



## 1 Intended use

This product is an electrically driven model boat which is controlled wirelessly via a 2.4 GHz remote control provided.

The model is designed for outdoor use, but it must only be used in freshwater. The remote control and drive components, drive battery, transmitter and charger/power cord must be protected from moisture and humidity.

This product is not a toy and is not suitable for children under 14 years of age.



Always follow the safety information in these operating instructions. They contain important information on how to use the product safely. Read the entire operating instructions carefully before getting started and operating the model boat.

You are solely responsible for the safe operation of the product!

## 2 Latest product information

Download the latest product information at [www.conrad.com/downloads](http://www.conrad.com/downloads) or scan the QR code shown. Follow the instructions on the website.

## 3 Description of symbols



The symbol warns of hazards that can lead to personal injury.



The symbol warns of dangerous voltage that can lead to personal injury by electric shock.

## 4 Safety instructions



**Read the operating instructions carefully and especially observe the safety information. If you do not follow the safety instructions and information on proper handling in this manual, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.**



### 4.1 General

#### Caution, safety hazard!

This model has the potential to cause damage to property and/or individuals. Ensure that you are sufficiently insured, e.g. by taking out private liability insurance. If you already have a policy, check with your insurance company that use of this model is covered by the policy.

Please note: Some EU countries prohibit the use of model boats in certain bodies of water.

- The unauthorised conversion and/or modification of the product is prohibited for safety and approval reasons.
- This product is not a toy and is not suitable for children under 14 years of age.
- The remote control and drive components must not become damp or wet.
- The model boat is only suitable for use in fresh water.
- If you do not have sufficient knowledge of how to operate remote-controlled model boats, contact an experienced model enthusiast or a model retailer.
- Do not leave packaging material unattended, as it may become dangerous playing material for children.

- If you have any questions that are not answered by these operating instructions, contact us or an experienced technician.

### 4.2 Charger

- The design of the battery charger conforms to protection class II. The charger must be connected to a properly grounded mains socket of the public supply grid (for charger operating voltage, see section "Technical data").
- The mains socket the charger is plugged into via the power cord must be easily accessible.
- The charger is only suitable for charging 2- or 3-cell LiPo rechargeable batteries. Never use the charger for any other purpose. Never use the charger to charge NiMH rechargeable batteries (or rechargeable batteries other than 2- or 3-cell LiPo ones) to avoid the risk of fire and explosion!
- Only insert a single LiPo rechargeable battery into the charger (the two outputs must never be used at the same time).
- The charger has XH sockets for connecting the LiPo rechargeable battery. The rechargeable battery must also have a corresponding XH connector, otherwise matching adapters are required. Always pay attention to the correct pin assignment.
- Never short-circuit the charger outputs and never connect the outputs together.
- The charger may only be used in dry, enclosed spaces. It must be protected from moisture and dampness; never touch it with wet hands to avoid the risk of death from an electric shock! The same applies to the power cord and mains plug.
- Do not pull the mains plug out of the mains socket by the cable. Grasp the plug by the side of the housing and pull it out of the mains socket.
- If the charger and/or the power cord shows signs of damage, do not touch it to avoid the risk of death from an electric shock! First switch off the mains voltage for the mains socket the charger is plugged into (switch off the associated circuit breaker or unscrew the fuse, then switch off the ground fault circuit interrupter so that the mains socket is completely disconnected from the mains voltage). You can then unplug the power cord from the mains socket.
- Dispose of the damaged charger/power cord in an environmentally friendly manner and do not use it anymore. Make sure you use a structurally identical charger/power cord instead. A defective power cord must never be repaired!
- Mains-operated devices should not be used by children. Therefore, be especially careful when children are around. When using the charger, always make sure that children cannot reach it.

- Avoid the following unfavourable environmental conditions at the place of use, and during transportation:

- Wetness or high humidity
- Cold or heat, direct sunlight
- Dust or flammable gases, fumes or solvents
- Strong vibrations, impacts or blows
- Strong magnetic fields, such as those found close to machinery or speakers

- Never use the charger/power cord immediately after it has been brought from a cold room to a warm one. Otherwise, this may result in the formation of condensate, which can destroy the charger under certain circumstances. There is also a risk of death from an electric shock! Allow the product to reach room temperature before connecting it and putting it into use. This may take several hours.
- Make sure that the charger power cord is not kinked or crushed. The same applies to the cables of the LiPo rechargeable battery.
- Handle the product with care, because it can be damaged by jolts, impacts or a fall from a low height.

