Nine Eagles™

Distributed by robbe

Operating Instructions

SKY CLIMBER RTF 2,4 GHz

No. NE2001

Explanation of specialist terms:

Motor speed („Throttle“): This controls the rotational speed of the motor. Stick forward = maximum speed; stick back = motor off.
Rudder: This controls the model‘s attitude around the vertical (yaw) axis, causing the aeroplane to fly to the right or left.
Up-elevator / **down-elevator:** This controls the model‘s flight attitude around the lateral (pitch) axis. Stick forward = the model descends; stick back = the model climbs.
Ailerons: This controls the model‘s flight attitude around the longitudinal (roll) axis. Stick right = right wing down; stick left = left wing down.
Mode 1: Function assignment of the control movements relative to the stick movements.
In this case throttle and ailerons are controlled by the right-hand transmitter stick, elevator and rudder by the left-hand stick.
Mode 2: Function assignment of the control movements relative to the stick movements.
In this case throttle and rudder are controlled by the left-hand transmitter stick, elevator and ailerons by the right-hand stick.
Dual-Rates:
Switchable travel reduction for control movements

Contents

Be sure to read these Safety Notes before you assemble your model. Always keep to the procedures and settings recommended in the instructions.

If you are operating a radio-controlled model aircraft, helicopter, car or boat for the first time, we recommend that you enlist the aid of an experienced modeller to help you.

Safety Notes

Radio-controlled models are not toys in the usual sense of the term. Young persons under fourteen years should only be allowed to operate them under the supervision of an adult.

Building and operating these models requires technical expertise, manual skills, a careful attitude and safety-conscious behaviour.
Errors, negligence and omissions in building or flying these models can result in serious personal injury and damage to property.

Since the manufacturer and vendor are not in a position to check that your models are built and operated correctly, all we can do is bring these hazards expressly to your attention. We deny all further liability.

Aircraft propellers, and all moving parts generally, constitute a constant injury hazard.
It is essential to avoid touching such parts.

Bear in mind that motors and speed controllers may become hot when operating.
It is essential to avoid touching such parts.

Do not stand close to the hazard area around rotating parts when an electric motor is connected to the flight battery.
You must take care to keep all other objects away from moving or rotating parts!

Observe the instructions provided by the battery manufacturer.
Overcharged or incorrectly charged batteries may explode. Take care to maintain correct polarity.

Ensure the equipment is protected from dust, dirt and moisture contamination. Do not subject the system to excessive heat, cold or vibration.

Use the recommended charger only, and avoid charging the batteries for longer than the prescribed period.

Check your equipment for damage at regular intervals, and replace defective components with genuine spare parts.

Do not re-use any devices which have been damaged in a crash or by water, even when they have dried out again.
Send the equipment to the robbe Service Department for checking, or replace the parts in question.
Crash or water damage can result in concealed defects which may lead to failure in subsequent use.
Use only those components and accessories which we specifically recommend.

Do not carry out modifications to the radio control system components apart from those described in the instructions.

Operating the model

- Never fly over or towards spectators or other pilots, and maintain a safe distance from them at all times.
- Never endanger people or animals.
- Never fly close to high-tension overhead cables or residential areas.
- Do not operate your model in the vicinity of canal locks or open waterways.
- Do not operate your model from public roads, motorways, paths and squares etc.; use authorised model flying sites only.

- **Never operate the model in stormy weather.**

Never “point” the transmitter aerial straight at the model when operating it. The transmitter signal is at its weakest in this direction. It is always best to stand with the long side of the aerial angled towards the model.

Insurance

Ground-based models are usually covered by standard personal third-party insurance policies. In order to fly model aircraft you will need to extend the cover of your existing policy, or take out specific insurance.
Check your insurance policy and take out new cover where necessary.

Liability Exclusion

robbe Modellsport is unable to ensure that you observe the assembly and operating instructions, or the conditions and methods used for installing, operating and maintaining the model components.
For this reason we accept no liability for loss, damage or costs which are due to the erroneous use and operation of our products, or are connected with such operation in any way.

