

# SPACE SCOOTER



## **MULTIPLEX<sup>®</sup>**

- # 21 4220 KIT Space-Scooter Montagesatz mit Motor und Getriebe
- # 1 3204 RTF Space-Scooter 40MHz Europa-Version
- # 1 3205 RTF Space-Scooter 35MHz Europa-Version
- # 1 3206 RTF Space-Scooter 41MHz Europa-Version
- # 1 3207 RTF Space-Scooter 72MHz US-Version

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## **D** Sicherheitshinweise

- ☺ Prüfen Sie vor jedem Start den festen Sitz des Motors und der Luftschraube - insbesondere nach dem Transport, härteren Landungen sowie Abstürzen. Prüfen Sie ebenfalls vor jedem Start den festen Sitz und die richtige Position der Tragflächen auf dem Rumpf.
- ☺ Akku erst einstecken, wenn Ihr Sender eingeschaltet ist und Sie sicher sind, daß das Bedienelement für die Motorsteuerung auf "AUS" steht.
- ☺ Im startbereiten Zustand nicht in den Bereich der Luftschraube greifen. Vorsicht in der Luftschraubendrehebene - auch Zuschauer zur Seite bitten!
- ☺ Zwischen den Flügeln die Motortemperatur durch vorsichtige Fingerprobe prüfen und vor einem Neustart den Motor ausreichend abkühlen lassen. Die Temperatur ist richtig, wenn Sie den Motor problemlos berühren können. Insbesondere bei hohen Außentemperaturen kann dieses bis zu 15 Minuten dauern.
- ☺ Denken Sie immer daran: Niemals auf Personen und Tiere zufliegen.

## **F** Conseils de sécurité

- ☺ Avant chaque décollage, vérifiez la fixation du moteur et de l'hélice, notamment après le transport, après les atterrissages violents et après un "Crash". Vérifiez également, avant chaque décollage la fixation ainsi que le positionnement de l'aile par rapport au fuselage.
- ☺ Ne branchez l'accu de propulsion que si vous êtes sûr que votre émetteur est allumé et que l'élément de commande moteur est en position "ARRET".
- ☺ Ne mettez pas vos doigts dans l'hélice! Attention à la mise en marche, demandez également aux spectateurs de reculer.
- ☺ Entre deux vols, vérifiez en posant un doigt dessus, la température du moteur, laissezle refroidir suffisamment avant le prochain décollage. La température est correcte si vous pouvez maintenir votre doigt ou votre main sur le moteur. Le temps de refroidissement peut varier jusqu'à 15 minutes s'il fait particulièrement chaud.
- ☺ Pensez-y toujours: ne volez jamais vers ou au-dessus des personnes ou des animaux.

## **GB** Safety notes

- ☺ Before every flight check that the motor and propeller are in place and secure - especially after transporting the model, and after hard landings and crashes. Check also that the wing is correctly located and firmly secured on the fuselage before each flight.
- ☺ Don't plug in the battery until you have switched on the transmitter, and you are sure that the motor control on the transmitter is set to "OFF".
- ☺ When the model is switched on, ready to fly, take care not to touch the propeller. Keep well clear of the propeller disc too, and ask spectators to stay back.
- ☺ Allow the motor to cool down after each flight. You can check this by carefully touching the motor case with your finger. The temperature is correct when you can hold your finger on the case without any problem. On hot days this may take up to 15 minutes.
- ☺ Please keep in mind at all times: don't fly towards people or animals.

## **I** Note di sicurezza

- ☺ Prima di ogni decollo controllare che il motore e la eliche siano fissati stabilmente - specialmente dopo il trasporto, atterraggi duri e se il modello è precipitato. Controllare prima del decollo anche il fissaggio e la posizione corretta delle ali sulla fusoliera.
- ☺ Collegare la batteria solo quando la radio è inserita ed il comando del motore è sicuramente in posizione "SPENTO".
- ☺ Prima del decollo non avvicinarsi al campo di rotazione della eliche. Attenzione alla eliche in movimento - pregare che eventuali spettatori si portino alla dovuta distanza di sicurezza!
- ☺ Tra un volo e l'altro controllare cautamente con le dita la temperatura del motore e farli raffreddare sufficientemente prima di ogni nuovo decollo. La temperatura è giusta se si possono toccare senza problemi. Specialmente con una temperatura esterna alta questo può durare fino a 15 minuti.
- ☺ Fare attenzione: Non volare mai nella direzione di persone ed animali.

## **E** Advertencias de seguridad

- ☺ Compruebe antes de cada despegue que el motor y la hélice estén fuertemente sujetos, sobretodo después de haberlo transportado, de aterrizajes más fuertes así como después de una caída. Compruebe igualmente antes de cada despegue que las alas estén bien sujetas y bien colocadas en el fuselaje.
- ☺ Conectar la batería, cuando la emisora esté encendida y Usted esté seguro que el elemento de mando para el motor esté en "OFF".
- ☺ No meter la mano en la zona inmediata a la hélice cuando el avión esté a punto de despegar. ¡Cuidado con la zona de la hélice!  
¡Pedir a los espectadores que se aparten!
- ☺ Entre los vuelos hay que comprobar cuidadosamente la temperatura del motor con el dedo y dejar que el motor se enfríe antes de volver a despegar. La temperatura es correcta, si puede tocar el motor sin problemas. Sobretudo en el caso de temperaturas del ambiente muy altas, esto puede tardar unos 15 minutos.
- ☺ Recuerde: No volar nunca hacia personas o animales.

# SPACE SCOOTER



# 21 4220	Space-Scooter kit including motor and gearbox
# 1 3204	Space-Scooter RTF 40 MHz Europe version
# 1 3205	Space-Scooter RTF 35 MHz Europe version
# 1 3206	Space-Scooter RTF 41 MHz Europe version
# 1 3207	Space-Scooter RTF 72 MHz US version

## Examine your kit carefully!

MULTIPLEX model kits are subject to constant quality checks throughout the production process, and we sincerely hope that you are completely satisfied with the contents of your kit. However, we would ask you to check all the parts **before** you start construction, as **we cannot exchange components which you have already worked on**. If you find any part is not acceptable for any reason, we will readily correct or exchange it. Just send the component to our Model Department. Please be **sure** to include the purchase receipt and a brief description of the fault.

We are constantly working on improving our models, and for this reason we must reserve the right to change the kit contents in terms of shape or dimensions of parts, technology, materials and fittings, without prior notification. Please understand that we cannot entertain claims against us if the kit contents do not agree in every respect with the instructions and the illustrations.

## Caution!

**Radio-controlled models, and especially model aircraft, are by no means playthings in the usual sense. Building and operating them safely requires a certain level of technical competence and manual skill, together with discipline and a responsible attitude at the flying field. Errors and carelessness in building and flying the model can result in serious personal injury and damage to property. Since we, as manufacturers, have no control over the construction, maintenance and operation of our products, we are obliged to take this opportunity to point out these hazards and to emphasise your personal responsibility.**

## For the kit version the following additional items are required:

### Receiving system

MULTIPLEX <i>Pico 5/6</i> UNI receiver	35 MHz A-band	Order No. 5 5920
alternatively:	40 MHz band	Order No. 5 5921
or		
MULTIPLEX <i>Micro IPD</i> UNI receiver	35 MHz A-band	Order No. 5 5971
alternatively:	40 MHz band	Order No. 5 5972
MULTIPLEX <i>Nano-S</i> UNI servo	Aileron	Order No. 6 5120
MULTIPLEX <i>Nano-S</i> UNI servo	Elevator	Order No. 6 5120
MULTIPLEX <i>MULTIcont X-08</i> UNI speed controller	Throttle	Order No. 7 2270
optionally: <i>Nano-S</i> UNI servo	Rudder	Order No. 6 5120

### Flight battery:

MULTIPLEX NiMH flight pack	7/1500 mAh	Order No. 15 6030
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### Battery charger:

MULTIcharger 5008 DC		Order No. 9 2525
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## Adhesives: cyano-acrylate ("cyano") and activator; hot-melt glue

Use medium-viscosity cyano glue (not styrofoam cyano). It is important to use activator when using cyano. Epoxy adhesives appear to produce a sound joint, but the bond is only superficial, and the hard resin breaks away from the parts under load.

## Tools:

Scissors, balsa knife, cross-point screwdriver, slot-head screwdriver, soldering iron.

**The RTF (Ready To Fly) version includes all the radio control system components factory-fitted.** Preparing the model for flight takes just a few minutes. Charge battery, check the control surface travels, apply the decals - and you're away!

## Specification:

Wingspan	826 mm
Fuselage length	792 mm
All-up weight	approx. 550 g
Wing area	approx. 23 dm <sup>2</sup>
Wing loading (FAI)	approx. 24 g/dm <sup>2</sup>
Motor / gearbox (3:1)	Permax 400 6V
RC functions	Aileron, elevator and motor; optional rudder

**Note:** please remove the illustration pages from the centre of the instructions.

## Important note

**This model is not made of styrofoam™, and it is not possible to glue the material using white glue or epoxy. Please be sure to use cyano-acrylate glue exclusively, preferably in conjunction with cyano activator (kicker). We recommend medium-viscosity cyano for all glued joints. This is the procedure: spray cyano activator on one face of the Elapor®; allow it to air-dry, then apply cyano adhesive to the other face. Join the parts and immediately position them accurately.**

**Please take care when handling cyano-acrylate adhesives. These materials harden in seconds, so don't get them on your fingers or other parts of the body. We strongly recommend the use of goggles to protect your eyes. Keep the adhesive out of the reach of children.**

## 1. Before assembling the model

Check the contents of your kit.

You will find **Figs. 1 + 2** and the Parts List helpful here.

**RTF\***: the parts marked thus are not included in the Space Scooter kit version, # 21 4220

RTF = Ready To Fly!

The kit version of this model takes little time to complete. The illustrated building instructions explain each stage.

## 2. Construction

- Cut through the ailerons at the root end. **Fig. 3**. Move the control surfaces up and down to “free them up”.
- Prepare the aileron horns **10**. This involves mounting the pushrod connectors on them and securing the retaining nuts with a drop of glue. Glue the horns in the ailerons using cyano. **Figs. 4 - 6**
- The aileron servo can now be installed: first set it to neutral from the transmitter, then fit the four-armed output lever on the servo shaft, offset by 45° as shown. Install the servo and apply a drop of hot-melt glue front and rear to secure it. 5-minute epoxy is also acceptable for this. **Figs. 7 + 8**
- Connect the aileron pushrods as shown in **Fig. 9**.
- Mount the articulated pushrod connector on the elevator horn. **Figs. 10 + 11**
- Solder the speed controller to the motor. Please note the correct polarity: blue wire to red spot on motor (reversed rotation). **Fig. 12**
- Fit the rubber O-ring **23** over the motor unit from the rear **before** installing it permanently. **Fig. 13**
- Place the motor unit in the fuselage “dry” (no glue). Fix the cables and the speed controller in place using hot-melt glue or 5-minute epoxy. **Fig. 14**
- Fit the motor cowl and secure it with the rubber O-ring **23**. **Figs. 15 - 17**
- Install the elevator servo and secure it with a little hot-melt glue or 5-minute epoxy. **Figs. 18 + 19**
- Prepare the pushrods **30, 31 & 32** and check that they fit in their channels. Fix the outer sleeves in place with cyano. Ensure that the snake outer **31** projects beyond the channel for the rubber band **17**. **Figs. 20 - 23**
- Push the wing retainer dowel **16** and the payload retainer dowel **18** into the appropriate holes and secure them with a drop of cyano. **Figs. 24 + 25**
- Install the receiver and secure it with Velcro tape. **Fig. 26**
- Slide the tailplane into its slot, fit the rubber band **17** to secure it, and slip the pushrod **30** through the pushrod connector on the elevator horn. Check from the transmitter that the servo is at neutral, set the elevator to centre, and tighten the grub screw in the pushrod connector. Once you have established the correct trim setting you can disconnect the pushrod connector at any time using a small screwdriver without losing the setting. **Figs. 27 - 32**
- Connect the aileron servo lead to the receiver. **Fig. 33**
- The wing can now be attached to the fuselage: slip the leading edge under the cabin at the front and deploy the aileron lead neatly. Press the wing down at the rear and fit the rubber band **17** to secure it. **Fig. 34**

## Completing the model

### 3. It's gotta look right!

The kit is supplied with a multi-colour decal sheet **2**. Cut out the individual name placards and emblems and apply them to

the model in the arrangement shown in the kit box illustration, or in any other scheme you find attractive. Colour the canopy black right down to the edge using a waterproof felt-tip pen.

