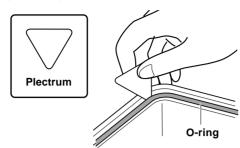
### Usage precautions

- Never use any of the following chemicals for cleaning, rustproofing, fog prevention, repair, or other purposes.
  - 1) Do not clean the marine case with alcohol, gasoline, paint thinner, or other volatile organic solvents, chemical cleaners or similar agents. (Pure water or lukewarm water is adequate for cleaning.)
  - 2) Do not use rustproofing agents or the like on metal parts. (Stainless steel and aluminum are used for all metal parts, so pure water is adequate for cleaning.)
  - 3) Do not use commercially available anti-fogging agents. (Always use the fogging agent that came with the marine case.)
  - 4) Do not use any silicon grease other than that specified for the Oring. (Always use the silicon grease that came with the marine
  - 5) Do not use any adhesives for repairs, etc. (If any repairs are necessary, please consult the store of purchase.) Direct or indirect use (vaporized chemicals) of any of the above chemicals on the marine case can cause cracks when the marine case is placed under high pressure.
- 2 Exercise caution, as this marine case is a completely airtight structure. If it is left exposed to direct sunlight, or in a car, ship, or on the beach, the internal temperature can climb extremely high, which may cause the camcorder inside to stop working properly.
- 3 Do not use the glass cleaner or cleaner for any purpose other than cleaning the front glass.
- 4 If the camcorder is sealed inside the marine case in an area where the humidity and temperature are high, diving will make the humidity trapped inside the marine case cool down, causing condensation to form and the glass surface to become fogged. It is recommended that you insert the camcorder into the marine case in an area where the humidity is low and the temperature is close to that of the water where you will be diving. If a piece of aluminum foil is cut to approx. 50 cm<sup>2</sup> and is inserted into the glass part of the marine case, fog inside the marine case will adhere to the aluminum foil, as its heat conductivity is higher than that of glass. This is an effective way to quickly reduce fog inside the marine case.
- 5 Do not open or close the case in areas where it may be subjected to water spray or sand.
- f If you must open the marine case at the diving site in order to replace the battery or SD card, observe the precautions below.
  - 1) Select a location safe from water spray and sand.
  - 2) Completely wipe off any water between the main unit and the lid section of the main case and on the buckles. Thoroughly dry off any water remaining on the marine case with a dry cloth.
  - 3) When removing the buckles and opening the lid section, be careful that no water drips from your hair or body into the marine case.
  - 4) In order to avoid touching the camcorder with hands that have salt water on them, place a towel dampened with pure water in a plastic bag beforehand and use it to wipe any salt off your hands and fingers before touching the camcorder.
- 7 Do not throw the marine case into the water.
- 8 After use, wash off adequately with pure water as soon as possible. If the marine case has been used in salt water, soaking the marine case in pure water for a while is an effective way to remove salt. Be sure to operate all levers and buttons to wash off any salt in the grooves. If any salt remains, it will dry out and crystallize. This could result in water leakage.
- After washing, wipe off any water with a dry cloth free of salt to completely dry off the marine case. However, do not expose the marine case to direct sunlight in order to dry it. This can cause discoloration and breakage of the marine case, and can speed up deterioration of the O-ring.
- 10 Wipe the inside of the marine case with just dry cloth. Maintain the transparency of the front glass by wiping the inside face with a silicon cloth or the like moistened with cleaner agent.
- If the front glass is left dirty, it may cause fogging.

Remove the O-ring from the lid section and wipe off any salt, sand, and other foreign matter. In the same manner, wipe off any adhering foreign matter from the groove into which the O-ring was fit and from the main unit of the marine case where the O-ring contacted it. When removing the O-ring from the groove, use the supplied plectrum to avoid damaging the O-ring when you remove it.



- [13] Since the marine case is made of polycarbonate resin, handle it carefully. In particular, it can be easily scratched by rocks, etc. at the shooting site and may be damaged if it is dropped or otherwise subject to shock. When going to the shooting site by car, ship, train, or plane. avoid transporting the camcorder in the marine case. If you take adequate handling precautions, however, there should be no problem in transporting the camcorder in the marine case for a short distance, for example from the target site to the diving site.
- 14 Avoid removing any parts other than those indicated in the user's manual, altering the marine case, or using any parts other than those specified. If any problems occur, please consult the store of purchase.
- 15 The appearance and specifications of this unit are subject to change without prior notice.

## Minimum storage period of repair parts for maintaining performance

JVC stores repair parts for maintaining performance for five years after the end of production. Parts for maintaining performance are essential parts to maintain the functioning of the machine.

