



## df-models 3640 AVANTI-BR V2 Brushed Boat with Remote Controller Instructions

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**df-models 3640 AVANTI-BR V2 Brushed Boat with Remote Controller**



## Product Information

- Product Name: RC Boat RTR
- Frequency: 2.4 GHz
- Remote Control: Included
- Battery: 7.4 Volt (2S) Lilon, 1500mAh
- USB Charging Cable: Included
- Boat Stand: Included
- Manual: Included
- Additional Components: Propeller (No.: 3641)
- Stern Tube with Shaft (No.: 3642)
- Motor (No.: 3643)
- Servo (No.: 3644)

## Product Usage Instructions

### Scope of Delivery:

- RC boat
- RTR
- GHz remote control 7.4 Volt (2S) Lilon battery, 1500mAh
- USB charging cable
- Boat stand
- Manual

### Speed & Demo:

- The default setting of the model is High Speed.
- Press the “Speed & Demo” button briefly to switch to Low Speed (slow) for novice riders.
- Low Speed is indicated by one beep sound, and High Speed is indicated by two beep sounds.
- Press and hold the “Speed & Demo” button to activate the demo mode, where the model will drive independently for 8 laps. – Moving the throttle or steering wheel will interrupt the demo mode.
- Ensure there is enough space for the demo mode.

**Trim (5 & 7):**

If the model does not straighten out without steering, use the trim knobs to adjust the straight run.

**Flip (8):**

- If the model is upside down in the water, use the Flip button (8) to flip it upright.
- Press and hold the Flip button (8) until the model is again upside down in the water.

**Battery Charging:**

- ALWAYS charge the battery outside the model.
- Use a fireproof base during charging. – NEVER disconnect the plug connection by pulling on the cables; always pull on the plug.
- Connect the USB charger to a suitable power supply (USB power supply, mobile phone adapter).
- The red LED on the charger will flash.
- Connect the battery to the USB charging cable (white plug).
- The LED on the charger will light up red, indicating that the battery is charging.
- The LED will go out when the battery is fully charged.
- Disconnect the battery from the USB charging cable and the USB charging cable from the power supply.
- The maximum charging time is approximately 1-3 hours.
- NEVER charge unattended (e.g., overnight). – ALWAYS charge on a fireproof surface.
- Observe safety regulations.

**Battery Installation:**

- To remove/insert the battery, remove the hood.
- Rotate the rear locks and remove the top deck.
- Rotate the four locks on the bottom deck and remove it.
- Turn on the remote control.
- Connect the battery to the speed controller (ensure correct polarity).
- The connection between the transmitter and model will establish once the model is in water (safety circuit). – When turning off, follow the reverse sequence.

**Note:** The instructions provided are a summary. Please refer to the complete user manual for detailed instructions and safety guidelines.

Be sure to read the enclosed operating instructions.

**ATTENTION:** Not suitable for children under 3 years (36 months) because of small parts that can be swallowed!

Errors and changes reserved. Subject to colour and technical changes.

The help of an adult is required to remove the transport locks.

To cosrate a drone RC model, Fability insurance is usually required

Please inform yourself in your country which regulations are currenify valid.

**Introduction**

Congratulations on your purchase of a product from DF Models | MALi Racing. All products are carefully checked

for completeness and function to ensure that the product is free of manufacturing and material defects. The product is EMC-tested and meets the requirements of the applicable European and national directives. Due to constant further development and improvement of our products, we reserve the right to make technical changes and changes in equipment and design without prior notice. Therefore, no claims can be made on the basis of minor deviations of the product you have from the data and illustrations in these instructions. The responsible handling of the product is for your own safety and the safety of persons not involved. Please observe the safety instructions in this manual. Subject to technical and colour changes.

## **Warranty/guarantee conditions**

The operating instructions for this product are a basic component of the product, as non-observance of the information contained therein on handling and operation and non-observance of the safety instructions invalidates the warranty/guarantee. Therefore, keep the operating instructions in a safe place even if the product is passed on to third parties. The warranty period for consumers is 24 months. Unless otherwise provided by law, the warranty/guarantee is limited to repair at the cost of the purchase price, replacement of the product with an equivalent or refund of the purchase price.

A different assertion of other claims from country to country is conceivable. The duration of the warranty/guarantee remains unaffected by repair and/or replacement of parts. We reserve the right to use refurbished or new parts. Services and repairs after the warranty/guarantee period have to be paid for. The warranty/guarantee covers manufacturing and material faults and faults in normal use. Mechanically stressed parts are not covered by the warranty. We assume no liability for consequential damages! are excluded from the warranty/guarantee:

- Damage caused by non-observance of the safety instructions or the operating instructions
- Force majeure, collisions, incorrect handling
- extraordinary stress or external influence
- unauthorized modifications or repairs carried out by unauthorized persons
- damage caused by loss of control of the model
- Lightning strike or other influence of high voltage or current
- Wear parts, mechanically stressed parts and normal wear and tear, optical impairments
- Transport, shipping or insurance costs
- Costs for the proper disposal of the product as well as setup and readjustment work carried out by the service department.

## **Safety instructions**

Use this product responsibly.

