



ISOTTA[®]

HOUSINGS and ACCESSORIES
for UNDERWATER PHOTOGRAPHY

Instructions for
Panasonic
DMC-LX15 e LX10

www.isotecnic.it





Thank you for purchasing a product of the line ISOTTA.

We are confident that you will benefit from the outstanding performance of our product, manufactured using the most advanced technology available.

Our service goes wherever you go:

 **+39 045 6450480**

 **support@isotecnic.it**

You can also view all the products in the line including accessories for the product purchased on the website at:

www.isotecnic.it



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IDENTIFYING THE PARTS





IDENTIFYING THE PARTS

- 1 ZOOM LEVER** / Instructions DMC-LX15*
- 2 REC** / Instructions DMC-LX15*
- 3 SHUTTER LEVER** / Instructions DMC-LX15*
- 4 APERTURE RING** / Instructions DMC-LX15*
- 5 PORT M67** / Instructions **Isotta** Compact Camera Housings
- 6 SMALL WINDOW FOR BUILT-IN FLASH**
Instructions **Isotta** Compact Camera Housings
- 7 LOCKING KNOB**
Instructions **Isotta** Compact Camera Housings
- 8 FLASH LEVER** / Instructions DMC-LX15*
- 9 LED HUMIDITY SENSOR**
Instructions **Isotta** Compact Camera Housings
- 10 MODE DIAL** / Instructions DMC-LX15*
- 11 ON/OFF BUTTON**
Instructions DMC-LX15*
- 12 CONTROL DIAL** / Instructions DMC-LX15*

 Playback Button	 Sequential Shooting	 Exposure compensation button
 Flash Button	 Delete Button	WB White Balance
 MF POST FOCUS Button	MENU/SET MENU / SET Button	

* All the controls on the **ISOTTA'S HOUSINGS** faithfully reproduce all the features of the camera. Refer to the specific instructions of the camera for details on usage.



WARRANTY

This **Warranty** covers the replacement of parts recognized as defective for manufacturing defects for a period of twenty four (24) months from the date of purchase.

For the purposes of the validity of your warranty you must fill in the **Warranty Certificate** indicating the year, month and date of purchase proven by the corresponding original invoice or purchase receipt issued by the authorized Isotta dealer and the serial number of the product making sure to affix the stamp of the dealer on the certificate.

The **Certificate of Warranty** filled with information must be sent, together with a copy of the invoice/receipt, no later than thirty (30) days from the date of purchase to:

warranty@isotecnic.it

Failure to send the completed, dated and signed **Warranty Certificate** within the 30 days timeframe will disqualify you from claiming under this Warranty.

This **Warranty** becomes void if falsification is made on the invoice or purchase receipt.

*This **Warranty** does not cover the following:*

1. Any defect that occurs due to mishandling or negligence by the purchaser, or due to use outside the specified limits and in any case all the circumstances that can not be attributed to manufacturing defects.
2. Any defect that occurs due to repair, modification, cleaning, etc. performed by anyone other than ISOTTA or an ISOTTA authorized service provider.
3. Any defect or damage that occurs due to transport, a fall, shock, etc. after purchase of the product.



4. Any defect or damage that occurs due to fire and natural disasters, environmental pollution and irregular voltage sources.
5. Any defect that occurs due to careless or improper storage and improper maintenance.
6. Any defect that occurs due to exhausted batteries. Batteries are not guaranteed as they are not manufactured by the company Isotecnic, this does not mean that they are not sourced from the best brands on the market.
7. Any defect that occurs due to sand, mud, etc. entering the housing. Also, being a product not sealed by the manufacturer, it is not guaranteed due to possible flooding causes above-mentioned and not due to manufacturing defects.
8. **ISOTECNIC Srl** disclaims any liability for any damage that may directly or indirectly be caused to people, pets or not, or things, caused by flooding due to incorrect installation, use and maintenance of the product.

ISOTECNIC Srl do not reimburse missed services, travel and transportation costs. Any repair of the equipment under Warranty will always be made at the **ISOTECNIC Srl** plant and the shipping charges will be paid by the customer.

This Warranty is void if the housing is damaged by interventions not carried out by the staff of **ISOTECNIC Srl**.

