:</b>	Length: 500mm Height: 300mm Width: 250mm
<b>Weight:</b>	3.5kg
<b>Front Port:</b>	150 x 120 x 6mm thick optical glass coated with a non-stick polymer. Maximum lens front diameter 120mm. Height to suit 19mm Studio rod spacing
<b>Leak Alarm:</b>	9 volt tone generator Maximum 95dB
<b>Maximum Depth:</b>	NO MORE THAN 4 meters
<b>Video Output:</b> (Where fitted)	LEMO coaxial underwater connector to BNC video connector
<b>LCS Input:</b> (Where fitted)	LEMO 5 pin underwater connector to Fischer 5 pin connector or LEMO 5 pin 1B type connector as fitted
<b>Power Input:</b> (Where fitted)	LEMO 2 pin underwater connector to 3 pin XLR for 24V
<b>Ethernet Input:</b> (Where fitted)	LEMO 8 pin underwater connector to RJ45 connector, Cat-6 twisted pair cable
<b>On-Off Input</b> (Where fitted)	LEMO 2 pin underwater connector to Fischer 3 pin connector. Waterproof pistol grip for actuation.
<b>Mon Output</b> (Where fitted)	LEMO 4 pin underwater connector, split to BNC video connector for video and D-Tap for power

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# General Care

Before **every** use, carry out a visual inspection of the splash housing to determine if there is any damage.

Before use, inspect the probes of the leak alarm to ensure they are clean and unobstructed. To check the detector is working properly, connect the battery and touch the probes with a damp finger. The tone will be heard if the leak detector is functioning correctly.

For total safety, test the integrity of the empty housing by closing the zip and submerging for 10 minutes. At the end of this period, open, and inspect the housing for water ingress.

After every use, wash the housing with salt free water and dry. Using the brush applicator on the Zip Care bottle, carefully clean the zip and apply Zip Care as per the instructions supplied, and wax the outer teeth.

Always handle carefully.

Store in a cool place.

**Keep away from sharp or pointed objects.**

**DO NOT** place on or near hot objects or heat sources.

**DO NOT** fold the housing tightly when storing in a flight case, and ensure that it is not pinched between the lid and the box.

**DO NOT** leave the housing for prolonged periods in direct sunlight.

**DO NOT** clean with strong chemicals.

Clean the front port regularly with the supplied cleaner and re-coat with polymer.

It is recommended to return the housing to Scubacam at least once per year to ensure the housing remains in acceptable condition

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# Instructions

FULLY open the zip of the splash housing

Gently ease the camera package into the housing, and onto the dovetail plate inside

Position the lens as close to the front port as possible, and lock the bridge plate

**DO NOT** force any part of this operation or put ANY stress on the zip ends

Insert any required connectors from the housing into the camera assembly, ensuring that any SDI connections are made **LAST** in order to prevent damage to the camera outputs

**FULLY CLOSE THE ZIP**, ensuring the slider seats fully into the end of the zip

To remove the camera, reverse these steps

If using the external base plate for mounting, ensure that any screws protrude no further than 9mm ( $\sim\frac{3}{8}$ " )

With the camera enclosed in the splash housing the unit will likely have positive buoyancy. However, the lens can be located below the surface by letting out some air from the housing, achieved by rotating the adjustable dump valve anti-clockwise. Air will vent from the valve as the unit submerges. To submerge the housing further, rotate the valve further.

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# Camera Instructions

Details of support accessories to ensure correct lens height inside the housing:

## **ARRI**

### **ALEXA Mini and Mini LF**

Camera Body  
CBP-1 (Or CBP-2 for 15mm Rods)

### **ALEXA 35**

Camera Body  
BUD-1  
CBP-5 (Or CBP-6 for 15mm rods)

## **RED**

### **DSMC2**

Camera Body  
ARRI Cine Plate for RED DSMC2 or Wooden Camera Easy Riser  
ARRI BP-8 or Wooden Camera Unified Bridge Plate

### **V-Raptor XL**

Camera Body  
RED V-Raptor XL Riser Plate  
ARRI BP-8 or Wooden Camera Unified Bridge Plate