### 4.3 Before operation

- Ensure that there are no other models operating at the same frequency (2.4 GHz) within range of the remote control. Always check whether there are any other 2.4 GHz remote controls that may interfere with the model.
- Conduct regular checks to verify that the model and remote control are safe to use. Inspect the parts for any visible signs of damage, such as broken connectors or damaged cables. All moving parts on the model should move freely, but there must not be any slackness in the bearing.
- The drive battery that is required for operation must be charged before use.
- Ensure that the batteries in the transmitter have sufficient remaining capacity (use a battery tester). If the batteries are empty, replace all of them at the same time. Never replace individual batteries.
- Before each use, check the trim settings for different control directions on the remote control, and if necessary, adjust them.
- Before every use, check that the propeller is correctly and securely seated and that it is intact.
- When switching on the remote control and putting the model boat into operation, always follow the procedure described below in a separate section. This ensures that the transmitter and receiver are connected properly and that your model responds reliably to remote control commands from your transmitter. Otherwise, the receiver may react unpredictably and the propeller may accidentally start up. There is a risk of accident and injuries!
- Keep objects and body parts away from the propeller's spinning and intake area when it is running.

### 4.4 During use

- Do not take any risks when using the product! Always use the model responsibly, otherwise you may endanger yourself and your surroundings.
- Improper use can cause serious injury and damage to property! Always ensure that the model boat is kept away from people, animals and objects during use.
- Select a suitable body of water to use your model. Make sure you ask the person or organisation responsible for the body of water whether you are permitted to use your model there.
- Ensure that there are no climbing plants (such as seaweed) in the water. In addition, check that there are no objects (e.g. branches) floating in the water.
- When afloat, pay attention to currents and other adverse conditions that make it difficult or even impossible to operate the model. The model can even be destroyed! The model boat should only be operated in still or very slow-flowing waters without significant wave formation due to its small size and relatively high potential speed.
- Only use the model when you are fully alert and able to respond. Fatigue, alcohol and medication can affect your ability to respond.
- Never drive the model boat directly at people or animals that are swimming in the water.
- Should any malfunctions occur during operation, which may result in the model boat drifting uncontrollably and/or without propulsion in the water or e.g. getting stuck in water plants, do not put your life in danger while attempting to retrieve it from the water.
- Do not take any risks when retrieving the model boat. Watch out for currents and other boat traffic in the body of water. If necessary, use an aid to retrieve the model boat from the water (e.g. rowing boat). Never attempt to retrieve the model boat alone, always engage an assistant who can observe what is happening around and call for help in an emergency.
- Never point the transmitter antenna directly onto the model. This makes the signal transmission to the model a lot worse. You should hold the transmitter so that the transmitter antenna points upwards as much as possible.
- The motor, speed controller and drive battery can become hot during model operation. For this reason, wait 5 to 10 minutes before recharging the drive battery or restarting the model with a spare rechargeable battery. Let the drive motor and speed controller cool down to the ambient temperature.
- Always keep the remote control (transmitter) turned on when the model is in use. Always disconnect the drive battery from the model after use. Only then may the transmitter be switched off.
- In the event of a defect or malfunction, be sure to eliminate the cause of the fault before resuming operation of the model.
- Do not expose the model or the remote control to direct sunlight or excessive heat for prolonged periods.

- If the running performance decreases, head for the bank immediately. Otherwise there is a risk that the boat with an empty drive battery will drift uncontrollably on the water and get lost.

#### 4.5 (Rechargeable) batteries

- Correct polarity must be observed while inserting the (rechargeable) batteries.
- The (rechargeable) batteries should be removed from the device if it is not used for a long period of time to avoid damage through leaking. Leaking or damaged (rechargeable) batteries might cause acid burns when in contact with skin, therefore use suitable protective gloves to handle corrupted (rechargeable) batteries.
- (Rechargeable) batteries must be kept out of reach of children. Do not leave (rechargeable) batteries lying around, as there is risk, that children or pets swallow them.
- All (rechargeable) batteries should be replaced at the same time. Mixing old and new (rechargeable) batteries in the device can lead to (rechargeable) battery leakage and device damage.
- (Rechargeable) batteries must not be dismantled, short-circuited or thrown into fire. Never recharge nonrechargeable batteries. There is a risk of explosion!

#### 4.6 LiPo battery

- The rechargeable battery is permanently built into the product and cannot be replaced.
- Never damage the rechargeable battery. Damaging the casing of the rechargeable battery might cause an explosion or a fire! Unlike conventional batteries/rechargeable batteries (e.g. AA or AAA type), the casing of the LiPo rechargeable battery does not consist of a thin sheet but rather a sensitive plastic film only.
- Never short-circuit the contacts of the rechargeable battery. Do not throw the battery or the product into fire. There is a danger of fire and explosion!

### 6 Disposal

#### 6.1 Product



This symbol must appear on any electrical and electronic equipment placed on the EU market. This symbol indicates that this device should not be disposed of as unsorted municipal waste at the end of its service life.