Regardless of the legal argument employed, our obligation to pay compensation is limited to the invoice value of those robbe products directly involved in the event in which the damage occurred, unless otherwise prescribed by law. This does not apply if the company is deemed to have unlimited liability according to statutory regulation due to deliberate or gross negligence.

Lieferumfang:
1x SKY CLIMBER RTF 2,4 GHz
1 x Wing joiner spar
1 x 2.4 GHz transmitter
1 x Tailplane retaining screw
2 x Wing retaining pin
1 x Battery charge lead
1 x Lithium-Ion-Polymer battery
1 x Charger for Lithium-Ion-Polymer battery

⚠ **Please be sure to observe the safety notes regarding the safe handling of Lithium-Ion-Polymer batteries on page 8.**

Dear customer,
Congratulations on choosing a model aircraft from our range. Many thanks for placing your trust in us.
The model can be completed and made ready to fly very quickly. Please read right through these instructions before attempting to fly the model for the first time, as this will make it much easier to operate the model safely.

All directions, such as “right-hand”, are as seen from the tail of the model, looking forward.

Specification:

Wingspan:	2000 mm
Overall length:	1200 mm
All-up weight:	approx. 970 g
Motor:	28-35 BL motor
Power supply:	LiPo battery, 11.1 V / 1800 mAh

Recommended accessories:
8 x 8005 NiMH AA-size cell, 1.2 V / 2500 mAh
1 x F1415 Transmitter charge lead
1 x POWER PEAK® Uni 7 EQ 230 V

Assembling the model

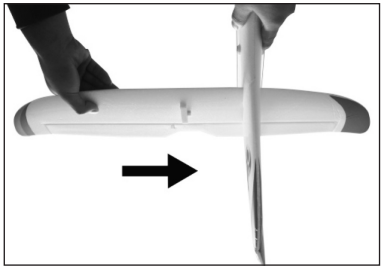


Fig. 1

Fit the tailplane into the slot in the fin from the left-hand side using only moderate pressure, until it is positioned flush with the fuselage (Fig. 1).

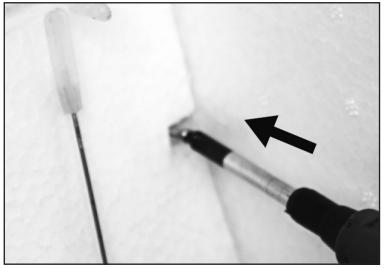


Fig. 2

Set the tailplane at right-angles to the fuselage centreline.
Check that the tailplane is located correctly, then fit the screw supplied to secure it (Fig. 2).

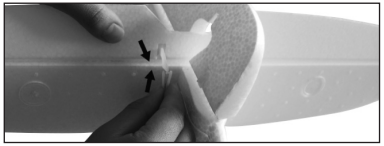


Fig. 3

Connect the pushrod to the elevator horn (Fig. 3).

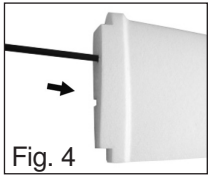


Fig. 4

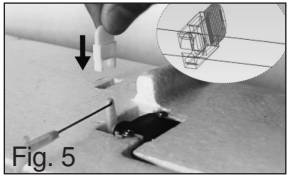


Fig. 5

Slide the wing joiner spar into the right-hand wing panel with the machined groove located on the underside (Fig.4). When the groove in the spar lines up with the opening in the underside of the wing, insert a retaining pin (Fig. 5) to secure the spar.

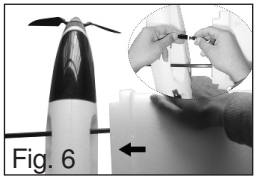


Fig. 6

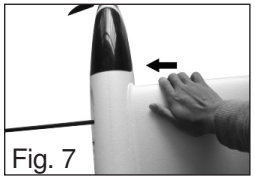


Fig. 7

Connect the aileron servo (green mark on plug and socket) (Fig. 6) before inserting the right wing (with the secured joiner spar) into the recess in the fuselage. Now slide the wing into the fuselage as far as it will go (Fig. 7). Slide the left wing panel onto the projecting joiner spar, and connect the aileron servo (red mark on plug and socket). Push the wing into the fuselage recess as far as it will go. Check that both wings are located correctly, then insert the second retaining pin.