## 4. Balancing the model

The Space-Scooter, like any other aircraft, must be balanced at a particular point in order to achieve stable flying characteristics. Assemble your model ready to fly, and install the flight battery.

**The Centre of Gravity (CG) should be over the centre of the battery compartment, corresponding to a point about 110 mm from the wing leading edge at the root.**

Support the model on two fingertips under the wing at a point coinciding with the centre of the battery compartment and it should balance level. If not, you can move the flight battery forward or aft to correct the balance point. If for any reason this is not possible, correct the CG with a little ballast (e.g. lead) fitted at the nose or tail.

**The CG location is not critical - 10 mm forward or aft of the stated position presents no problems.**

**Figs. 35 + 36**

## 5. Preparing for the first flight

For the first flight wait for a day with as little breeze as possible. The early evening is often a good time.

### **Be sure to carry out a range check before the first flight.**

Just before the flight, charge up the transmitter battery and the flight pack using the recommended procedures. Ensure that “your” channel is not already in use before you switch on the transmitter.

Ask your assistant to hold the transmitter and walk away from the model. The aerial should be fitted but completely collapsed. Your assistant should operate one of the functions constantly while you watch the servos. The non-controlled servo should stay motionless up to a range of about 60 m, and the controlled one should follow the stick movements smoothly and without any delay. Please note that this check can only give reliable results if the radio band is clear of interference, and if no other radio control transmitters are in use - even on different channels. If the range check is successful, repeat it **with the motor running**. There should be no more than a very slight reduction in effective radio range with the motor turning.

If you are not sure about anything, please don't risk a flight. Send the whole system (including battery, switch harness and servos) to the service department of your RC system manufacturer and ask them to check it.

## 6. The first flight ...

### **Do not attempt any test-glides with this model!**

The Space-Scooter is designed to be hand-launched, and should always be launched exactly into any wind.

**If you are a beginner to model flying we strongly recommend that you ask an experienced model pilot to help you for the first few flights.**

Allow the aeroplane to climb to a safe height, then adjust the trim sliders on the transmitter until it flies in a perfectly straight line “hands off”.

While the model is still at a safe altitude, switch off the motor and try out the controls on the glide. Carry out a “dry run” landing approach at a safe height so that you are prepared for the real landing when the battery runs flat.

Don't try any tight turns at first, and especially not on the landing

approach at low altitude. It is always better to land safely at some distance from you, than to force the model back to your feet and risk a heavy landing.

## 7. Options

We have designed two additional options into the Space-Scooter:

- If you fit one additional servo the model can carry a payload aloft and drop it, e.g. a parachutist or a chuck-glider.

### And / or

- A working rudder can be fitted for extra scope in controlling the model. All you have to do is cut the rudder free and connect it to an additional servo as described for the elevator.

The materials for this are not included in the kit

### Figs. 37 + 38

## 8. Safety

Safety is the First Commandment when flying any model aircraft. Third party insurance should be considered a basic essential. If you join a model club suitable cover will usually be available through the organisation. It is your personal responsibility to ensure that your insurance is adequate (i.e. that its cover includes electric-powered model aircraft).

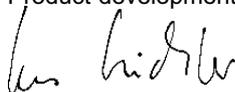
Make it your job to keep your models and your radio control

system in perfect order at all times. Check the correct charging procedure for the batteries you are using. Make use of all sensible safety systems and precautions which are advised for your system. An excellent source of practical accessories is the MULTIPLEX main catalogue, as our products are designed and manufactured exclusively by practising modellers for other practising modellers.

Always fly with a responsible attitude. You may think that flying low over other people's heads is proof of your piloting skill; others know better. The real expert does not need to prove himself in such childish ways. Let other pilots know that this is what you think too. Always fly in such a way that you do not endanger yourself or others. Bear in mind that even the best RC system in the world is subject to outside interference. No matter how many years of accident-free flying you have under your belt, you have no idea what will happen in the next minute.

We - the MULTIPLEX team - hope you have many hours of pleasure building and flying your new model.

MULTIPLEX Modellsport GmbH & Co. KG  
Product development and maintenance



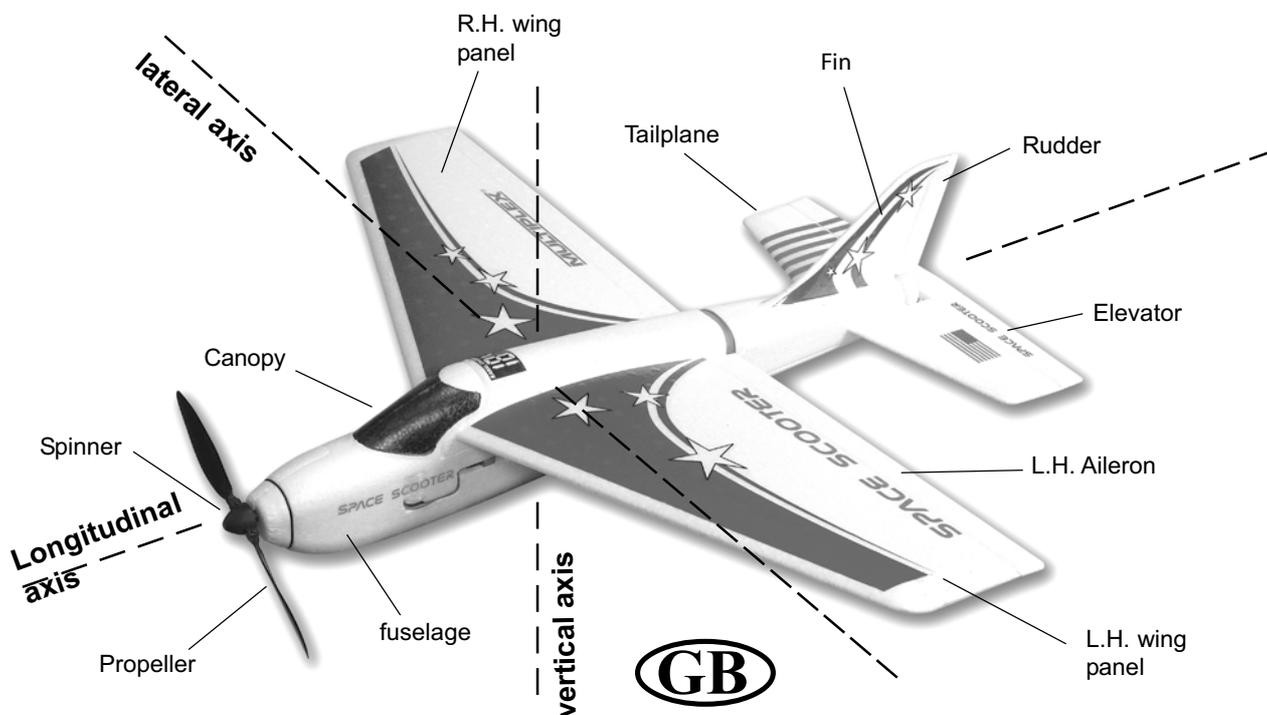
Klaus Michler

Part No.	Kit	RTF	No. off	Description	Material
1	1	1	1	Building instructions	Paper, 80 g/m <sup>2</sup>
2	1	1	1	Decal sheet	Printed adhesive film
3	1	1	1	Fuselage and fin	Moulded Elapor foam
4	1	(1)	1	Fuselage side / motor cowl	Moulded Elapor foam
5	1	1	1	Wing	Moulded Elapor foam
6	1	1	1	Tailplane	Moulded Elapor foam
<b>Small parts set</b>					
10	3	(3)	3	Glue-fitting control surface horn	Inj. moulded plastic
11	1	(1)	1	Articulated connector housing	Plastic
12	1	(1)	1	Articulated connector barrel	Metal
13	1	(1)	1	Countersunk screw	M1.6 x 4, metal
14	3	(3)	3	Socket-head grub screw	Metal
15	1	1	1	Allen key	Metal
16	1	1	1	Wing retainer dowel	PVC / plastic
17	2	2	2	Rubber band, wing / tailplane	Rubber
18	1	1	1	Payload retainer dowel	PVC / Plastic
19	2	(2)	2	Pushrod connector	Metal
20	2	(2)	2	Washer	Metal
21	2	(2)	2	Nut	Metal
22	2	(2)	2	Aileron pushrod, one Z-bend	Metal
23	1	(1)	1	O-ring	Rubber
<b>Wire and rod set</b>					
30	1	(1)	1	Elevator pushrod, one Z-bend	Metal
31	1	(1)	1	Elevator snake outer sleeve	Plastic
32	1	(1)	1	Elevator snake inner sleeve	Plastic
<b>RC / power system components</b>					
40	1	(1)	1	Motor, gearbox and propeller	
41	0	(1)	1	Servo with 1-arm output lever, thick	Nano-S
42	0	(1)	1	Servo with 2-arm output lever, thick	Nano-S
43	0	(1)	1	Receiver	HFS-04MG
44	0	(1)	1	Speed controller	MULTIcont X-08
45	0	1	1	Flight battery	
46	0	1	1	Transmitter	Ranger III SKY
47	0	1	1	Battery charger	

## Basic information relating to model aircraft

Any aircraft, whether full-size or model, can be controlled around the three primary axes: vertical (yaw), lateral (pitch) and longitudinal (roll).

When you operate the elevator, the model's attitude alters around the lateral axis. If you apply a rudder command, the model swings around the vertical axis. If you move the aileron stick, the model rolls around its longitudinal axis. External influences such as air turbulence may cause the model to deviate from its intended flight path, and when this happens the pilot must control the model in such a way that it returns to the required direction. The basic method of controlling the model's height (altitude) is to vary motor speed (motor and propeller). The rotational speed of the motor is usually altered by means of a speed controller. Applying up-elevator also causes the model to gain height, but at the same time it loses speed, and this can only be continued until the model reaches its minimum airspeed and stalls. The maximum climb angle varies according to the power available from the motor.



