

1.6 User Manual





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Dear customer

Congratulation! You bought a Carrera RC-helicopter which has been manufactured according to today's state-of-the-art technology. As it is our constant endeavour to develop and improve our products, we reserve the right to make modifications, either of a technical nature or with respect to features, materials, and design, at any time, and without prior notice. For this reason, no claims will be accepted for any slight deviations in your product from the data and illustrations contained in these instructions. These operating and assembly instructions are an integral part of the product. Non-observance of these operating instructions and the safety instructions they contain will render the guarantee null and void. These instructions are to be kept for future reference and in the event that the product is passed on to a third party.

Guarantee conditions

Carrera products are technically advanced products (NO TOYS) which should be handled with care. It is important to follow the directions given in the operating instructions. All components have been subjected to careful inspection (technical modifications and alterations to the model for the purpose of product improvement are reserved).

Should any faults nevertheless occur, guarantee is assumed within the scope of the following conditions: In accordance with the following provisions, Stadlbauer Marketing + Vertrieb GmbH (hereinafter referred to as "manufacturer") warrants to the endconsumer (hereinafter referred to as "customer") that the Carrera RC-model-helicopter (hereinafter referred to as "product") delivered to the customer shall be free from defects in material or workmanship for two years from the date of purchase (guarantee period). Such defects will, at the manufacturer's option, either be repaired by the manufacturer or fixed by delivering new or refurbished parts free of charge. The warranty does not cover any failure of the product due to normal wear and tear, improper handling/misuse or unauthorised interference. Any other customer's claims asserted against the manufacturer, especially action for damages, shall be excluded. The contractual and statutory rights of the customer against the seller (supplementary performance, rescission of the contract, abatement, compensation) which exist with the product not having been free from defects at the time of the passing of risk, shall remain unaffected by this warranty.

Claims from this special warranty shall only be valid if:

- the defect reported has not arisen by damage caused by unintended use or misuse as specified in the instruction manual,
- \bullet the failure of the product is not due to normal wear and tear
- the product does not show any signs resulting from repairs or other interferences carried out by workshops not having been authorised by the manufacturer,
- the product has only been operated with accessories authorised by the manufacturer and
- the product is sent in together with the original proof of purchase (invoice / receipt) and the completely filled in warranty card which has not been altered in any way.

 Guarantee cards cannot be replaced.

Note for EU countries: Reference is hereby made to the seller's statutory guarantee obligation, to the extent that this guarantee obligation is not restricted by the product guarantee.

The manufacturer shall bear the costs for sending in and returning the product.

This warranty shall be valid to the extent aforementioned and under the above-named circumstances (including the submittal of the original proof of purchase also in case of resale) for any future owner of the product.

Damage Limits

STADLBAUER MARKETING + VERTRIEB GMBH SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRO-

DUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PROD-UCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLI-GENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Stadibauer Marketing + Vertrieb GmbH exceed the individual price of the Product on which liability is asserted. As Stadibauer Marketing und Vertrieb GmbH has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.



Declaration of conformity

Herewith Stadlbauer Marketing + Vertrieb GmbH declares that this model including remote control meets the basic requirements of the following EC-guidelines: EN 50371, EN 301489-10 V 1.4.1:2002, EN 50371, EN 300220-2V21.1.2:2007, 2006/6/EC and 2004/108/EC referring to the electromagnetic compatibility and any other relevant requirements of guideline 1999/5/EG (R&TTE). The original declaration of conformity can be requested from carrera-rc.com.

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Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and receiver,
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Warning!

A remote-controlled helicopter is NOT A TOY and is only suitable for teenagers over the age of 14!

This product is not intended for use by children without supervision of a parent. Inappropriate use may result in severe injuries and/or damage to property.

It has to be operated with care and caution and requires both mechanical and mental skills. The operating instructions contain notes on safety and technical regulations as well as information on maintaining and operating the product. It is indispensable to read these instructions thoroughly before the first usage. Only this helps to avoid accidents with injuries and damage.

Only use the helicopter in closed rooms which provide sufficient space and follow all instructions given in this manual. Make sure that no lose objects, including clothes, or other objects like pens or screwdrivers can become entangled in the rotor blades or can get in contact with them. Especially take care that your hands DO NOT get close to the rotor blades!

As user of this product you are solely responsible for handling it safely in order to ensure that neither you nor other persons or their property suffer damages or are endangered.

This model is controlled via a radio signal which might be disturbed by various sources from outside. These interferences can cause a short loss of control. Therefore it is advisable to always keep a safe distance to the model in order to avoid damage to property or injuries.