Using the charger to charge the flight battery

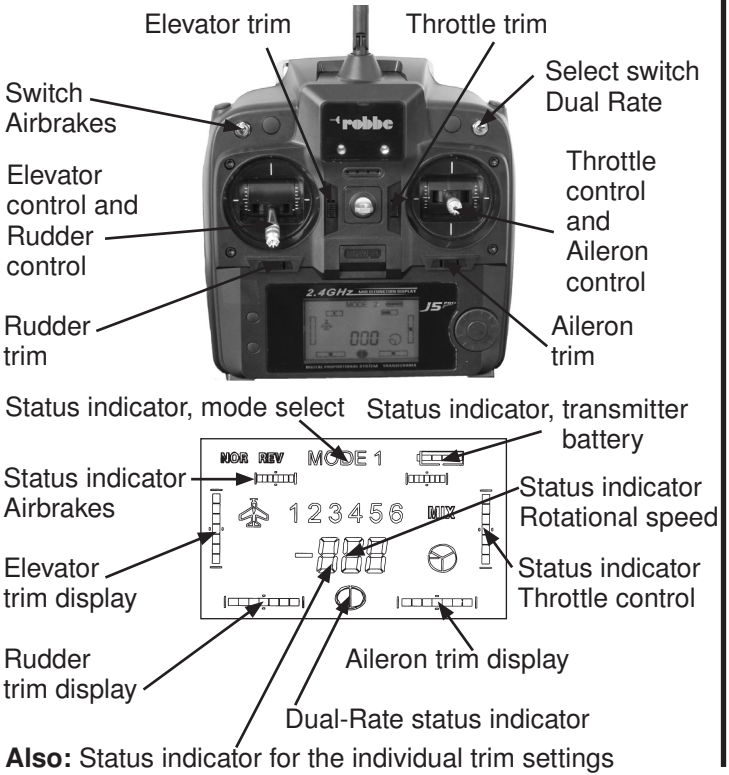
The battery charger must be connected to a 12 V power source with a minimum output power of 2 A using the connecting lead supplied. Correct polarity is essential.
Disconnect the battery from the charger as soon as it is fully charged, and disconnect the power source from the power supply.

Safety Notes
Do not operate your charger and batteries on an inflammable surface, and do not leave the equipment running unsupervised. Protect from damp. Do not subject to direct sunshine, and do not cover the charger.
Do not charge batteries that are hot to the touch. Allow batteries to cool down to ambient temperature. Charge the battery only using the charger included in the set; do not use any other charger. The charger should only be used to charge the battery included in the set.