# SPACE SCOOTER

## Wing section

The wing features a cambered airfoil section over which the air flows when the model is flying. In a given period of time the air flowing over the top surface of the wing has to cover a greater distance than the air flowing under it. This causes a reduction in pressure on the top surface, which in turn creates a lifting force which keeps the aircraft in the air. **Fig. A**

## Centre of Gravity (CG)

To achieve stable flying characteristics your model aircraft must balance at a particular point, just like any other aircraft. It is absolutely essential to check and set the correct CG position before flying the model for the first time.

The CG position is stated as a distance which is measured aft from the wing root leading edge, i.e. close to the fuselage. Support the model at this point on two fingertips (or - better - use the MPX CG gauge, # 69 3054); the model should now hang level. **Fig. B**

If the model does not balance level, the installed components (e.g. flight battery) can be re-positioned inside the fuselage. If this is still not sufficient, attach the appropriate quantity of trim ballast (lead or plasticene) to the fuselage nose or tail and secure it carefully. If the model is tail-heavy, fix the ballast at the fuselage nose; if the model is tail-light, attach the ballast at the tail end of the fuselage.

The **longitudinal dihedral** is the difference in degrees between the angle of incidence of the wing and of the tail. Provided that you work carefully and attach the wing and tailplane to the fuselage without gaps, the longitudinal dihedral will be correct automatically.

If you are sure that both these settings (CG and longitudinal dihedral) are correct, you can be confident that there will be no major problems when you test-fly the model. **Fig. C**

## Control surfaces, control surface travels

The model will only fly safely, reliably and accurately if the control surfaces move freely and smoothly, follow the stick movements in the correct "sense", and move to the stated maximum travels. The travels stated in these instructions have been established during the test-flying programme, and we strongly recommend that you keep to them initially. You can always adjust them to meet your personal preferences later on.

## Transmitter controls

The transmitter features two main sticks which the pilot moves to control the servos in the model, which in turn operate the control surfaces.

The transmitter controls the control surfaces as follows:

- |                           |               |
|---------------------------|---------------|
| Aileron (left / right)    | <b>Fig. D</b> |
| Elevator (up / down)      | <b>Fig. E</b> |
| Throttle (motor off / on) | <b>Fig. F</b> |