#### **Main specifications**

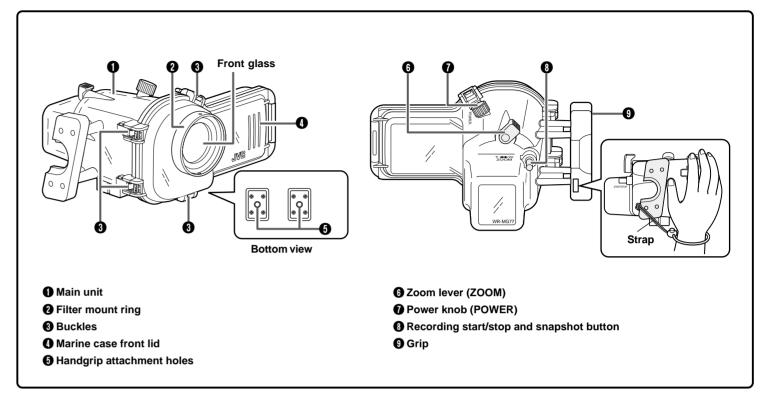
Maximum pressure	Water depth up to 30 meters
Power knob	ON/OFF
Recording start/stop and snapshot	START/STOP
Zoom	ZOOM
Buoyancy	+400 g (with the camcorder inserted and the supplied battery pack attached)
Main unit dimensions (W x D x H)	226 mm x 191 mm x 128 mm
Main unit weight	Approx. 745 g
Applicable model	GZ-MG21, GZ-MG22, GZ-MG24, GZ-MG26, GZ-MG27, GZ-MG31, GZ-MG36, GZ-MG37, GZ-MG39, GZ-MG67, GZ-MG77,
Accessories	Maintenance kit (glass cleaner agent (for anti-fogging), cleaner agent (for removing dirt), silicon grease, silicon cloth, anti-fogging silica gel, paper, cotton swabs, O-ring, strap, plectrum, screw key, buckle opener)



# JVC WR-MG77 Marine Case



## Name of each part





Before use, this unit must be pre-tested to check if there is any water leakage.

#### Please read before use.

This marine case is a precision instrument designed to permit safe video recording under high water pressure. Please pay careful attention when handling the unit before and after use, as explained in this user's manual. Each part of the marine case has been subject to strict controls during the manufacturing process, and the individual functions have faced stringent tests during the assembly process. Each marine case has also had to pass waterproof inspections using high-pressure water testers. However, damage can sometimes occur during transport and distribution, or during storage after purchase, so before diving always carry out the following preuse test to verify safety.

## Pre-use test

Be sure to perform the following pre-use test before diving.

1. Before mounting the camcorder inside the marine case, dive with only the empty marine case and test for water leaks.

Check for leaks at a depth of 2 m where there is no water pressure. Allow 5 or 6 minutes to ensure there are no leaks. Be sure to perform this test to ensure the safety of your camcorder.

- 2. The following are some common causes of water leaks:
- A. The marine case is used without attaching the O-ring.
- **B.** The O-ring is not mounted in the correct position.
- C. The O-ring is damaged or deformed.
- D. There is sand, dirt, hair or other foreign matter on the O-ring.
- E. There is sand, dirt, hair or other foreign matter on the contact surface of the O-ring or on the inside of the lid.
- F. The provided strap or silica gel bag is pinched inside the marine case when the lid is closed
- 3. Check that there are no scratches or cracks on the marine case every time you use it.

The marine case must withstand water pressure with use. Repeated exposure to pressure eventually leads to material fatigue, which may result in damage of the marine case. Every time you use the marine case, check in advance that there are no scratches or cracks. If you frequently use the marine case, be sure to ask for maintenance at the store of purchase. (There is a charge for maintenance.)

To protect your camcorder and ensure optimum use, keep the examples listed above in mind when using the marine case.

JVC accepts no responsibility for water leakage or damage to anything inside the marine case (camcorder, SD card, etc.) due to careless usage of this product. Be sure to follow correct procedures when using the marine case

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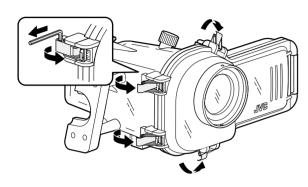
#### Before mounting

- 1 Turn the light off with the camcorder's Light button.
- Set the flash off, using the menu.
- 3 Select the recording mode (video mode or still image mode) with the camcorder's Mode switch.
- 4 Bundle the grip belt of the camcorder under the cover.
- 5 Remove the camcorder's lens cap, if provided with your model.

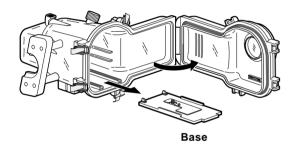
#### Method of mounting

Release the four buckles on the marine case and open the front lid.

If the buckles are hard to release, use the supplied buckle opener.



Slide and remove the base from the marine case.