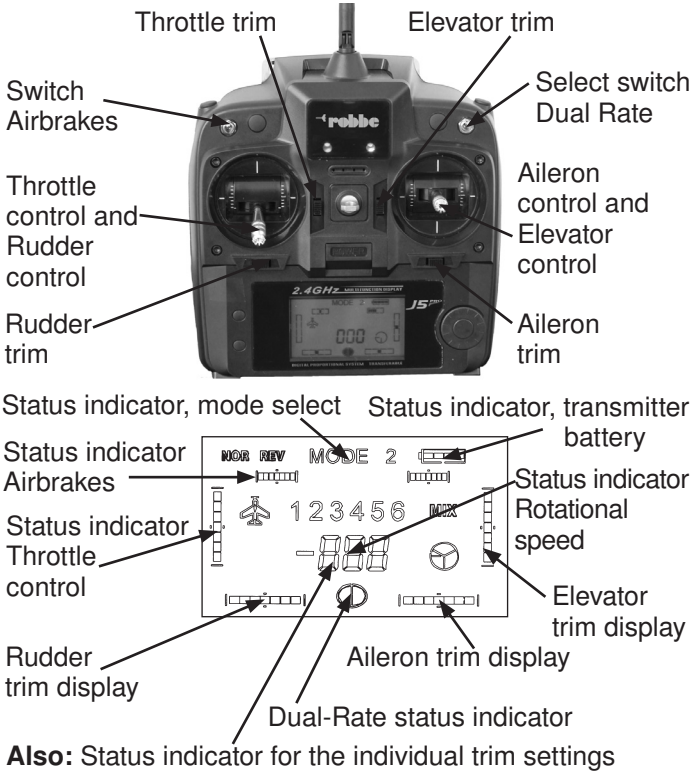
Safety Notes regarding LiPo batteries:
- Do not place the battery in water or any other liquid.
- Do not heat or incinerate the battery; do not place it in a microwave oven.
- Avoid short-circuits, and never charge the battery with reversed polarity
- Do not subject the battery to pressure or shock loads, and never distort or throw the pack.
- Never solder directly to the battery
- Do not modify or open the battery
- Batteries must only be charged with a suitable charger; never connect the battery directly to a mains power supply.
- Never charge or discharge a battery in bright sunlight, or close to a heater or open fire.
- Do not use the battery in areas subject to high levels of static discharge.
- Any of these errors can result in damage to the battery, explosion or even fire.
- Keep the battery out of the reach of children
- Do not allow escaped electrolyte to come into contact with fire, as it is highly inflammable, and may ignite.
- Avoid the fluid electrolyte contacting the eyes. If this should happen, flush with copious amounts of clean water and contact a doctor without delay.
- The fluid electrolyte can also be removed from clothing and other objects by rinsing in plenty of water.

LIABILITY EXCLUSION
Since robbe Modellsport is not in a position to monitor the handling of these batteries, we expressly deny all liability and guarantee claims where the batteries have been incorrectly charged, discharged or handled.

Transmitter settings, Mode 1:



Transmitter settings, Mode 2 (as supplied):



(Complete operating instructions for the J5 transmitter can be found in the Download area at www.robbe.com)

"Primary" and "expanded" control function setting

The transmitter offers the facility to adjust the sensitivity of the stick movements. We recommend "softer" reduced travels for beginners.
Open the transmitter battery compartment and insert the eight fully-charged NiMH cells (check for correct polarity).

Switching sensitivity:

Switch the transmitter on.

Reduced control function:
Locate the toggle switch at top right of the transmitter, and move it down. The "Status indicator, Dual Rate" disc is reduced to half.

Enlarged control function:
Locate the toggle switch at top right of the transmitter, and move it up. The "Status indicator, Dual Rate" disc is shown in full.

Converting the transmitter from "Mode 2" (throttle left) to "Mode 1" (throttle right)

The transmitter is supplied set to Mode 2 as standard. If you prefer Mode 1 and wish to convert the transmitter to that mode, use this procedure:

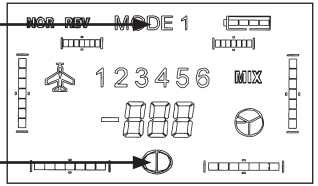
The transmitter must be switched off.

Locate the central cover over the battery compartment in the rear of the transmitter, and open it by pressing both retaining clips together using two fingers. Lift the cover up and off.

The toggle switches located under the cover are used to select Mode 1 and Mode 2:
Toggle switch up = Mode 1
Toggle switch down = Mode 2

You can now close the battery cover and switch the transmitter on. The screen displays the new setting.

Status indicator, mode select



Dual-Rate status indicator
(see left)