To return your product for service, please contact your regional authorized service centre(s). Please note that this warranty only applies when the product is purchased in the territory where the service centre is located.

Any dispute relating to the application and/or interpretation of the above-mentioned Warranty shall be subject to the exclusive jurisdiction of the Court of Verona, Italy.



PACKAGE CONTENTS

- Isotta Housing
- Spare O-ring Set
- Lubricant
- Instruction manual
- Diffusor
- Optical Fiber



SPECIFICATIONS

All housings are made entirely of **Isotta's** signature red-colored anodized aluminum which is anti-corodal with depth rate to 330ft/100m.

With double O-Ring seals on each button and on all removable parts to make it extra safe against leakages, every housing has clearly labeled camera controls and is closed with Isotta's single handed one-turn knob to be operated with ease.

> **M16x1 through-hole** (*where present*)

The use of a vacuum system or external monitor is possible through a **M16x1 hole** in an accessible and comfortable position.

There are several parts composing the housing. Understanding how to use them is key to a correct performance underwater.

BODY: hard anodized aluminum

DISPLAY WINDOW: abrasion resistant polycarbonate

PORT: black anodized aluminum and scratch-resistant glass with M67 thread

(for TG5 is also available as standard a M52 thread)



PRECAUTIONS

1. A water-tight test without the camera inside the housing is highly recommended when using the system for the first time and after the changing of port and O-ring(s).
2. O-rings should be kept clean and lubricated at all times. Discontinue use immediately should you notice any leakage. Do not use lubricants from other brands with the silicone rubber O-rings on this housing, only use the lubricant provided by **ISOTTA**.
After checking the O-rings to make sure that there are no scratches, dust, or debris, apply a light coating of silicone grease to the entire O-rings with your finger.
Applying too much grease will make it easier for dust and debris to adhere to the O-rings, and could cause flooding.
3. When fitting the O-rings into the O-rings groove, insert it straight into the groove; do not bend or twist it.
4. Store the housing in a robust, shock-proof container during transportation; avoid transporting with any equipment, such as a camera, inside the housing, to avoid breakages.
5. Do not open the housing in a sandy environment.
Protect the interior from moisture and debris in order to prevent malfunction or leakage.
6. Do not store the housing in an environment of high humidity.
7. Do not leave the housing and the camera in direct sunlight for prolonged periods.
8. Do not store the housing in high temperature environment as in the car cockpit under the sun.
9. Keep out of reach of children.
10. Always dry the front port, the lens, the flash window or the finder using a soft cloth to prevent stain or salt residue from marring the glass surface. Do not use solvent or alcohol to clean the port, viewfinder or LCD window.



11. When not in use the case for long time O-rings should be removed and stored separately. Replace the O-rings once a year for a secure watertight. **Use only Isotta O-rings.**
12. Rinse the product with sweet water, after underwater use. Ensure that the product is waterproofed before rinsing. Storage of the housing is possible only after cleaning and drying its surface.
13. Unauthorized disassembling and/or modification could result in malfunction or flooding and void product warranty. Take the product to a **ISOTTA** authorized reseller for repair or inspection. The housing is possible only after cleaning and drying its surface.

QUICK START GUIDE

1. REMOVE THE BACK FROM THE FRONT

Apply a slight upward pull to the locking knob and rotate anti-clockwise until the pin is visible. Slightly lift the Back until it comes out from the guide pin on the knob. Remove the Back slantwise, paying attention to the two pins on the opposite side.

2. INSTALLING THE CAMERA

Slide the camera directly into the interior of the housing.

3. CLOSE THE BACK.

Make sure that there aren't any obstructions that block a correct housing closure. Check that the O-rings seals are in place, intact, clean and properly lubricated.

Insert the two lower pins of the bottom in the specific slot.

Insert the pin in the guide of the closing knob.

While applying a gentle pressure on the back of the housing, turn the knob until the closure is complete and snap the safety by pressing it slightly down. It is also recommended to check the correct positioning of the O-rings in their slots.



PARTS OF THE HOUSING

FRONT

The housing front accommodates the camera. All camera controls are external and are laser-engraved with the symbols for the camera functions.