# SPACE SCOOTER



**"Bilderbuch"**

**(D)**

**"Illustrations"**

**(GB)**

**"Illustrations"**

**(F)**

**"Illustrazioni"**

**(I)**

**"Ilustraciones"**

**(E)**

# 21 4220 KIT

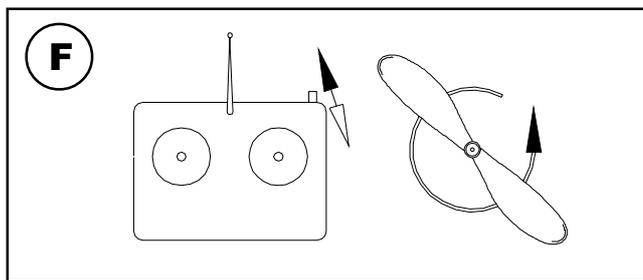
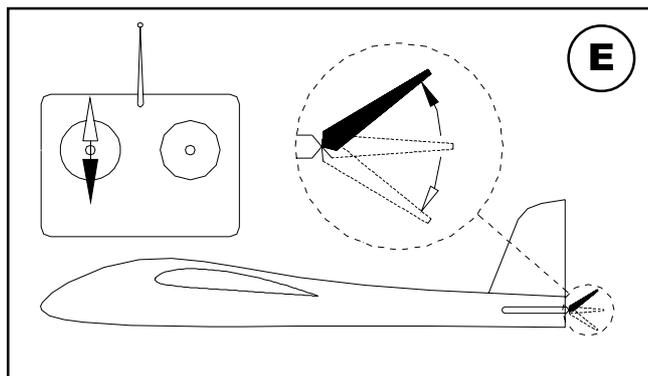
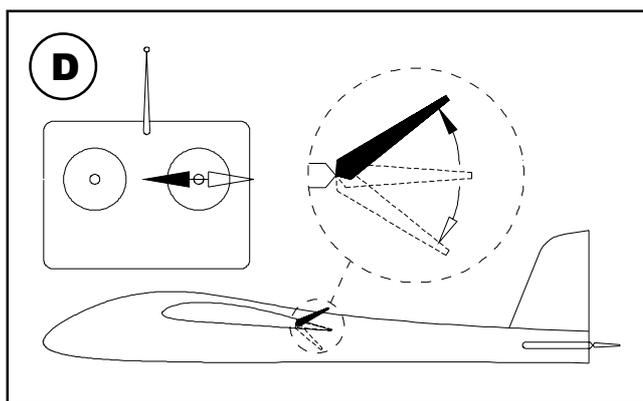
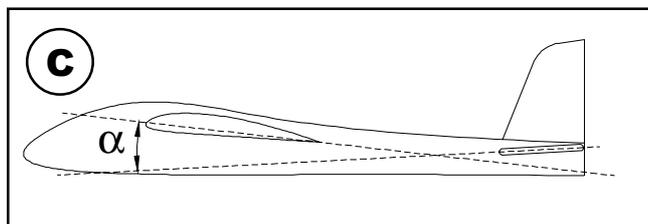
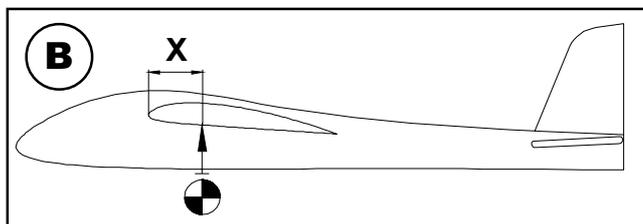
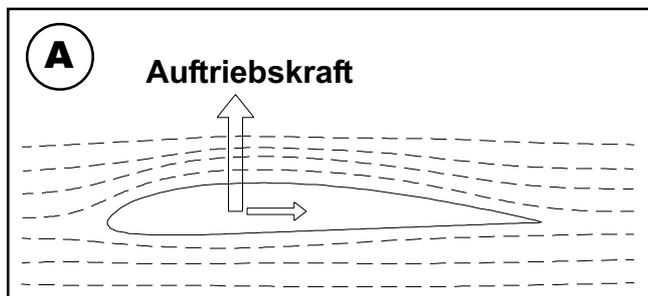
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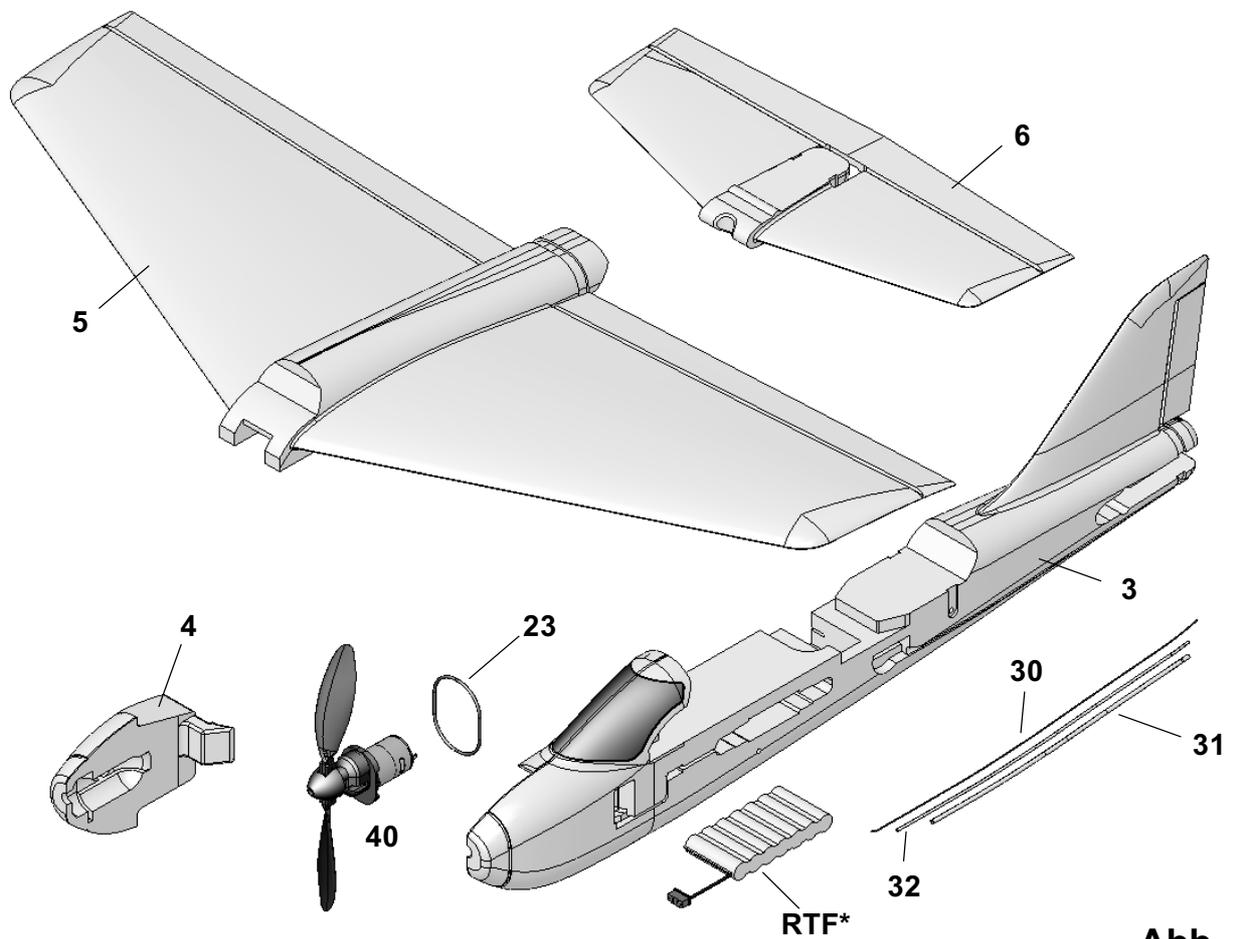
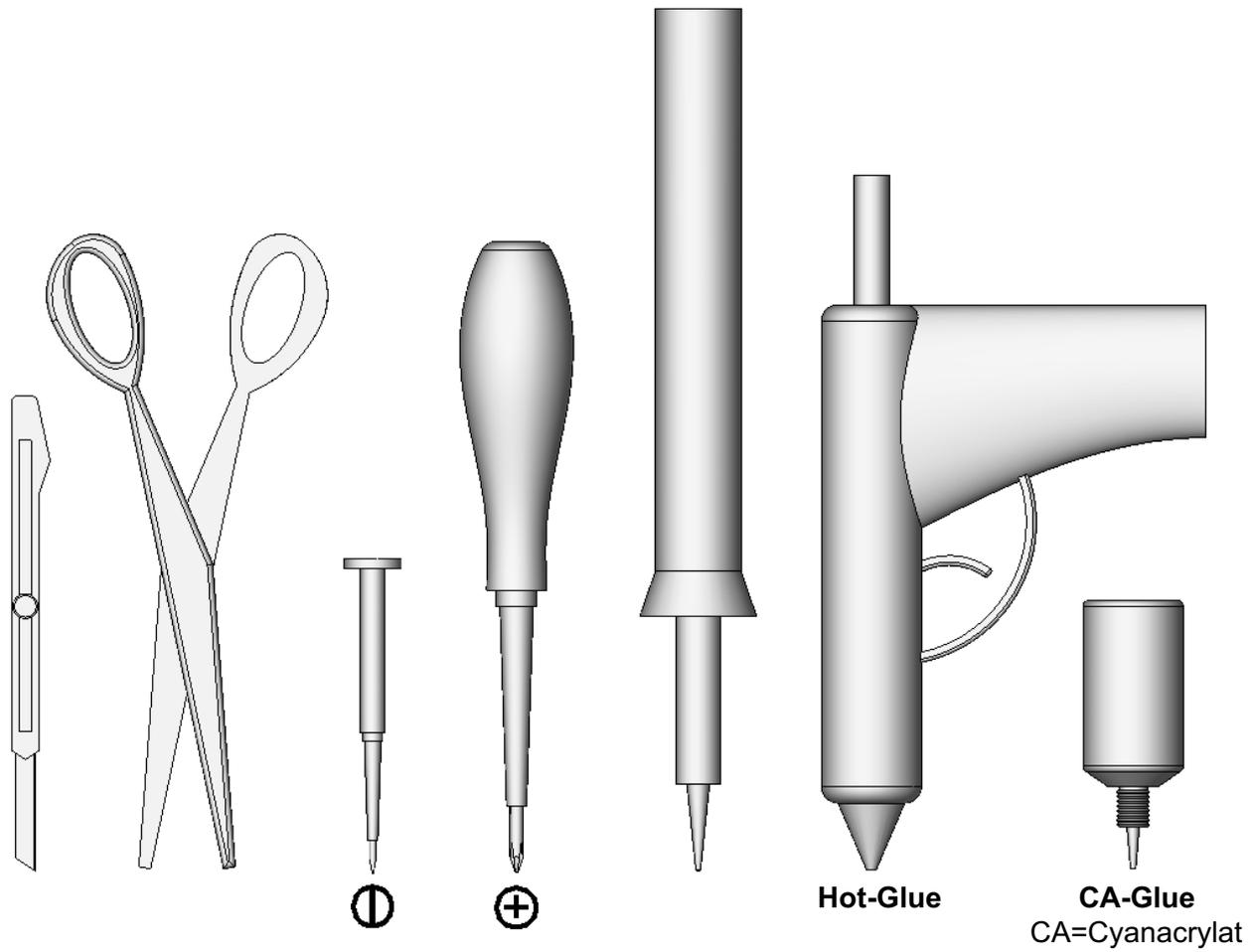
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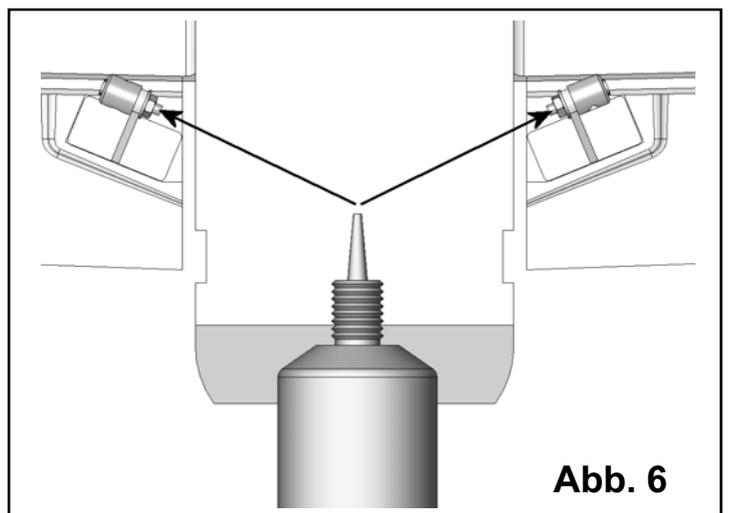
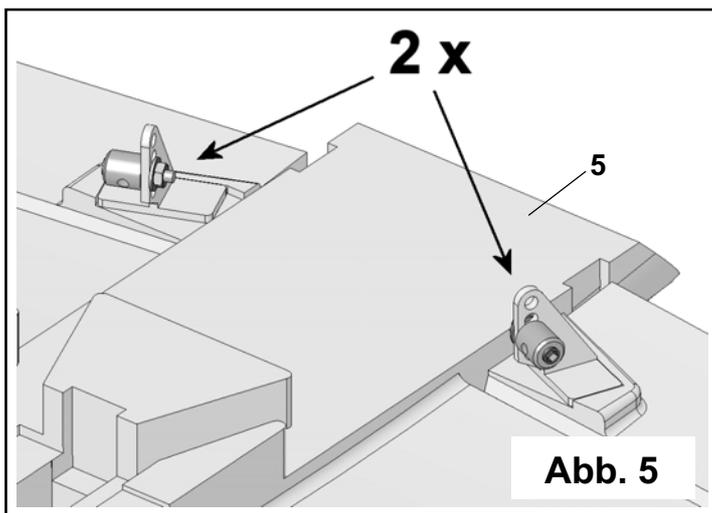
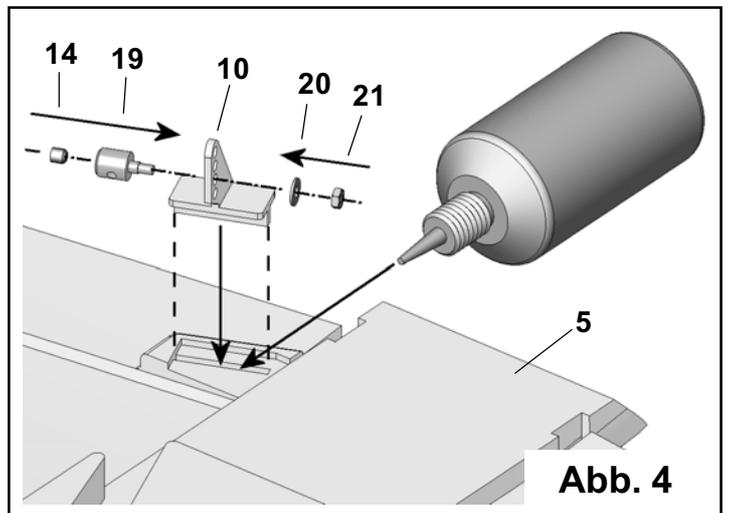
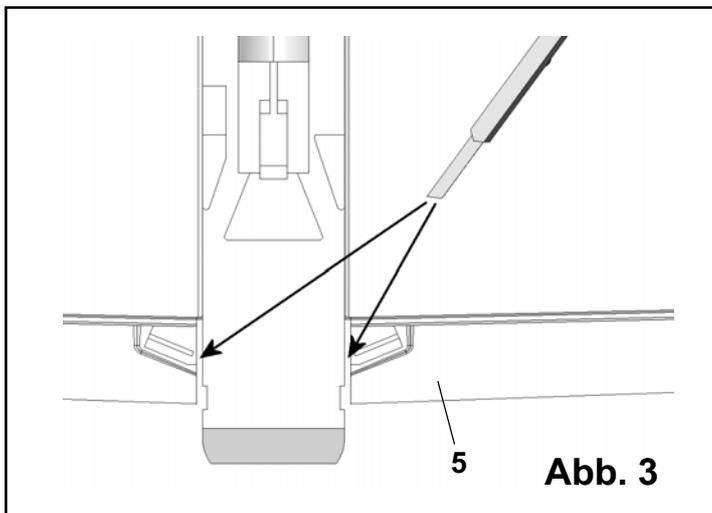
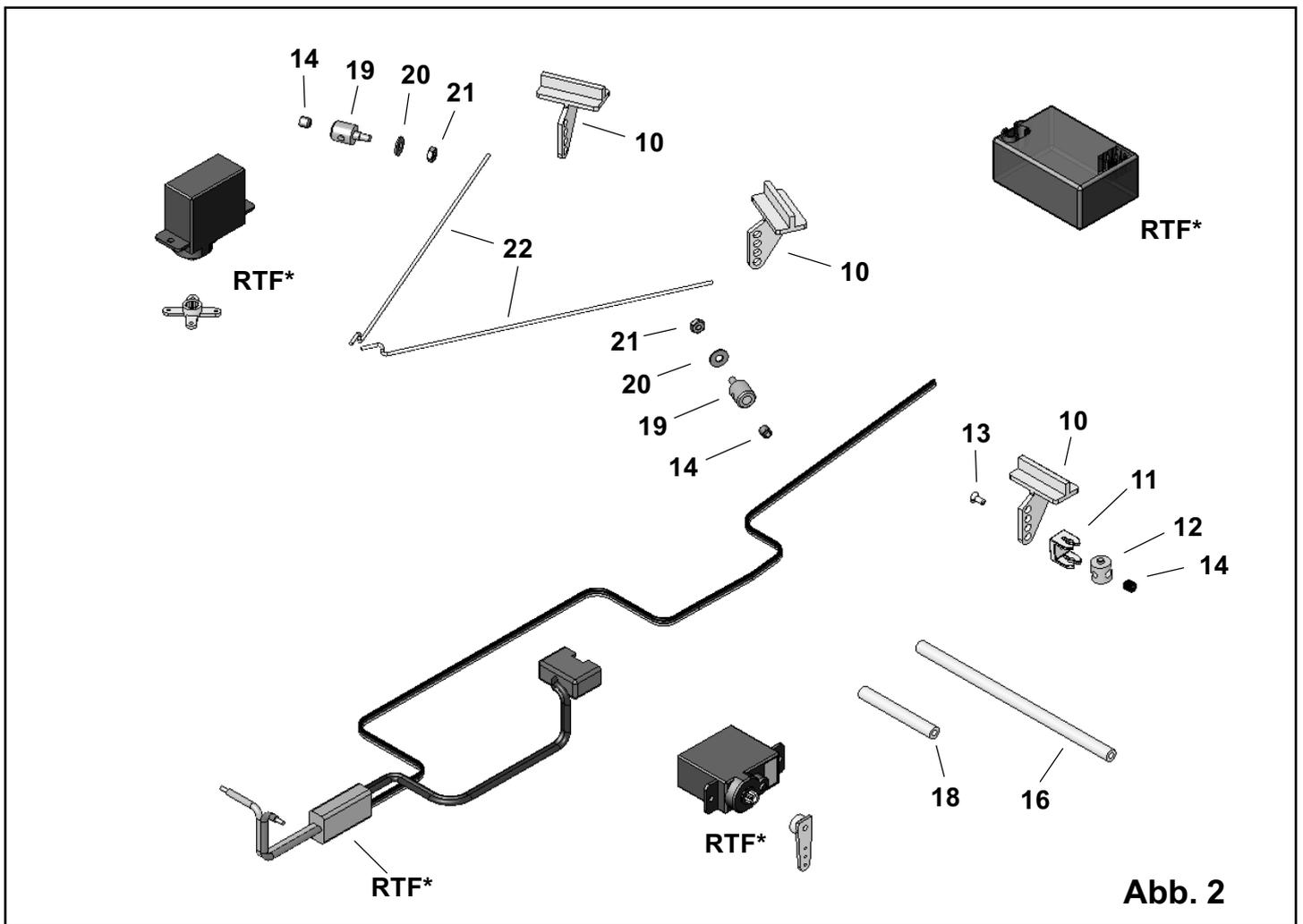
# 1 3206 RTF 41MHz