As manufacturer and distributor of the product, we have no direct influence on the correct handling and operation of the product. The following safety instructions are intended to protect you and your environment from damage that may result from improper use. But also the product itself and your model should be protected against damage by the corresponding instructions. Therefore, please read this chapter carefully before putting the product into operation! We accept no liability for damage to property or personal injury caused by non-observance of the operating instructions or the safety instructions. In such cases, the warranty/guarantee also expires. We assume no liability for consequential damages! Not suitable for children under 36 months. Contains small parts – danger of suffocation! The product is suitable for children under 14 years only under direct supervision of an adult. Dispose of the packaging material properly, as it could be dangerous for children.

### **Before the start**

Clarify with your insurance company whether the operation of a radio-controlled model is covered by insurance (liability insurance).

If you are not yet experienced in controlling RC models, first familiarise yourself with the reactions to the control commands on the standing model. If necessary, consult an experienced model athlete or a model building club. If necessary, seek the support of an experienced pilot/driver.

Check the remote control system and the model for functional reliability and visible damage, such as defective plug connections or damaged cables, before putting it into operation. All moving parts must function smoothly, but without bearing play. Check all screw and plug connections, wheel nuts and electrical contacts for tightness, as these can become loose or detached during transport, while driving or in the event of minor accidents. Fasten excess lengths of cables in such a way that they cannot get into moving/rotating parts. Cables must also not be kinked. Make sure that all batteries are fully charged and not damaged.

### **Driving/ Flying**

Do not drive/fly if your reactions are restricted (e.g. if you are tired or under the influence of medication or alcohol). Incorrect reactions can cause serious personal injury and damage to property. Do not drive if you have the slightest doubt about the perfect technical condition of your model/remote control system. Always maintain direct visual contact with the model. Operate the model only on private property or in places designated for this purpose. Observe the conditions and regulations for the terrain.

When operating a model, always ensure that no parts of the body or objects in the danger zone of motors or rotating parts. Regularly check all screw connections and fastenings, as these can become loose or detached during operation. In the event of a malfunction, stop operation of your model immediately and eliminate the cause of the malfunction before continuing to use the model. Avoid driving in low outside temperatures, as this reduces the battery capacity and the plastic of the bodywork loses its elasticity and splinters easily. Do not expose your model and the remote control system to direct sunlight, moisture, heavy soiling or extreme heat/cold for long periods. Do not drive in crowded areas, towards people or animals, in nature reserves, at night, under power lines, radio masts or during thunderstorms. Electrical fields and atmospheric disturbances can affect the signals of your remote control transmitter, in rain or damp conditions, otherwise the electrical system will be damaged. Please note that RC models must not be driven on terrain where there is public transport.

### **Intended use**

The product is designed exclusively for private use in the model building sector and with the associated operating times. This product is not approved for commercial or industrial use or for continuous operation. Improper use can lead to personal injury and damage to the product and the associated risks such as loss of control over the model, short circuit, fire, electric shock, etc. Follow the safety instructions in this manual. They contain important information

for handling the product. The product is suitable for children under 14 years of age only under adult supervision.

### **Notes for batteries and rechargeable batteries**

Keep batteries out of the reach of children and pets as they may accidentally swallow the batteries. In this case, consult a doctor immediately!

Leaking or damaged batteries can cause burns if touched. If skin or eyes come into contact with the electrolyte, rinse immediately and thoroughly with clear water. and see a doctor. Use suitable protective gloves when disposing of the defective

Batteries. If you notice any abnormal smell, discoloration, excessive heating or deformation of the battery, disconnect the battery from the charger or consumer immediately. Dispose of the battery!

Conventional alkaline batteries (1.5) are intended for single use only and must then be disposed of properly. Dispose of empty batteries or defective rechargeable batteries in an environmentally friendly manner at authorised collection points. It is prohibited to dispose of them with household waste!

Batteries must not become damp or wet. Also avoid the formation of condensation water. Never expose the batteries/rechargeable batteries, the charger and the model to adverse environmental conditions (e.g. wetness, excessively high or low ambient temperature, sources of ignition or open fire, dust, vapours, solvents)! Avoid heavy soiling and excessive mechanical stress on the battery and never pull the connecting cables! Never mix batteries and rechargeable batteries at the same time in one device!

If no brand-new batteries are used to power the transmitter, ensure that there is sufficient residual capacity (battery tester). Always replace the complete set of batteries, not just individual cells. Always use batteries of the same type and manufacturer. Do not mix batteries with different charge levels. Make sure that the polarity is correct when inserting batteries into the battery holder. If the polarity is incorrect, not only your model but also the battery will be damaged. Batteries must never be short-circuited, damaged, disassembled or thrown into an open

fire. There is a risk of fire and explosion!

If the battery gets hot, disconnect it from the charger immediately! If the model is not used for a longer period of time, remove the batteries or rechargeable batteries from the remote control and from the model in order to avoid damage from leaking / deeply discharged batteries.

### **Extinguishing media**

In the event of a fire, it must be extinguished by water spray, carbon dioxide or extinguishing powder/foam.

The full water jet is not suitable for extinguishing. The use of a fire extinguisher with AVD extinguishing agent is particularly recommended.

### **Disposal**

At the end of its service life, dispose of the product in accordance with the applicable regulations. legal regulations (do not dispose of with household waste).



You as end user are legally obliged (battery regulation) to return all used batteries and accumulators. disposal via household waste is prohibited! The adjacent symbols refer to the prohibition of disposal with household waste.