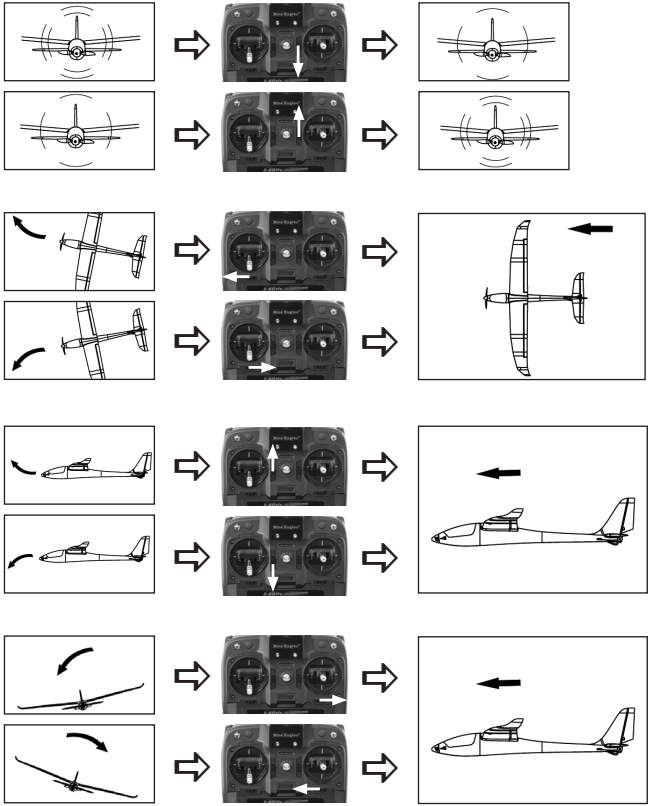
Transmitter settings Mode 1

Throttle trim:
If the propeller starts to move without you touching the throttle stick, or does not respond to stick movements, correct this with the throttle trim.

Rudder trim:
If the model's nose turns to right or left when launched, adjust the rudder trim buttons until the model maintains a constant heading.

Elevator trim:
If the model raises or lowers its nose when launched, adjust the elevator trim until the model maintains a stable attitude.

Aileron trim:
If the model rolls to right or left when launched, adjust the aileron trim buttons until the model maintains a constant heading.



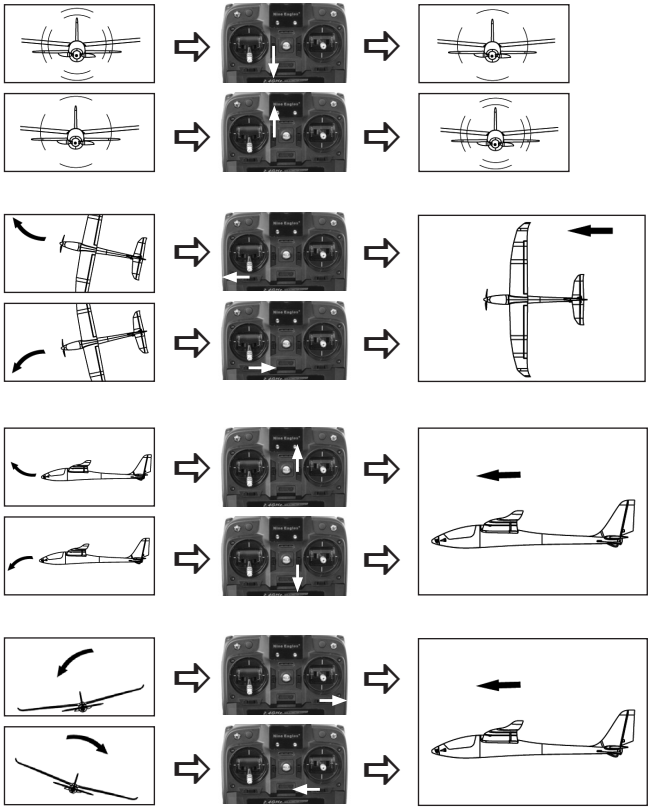
Transmitter settings, Mode 2

Throttle trim:
If the propeller starts to move without you touching the throttle stick, or does not respond to stick movements, correct this with the throttle trim.

Rudder trim:
If the model's nose turns to right or left when launched, adjust the rudder trim buttons until the model maintains a constant heading.

Elevator trim:
If the model raises or lowers its nose when launched, adjust the elevator trim until the model maintains a stable attitude.

Aileron trim:
If the model rolls to right or left when launched, adjust the aileron trim buttons until the model maintains a constant heading.