## **Sony Venice (1 and 2)**

Camera Body  
ARRI Plate for Sony Venice 1/2  
ARRI BPA-5  
ARRI BP-8 (Or BP-9 for 15mm rods)

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# Instructions (Accessories)

## Cables:

To insert connectors, simply line up the key and push on the body.  
**Connector plugs and caps MUST be mated when underwater.** Failure to do so will lead to the connectors filling with water when the caps are re-installed after use

When connecting or disconnecting the cables **grip the CONNECTOR BODIES - DO NOT** pull on the cables, as this will damage the connector assembly



## French Flag:

Loosen the hand knob, reposition the flag such that it is not in view of the shot (Using MON or HD-SDI output), and lock the position again with using the knob.

## Monitor:

Position the monitor on the outside of the housing as required, and insert the 4 pin LEMO connector. Ensure the blanking caps and plugs are mated.

Connect the D-Tap connector to a battery or splitter box, and check the monitor powers on.

Connect the BNC to an SDI output on the camera. Ensure the power is connected **BEFORE** the video to prevent damage to the camera video outputs.

## Air Jet System:

For removing water droplets from the port glass. Not for use when submerged

Connect the coiled hose to the manifold on the housing, and the regulator to a standard diving bottle. Set the regulator such that there is a steady stream of air over the port glass.

## Internal Dovetail:

Can be adjusted to various positions within the housing using a 4mm allen key.

Replacements screws **MUST BE** M6x12 Socket Countersunk A4 SS

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# List of Parts

Scubacam splash housing

Zip wax

Zip care fluid

Lens cleaning kit

Instruction booklet

Laminated instruction sheet

BDM zip care instruction leaflet

## **Optional extras:**

HD-SDI video cable

LCS cable

Power cable

Ethernet Cable

On-board HD Monitor

Pistol On/Off grip

Wrap around handle

Air jet system

French flag

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# Maintenance Products

When a Scubacam splash housing is sold, we supply the following products to help maintain the splash housing:

## **Zip wax:**

The zip wax is part of a two-part process to protect the zip against the elements. At the end of the day, prior to storing the unit, clean the zipper with fresh water and brush off any debris. Apply the zip wax sparingly on the outer elements of the zip. Open and close the zip a few times to aid in the application of the wax. This allows the slider to run smoothly over the teeth of the zip.

## **Zip care fluid:**

The zip care fluid is the second part to the zip cleaning process. Use the brush applicator on the bottle to clean away any debris from the teeth of the zip. Repeat procedure; squeeze the bottle to allow the zip care fluid to run along the inner elements of the zip.  
Leave the zip open when storing the unit.

## **Front port polymer:**

The front port polymer is a two-part application.  
Part one: is a pre cleaner, this dissolves any oils and solvents that are on the glass, and cleans off any debris.  
Part two: is the "sea through" polymer. Apply to the front port by following the procedure on the bottle.  
The polymer puts a fine clear film on the glass, when water comes in to contact with the glass it runs off, as opposed to sticking to it.  
Use regularly for consistent results.

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# Limited One-Year Warranty

**Scubacam Ltd.** warrants that for a period of one year from the date of purchase your Scubacam housing will be free from defects in materials and workmanship **UNDER NORMAL USE** and following manufacturer's instructions for maintenance.

This warranty extends **only** to the original purchaser.

**Scubacam Ltd.** will at its option, repair or replace any components of the Scubacam housing which it finds defective. To obtain warranty service on your Scubacam housing, it must be returned to **Scubacam Ltd.** at your cost, and with proof of purchase.

**NO** guarantee express or implied is given for the operation of a camera at a depth greater than specified in the instructions or for any other misuse including, but not limited to, improper operation or handling and failure due to normal wear and tear. All implied warranties of merchantability and fitness for intended use are limited to the duration of this warranty.

**THIS WARRANTY DOES NOT AND SCUBACAM LTD. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL LOSSES OR DAMAGES.**

This warranty does not cover anything arising from: **misuse, abuse, neglect, alteration, failure to observe maintenance procedures, attempted disassembly or un-authorised repairs and service**

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