Batteries containing harmful substances are additionally marked with the designations for the decisive heavy metal: Cd=Cadmium, Hg=Mercury, Pb=Lead (the name appears on the battery/rechargeable battery, e.g. under the garbage can symbols shown on the left). You can return your used batteries/rechargeable batteries free of charge to the collection points in your municipality or wherever batteries/rechargeable batteries are sold. In doing so, you fulfil your legal obligations and make your contribution to environmental protection.

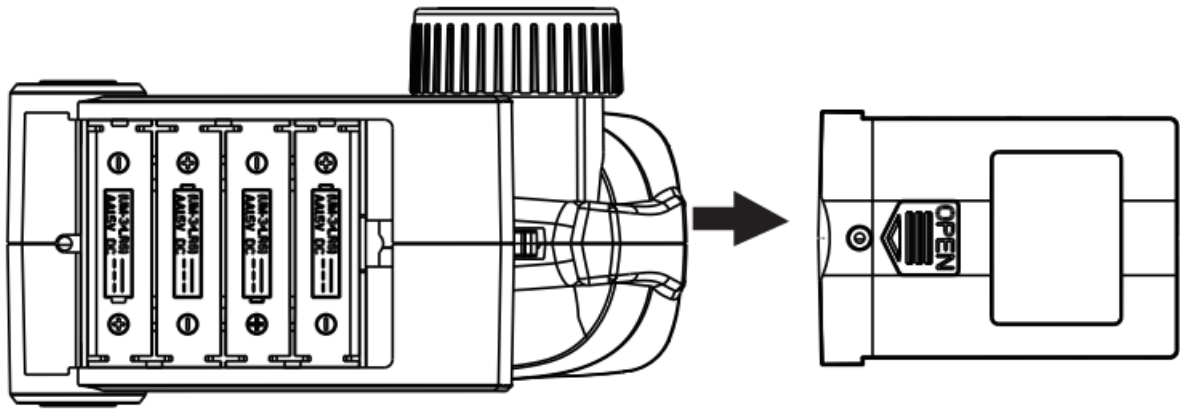
### **Spare parts**

- No.: 6981 – Battery 7,4 Volt 1500mAh
- No.: 7465 – USB charging cable
- No.: 3641 – propeller
- No.: 3642 – stern tube with shaft
- No.: 3643 – Motor
- No.: 3644 – Servo
- No.: 3645 – remote control

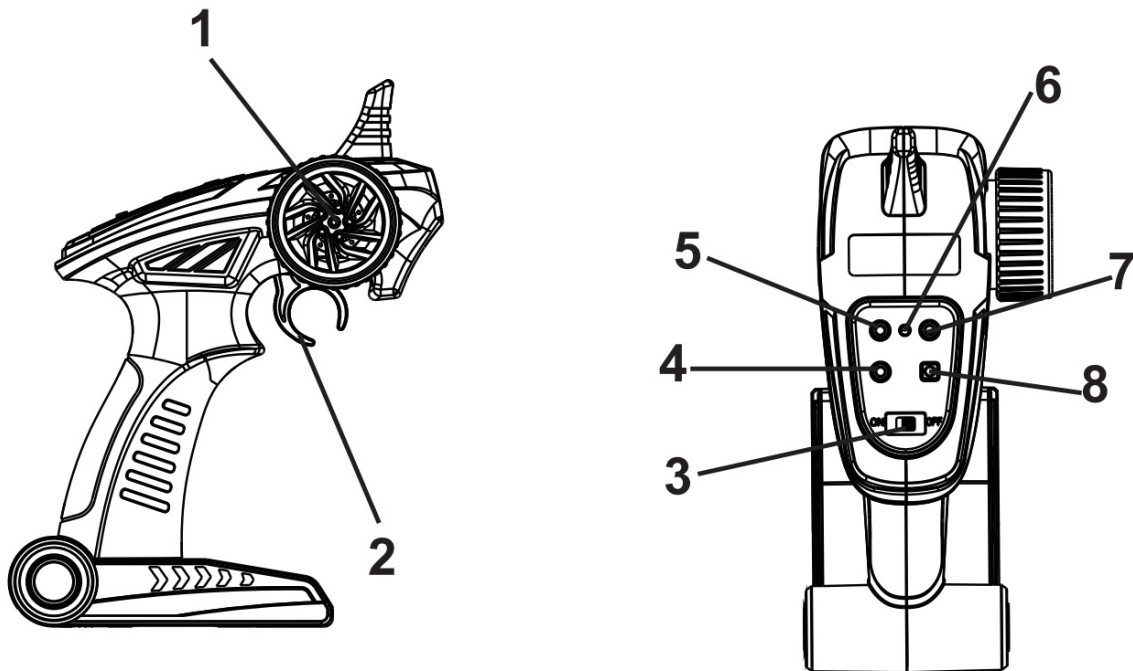
### **Remote control**

#### **Inserting the transmitter batteries:**

1. Open the battery compartment



2. Insert batteries (4x AA) (not included, do not use rechargeable batteries!), pay attention to correct polarity!
  - close battery compartment again.
- 3.