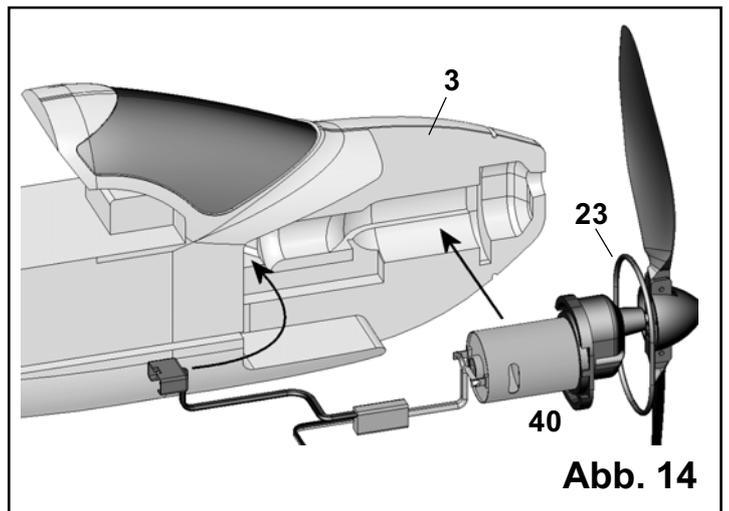
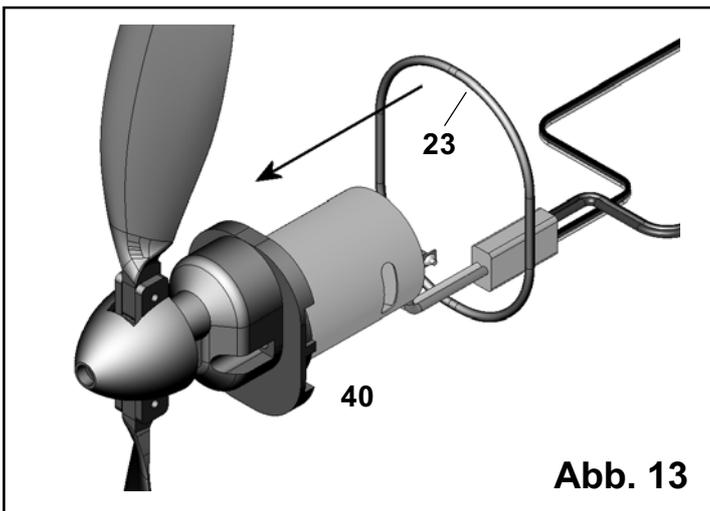
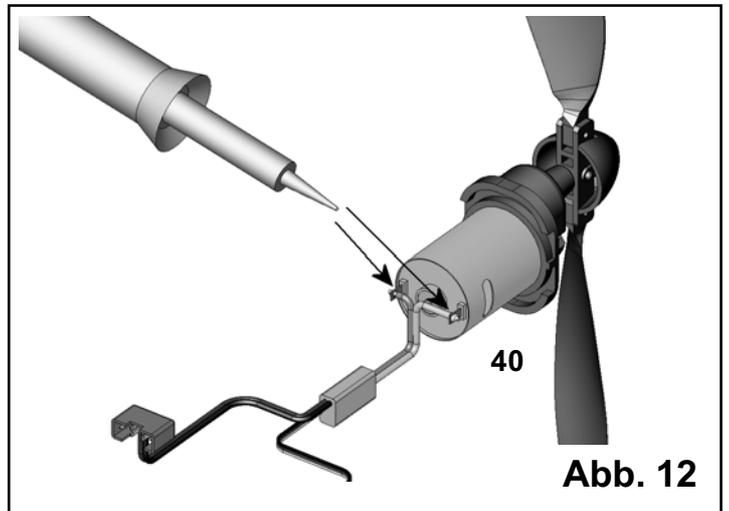
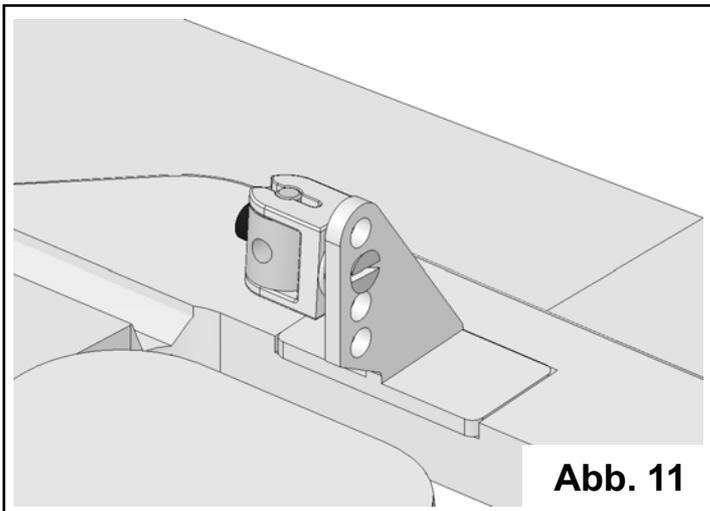
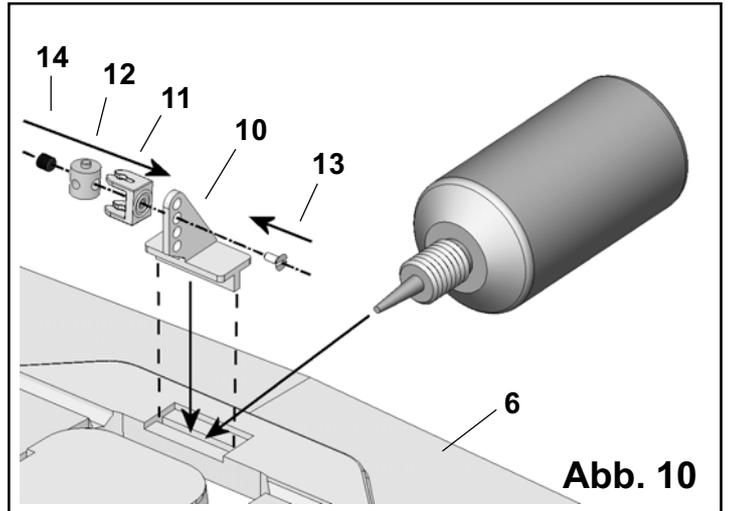
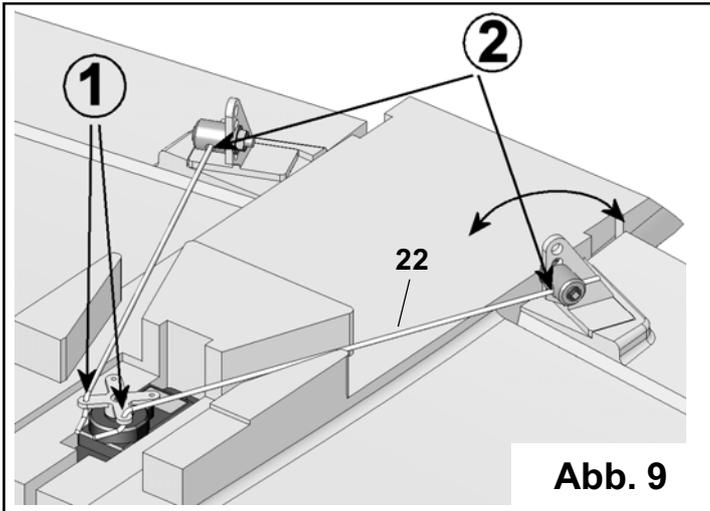
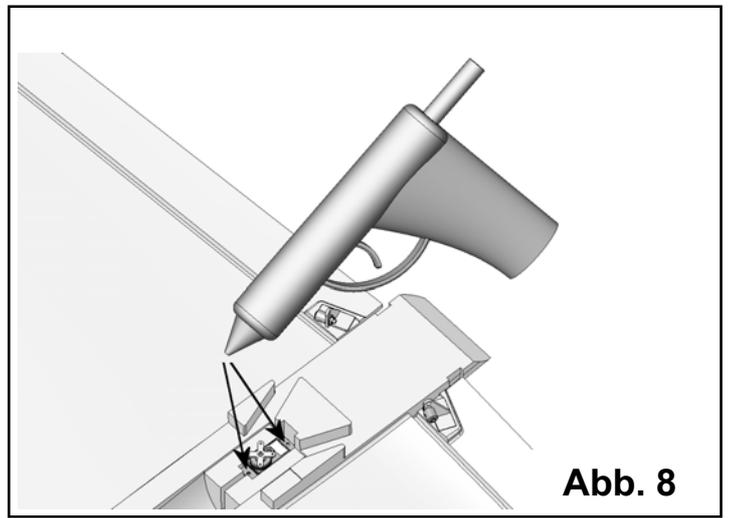
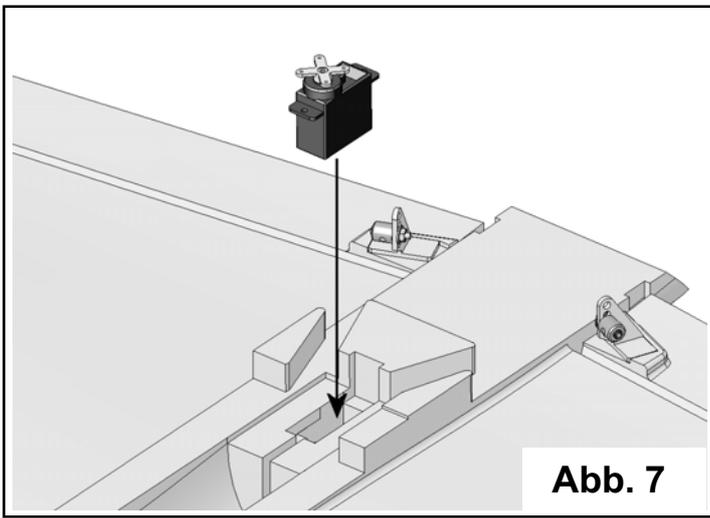
# 1 3207 RTF 72MHz

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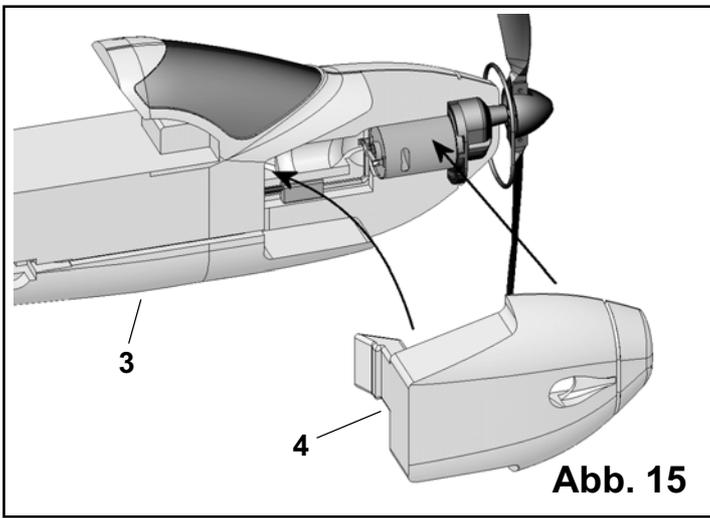