To better understand the functioning of all controls we invite to read the camera's manual carefully.

On the window sides (or central) there are two threaded holes where one or two external strobes can be connected by optical fiber using the adaptor included.

The bottom of the housing features 3 different threaded holes: **two M6 holes located on the sides and one central one of ¼ W.**

In this way it is possible to use different accessories such as brackets for strobes or tripods.

Internally, the camera can be inserted through the two integrated guides and it will remain steady thanks to the 4 internal plastic supports that block the camera when the housing is closed.

BACK

The back door features all key/main camera controls by means of clearly labelled laser-engraved longlasting buttons. It is fundamental to apply the necessary care when handling it.

In the center there is a large window for a fine camera display view. Above the window of the back door there is a leaking **acoustic LED alarm**. This component acts as an alarm in case of moisture inside the housing.

An internal sensor will turn on the **LED red**: in the event that this happens consult the section **TROUBLESHOOTING (p.28)**.

Both **LED** and audible sensor are powered by an internal battery that is replaceable by the user.

The back of the housing is entirely detached from the front body to make easier the camera fitting. To separate the Back from the housing is necessary to first disable the safety.



MOUNTING THE PORT

Included with the case is provided a flat port in **tempered glass** that, depending on the camera model you choose and his lens, can be fixed or removable.

Recognize which kind of port you need for your camera is simple. It is sufficient to check if there is a lock in the camera lens.

In the event that the camera foresaw a housing with removable lens, the following instructions will enable you to use this feature optimally.

The port is inserted and removed by means of a bayonet mount and the housing is provided with a secure lock for a optimal sealing.

To perform the insertion and desinsertion of the port is necessary to support the housing with the back placed on a hard surface and make sure you have a good grip on it.

To remove it is sufficient unlock the safe lock by applying a gentle traction to the outside and unscrew the port counter-clockwise until the alignment of the markers placed on both sides and remove it.

Each time you do this it is necessary to pay particular attention to the o-ring present on the extracted part that must be kept clean, undamaged and properly lubricated.

To mount it just place the port at the front housing aligning the two marks, apply a gentle pressure to match up the ends of the two devices and screw it clockwise while maintaining the pressure until it reaches a complete closure, recognizable thanks to the snap of the secure lock.

At this point the port is properly installed and you can proceed with the placement of the camera and the closing of the housing.

The round ports, which are fixed or removable, ends with an **M67 thread**, this thread in the porthole allow to use additional lenses and other accessories with this kind of thread.

The use of these accessories is also possible with the rectangular portholes with the purchasing an optional adapter.

All portholes provided are designed to accommodate the opal diffuser for better light propagation and for a proper use of the built-in strobe.



OPENING AND LOCKING THE HOUSING

1. The housing can be opened and closed by operating with only one hand. When opening, pull the opening knob, then turn the knob counter-clockwise until the outside housing opens.
2. Remove the back of the housing by pulling it oblique slightly to release the two pins. In this way, it will be possible to separate completely the back housing from the front housing.
3. To close, insert the two pins in their slots, insert the pins in the space on the opening knob. While applying a gentle pressure on the back of the housing screw the knob until the end, and push it downwards to secure it safely. If you have not closed the back properly you may feel resistance when turning the knob. Open it again and check that camera is properly inserted, pins are in their slots, verify the shoulder strap clips have been removed and try again.
4. When closing, make sure there is nothing caught between the closing surfaces of the two halves of the housing and check that O-rings are clean.

! N.B. *If you do not close the back housing correctly or there is something preventing the correct closure of the housing, the camera controls cannot work properly.*

NOTEWORTHY

- As for the push buttons and their functions please refer to the instruction manual of the camera in use.
- To use the built-in strobe, mount the supplied diffuser, fitting it into the groove of the port by placing the largest part in correspondence with the built-in strobe.
- To use an external strobe that works in synchrony with the integrated one in the camera is necessary to bring the fiber optic contact in front of the built-in strobe using the appropriate optional accessory.



TROUBLESHOOTING

- **BUTTONS DO NOT WORK**

Check the correct positioning of the camera;

- **BUTTONS GET STUCK**

Apply lubricant to the button. Press the button several times to distribute the lubricant.