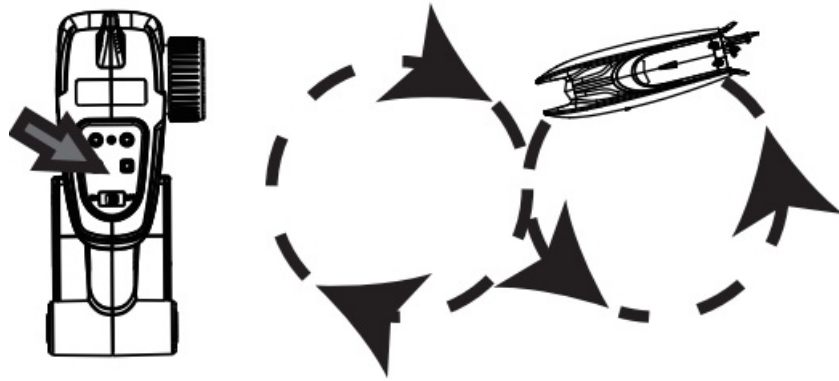
If the model is not used for a longer period of time, remove batteries from the transmitter!

- Steering wheel
- Throttle lever
- On/Off switch
- Speed & Demo
- Trim left
- Control light
- Trim right
- Flip

#### 4. **Speed & Demo:**

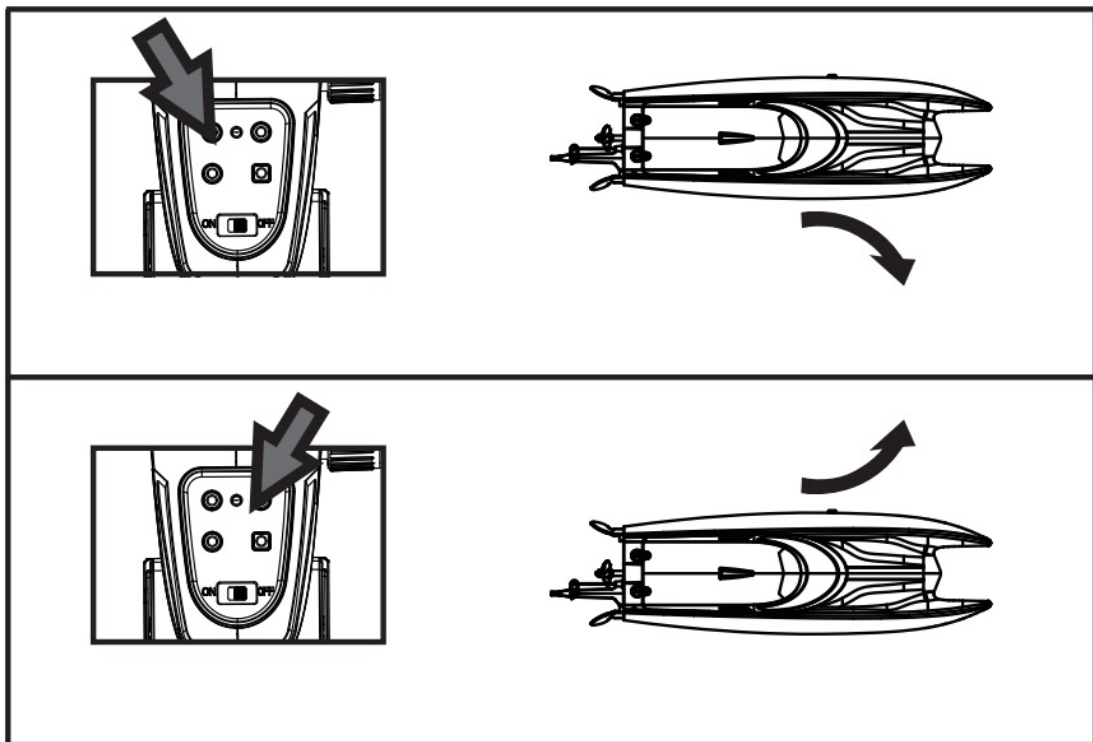
Default setting of the model is High Speed, by pressing the button briefly you can switch the model to Low Speed (slow) (for novice riders). Low Speed -> one beep sound | High Speed -> two beep sounds Press and hold the button to switch on a demo mode of the model. The model will now start to drive an "8" independently (2 laps). If you move the throttle or the steering wheel the demo mode will be interrupted.

Please make sure that there is enough space.



#### 5. 5 & 7 Trim:

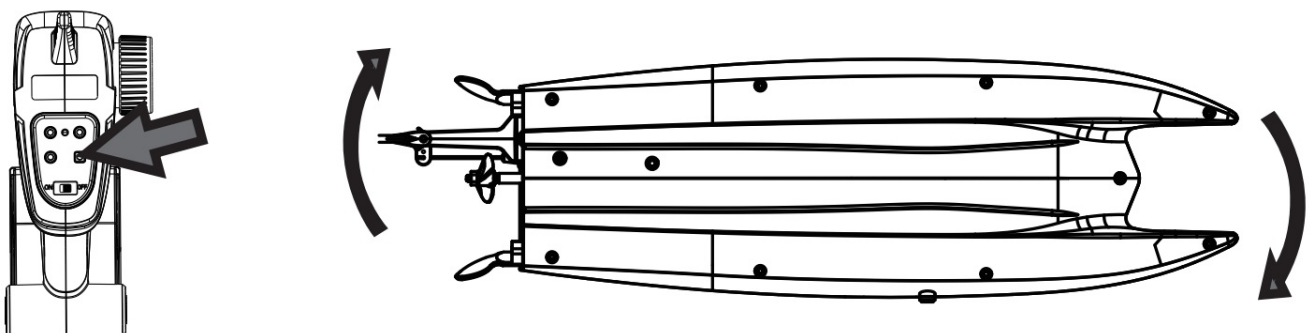
If the model does not straighten out without steering, you have the option to adjust the straight run using the trim knobs.