- · Never use your model with weak remote control batteries
- · Avoid busy areas. Always make sure that there is enough space.
- Preferably do not use your model on an open street or in public areas in order not to endanger or hurt anyone.
- Exactly observe the instructions and warnings for this product and for any possible additional equipment (battery charger, rechargeable batteries etc.) being used by
- Make sure that all chemicals, small parts and electrical components are out of childrens' reach.
- Avoid any moisture as this might do damage to the electronics.

LiPo

 There is a risk to suffer severe injury or even death if you put parts of your model into your mouth or lick them.

Important information concerning Lithium Polymer rechargeable batteries

Lithium-Polymer (LiPo) rechargeable batteries are significantly more sensitive than traditional alkali- or NiMH-rechargeable batteries which are normally used with radio control units. Therefore the instructions and warnings have to be observed in detail. In case of improper use of LiPo rechargeable batteries there is a danger of fire. Always follow the manufacturers' instructions if you dispose of LiPo rechargeable batteries.

Regulations on disposal for waste electrical and electronic equipment (WEEE)





This symbol, showing refuse bins with a cross through them, denotes that empty batteries, rechargeable batteries, button cells, rechargeable battery packs, equipment batteries, disused electrical equipment, etc. should not be

disposed of in domestic refuse, as they are harmful to the environment and health. Please help to preserve environment and health and talk to your children about the correct disposal of used batteries and disused electrical equipment. Batteries and disused electrical equipment should be handed in to the usual collection points where they can be properly recycled.

Do not mix dissimilar battery types or employ new and used batteries together. Empty batteries should be removed from the product. Do not attempt to recharge non-rechargeable batteries. Rechargeable batteries should only be charged under adult supervision. Exhausted batteries are to be removed from the toy. Rechargeable batteries should be removed from the product before charging. Supply terminal are not to be short-circuited. Only use the batteries recommended or equivalent types.

If in regular use the charger must be examined for damage to the cord, plug, covers and all other parts. If any signs of damage are found the charger may only be used again after repair work has been completed.

Guidelines and warnings for the use of LiPo rechargeable batteries

Although the 8.4 V === 1000 mA Lithium Polymer battery charger you received together with the Carrera RC helicopter has been developed especially for safe charging of the 7.4 V === 1000 mAh LiPo battery, you have to read the following safety regulations and warnings before using or charging the LiPo rechargeable battery.

Note: LiPo rechargeable batteries are significantly more sensitive than traditional alkali- or NiMH-rechargeable batteries which are normally used with radio control units. Therefore all instructions and warnings have to be observed precisely. In case of improper use of LiPo rechargeable batteries there is a danger of fire. When handling, charging or using the attached LiPo rechargeable battery you assume all and any risks connected with Lithium rechargeable batteries. If you do not agree to these terms please immediately return the complete helicopter model in new and unused condition to the retailer.

- You have to charge the attached 7.4 V === 1000 mAh LiPo rechargeable battery in a safe place and at a safe distance to flammable material.
- Never leave the battery unguarded when charging it. When charging the battery you should always be nearby in order to control the charging process and to be able to react to potential problems.
- After a flight, the rechargeable battery has to cool down to the ambient air temperature before charging it.
- You may only use the appropriate 8.4 V --- 1000 mA LiPo battery charger. In case of non-compliance with these directions there is a danger of fire resulting in a health risk and/or damage to property. NEVER use any other battery charger.
- Should the rechargeable battery swell or deform while discharging or recharging, you have to immediately stop charging or discharging the battery. Take the battery out as quickly and carefully as possible and place it in a safe and open area offside any inflammable material and watch it for at least 15 minutes. In case you continue charging or discharging a battery which has already started to swell or deform there is a danger of fire! Even in case of slight deforming or ballooning the rechargeable battery has to be taken out of operation.
- Store the rechargeable battery at ambient temperature in a dry place.
- When transporting or temporarily storing the rechargeable battery the temperature should be between 5-50°C. If possible, do not store the battery or the model in a car and do not expose it to direct sunlight. In case the battery is broiled it can be damaged

• Do not discharge the LiPo battery beyond a certain level. If the battery is unloaded too deep the battery's output as well as its durability will decrease which can finally lead to a total breakdown. LiPo cells should not be discharged beyond 6 V when being used. The LiPo battery in the Carrera RC helicopter must not fall beyond 6 V voltage during the flight. The helicopter's control unit is equipped with a protection system (LVC) which is activated in case the voltage drops to under 6 V. With this cut-off being activated the control unit is going to reduce the engines' performance in order to avoid a voltage drop to under 6 V. Should you notice this reduction in performance you should land the helicopter at once, switch off the model and take out the rechargeable battery as a further discharging beyond 6 V will damage the LiPo rechargeable battery permanently.