Flight preparation

Switch the transmitter on (Fig. 1).The battery status is displayed at the top of the screen. Move the throttle stick and trim to the lowest position. Open the canopy, place the fully charged LiPo flight battery in the recess, and use the Velcro tape to hold it in place. The Centre of Gravity (see illustration on page 15) is checked by supporting the model under the wings on both sides of the fuselage using your index fingers, and allowing it to hang freely. Ideally the model will now balance level, with the nose inclined slightly down. The CG can be fine-tuned by adjusting the battery position.
Now connect the battery and replace the canopy on the fuselage (Figs. 2 - 4).

The transmitter and the receiver are now ready for use. Repeat this procedure every time you wish to fly the model.

Note: the 2.4 GHz transmitter and receiver are supplied already bound at the factory. It will only be necessary to bind the system again after a repair, or if you replace a component.

Richtige Vorgehensweise vor dem Start!

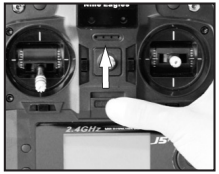


Fig. 1

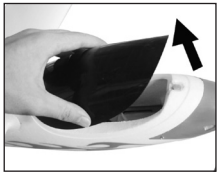


Fig. 2

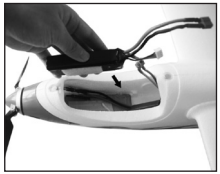


Fig. 3

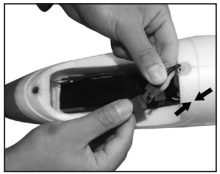


Fig. 4

Preparations for the first flight:
Wait for a day with **absolute flat calm** conditions.

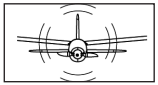
Charge the flight battery before flying.

Checking the working systems
Before the first flight it is important to set all the trims - except for the throttle trim - to centre. The throttle stick must be in the "fully back" position (towards you). If the propeller turns, adjust the throttle trim until it comes to a halt.

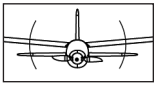
The correct post-flight procedure.
Open the canopy and remove the flight battery. Replace the canopy on the model, then switch the transmitter off.

Controlling the model in Mode 1

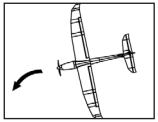
High RPM (launch):



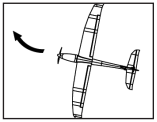

Motor off (landing):



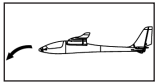

Left turn:



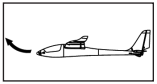

Right turn:



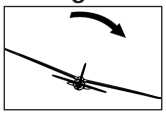

Descent:



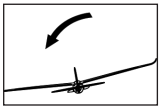

Climb:




Roll right:




Roll left:

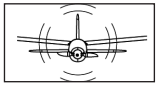



Airbrakes retracted:

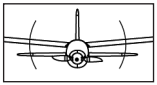

Airbrakes extended:


Controlling the model in Mode 2

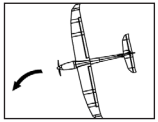
High RPM (launch):



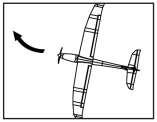

Motor off (landing):



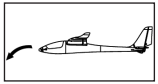

Left turn:



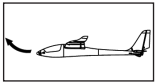

Right turn:



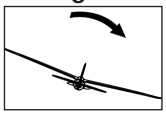

Descent:



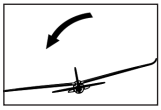

Climb:



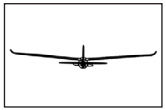

Roll right:




Roll left:




Airbrakes retracted:




Airbrakes extended:


Important Notes

Launching: Hold the model in your hand, set the motor to full power, and push the model forward smartly, directly into any wind. It is **essential** to adjust the trims so that the aeroplane flies in a stable attitude, climbing smoothly. Use the controls gently at first to learn how the model responds to flight commands.