#### 6. 8 Flip:

If the model is lying upside down in the water, you have the option of flipping the model upright again using the Flip button (8).

To do this, press and hold the flip button (8) until the model is again upside down in the water.



#### charging the battery

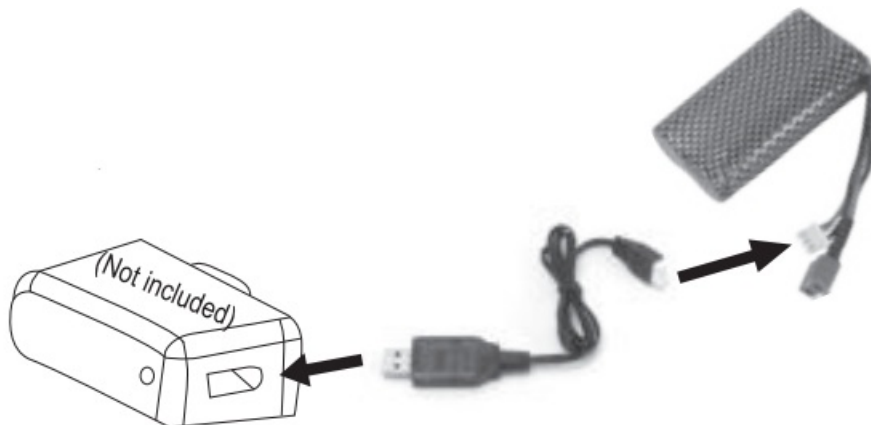
#### Warning





Never leave the charging cable / cord coiled up, this can lead to overheating!

ALWAYS charge the battery outside the model, to avoid overheating during charging, always use a fireproof base!  
Never disconnect the plug connection by pulling on the cables, always pull on the plug.



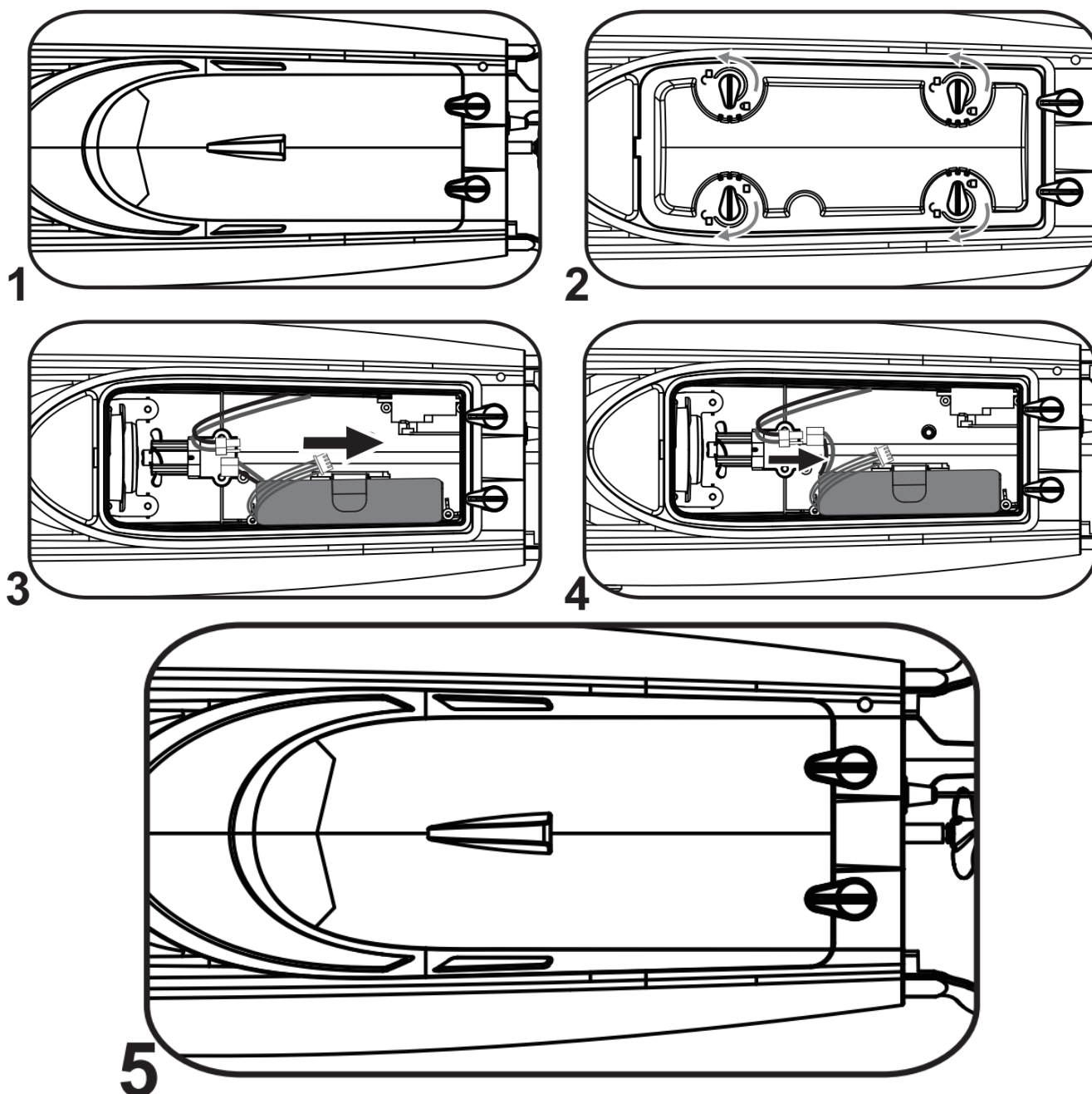
- Connect the charger (USB) to a suitable power supply (USB power supply, mobile phone adapter | not included). Red LED flashes.
- Now connect the battery with the USB charging cable (white plug).
- The LED lights up red, the battery is charging.
- The LED goes out when the battery is connected, the battery is fully charged.
- disconnect the battery from the USB charging cable.
- Disconnect the USB charging cable from the power supply.
- Maximum charging time approx. 1-3 hours.
- NEVER charge unattended (e.g. "overnight")!
- aLWAYS charge on a fireproof surface!
- Observe safety regulations!