Abb. 15

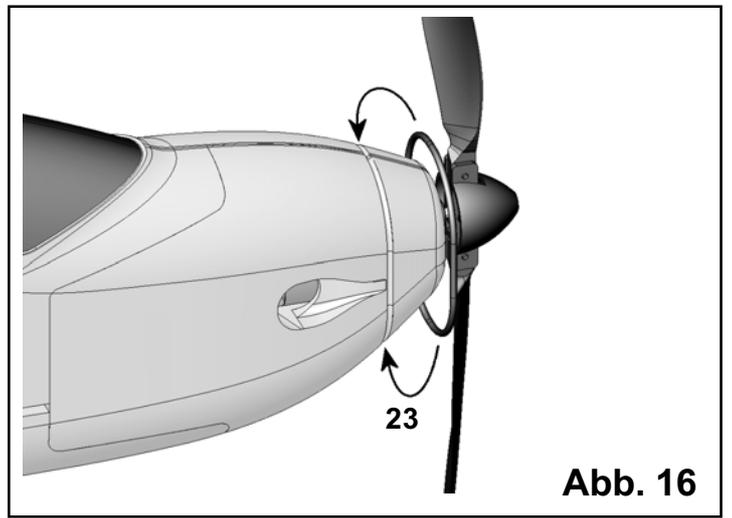


Abb. 16

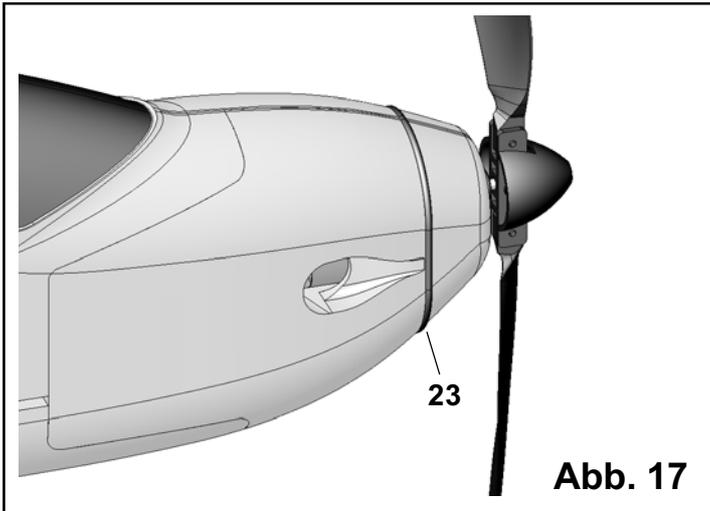


Abb. 17

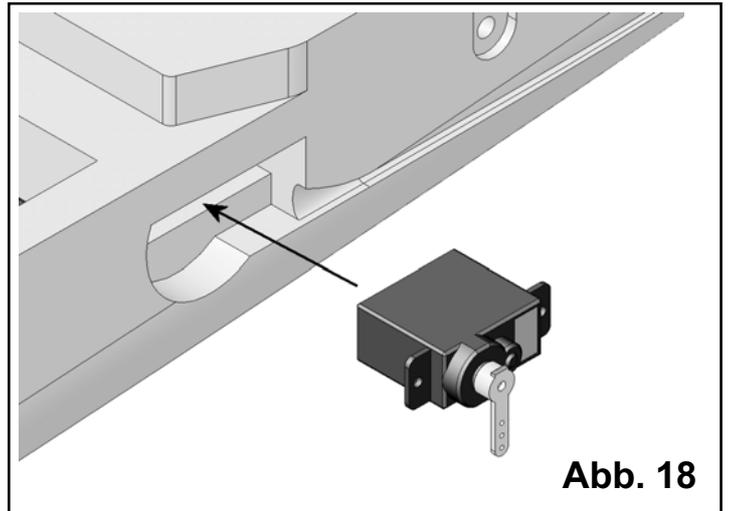


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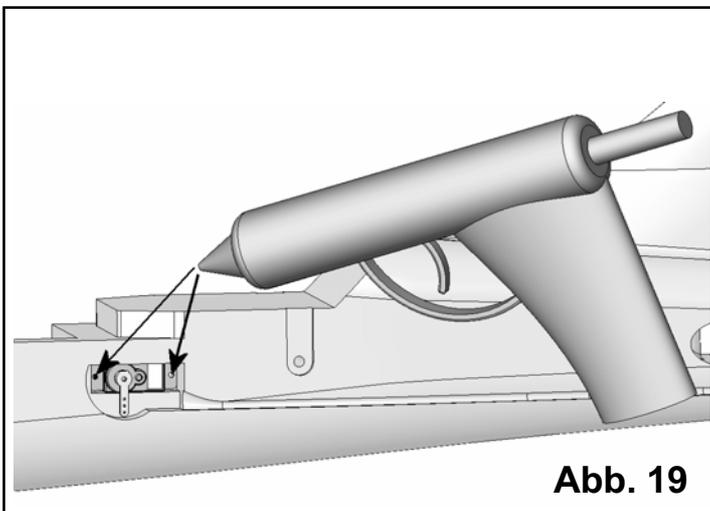


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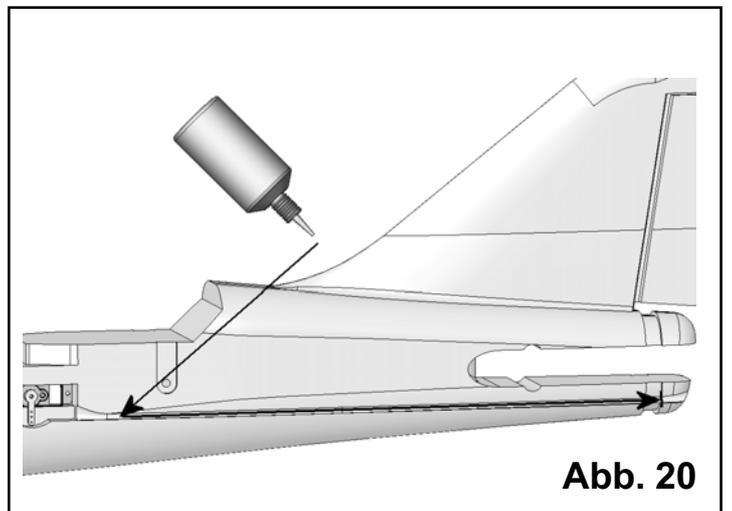


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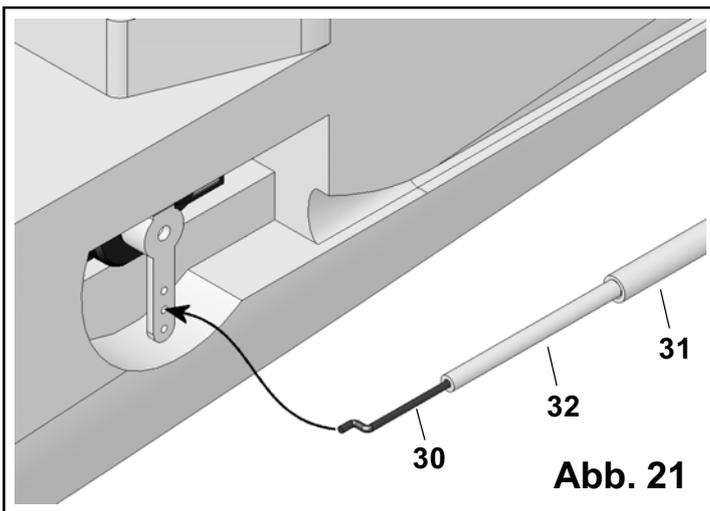


Abb. 21

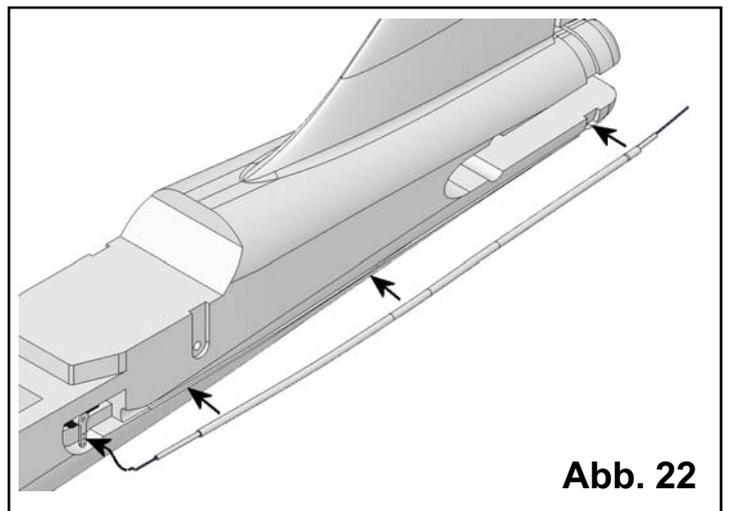


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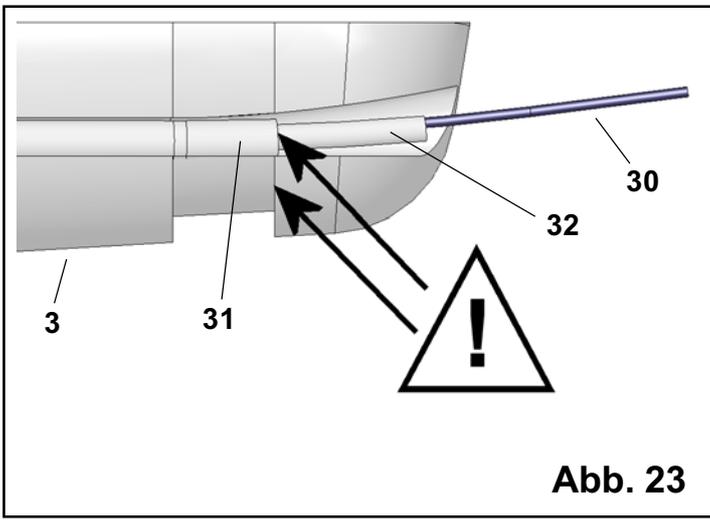


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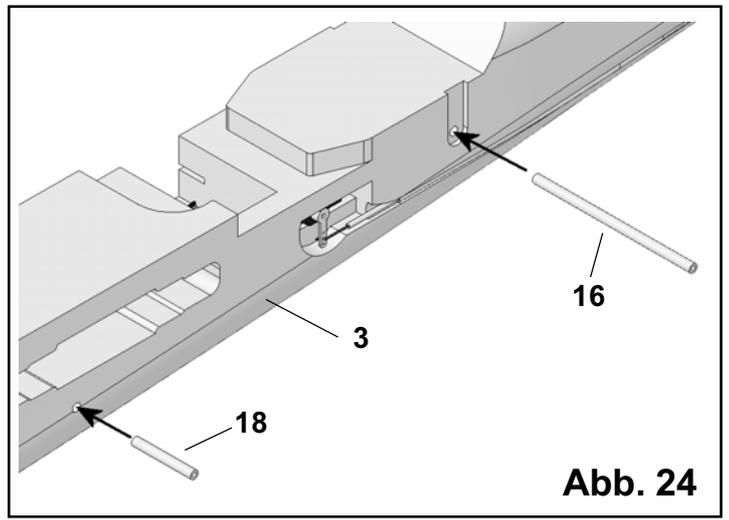


