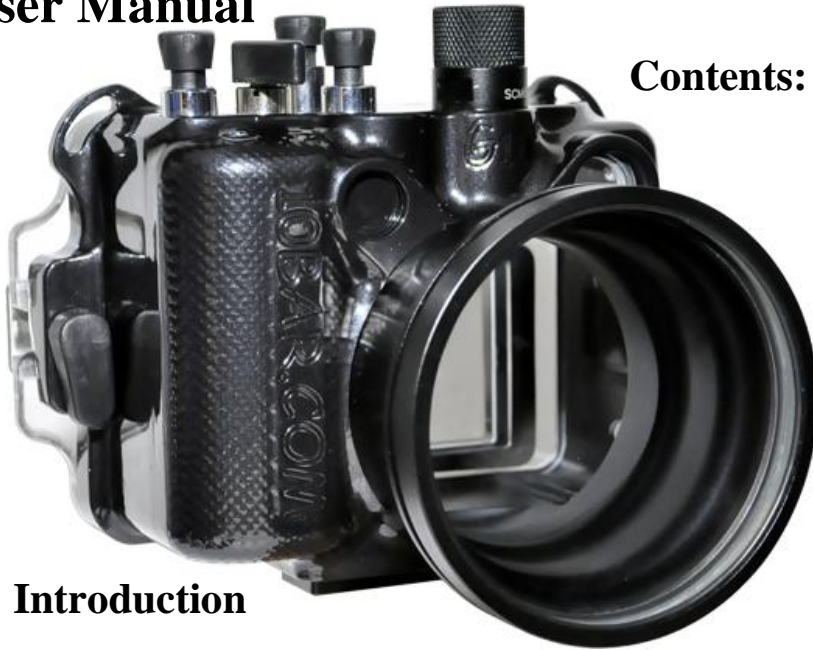


Camera Underwater Housing G11 (Canon)



User Manual



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1. Introduction

Made of 6061 aluminum, 10Bar Housing is a sturdy choice for the G11 camera. For those who favor small cameras, it is the ideal housing to suit their needs. It is equipped with full-function control buttons, bulkhead connector for external flash and interchangeable ports for conversion lens. The acrylic back cover allows taking pictures and checking on the camera much easier. For closure, the double o-rings and key hole lock design provide ease of use and added security. Now you can use small cameras with the feel and function of professional housings.

2. Specifications

Test Pressure	Housings individually tested to 10 Bar (90 m / 300 ft.) Recommended working pressure 60 m
Closure Design	Double O-rings, Key hole lock
Body Material	6061 Aluminium, Acrylic 6061
Overall Size	143 x 154 x 131mm (L x W x H)
Total Weight	Approximately 1.1kg (Housing only)
Buoyancy (with camera)	Slightly negative in salt water

Accessories	Spare main O-rings (included) Silicone O-ring grease (included) Carrying bag (included) Red filter (optional) Extension arm for strobe or video light (optional) Macro and Wide Angle lens (optional) Dome port and extension adaptor (optional) Housing for 580EXII Flash (optional)
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3. Function Controls

3.1 Buttons & Parts

(1) EXPOSURE COMPENSATION

(2) BULKHEAD

(3) MODE DIAL

(4) ISO SPEED DIAL

(5) ZOOM

(6) SHUTTER

(7) POWER ON/OFF

(8) (SHORTCUT) / (PRINT / SHAR

(9) PLAYBACK

(10) (AE LOCK/FE LOCK) / (MICROPHONE) BUTTON /

(METERING LIGHT) / (JUMP) BUTTON /

(AF FRAME SELECTOR) / (SINGLE IMAGE ERASE) BUTTON

(11) FUNCTION. SET

(12) 4 WAY BUTTON

(13) CONTROL DIAL

(14) DISPLAY / MENU



(15) & (16) KEY HOLE LOCK

(17) HOUSING LID

3.2 Control Details

(1) EXPOSURE COMPENSATION DIAL - press down and turn to adjust the exposure compensation

(2) BULKHEAD – for connecting sync cord, unscrew the blank plug and install the sync cord. Always keep the blank plug in place if sync cord is not installed.

(3) MODE DIAL - press down and turn to activate the required mode.

(4) ISO SPEED DIAL - press down and turn to adjust the ISO value.

(5) ZOOM - press to activate the zoom function

(6) SHUTTER - press to activate the shutter

(7) ON / OFF - align the white dot towards the lid, press and turn to on or off.

(8) (SHORTCUT) / (PRINT / SHARE) - press down to activate the function.

(9) PLAYBACK - press to activate.

(10) (AE LOCK/FE LOCK) / (MICROPHONE) BUTTON , (METERING LIGHT) / (JUMP)

BUTTON , (AF FRAME SELECTOR) / (SINGLE IMAGE ERASE) BUTTON - rotate until the white dot is over the required button and press to activate.

(11) FUNCTION. SET- rotate until the white dot align and press.

(12) 4-Way BUTTON - rotate until the white dot align and press, when not in use rotate the white dot until pointing downward to facilitate the ‘Function Set’ to be activated.