⚠ N.B.* Don't use vaseline grease on the O-rings seals.
We recommend the use of original **ISOTTA** products.

- **TRACES OF SALT ON JOINTS WHILE ASSEMBLY HOUSING**

Salty water on the joints: rinse well and wipe the points with Vaseline oil, except for the optics, which should be cleaned only with special detergents.

- **RED LED IS ON**

A red **LED signal** indicates excessive moisture inside the housing. If this happens underwater, you should get out of water as soon as possible in respect of security measures and ensure that there were no leaks.

In the event that there have been an infiltration, remove the sensor's battery, dry immediately with a soft cloth or a hair dryer. At this point, the case will continue to operate.

In the event that, once dry the housing and insert a new battery, the **red LED** continues to flash, this result in no problems for the mechanical operation of the product.

As for the camera, please refer to the instruction manual of the camera. In this cases it is advisable to send the case to the manufacturer for verification.



WARNINGS

- **CHECK** the housing before installing the camera after dispatch or transport it by plane.
- **DON'T TRANSPORT** the housing hermetically sealed on a plane. Remove the rear cap or the rear cap's o-rings. If you remove the O-rings, then remember to put them back on.
- **MAKE SURE** above all of the integrity of the seal between the back door and O-rings.
- **LUBRICATE** with a minimal amount of silicone grease the two O-rings located on the rear cap.
- **DON'T CARRY** the housing with the camera placed inside to avoid stress to the camera itself.
- **NEVER EXPOSE** the case in direct sunlight, as the color might fade and in order to prevent damage to the internal circuitry.
- **CHECK** that the port is always clean (never degrease it with solvents, acetone, paint thinner, etc. to avoid serious damage to the optical treatment). Only clean it with liquid, cloths or optical cloths.
- **AVOID** sharp blows on the command buttons, front lens and ports.

At the end of each dive rinse the housing in sweet water.

⚠ CAUTION: rinse and dry the lens, in order to avoid chalky deposit formations that over time would ruin irremediably the optics and the housing.

⚠ N.B.*: KEEP THE HOUSING TIGHTLY CLOSED when you rinse it.

Before removing the camera from the housing make sure the housing is dry to avoid that any drop of water causes damage to the camera.



CARE AND MAINTENANCE

- It's a good practice to rinse the housing with sweet water, ensuring it is properly closed, after each salt water use. Then dry it accurately. Run water in the greatest stagnation points of salt water as perimeter rings, caps, lens, eyepiece, command buttons and levers.

⚠ WARNING: it is advisable to operate the control buttons during the rinse, so as to remove any residual salt within that, in the long run, it could lead to blockage.

- It's a good practice to clean and grease the O-rings with silicone grease without exaggerating. It is recommended to use special silicone grease for O-rings. If using unsuitable grease or spray, you may experience O-rings swelling or their expansion, affecting the seal.
- You need to grease the O-rings away from towels, bathrobes, tablecloths etc. or places of stagnant dust, because the grease protects the O-rings, but attracts various lightweight materials such as fur, hair, fibres, grains of salt, sand, etc.
- These particles are difficult to see because of the presence of grease. You must therefore pay particular attention to the cleanliness of the O-rings, otherwise you could create flooding, that would certainly have been avoided with a correct maintenance. Replace the main O-rings annually.
- When you do not in use the housing for a long time you must to remove the O-rings and sprinkle all the external metal parts with a light coat of vaseline oil.

⚠ N.B.* Never use Vaseline oil to lubricate the O-rings, use only silicone grease. We recommend the use of **ISOTTA** products.

- Do not use solvents, thinners, or alcohol to clean the port or the monitor.
- Treat the surface of the lens port like a camera lens. After use, rinse and gently dry the outside lens port to avoid water spotting. To clean, use a mild soap solution or lens cleaner.



⚠ It is recommended that you ship the housing to our distributor or to Isotecnic factory for a complete overhaul every 2 years or after 500 dives.

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06/08/2020 - ISOTECNIC Srl reserves its right to modify the actual product due to product or service enhancement or technical updates without prior notice.



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