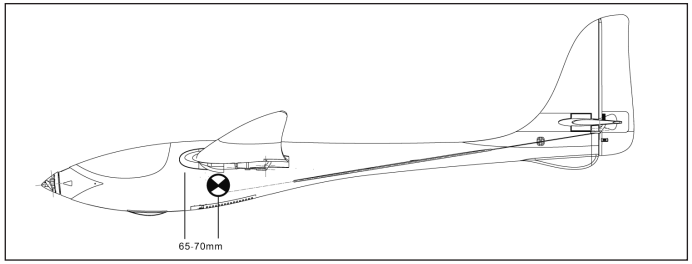
Landing: Slowly and steadily reduce the throttle setting until the model descends and touches down. The ailerons can be used as airbrakes using the left switch on the transmitter; this helps to reduce wing lift; at the same time the aileron function is still available. Once the model has landed, disconnect the flight battery from the receiver, and finally switch the transmitter off.

Caution: Stopping (obstructing) the motor when it is turning can cause serious damage to the mechanical system, and may even result in a fire. If the propeller is forcibly stopped, immediately move the throttle stick back to Idle!

Note re. the flight battery: As soon as you notice a reduction in motor power, land immediately and disconnect the battery. Never continue flying until the battery is flat, as this causes a deep-discharge condition, which results in permanent damage. Allow the battery to cool down before recharging it.

Replacing the propeller:
A damaged propeller must be replaced immediately.

The first few flights



Once the model is properly trimmed, you can practise the art of flying, and carry out manoeuvres such as circles, squares, rectangles and figures-of-eight.

To avoid giving incorrect control commands, always stand behind and to one side of the model.
You can fly a square pattern by alternating the direction of flight: away from the pilot, to the pilot's right, and then towards the pilot.

Tip: when the model is flying with the nose pointing towards you, the controls are reversed (apart from elevator and throttle control).

Fig. 1

Re-binding the transmitter

This procedure is only necessary if individual components are replaced.

Move the throttle stick and trim to the bottom position (motor stopped), then place the transmitter as close as possible to the receiver.

Locate the horizontal trim switch below the right-hand stick unit on the transmitter, and push it to the left while you switch the transmitter on (Fig. 1). The screen now displays the message "5-H", and emits a series of beeps. Connect the LiPo flight battery, and the LED on the receiver flashes at a high rate. Now hold the Easy Link button pressed in for three to five seconds until the LED goes out. When the binding process is complete, the transmitter's screen reverts to normal mode, and the LED on the receiver glows constantly. The servos will now respond normally to stick movements.

Checking the working systems

Before the first flight it is important to set all the trims - except for the throttle trim - to centre. The throttle stick must be in the "fully back" position (towards you). If the propeller turns, adjust the throttle trim until it comes to a halt.

Protective function of the BL speed controller with the battery connected:
If the flight battery is connected to the SKY CLIMBER's BL controller, and the motor is not operated for a period of 2.5 minutes, a clear audible warning is emitted by the model. This protective function is intended to remind the pilot to disconnect the battery from the controller after every flight.
If the model is allowed to glide for a long period without the motor being switched on, this will trigger the audible warning. You can switch it off again by "opening the throttle" once (in which case the motor will not start running). The audible warning has no effect on the servo functions or the receiver's performance.

Setup menu
Enter the menu program by pressing both trim levers down, as shown in the illustration (Fig. 1), then switch the transmitter on: the displays "**NOR", "REV"** and the channel line flash.

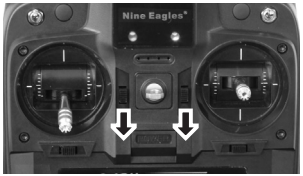


Fig. 1

In the "Setup menu" the functions of the trim buttons are as shown in Fig. 2.

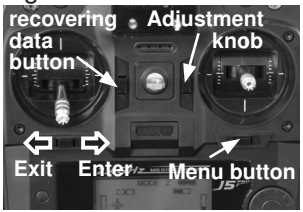
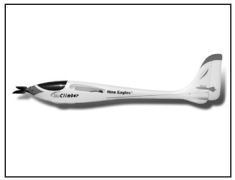