This results in a reduction in the battery's output and durability for any following flights or in a total breakdown. In addition, repeated attempts to discharge the rechargeable battery furthermore may lead to the control system's breakdown although the engines are still running. The minimum voltage required for the receiver or other pieces of electronics is no longer reached then. It is not advisable to max the rechargeable battery to 6V on each flight. Instead, you should keep an eye on the battery s/helicopter's charge condition during the flight. Should you notice that the helicopter requires stronger controlling than normally when hovering or flying you should land your model immediately. Nevertheless, frequent discharging of the rechargeable battery down to 6 V can damage it bermanently.

Note: If the battery voltage/output is low you will recognise that a considerable trim and/or controlling is necessary to avoid that the helicopter starts trundling. This usually occurs before reaching a battery voltage of 6 V and it is a good moment to end the flight.



Recharging the LiPo rechargeable battery

Please make sure that you charge the provided 7.4 V — 1000 mAh LiPo rechargeable battery only with the provided 8.4 V — 1000 mA LiPo battery charger. In case you try to charge the rechargeable battery with a different LiPo battery charger or any other battery charger, this might cause serious damages. Please carefully read the previous chapter about warnings and guidelines on the usage of rechargeable batteries before proceeding





Please proceed as follows when charging the rechargeable battery with the appropriate battery charger:

- Connect the battery charger to the power socket. The green LED on the power supply unit indicates that the charger has correctly been connected to the power socket or that the rechargeable battery has been fully recharged.
- Connect the rechargeable battery to the charger. The connecting section or the connection between battery and charger are specially designed to avoid reverse polarity.
- Has the discharged battery been inserted correctly, the red LED on the charger will light up to indicate that the battery is now being recharged.
- It takes approximately 1 hour to recharge a discharged battery (not exhaustively discharged). As soon as the battery is completely charged the LED on the charger lights up green.

Note: When delivered, the LiPo rechargeable battery is partly charged. Therefore the first charging might take slightly shorter.

Inserting the batteries in the remote control



Open the battery compartment with a screwdriver and insert the batteries in the remote control. Please keep in mind the correct polarity. After having closed the compartment you can check all functions of the remote control with the help of the power-switch on the front. With the power-switch turned ON and proper functioning, the top center LED on the remote control will light up red.



When the control LED flashes rapidly, the batteries in the controller must be changed.

Inserting the LiPo rechargeable battery in the helicopter



After the LiPo battery has been fully charged it can be inserted in the helicopter. Therefore push the battery from behind into the battery holder at the bottom side of the helicopter's body. Please make sure that the plug faces towards the front of the helicopter.



Note: Push the battery into the battery holder right to the positive stop, that is until the rear of the battery is in contact with the rear part of the holder. This will guarantee that the centre of gravity is ideally located and that the flying performance is at its optimum. To switch on the helicopter, connect the plugs for the battery and the helicopter. To switch off, disconnect the plugged connection.

Preparing the first flight

This checklist does not replace the contents of the operating instructions. Although it can be used as a quick-start-guide we strongly advise to first read the operating instructions in detail before you proceed.

- · Check the contents of the package
- · Connect the charger to the power socket
- · Charge the LiPo battery
- · Insert four AA batteries in the controller
- · Insert the fully charged LiPo battery in the helicopter
- · Look for a suitable environment for flying
- · Place the helicopter on a flat surface
- · Always switch on the remote control first and then the helicopter
- · Check the control system
- Make yourself familiar with the control system

Checklist for flight preparation

This checklist does not replace the contents of the operating instructions. Although it can be used as a quick-start-guide we strongly advise to first read the operating instructions in detail before you proceed.

- Generally switch on the remote control first.
- Insert the battery in the designated holder at the helicopter's bottom.
- Place the charged helicopter on a flat surface and wait a moment until the system is correctly initialised and is ready for use.
- If the helicopter fails to display any function, connect the model with the controller as necessary, as shown below.
- Fly the model
- · Land the model
- Take the LiPo battery out of the helicopter
- · Always switch off the remote control last

Frequency bind between model and remote control



The Carrera RC helicopter and the remote control are frequency bound at purchase. Should there occur any problems with the communication between the Carrera RC helicopter and the remote control at the beginning, please carry out a new frequency bind.

- Insert the battery into the helicopter.
- · Press the right joystick on the remote

control from above and switch on the remote control.

- The control LED starts flashing.
- · Move the left-hand joystick on the controller upwards and downwards again twice.
- The control LED lights up permanently again and indicates that the frequency bind has been finished.