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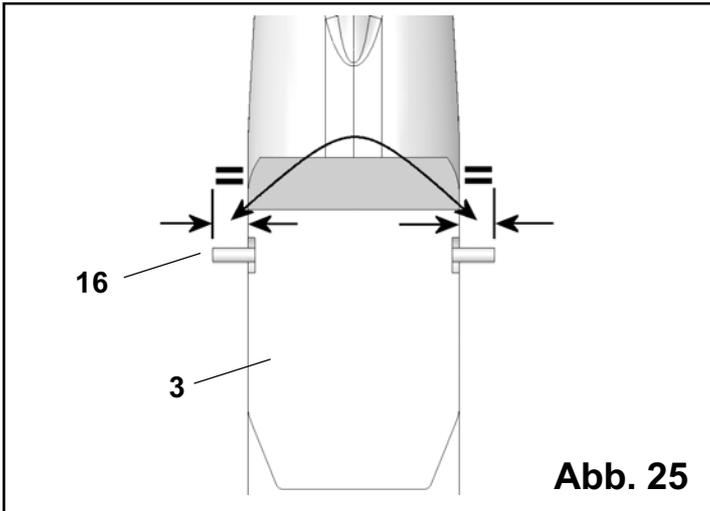


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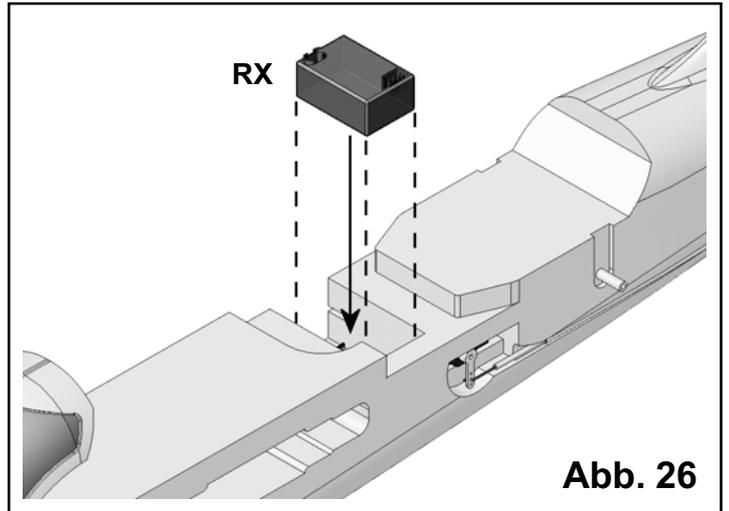