(13) CONTROL DIAL – Using the control Dial.

(14) DISPLAY / MENU - rotate until the white dot align and press.

(15) & (16) KEY HOLE LOCK – press down and turn to lock and unlock

(17) HOUSING LID - monitor display

For the full list of camera functions and settings accessed by each control, please consult the Canon G11 camera instruction manual.

4. Set up Instructions

4.1 Special note on responsibility for watertight integrity

Each housing is individually inspected and hydrostatically tested in the factory. The design of the main piston O-ring seal is among the most reliable in the industry and the watertight integrity is excellent. This special O-ring design provides a perfect seal even if there is any movement between the body and lid due to change of ambient pressure. However please note that responsibility for ensuring the integrity of the watertight seal lies entirely with the user. 10BAR accepts no liability for damage to, or loss of any equipment used with, or placed inside the housing. Users are highly recommended to carry out in-water test of the housings without installing of the camera for their first dive, after change of new ports or alternation of any new configuration. The test can be carried out by lowering the housing with ballast to the working depth or dive down to the safe diving range.

The O-ring seal is the main barrier between the water outside and the air space within the camera. It is an effective barrier only if the seal is properly maintained. The O-ring seal should be inspected before every dive. The following information is provided for your guidance in using and maintaining the O-ring seal.



4.2 Maintaining the O-ring Seal

If the main body to lid O-rings are not installed, install the O-rings before diving. Their care and maintenance are critical to the watertight integrity of the housing. If the O-rings are contaminated, or not already installed; inspect, grease and install the O-rings according to the following guidelines.

4.3 Inspection, cleaning and re-instillation of the O-rings

Tools

A soft cotton bud or sponge applicator, make sure these are free of all chemicals or contamination such as loose fibers, and the tube of silicone grease supplied with the housing. Note other types of silicone grease specifically for use with underwater camera equipment can usually also be used. It is advised to carry out the following procedure on a firm clean level surface, (e.g. at a table), to prevent skidding especially when diving from a boat.

When to maintain the O-ring seal

Remove the O-ring periodically for inspection. It is not necessary to remove, clean and re-install the O-ring after every dive provided the O-rings are not become contaminated. As a rule of thumbs set up the camera and housing before a day's diving. If the housing is required to be opened between dives for changing memory card or re-charging batteries, make sure the outside of the housing is thoroughly toweled dry before opening up. After removing the lid and servicing the camera, replace the lid straight away, rather than leaving it lying around. Before replacing the lid, check the o-rings and make sure that no contamination such as dust, hair, salt, sand etc. has fallen onto the O-ring or O-ring recess, as a precaution we recommend to inspect the O-ring every time the lid is opened and to carry out the maintenance only if necessary.

Procedure

How to open the housing:

- Place the lid on a firm non-slip level surface.



- The O-ring can be extracted using an O-ring extractor tool (make sure the tool as no sharp edges). Alternatively use the flats of the thumbs to gently stretch the O-ring on two faces thus making a small loop protruding a few mm. The loop can then be grasped between finger and thumb, to pull the O-ring over the lip.

- Clean the O-ring recess (the square groove where the O-ring sits) with a cotton bud.
- Inspect the O-ring all the way round its surface for damage such as **cuts tears** or contamination. This should be done visually and also by feeling the surface texture between finger and thumb.



- **IF THE O-RING IS DAMAGED OR SUSPECTED OF BEING DAMAGED, DISCARD IT IMMEDIATELY.** A spare O-ring is supplied with your housing, or a replacement O-ring can be ordered from 10 BAR. If the O-ring is contaminated or suspected of being contaminated, clean it with a cotton cloth that is free of all chemicals or contamination. After cleaning inspect the O-ring again.

- Once the O-ring has been inspected and verified fit for use, apply a **SMALL** amount of silicone grease to the O-ring. The silicone grease must be evenly distributed round the O-ring
- Replace the O-ring into the groove; run a finger round the O-ring, to make sure it is snugly seated in the groove.

4.4 Key hole lock

Select the key hole lock, easy for using and security.



Pull out the key from the lock hole on both sides and screwed tight the key to balance with automatic release



Pull out the lid by holding on the grip near the lock.



4.5 Mounting the camera in the housing:

Remove the lens cap and wrist strap. The pressure release plug should be pulled out before inserting the camera. Attach the plastic slide tray to the camera's tripod mounting fixture with a coin, screwdriver or the end of the universal tool supplied. Take care not to excessively tighten the screw. Slide the camera into the body along the guide rail. Make sure the camera body reach the limit and test the function of the on/of button on the body of the housing. Slide the hot shoe plug into the hot shoe.

Note: If you find that the buttons do not align properly with the controls, please check again the camera is properly seated to the limit of the guide rail.

Slide the camera into the body along the rubber packing. Make sure the camera body reach the limit and test the function of the On/OFF button on the body of the housing.



Slide the hot shoe plug into the hot shoe





The O-ring on the underside of the plug is just to keep out dirt.