Fig. 2

Airbrake setting
In the default setting the airbrakes (ailerons) extend downward. This is the procedure for reversing this setting (ailerons up):
Push the **"MENU"** button (right-hand trim lever) to the right three times: "F-P" flashes. Now press the **"ENTER"** button (left-hand trim lever): the current setting flashes.
One switch position is used for the neutral position of the ailerons, which should be 50%. The other switch position determines the travel of the airbrake function: if you set a value above 50, the airbrakes (ailerons) extend up; if you set a value below 50, the brakes extend down.
Press **"ENTER"** to store the selected value, then quit the Setup menu with **"EXIT"**.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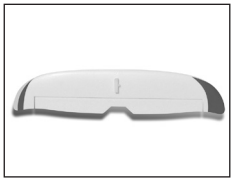
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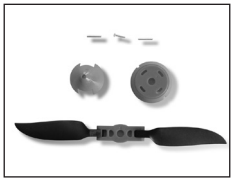
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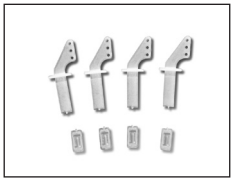
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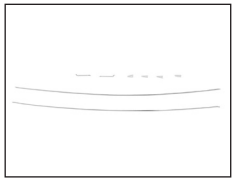
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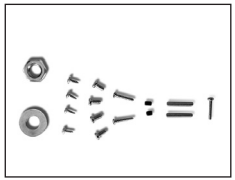
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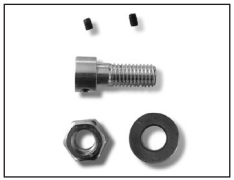
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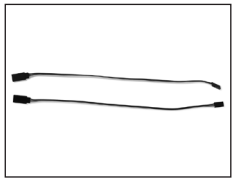
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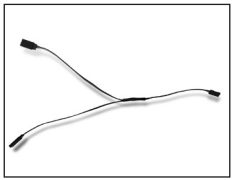
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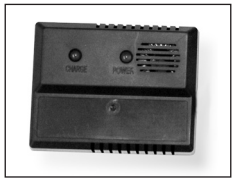

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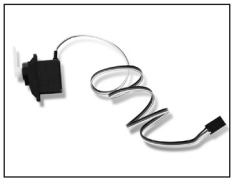
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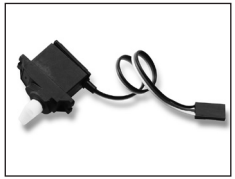
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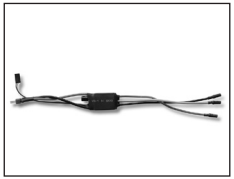
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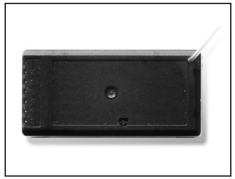
NE200117

Replacement parts list - SKY CLIMBER RTF

Order No.	Description
NE200101	Fuselage
NE200102	Tail set
NE200103	Wing
NE200104	Propeller set
NE200105	Control surface horns
NE200106	Control surface linkage
NE200107	Screw set
NE200108	Propeller driver
NE200109	LiPo battery, 11.1 V / 1800 mAh
NE200110	Motor set
NE200111	Servo extension lead
NE200112	Y-lead
NE200113	Battery charger
NE200114	Servo, 9 g, length: 170 mm
NE200115	Servo, 9 g, length: 450 mm
NE200116	BL speed controller, 20 A
NE200117	Receiver set

robbe Modellsport GmbH & Co. KG hereby declares that this device conforms to the fundamental requirements and other relevant regulations of the appropriate CE Directive. Under www.robbe.com, you will find the original Conformity Declaration by clicking on the Logo button „Conform“ shown together with the appropriate device description.

This symbol means that you should dispose of electrical and electronic equipment separately from the household waste when it reaches the end of its useful life. Take your unwanted equipment to your local council collection point or recycling centre. This requirement applies to member countries of the European Union as well as other non-European countries with a separate waste collection system.

Disposal of batteries

Batteries must not be discarded as domestic refuse. To protect the environment, always return exhausted or defective cells to your local recycling centre. These include retail sales outlets for batteries, and communal toxic waste disposal centres. Cover any bare wires with insulating tape in order to avoid short-circuits.

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