### Warning

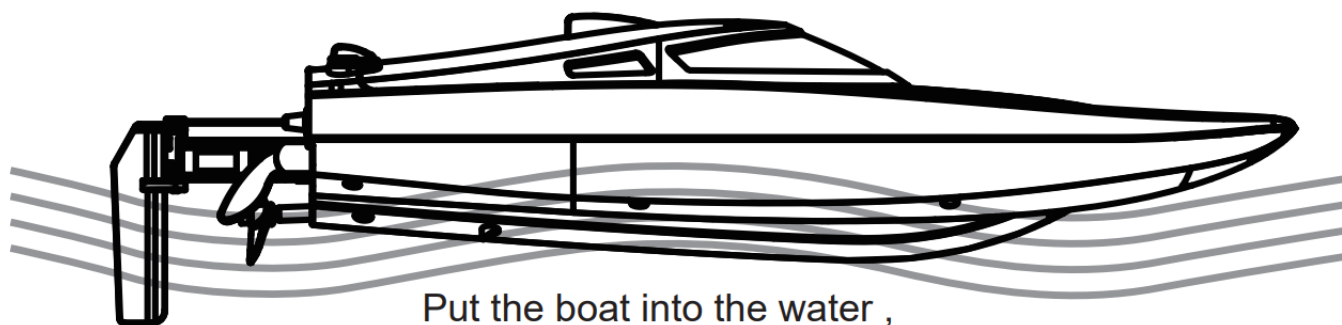
If the model is not used ALWAYS disconnect the battery and remove it from the car!



### Get started



To remove/insert the battery, remove the hood. To do this, turn the rear latches and remove the upper deck. Now turn the four latches of the lower deck and remove it as well. Now switch on the remote control. Connect the battery to the speed controller (ensure correct pooling). The connection between transmitter and model only takes place as soon as the model is in the water (protective circuit). When switching off, proceed in reverse order. If the model is not operated, ALWAYS disconnect the battery and remove it from the model!