Replace the lid and make sure the lever is perpendicular to the side wall of the housing. Lock the lid by press down the lever and turn until the lever is parallel to the side wall of the housing.

After replacing and locking the lid, make a final visual inspection of the main O-ring for contamination.

Note: If the O-ring is in good contact, a thin black line, about 0.5 to 1mm in width should be visible, where the O-ring is in contact with the lid. Follow this line all the way round the edge of the seal, as a final check that the seal is good.

4.6 Using External Strobes:

Compatible Strobes include any that can use the standard **580EX II** TTL sync. These strobes will have to be used in the Manual Flash Exposure mode.

Connect the strobe sync cord to housing's bulkhead sync port. On the side of the housing port notice a simple alignment indicator [dot]. The sync cord contains a small channel [groove] between two of the female pins of the cord. You must insert the cord into the port so the groove is aligned with the indicator of the housing. This assures proper alignment. Hold firmly in place while fastening locking screw. Tighten the collar to secure the cord in place.

The housing is now ready for the dive.

Important !!! Before diving, make sure the pressure release plug is pushed back inside and then screwed home, do not over tighten this plug (finger tight only).

5. Use & Care of Housing

5.1 Pre Dive Function Check.

Just before entering the water, make a habit of reviewing the proper steps to close the housing and connect the bulkhead. Make a visual check of the O-ring seal. It is also useful to switch on the camera, and check that controls e.g. on/off, zoom, shutter functions operate normally.

- | Check housing is closed
- | Check O-ring is in the groove between housing and Acrylic
- | Check battery and memory card status on the LCD display
- | Check control knob and zoom function
- | Check the Bulkhead is properly connected or blanked.

Always avoid submerging the housing in hot water for a prolonged time or a cleansing tank where the water may be heated up by the sun.

5.2 General Operation.

The control levers and push buttons consist of internal double O-ring seals on a stainless steel shaft. This arrangement is very reliable, however as a precaution, when operating the controls, avoid excessively rapid movements, as this may distort the O-ring. Also please allow for the fact that the camera takes a few seconds to power on. If the camera does not appear to respond to a control action, make sure that no other controls are pressing on the camera, i.e. locking out further actions.

Wear the wrist strap; it is easy to inadvertently let go of the housing, especially if you are distracted.

5.3 Cleaning & Storage.

The body & lid of the housing are made of 6061 Aluminum and Acrylic respectively. 6061 Aluminum is selected for its outstanding strength stiffness, hardness and toughness, While Acrylic for its crystal clear transparency and high gloss surface. Both of them have good resistance to weathering, although long-term exposure to sunlight should be avoided. Normal operating temperature range is 3°C to 36°C (Storage temperature: -10°C to 50°C)

It is good practice to rinse off your housing with fresh water after every dive. Avoid to exposure to fine sand. After a series of 10 or more dives, e.g. after a dive holiday, it is recommended to immerse the housing for 2-3 hours in warm water to dissolve any salt deposits that may have built up. No chemical cleaners should be used.

Important!!! For long term storage please remove the main closure o-rings from body.

5.4 Transportation.

Please protect the housing during transportation. It is recommended to remove the handle, and shutter extension, and wrap the camera in foam or bubble wrap.

5.5 Accidents

The impact resistance of the housing is excellent. However after an accident the alignment of the housing may have been altered. Therefore in the event of your housing suffering an impact force, e.g. being dropped, it is essential that you do not use the housing for diving. Please return the housing immediately for service and put a note inside to indicate the nature of the accident, so that the severity can be assessed.

6. Service

To ensure the continued performance of your housing, it should be serviced every year, or after every 200 dives whichever is earlier. Please note the terms for servicing the housing posted at our website. A full service will include:

- I Inspect all components for wears or damage (report if repair necessary),
- I Clean all sealing surfaces,
- I Replace all O-ring seals,
- I Hydrostatic pressure test to 10 Bar.

Note: Replacement of damaged components may require additional cost.

7. Warranty

The warranty is valid within two years from the date of first purchase. The warranty applies only to the housing itself. **10BAR does not accept any liability either implicit or otherwise for any equipment housed inside, or used together with the housing. In the event of the housing flooding within the period of warranty, 10BAR will repair or replace the housing. Please note that disassembly of the housing will invalidate warranty. Please fill in the information below, and return a copy to 10Bar Underwater Housing at the address below, to validate the warranty.**

(Copy to be retained by user)

Housing Type :	Date of Purchase :
Serial Number : (Labeled inside housing)	Dealer :
Owner's Name :	e-mail :
Owner's Address :	Tel : Fax :

Office & Showroom:

Unit C, 2/F., Wing Hin Factory Building, 31-33 Ng Fong St., San Po Kong, Hong Kong.

Tel: (852) 2573 3228 Fax: (852) 2811 9180

Email: service@10bar.com Web site: <http://www.10bar.com>

Please keep this document for future reference

(Note: due to continuous improvement the latest model housing may differ slightly from those described in this document)

(Copy to be returned to 10 Bar Underwater Housings)