Range of functions of the remote control





- 1. Antenna
- 2. Power switch (ON / OFF)
- 3. Control LED
- 4. Gas · tail (spinning in circles)
- 5. Trimmer for gas
- 6. Trimmer for tail
- Forward/backward right/left pitch
- 8. Trimmer for forward/backward
- 9. Trimmer for right/left pitch
- 10. Battery compartment
- 11. Slot for keeping Joystick extensions
- 12. Joystick extensions to screw on lever 4. & 7.

Description of helicopter



- 1. Coaxial rotor system
- 2. Tail rotor
- 3. LiPo battery holder
- 4. Landing skids

Replacing the rotor blades



Should the rotor blades be damaged, you should replace them immediately. Make sure they are installed the correct way round.

Controlling the helicopter

In case you don't know the control functions of your Carrera RC helicopter yet, please take some minutes before the first flight in or to make yourself familiar with them. The descriptions left or right refer to the view out of the cockpit (pilote's view).



With the throttle being at minimum position and the trim of throttle in medium or lower position, the rotor blades are not going to revolve. Push the throttle up to increase the rotational speed of the main rotor blades. Increase the rotational speed of the main rotor blades and the model will start to ascend. If you push down the throttle and thus reduce the rotational speed of the main rotor blades the helicopter will descend. When the model has lifted off the ground you can get it into stationary hovering without abrupt ascending or descending by carefully moving the throttle upwards and downwards.





Move the left lever (tail) to the left and the helicopter's nose turns (yaws) round the main rotor's axis in a circle to the left. Move the left lever (tail) to the right and the helicopter's nose turns (yaws) round the main rotor's axis in a circle to the right.

Use the trimmer for tail until you have

reached a stable neutral position of the









The forward-/backward lever controls the helicopter's pitch forward and backward. When shifting the lever forward the nose of the helicopter will move downwards and the helicopter will fly forward. When shifting the forward-/backward lever backward the helicopter will move backwards and the helicopter will fly backward. Use the timmer for forward-/backward in order to achieve a stable neutral position and to avoid that the helicopter flies forward or backward when hovering without moving the forward-/backward lever.



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When shifting the lever for right/left pitch to the left or right, the helicopter pitches to the left or to the right and flies to the left and right respectively. Use the timmer for right/left pitch in order to achieve a stable neutral position and to avoid that the helicopter will fly to the left or right when hovering without moving the lever for right-/left pitch



After having made yourself familiar with the main control functions and having chosen an appropriate area for flying the helicopter, you can start the first flight.

Choosing the flight area

When being prepared for the first flight you should choose a closed room without any persons or obstacles which is as big as possible. Due to the size and controllability of the helicopter experienced pilotes may be able to fly the helicopter in relatively small rooms. For your first flights we strongly recommend to choose a room with a minimum floor space of 3 x 4 metres and 2.40 metres of height. After having trimmed your helicopter for flight and having made yourself familiar with the controlling and its functions you may start flying in smaller and less open environments.





The helicopter may be flown out of doors, but only on calm days or days of very little wind.

Please note that in spite of calm conditions near the ground, it can be very windy a little further from the ground.

If this advice is disregarded, the helicopter may suffer irreparable damage.

For more information on our RC-products please visit carrera-rc.com

Troubleshooting

Problem	Cause	Solution
Remote control does not work.	The ON/OFF-power switch is turned "OFF".	Turn the ON/OFF-power switch "ON".
	The batteries have been wrongly inserted.	Check if the batteries have been correctly inserted.
	The batteries do not have enough power.	Insert new batteries.
The helicopter cannot be		First turn the power switch on the remote control "ON".
controlled with the remote control	The battery is not properly connected with the socket in the helicopter.	To switch on the helicopter, connect the plugs for the battery and the helicopter. Wait 3 seconds until connection is established between the controller and the receiver.
	The remote control is possibly not correctly frequency bound with the receiver on the helicopter.	Please carry out a frequency bind between the helicopter and the remote control as described in "frequency bind between model and remote control".
The rotor blades do not rotate.	The ON/OFF-power switch is turned "OFF".	Turn the ON/OFF-power switch "ON".
	The rechargeable battery is too weak or has run out of power.	Charge the battery (see chapter "Charging the battery").
The helicopter does not lift.	The rotor blades rotate too slowly.	Push the throttle up.
	The battery's power is not sufficient.	Charge the battery (see chapter "Charging the battery").
During flight, the helicopter loses speed and height without any obvious reason.	The battery is too weak.	Charge the battery (see chapter "Charging the battery").
The helicopter lands too	Loss of throttle control.	Push the throttle down slowly.
quickly.	Throttle has been pushed down too quickly.	

Errors and changes excepted Colours / final design – changes excepted Technical changes and design-related changes excepted Pictograms = symbolic photos