Owners of WEEE (Waste from Electrical and Electronic Equipment) shall dispose of it separately from unsorted municipal waste. Spent batteries and accumulators, which are not enclosed by the WEEE, as well as lamps that can be removed from the WEEE in a non-destructive manner, must be removed by end users from the WEEE in a non-destructive manner before it is handed over to a collection point.

Distributors of electrical and electronic equipment are legally obliged to provide free take-back of waste. Conrad provides the following return options **free of charge** (more details on our website):

- in our Conrad offices
- at the Conrad collection points
- at the collection points of public waste management authorities or the collection points set up by manufacturers or distributors within the meaning of the ElektroG

End users are responsible for deleting personal data from the WEEE to be disposed of.

It should be noted that different obligations about the return or recycling of WEEE may apply in countries outside of Germany.

- Charge the rechargeable battery regularly, even if you do are not using the product. Due to the rechargeable battery technology being used, you do not need to discharge the rechargeable battery first.
- Never charge the rechargeable battery of the product unattended.
- When charging, place the product on a surface that is not heat-sensitive. It is normal that a certain amount of heat is generated during charging.

### 5 Care and maintenance

#### 5.1 General care and repair tips

Clean the exterior of the model and the remote control with a soft, dry cloth or brush. Never use abrasive cleaning agents or chemical solutions, as these may damage the surface of the housing.

Damage to the hull should only be repaired using a water-insoluble glue that is suitable for ABS plastics. We recommend a two-component epoxy resin based construction adhesive.

#### 5.2 Checking water cooling

Turning propeller draws water into the tube on the rudder blade holder, causing the motor and speed controller to cool down. The water is pushed out on the right-hand side of the hull, which can be seen clearly while driving.

Before using the model boat, check that the water cooling system is working properly. To do this, use e.g. a small piece of hose to blow air into the water cooling inlet. The air blown must come out of the outlet. Also check the model boat hoses for damage or kinks.



Never operate the model boat with a faulty water cooling system. This can lead to overheating and cause damage to the motor and the speed controller, which will void the warranty/guarantee!

### 6.2 (Rechargeable) batteries

Remove batteries/rechargeable batteries, if any, and dispose of them separately from the product. According to the Battery Directive, end users are legally obliged to return all spent batteries/rechargeable batteries; they must not be disposed of in the normal household waste.



Batteries/rechargeable batteries containing hazardous substances are labelled with this symbol to indicate that disposal in household waste is forbidden. The abbreviations for heavy metals in batteries are: Cd = Cadmium, Hg = Mercury, Pb = Lead (name on (rechargeable) batteries, e.g. below the trash icon on the left).

Used (rechargeable) batteries can be returned to collection points in your municipality, our stores or wherever (rechargeable) batteries are sold. You thus fulfil your statutory obligations and contribute to environmental protection.

Batteries/rechargeable batteries that are disposed of should be protected against short circuit and their exposed terminals should be covered completely with insulating tape before disposal. Even empty batteries/rechargeable batteries can contain residual energy that may cause them to swell, burst, catch fire or explode in the event of a short circuit.

### 7 Declaration of Conformity (DOC)

Conrad Electronic SE, Klaus-Conrad-Straße 1, D-92240 Hirschau hereby declares that this product conforms to the 2014/53/EU directive.

- Click on the following link to read the full text of the EU declaration of conformity: [www.conrad.com/downloads](http://www.conrad.com/downloads)

Enter the product item number in the search box. You can then download the EU declaration of conformity in the available languages.

### 8 Technical data

#### 8.1 Transmitter

Frequency range .....	2.403 – 2.480 GHz
Transmission power.....	2.35 dBm
Number of channels .....	2
Operating voltage .....	6 V/DC via 4 AA/Mignon batteries
Transmitter range, max.....	approx. 200 m (with a clear view)

#### 8.2 Model boat

Length (total) .....	620 mm
Width .....	153 mm
Weight .....	991 g (without drive battery)
Control.....	2 channels (forwards, left/right)
Propeller .....	P1.4 x 35 mm
Motor type.....	brushless, water-cooled
Speed controller .....	30 A, water-cooled
Suitable drive battery.....	LiPo, 3 cells (nominal voltage 11.1 V)

#### 8.3 Drive battery

Rechargeable battery type .....	LiPo, 3 cells (nominal voltage 11.1 V)
Capacity.....	2200 mAh
Discharge rate .....	35C
Connection .....	XT60

#### 8.4 Charger

Operating voltage .....	110 – 240 V/AC, 50/60 Hz
Suitable rechargeable battery type.....	LiPo, 2 or 3 cells (both outputs cannot be used at the same time)
Charging current.....	800 mA per cell
Charging connection.....	XH socket