Abb. 26

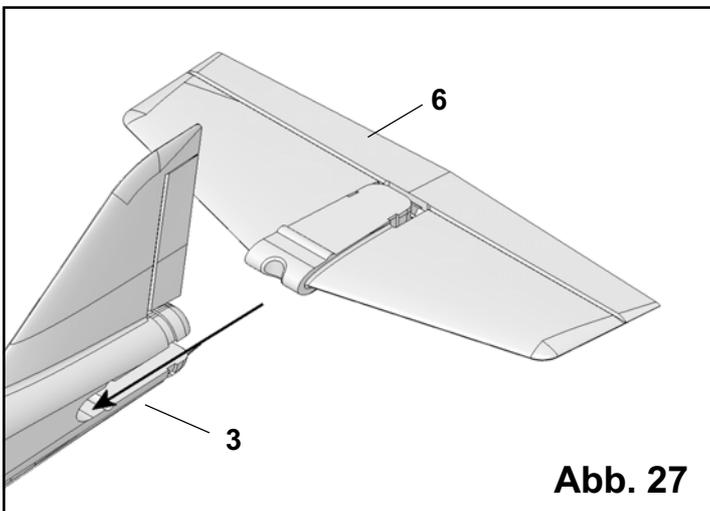


Abb. 27

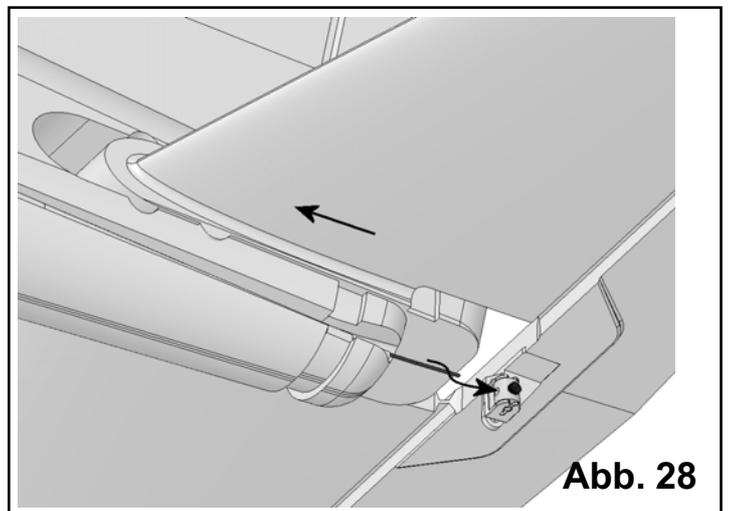


Abb. 28

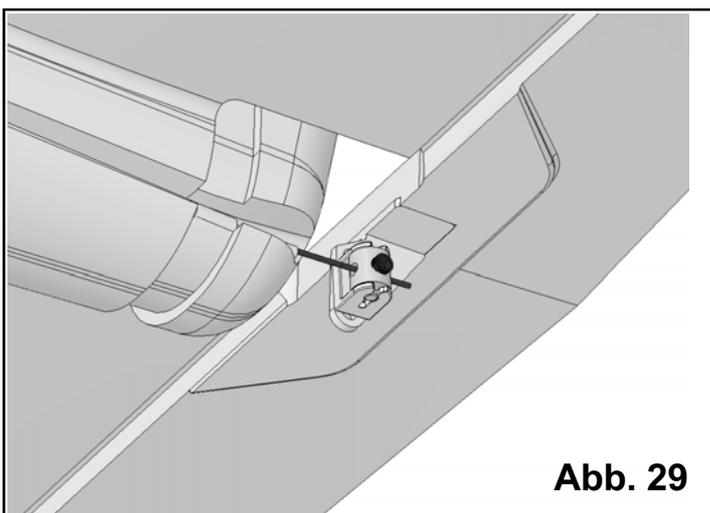


Abb. 29

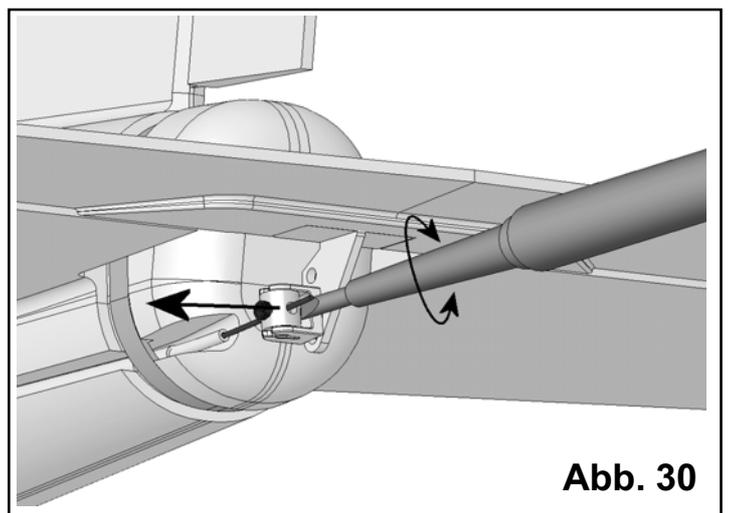
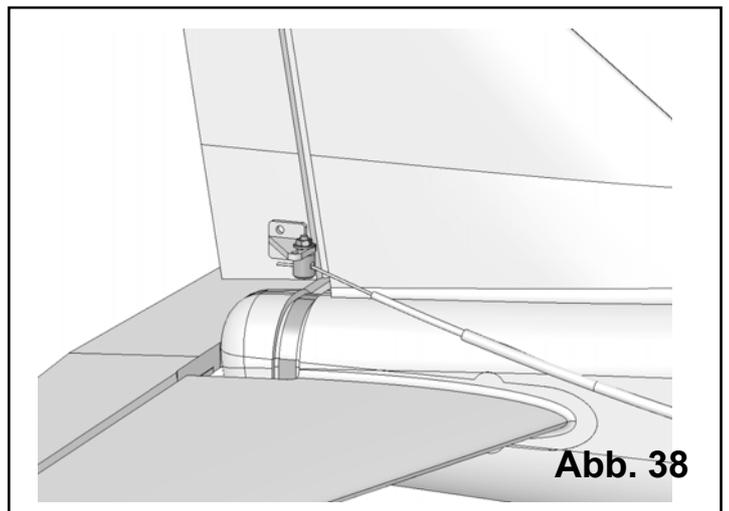
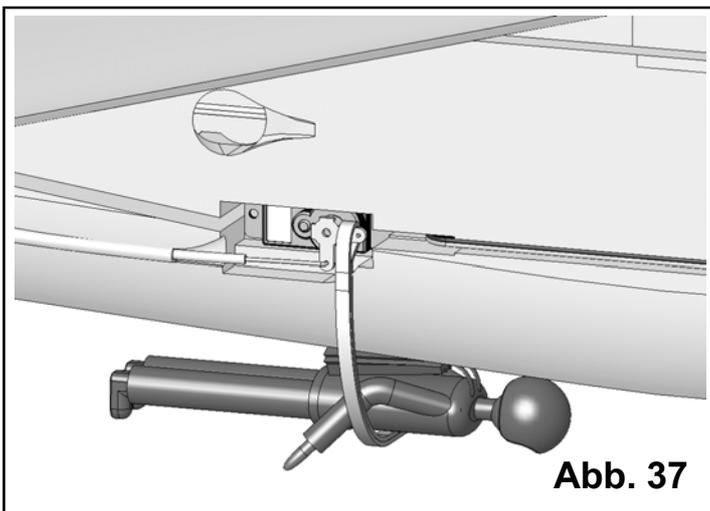
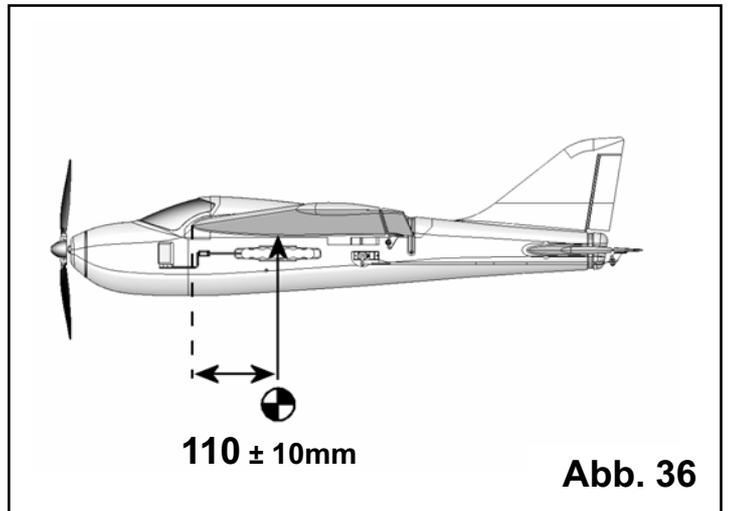
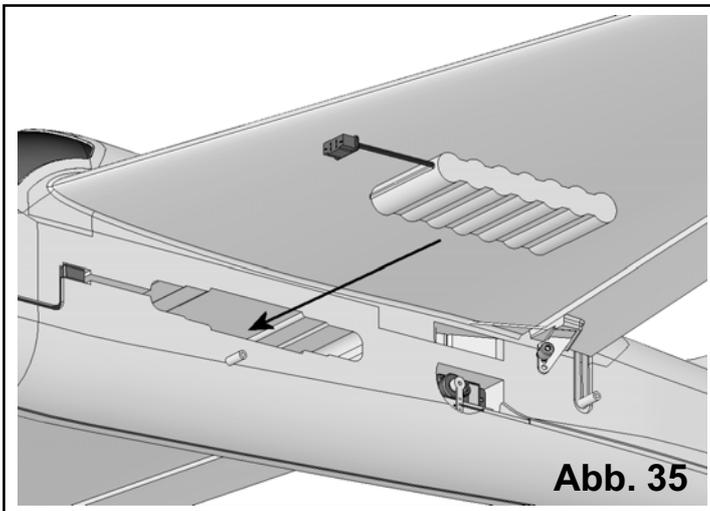
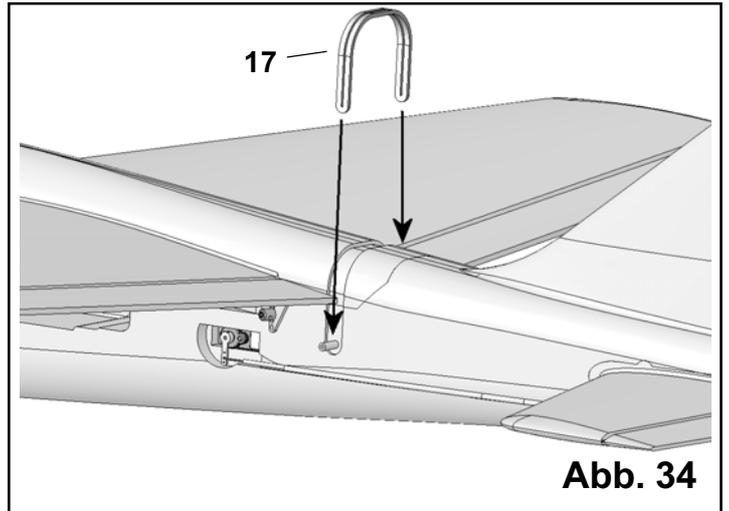
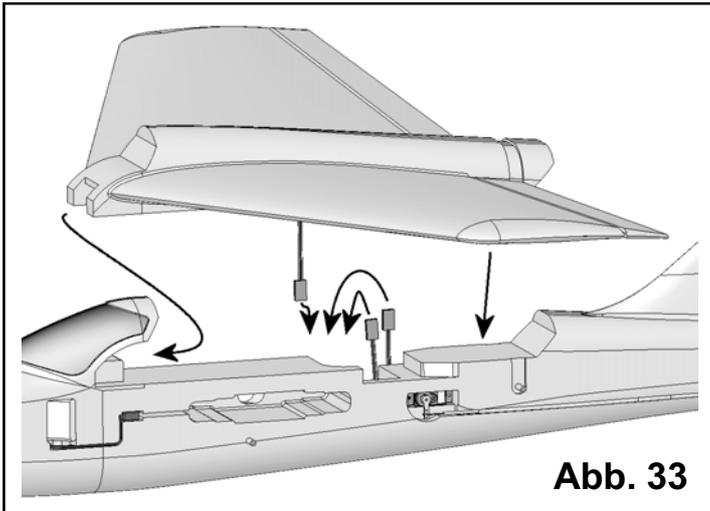
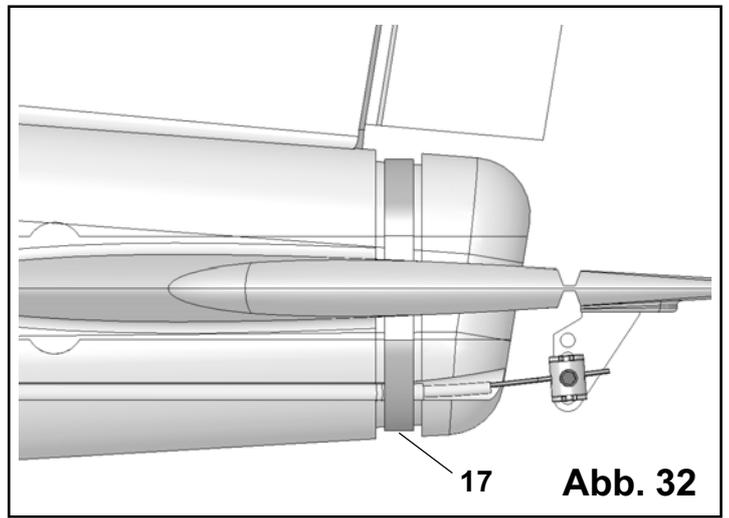
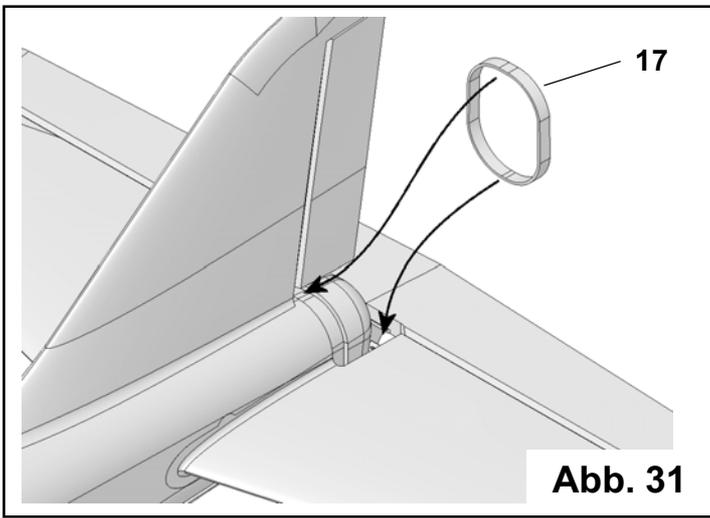


Abb. 30



## **D** Sicherheitshinweise

- ☺ Prüfen Sie vor jedem Start den festen Sitz des Motors und der Luftschrauben - insbesondere nach dem Transport, härteren Landungen sowie Abstürzen. Prüfen Sie ebenfalls vor jedem Start den festen Sitz und die richtige Position der Tragflächen auf dem Rumpf.
- ☺ Akku erst einstecken, wenn Ihr Sender eingeschaltet ist und Sie sicher sind, daß das Bedienelement für die Motorsteuerung auf "AUS" steht.
- ☺ Im startbereiten Zustand nicht in den Bereich der Luftschraube greifen. Vorsicht in der Luftschraubendrehebene - auch Zuschauer zur Seite bitten!
- ☺ Zwischen den Flügeln die Motortemperatur durch vorsichtige Fingerprobe prüfen und vor einem Neustart den Motor ausreichend abkühlen lassen. Die Temperatur ist richtig, wenn Sie den Motor problemlos berühren können. Insbesondere bei hohen Außentemperaturen kann dieses bis zu 15 Minuten dauern.
- ☺ Denken Sie immer daran: Niemals auf Personen und Tiere zufliegen.

## **F** Conseils de sécurité

- ☺ Avant chaque décollage, vérifiez la fixation du moteur et de l'hélice, notamment après le transport, après les atterrissages violents et après un "Crash". Vérifiez également, avant chaque décollage la fixation ainsi que le positionnement de l'aile par rapport au fuselage.
- ☺ Ne branchez l'accu de propulsion que si vous êtes sûr que votre émetteur est allumé et que l'élément de commande moteur est en position "ARRET".
- ☺ Ne mettez pas vos doigts dans l'hélice! Attention à la mise en marche, demandez également aux spectateurs de reculer.
- ☺ Entre deux vols, vérifiez en posant un doigt dessus, la température du moteur, laissezle refroidir suffisamment avant le prochain décollage. La température est correcte si vous pouvez maintenir votre doigt ou votre main sur le moteur. Le temps de refroidissement peut varier jusqu'à 15 minutes s'il fait particulièrement chaud.
- ☺ Pensez-y toujours: ne volez jamais vers ou au-dessus des personnes ou des animaux.

## **GB** Safety notes

- ☺ Before every flight check that the motor and propeller are in place and secure - especially after transporting the model, and after hard landings and crashes. Check also that the wing is correctly located and firmly secured on the fuselage before each flight.
- ☺ Don't plug in the battery until you have switched on the transmitter, and you are sure that the motor control on the transmitter is set to "OFF".
- ☺ When the model is switched on, ready to fly, take care not to touch the propeller. Keep well clear of the propeller disc too, and ask spectators to stay back.
- ☺ Allow the motor to cool down after each flight. You can check this by carefully touching the motor case with your finger. The temperature is correct when you can hold your finger on the case without any problem. On hot days this may take up to 15 minutes.
- ☺ Please keep in mind at all times: don't fly towards people or animals.

## **I** Note di sicurezza

- ☺ Prima di ogni decollo controllare che il motore e la eliche siano fissati stabilmente - specialmente dopo il trasporto, atterraggi duri e se il modello è precipitato. Controllare prima del decollo anche il fissaggio e la posizione corretta delle ali sulla fusoliera.
- ☺ Collegare la batteria solo quando la radio è inserita ed il comando del motore è sicuramente in posizione "SPENTO".
- ☺ Prima del decollo non avvicinarsi al campo di rotazione della eliche. Attenzione alla eliche in movimento - pregare che eventuali spettatori si portino alla dovuta distanza di sicurezza!
- ☺ Tra un volo e l'altro controllare cautamente con le dita la temperatura del motore e farli raffreddare sufficientemente prima di ogni nuovo decollo. La temperatura è giusta se si possono toccare senza problemi. Specialmente con una temperatura esterna alta questo può durare fino a 15 minuti.
- ☺ Fare attenzione: Non volare mai nella direzione di persone ed animali.

## **E** Advertencias de seguridad

- ☺ Compruebe antes de cada despegue que el motor y la hélice estén fuertemente sujetos, sobretodo después de haberlo transportado, de aterrizajes más fuertes así como después de una caída. Compruebe igualmente antes de cada despegue que las alas estén bien sujetas y bien colocadas en el fuselaje.
- ☺ Conectar la batería, cuando la emisora esté encendida y Usted esté seguro que el elemento de mando para el motor esté en "OFF".
- ☺ No meter la mano en la zona inmediata a la hélice cuando el avión esté a punto de despegar. ¡Cuidado con la zona de la hélice! ¡Pedir a los espectadores que se aparten!
- ☺ Entre los vuelos hay que comprobar cuidadosamente la temperatura del motor con el dedo y dejar que el motor se enfríe antes de volver a despegar. La temperatura es correcta, si puede tocar el motor sin problemas. Sobretodo en el caso de temperaturas del ambiente muy altas, esto puede tardar unos 15 minutos.
- ☺ Recuerde: No volar nunca hacia personas o animales.