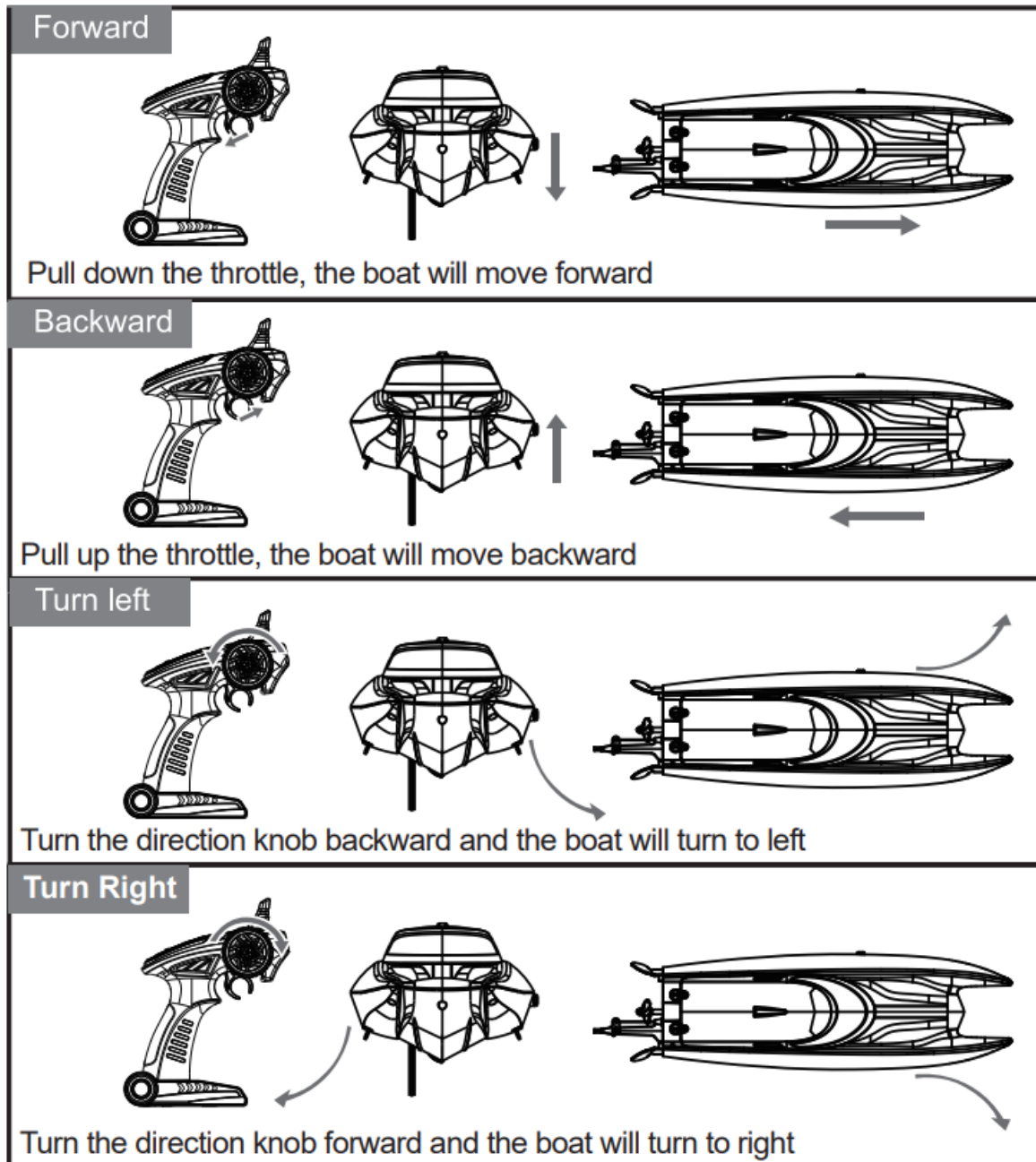


Put the boat into the water ,  
the boat will be turn on automatically

## Driving

Always switch on the remote control first and then the model.

After driving, first switch off the model and remove the battery from it and then switch off the transmitter.



Turning the steering wheel to the left steers the model to the left. Turning to the right also steers the model to the right.

By pulling the throttle towards the handle, the model accelerates (moves forward). By pushing away from the handle, the model moves backwards. The speed is infinitely variable (the further you pull or push the lever, the faster or slower the model moves). Reverse travel should only take place in emergencies.

## Regular checks / maintenance

The model is already assembled ready to drive and can be put into operation directly after inserting the transmitter batteries (not included) and the drive battery (must be charged first). The drive and control components are mounted and wired, the connection between transmitter and receiver is automatic, after each switch-on. However, you should check all screw connections for tightness before the first journey.

Replace defective parts immediately and clean the model from dirt and dust.

**Also check the following points regularly:**

- Are the wheel nuts and screw connections tight?
- Is the servo control lever firmly seated on the servo shaft?
- Is the drive battery charged and secured in the holder?
- Are the rotating and moving parts running smoothly?
- Are the cables laid and secured so that they cannot get into moving parts?
- Is the range of the remote control transmitter sufficient?

## Declaration of Conformity

Declaration of Conformity in accordance with the Radio Equipment Directive (RED) 2014/53/EU  
 Declaration of Conformity according to the Toy Safety Directive 2009/48/EC

**hereby declare that the product:** AVANTI BR – V2 Boot  
**Product number:** 3640 (EAN: 4250684136403)

Complies with the essential requirements and the other relevant provisions of the Directive (RED) 2014/53/EU, when used for its intended purpose.

**Manufactured in accordance with the following harmonised standards:**

- EN IEC 62115:2020 Electric toys – safety | EN IEC 62115:2020/A11:2020
- EN 62115:2005+A12:2015 | EN 60825-1\_1994+A2:2001+A1:2002
- European RoHS Directive 2015/863/EU amending Annex II to Directive 2011/65/EU – Certain hazardous substances
- EN 62479:2010: Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10MHz – 300 GHz).
- EN 301 489-1 V2.2.3
- EN 301 489-3 V2.1.1
- EN 300 440 V2.2.1
- Directive 2009/48/EC and its amendment Council Directive (EU) 2017/738, Commission Directive (EU)2018/725, (EU)2019/1922
- Frequency Range: 2400 MHz to 2483 MHz  
 The EIRP of the EUT is 2.82dBm (1.914mW) which is below the max permitted sending level of 20 mW, and the EUT is not deemed to comply with RF exposure requirement.

Manufacturer / responsible Person: Drahthammer Str. 22  
 Jürgen Kamm

**Ort/ Datum:**

**place of issue/ date:** Amberg (Germany), 27.10.2022

**Date:**

**Safety/ hazard information for rechargeable batteries/ batteries**



## disclaimer

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Since we (DF Models) cannot monitor your handling of the battery, any liability and warranty for incorrect handling, charging/discharging, damage, etc. is expressly excluded.

## Danger/ safety instructions

- Always keep batteries/ rechargeable batteries out of the reach of children and pets.
- Leaking or damaged batteries/accumulators can cause burns on contact. If skin or eyes come into contact with the electrolyte, immediately rinse the area thoroughly with clean water and seek medical attention immediately. Use suitable protective gloves when disposing of the defective battery.
- If you notice any abnormalities such as odor, discoloration, excessive heating or deformation of the battery, disconnect the battery from the charger or consumer immediately. Dispose of the batteries/accumulator properly (take to a collection point, DO NOT dispose of in household waste!).
- Batteries must not get damp or wet. Avoid the formation of condensation.
- Never dispose of batteries/ rechargeable batteries in a fire.
- Never expose the batteries/ rechargeable batteries to adverse ambient conditions (e.g. wetness, excessively high or low ambient temperature, direct sunlight, ignition sources or open fire, dust, vapors, solvents).
- Avoid heavy soiling and excessive mechanical stress on the battery.
- Never modify batteries/ rechargeable batteries structurally, never solder directly to batteries/ rechargeable batteries.
- Never tug at the connection cables.
- Never open batteries/ rechargeable batteries by force.
- Never mix batteries and rechargeable batteries in one device at the same time.
- Always use batteries/ rechargeable batteries of the same type and manufacturer.
- When inserting batteries/ rechargeable batteries into the battery holder, ensure that the polarity is correct. If the polarity is incorrect, not only your model but also the battery/accumulator will be damaged.