Attach the base to the bottom of the camcorder.

Open the LCD monitor, align the screw of the base with the tripod screw hole of the camcorder, and fasten the screw, using the supplied screw key.



Set the camcorder's Power switch to "OFF".

Slide it while pressing down the lock button.

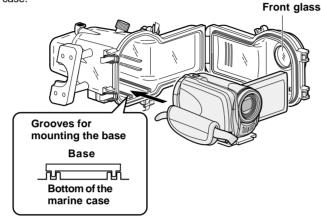


■ Turn the marine case's Power knob clockwise, while pulling it up, then release it.

If the Power knob is not set properly in its upper position, the Power knob's aligning boss may hit the camcorder's Power switch when the camcorder is to be inserted in the marine case, and the camcorder cannot readily be inserted. If the camcorder is forcibly inserted, the Power knob's aligning boss in the marine case may be damaged.

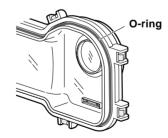


Insert the camcorder with the base attached in the marine case, aligning the projections of the base with the grooves on the marine case.

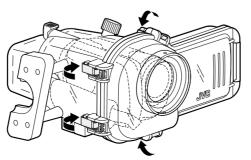


- Turn the marine case's Power knob counterclockwise to align it with the camcorder's Power switch.
  - ⚠ If the camcorder's Power switch is not set properly when the camcorder is placed in the marine case, it could break and/or damage the Power knob's aligning boss on the marine case.
- Fit the Zoom Lever projections on the marine case over the Power Zoom on the camcorder, making sure that they securely fit.
- Apply the included anti-fogging gel in the gap between the camcorder and the marine case to prevent fogging in the marine case.
- Before sealing the marine case, check that there is no sand, dirt, or other foreign matter on the O-ring mounted on the front lid or on the Oring contact surface on the main unit.

Also make sure that the inserted silica gel bag is not pinched. If you take the camcorder underwater with foreign matter trapped in these areas, water may leak in.



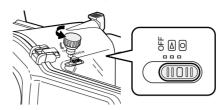
- Check that the O-ring on the front lid is correctly mounted in the groove, then press in on the front lid.
- Flip down the four buckles in the directions indicated by the arrows in the figure to seal the marine case.



## Method of operating each part

■ Turn the marine case's Power knob counterclockwise to set the camcorder's Power switch to ②.

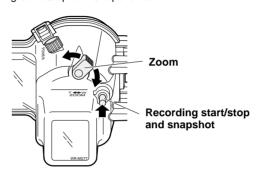
The camcorder's Power lamp lights.



■ To start video recording, press the Recording Start/Stop and Snapshot button.

To stop recording, press it again.

For snapshot recording, set the camcorder's Mode switch to still image mode, before inserting the camcorder in the marine case, then press the Recording Start/Stop and Snapshot button.

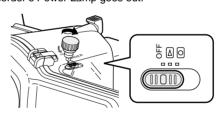


The Zoom can be adjusted with the Zoom lever.

Telephoto: Turn the lever to "T". Wide angle: Turn the lever to "W".

When you are finished shooting, turn the marine case's Power knob clockwise to set the camcorder's Power switch to "OFF".

The camcorder's Power Lamp goes out.



## Method for removing

To remove the camcorder from the marine case, turn the marine case's Power knob clockwise, while pulling it up, to release the Power knob's aligning boss from the camcorder's Power switch. Then open the front lid of the marine case and pull the camcorder out.

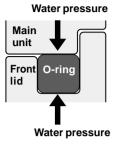
#### NOTES ON THE O-RING:

**ENGLISH** 

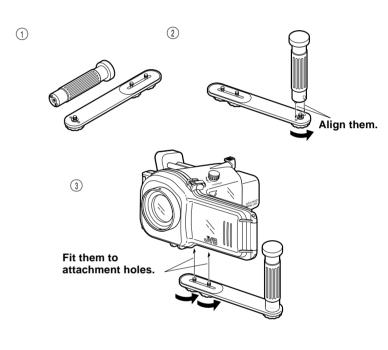
The O-ring is made of rubber and is mounted on the front lid.

The O-ring prevents water by forming a watertight seal with its soft and smooth surface fitting snugly against the surface of the device from leaking in. If you dive deeply and are exposed to higher water pressure, the contact area of the O-ring equally increases as water pressure becomes higher, which ensures a watertight seal. The soft and smooth surface of the O-ring is essential for the watertight seal.

Refer to the camcorder's instructions for more information.



## How to attach the optional handgrip (JV2497)



## Optional maintenance kit (part number: MG77-MTKIT)

O-rings x2

Silicon grease x1

Silica gel for anti-fogging (2 g) x5  $\,$ 

Paper (50 sheets) x1