- Batteries/ rechargeable batteries must never be short-circuited, damaged, disassembled or thrown into open fire. There is a risk of fire and explosion.
- Immediately disconnect the battery from the charger/ consumer if it becomes very hot.
- Only charge rechargeable batteries with suitable chargers.
- Always charge batteries on a non-flammable surface.
- Never charge/use rechargeable batteries near flammable materials.
- Never charge/use batteries without supervision.
- Never charge the rechargeable batteries in a model, vehicle/caravan, etc.
- Never charge or use batteries with reverse polarity.
- Do not charge batteries that are overcooled or overheated.
- Do not charge/use batteries in locations subject to high static discharge.
- If the model is not used for a longer period of time, remove the inserted batteries from the remote control and from the model to avoid damage due to leaking / deep discharged batteries.
- Conventional alkaline batteries (1.5 volts) are intended for single use only and must be disposed of properly afterwards. Dispose of empty batteries or defective rechargeable batteries in an environmentally friendly manner via authorized collection points. Alkaline batteries must NOT be recharged, there is a risk of fire/explosion.
- Disposing of batteries/battery packs in the household waste is prohibited.
- In case of fire, never extinguish batteries with water (see Extinguishing media).
- Incorrect handling of batteries/ rechargeable batteries can lead to explosions/fire.

## Extinguishing agent

In case of fire of batteries/accumulators never extinguish with water! Only use dry extinguishing agents to smother the flames (e.g. sand). Carbon dioxide or extinguishing powder/foam are also suitable for fire fighting. The use of a fire extinguisher with AVD extinguishing agent is particularly recommended

## waste management

Batteries / rechargeable batteries must never be disposed of in household waste! Batteries/rechargeable batteries can be handed in at public collection points in your community. Batteries/ accumulators can also be handed in at all sales points for batteries/ accumulators. Please make sure that batteries are not short-circuited (secure with tape if necessary). DF Models is registered under the WEEE Reg. No. DE30915550 at the EAR foundation and recycles all used electronic components properly. Batteries/rechargeable batteries are marked with the symbol shown below (garbage cans). This indicates the prohibition of disposal in household waste. Additional designations for the determining heavy metal are: Cd=cadmium, Hg=mercury, Pb=lead.



## Storage

Batteries should not be empty or fully charged during longer storage. A state of charge of approx. 80 % of the rechargeable batteries is ideal. The state of charge should be checked and adjusted at regular intervals. Always store batteries safely in a non-flammable place (e.g. use LiPo bag etc.). Store and keep at room temperature (approx. 15-22°C).



## charging

Batteries may only be charged with suitable chargers. For Lixx batteries only charge with chargers with connected/integrated balancer! LiPo batteries have a final charging voltage of 4.2 volts/cell, NiMH batteries of 1.45 volts/cell. Accus should be charged with a charge rate of 1 C, higher charge rates can shorten the life of the battery.

Charge rate: capacity x C-rate = charge current (example with 1C charge rate: battery with 1000mAh x 1C charge rate = 1000mAh (1 A) charge current) Maximum temperatures when charging batteries: LiPo max. 45°C | NiMH max. 60°C.

## discharge

LiPo batteries have a final discharge voltage of 3.2 volts/cell, NiMH batteries of 0.9-1 volts/cell. These values must not be fallen below, otherwise the batteries will be irreparably damaged (risk of explosion/fire).

Discharge rate: The discharge rate specifies the value with which the rechargeable batterie may be loaded during discharge. Higher values lead to irreparable damage (explosion/fire hazard). For LiPo batteries, the C-value is usually visibly indicated on the battery. DF-Models NiMH battery packs (7.2 volt racing stick packs) have a C-rate of 10-15C. Batteries can be discharged/loaded constantly with the indicated value, briefly with the double C-value (max. 3 seconds).

Capacity value x C-rate = discharge current (Example: Battery with 25C (discharge rate) and 1000mAh | 25C x 1000mAh (1A) = 25A discharge current (duration)

Maximum temperatures when discharging batteries: LiPo max. 60°C | NiMH max. 60°C

## Temperatures

Batteries are very sensitive to temperature. At temperatures below 15°C as well as above 35°C, the removable capacity is significantly lower than in the optimum temperature range of approx. 15-35°C. Temperatures below 0°C can cause damage to the battery.

Maximum temperatures when charging batteries: LiPo max. 45°C | NiMH max. 60°C

Maximum temperatures when discharging batteries: LiPo max. 60°C | NiMH max. 60°C



[www.df-models.com](http://www.df-models.com)

## Documents / Resources



[df-models 3640 AVANTI-BR V2 Brushed Boat with Remote Controller](#) [pdf] Instructions  
No.3640, 3640 AVANTI-BR V2 Brushed Boat with Remote Controller, 3640, AVANTI-BR V2, Brushed Boat with Remote Controller, AVANTI-BR V2 Brushed Boat with Remote Controller

